



29 MARCH 2021

ASX/MEDIA RELEASE

## **BARDOC DFS DELIVERS 1 Moz ORE RESERVE TO UNDERPIN NEW LONG-LIFE, HIGH-MARGIN WA GOLD PROJECT**

Forecast average production of 136kozpa at AISC of A\$1,188/oz set to underpin strong margins and compelling financial returns, positioning Bardoc as a significant new mid-tier gold producer

### **HIGHLIGHTS**

#### **Compelling Project Economics**

- Life-of-mine (LOM) pre-tax cash-flow of A\$740M at a A\$2,250/oz gold price
- Pre-tax NPV (6%) of A\$479M and 41% IRR
- Pre-production capital of A\$177M with 32-month payback from production commencement
- LOM All-In Sustaining Costs (AISC) of A\$1,188/oz

#### **Key Project Parameters**

- Peak gold production of 140,000ozpa for 6 years
- Average annual gold sales of 135,760oz over 8.2 years of mill production
- Standalone mining and processing operation with nominal 2.1Mtpa throughput, comprising conventional CIL processing circuit incorporating a flotation circuit to produce a gold concentrate
- Total mined ounces of 1.15Moz and total recovered ounces of 1.10Moz
- EPC Tenders issued for Processing Plant Construction
- Binding Offtake Agreement in place for Concentrate Sale

#### **DFS supports increased Ore Reserve and Mineral Resource**

- 28% increase in Open Pit and Underground Probable Ore Reserve to 15.9 Mt at 2.0 g/t for 1,007,000oz (at a A\$2,000/oz gold price), representing 88% of LOM metal production forecast
- Increase in higher confidence Measured and Indicated Mineral ounces to 2.06Moz, representing 67% of global ounces and highlighting the robust nature of the Bardoc Project

#### **Next Steps and De-Risking Activities Continue**

- DFS optimisation to continue over the coming months incorporating highly encouraging results generated by recent exploration activities
- Tender documents issued for the Engineering Procurement and Construction (EPC) for the process plant and infrastructure to experienced industry contractors
- Recruitment for key positions underway to facilitate timely construction and commencement of mining
- Debt finance discussions well-advanced: completion of project funding and FID targeted for Q3 2021, first gold targeted for Q4 2022
- Significant upside from numerous satellite deposits and ongoing regional exploration

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## **1 MANAGEMENT COMMENTS**

Bardoc Gold's Chief Executive Officer, Mr Robert Ryan, said the on-time completion of the Definitive Feasibility Study put it on a clear trajectory to develop one of the few new gold projects of scale in Australia over the next two years:

*"The completion and delivery of this comprehensive and high-quality DFS is a fantastic achievement by our team, and marks a really important milestone for our shareholders, investors, supporters and other key stakeholders.*

*"The strong DFS outcomes show that the Bardoc Gold Project is without question one of the best undeveloped gold projects in Australia, with the potential to deliver strong production and cash-flows and compelling financial returns over a long period of time from a brand new fully-integrated mining and processing operation located right on the doorstep of Kalgoorlie.*

*"At the heart of the DFS is a 28% per cent increase in Ore Reserves to over 1 million ounces – a fantastic result which reflects the highly effective drilling programs conducted over the past 12 months and the excellent technical work completed on our mining and processing schedules to optimise the project to a very high level.*

*"The construction of a state-of-the-art on-site 2.1Mtpa capacity CIL plant and flotation circuit located near the site of our Zoroastrian and Excelsior deposits just 40km north of Kalgoorlie will form the backbone of the Bardoc Gold Project.*

*"The mill will be fed by a blend of open pit and underground ore feed to produce an average of 136,000ozpa at an impressively low AISC of A\$1,188/oz over an initial 8-year production period, based on the updated 1 million ounce Probable Ore Reserve published today.*

*"At an assumed base case gold price of A\$2,250/oz, the Project will generate on average \$113 million in free cash-flow per year post-construction, with forecast life-of-mine free cash-flow of \$740 million, a pre-tax NPV<sub>6%</sub> of A\$479 million and Internal Rate of Return of 41 per cent.*

*"The project has relatively low capital intensity, with a forecast pre-production capital cost of A\$177 million and a 32-month payback period from production commencement. Based on the Project's very strong financial metrics and Tier-1 location, combined with the strong team we have assembled and our very strong institutional share register, we are confident of securing a highly competitive project funding package over the coming months.*

*"Importantly, the binding off-take agreement that we secured with leading global minerals trader MRI Trading AG in December ensures we have a dedicated market for the gold concentrate produced, significantly de-risking the Project.*

*"With the impressive financials shown in the DFS, the board has resolved to progress the Project to financing. We have commenced early engagement with banks around potential debt financing and will be commencing Independent Technical Reviews for the lender process shortly.*

*"Our overall timeline should see us complete financing and announce a Final Investment Decision in Q3 2021, along with early works and procurement of long-lead items and commence full commercial construction in Q4 2021.*

*"That would put us on track to pour first gold in Q4 2022, allowing Bardoc to make the all-important transition to mid-tier gold producer and to become a significant new player in the gold industry in the North Kalgoorlie region. In the process, we will be making a substantial investment in the Goldfields region and delivering significant economic and social benefits to communities in the areas where we will be operating and to the State of Western Australia."*

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### **Cautionary Statement**

The Definitive Feasibility Study (“DFS”) referred to in this announcement is based on a revised JORC Mineral Resources Estimate and includes an updated Probable Ore Reserve referred to in this announcement. The Ore Reserves and Mineral Resource Estimate underpinning the DFS have been prepared by Competent Persons in accordance with the 2012 JORC Code.

The Company advises that the Probable Ore Reserve provides 90% of the total milled tonnage and 88% of the total contained gold metal. The production target referred to is based on Mineral Resource estimates which are classified as Indicated (89%) and Inferred (11%) by ounces.

There is a lower level of geological confidence associated with Inferred Mineral Resources, and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

The early sequence of mine plans for the first two years processing has a ratio of 89% to 11% of Indicated to Inferred Mineral Resource ounces respectively. The stated production target is based on the Company’s current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met. The Company notes that the Project forecasts a positive financial performance and is therefore satisfied that the use of Inferred resources in the production target reporting and forecast financial information is not the determining factor in the overall Project viability and that it is reasonable to report the DFS including the Inferred Resources.

The Company has concluded that it has a reasonable basis for providing the forward-looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement.

## **2 OVERVIEW**

Bardoc Gold Limited (ASX: **BDC**) (**Bardoc** or **the Company**) is pleased to advise that it has completed a positive Definitive Feasibility Study (**DFS**) for its flagship 100%-owned Bardoc Gold Project, located ~50km north of Kalgoorlie in Western Australia (**the Project**), representing an important step towards achieving its objective of building a significant new mid-tier Australian gold company.

The DFS confirms the potential of the Bardoc Project to underpin a significant near-term, high-margin gold development project, with a robust production profile, competitive operating costs and attractive financial returns.

The DFS is based on the development of a standalone mining and processing operation, with a 2.1Mtpa CIL plant and flotation circuit to be constructed on site.

The Bardoc Project Life-of-Mine (LOM) Plan will initially comprise an 10-year mining operation targeted to commence in Q4 2022 and delivering LOM production of 1.10 Moz of contained gold, with peak annual gold production of 140,000ozpa for 6 years.

The estimated development capital is \$177.4 million, with the Project forecast to generate a pre-tax NPV<sub>6%</sub> of \$479 million and pre-tax Internal Rate of Return (IRR) of 41% at gold price of A\$2,250/oz.

The All-in Sustaining Costs (AISC) are estimated to be A\$1,188/oz, which, at current gold prices will allow the Company to generate on average over A\$113 million of free cash flow per year once processing commences.

Based on the strong outcomes of the DFS, the board of Bardoc has resolved to progress the Bardoc Gold Project to financing as rapidly as possible, with the overall objective of making a Final Investment Decision in Q3 2021 and commencing construction in Q4 2021.

### 3 DFS OVERVIEW/RESULTS

The key outcomes of the DFS are summarised in Table 3-1 to Table 3-8.

Table 3-1: Project Economics

PROJECT ECONOMICS	BASE CASE
Gold Price (US\$/oz)	1,688
Exchange Rate (USD:AUD)	0.75
Gold Price (A\$/oz)	2,250
Life of Mine Revenue (A\$ ,000,000)	2,319
All-in Sustaining Costs (AISC) (A\$/oz)	1,188
Pre-Tax Cashflow (A\$ ,000,000)	740
Pre-Tax Net Present Value (6%) (A\$ ,000,000)	479
Pre-Tax Internal Rate of Return (IRR)	41%
Payback Period (Months)	32
Post-Tax Net Present Value (6%) (A\$ ,000,000)	365

Table 3-2: Project Area Cost / ounce

PROJECT	AISC (A\$/oz)
Aphrodite Stage 1 OP	\$1,438/oz
Aphrodite Stage 2 OP	\$1,335/oz
Excelsior OP	\$1,428/oz
Zoroastrian North OP	\$1,281/oz
Zoroastrian Central OP	\$1,566/oz
Zoroastrian South OP	\$1,559/oz
Bulletin South OP	\$991/oz
Mayday OP	\$1,095/oz
Aphrodite UG	\$977/oz
Zoroastrian UG	\$1,154/oz
<b>Project Average</b>	<b>\$1,188/oz</b>

Table 3-3: Production Summary

PRODUCTION SUMMARY	
LOM Mining	10 Years
LOM Open Pit Strip Ratio (Waste:Ore)	8.3 : 1 t
LOM Processing	8.2 Years
Nominal Processing Rate	2.1Mtpa
LOM Processing Recovery	95.5%
Total Gold Recovered	1,097koz

Table 3-4: Capital Costs

CAPITAL COSTS	PRE-PRODUCTION (A\$M)	LOM (A\$M)
Processing Plant - Stage 1	104.3	126.5
Processing Plant - Stage 2	-	21.5
Site Infrastructure	29.7	84.4
OP Mining – Infrastructure	36.7	43.2
OP Mining – Capitalised Waste	-	68.3
Underground Mining - Infrastructure	-	14.9
Underground Mining – Capitalised Waste	-	73.4
Other (incl G&A)	6.7	15.7
<b>Total</b>	<b>177.4</b>	<b>447.9</b>

Table 3-5: Operating Costs

OPERATING COSTS	TOTAL (A\$M)	Unit Rate (A\$/t Ore)
OP Mining	364.7	28.5 <sup>1</sup>
UG Mining	268.4	55.6 <sup>2</sup>
<b>Total Mining</b>	<b>633.1</b>	<b>84.0</b>
Surface Haulage	33.9	1.9
Processing	262.9	14.9
Concentrate	39.7	2.2
Royalties	100.6	5.7
General and Administration	60.9	3.5
<b>Total Haulage, Process, Selling and Admin</b>	<b>498.0</b>	<b>28.2</b>
<b>Total Operating Costs</b>	<b>1,131.1</b>	

Table 3-6: Production Schedule

OPEN PIT MINING	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Waste <sup>3</sup>	kt	107,047	11,226	20,236	19,292	13,377	8,777	11,009	12,445	7,046	3,621	18
Mined Ore Tonnes	kt	12,831	126	1,691	1,844	3,180	1,578	549	2,117	1,054	667	25
Mined Ore Grade	g/t	1.44	1.05	1.53	1.01	1.29	1.34	1.25	1.70	2.03	1.75	2.42
Mined Gold Ounces	koz	593	4	83	60	132	68	22	115	69	37	2
UNDERGROUND MINING	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Lateral Development	m	35,508	-	5,089	4,656	-	5,204	8,633	8,633	3,293	-	-
Development Ore Mined	kt	1,356	-	119	191	-	170	380	363	134	-	-
Development Ore Grade	g/t	2.98	-	2.58	2.83	-	2.73	2.70	3.21	4.02	-	-
Stope Ore Mined	kt	3,474	-	153	353	318	60	553	585	836	615	-
Stope Ore Grade	g/t	3.81	-	3.23	3.96	4.11	3.25	3.33	3.59	3.80	4.44	-
Mined Ore Tonnes	kt	4,380	-	271	545	318	230	933	948	970	615	-
Mined Ore Grade	g/t	3.58	-	2.95	3.56	4.11	2.87	3.07	3.45	3.83	4.44	-
Mined Gold Ounces	koz	556	-	26	62	42	21	92	105	119	88	-
TOTAL MINING	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Total Mined Ore Tonnes	kt	17,661	126	1,962	2,388	3,498	1,808	1,482	3,065	2,024	1,282	25
Total Mined Ore Grade	g/t	2.02	1.05	1.72	1.60	1.55	1.54	2.40	2.24	2.89	3.04	2.42
Total Mined Gold Ounces	koz	1,149	4	109	123	174	89	114	220	188	125	2
PROCESSED TONNES	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
OP Oxide	kt	2,923	-	814	862	243	19	306	256	360	61	-
OP Transitional	kt	3,288	-	579	782	793	112	44	539	75	363	-
OP Fresh	kt	3,532	-	357	80	547	1,144	874	33	360	136	-
OP Refractory	kt	3,088	-	-	-	332	630	52	444	434	944	252
Underground	kt	4,827	-	271	545	318	230	932	947	969	615	-
Total Processed	kt	17,658	-	2,022	2,269	2,233	2,315	2,208	2,220	2,199	2,120	252
RECOVERED	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Recovered Grade	g/t	1.93	-	1.64	1.58	1.89	1.44	1.73	2.45	2.56	2.23	1.39
Recovered Gold	koz	1,097	-	107	115	135	99	123	175	181	152	11

<sup>1</sup> Tonne of ore used in unit rate refers to open pit ore tonnes

<sup>2</sup> Tonne of ore used in unit rate refers to underground ore tonnes

<sup>3</sup> Excludes tailings

**Table 3-7: Bardoc Gold Production Target**

PROJECT	INDICATED			INFERRED			TOTAL		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold	Tonnes	Grade	Gold
	(kt)	(g/t)	(koz)	(kt)	(g/t)	(koz)	(kt)	(g/t)	(koz)
Excelsior OP	5,740	1.11	205	428	0.72	10	6,168	1.1	215
Zoroastrian North OP	369	2.10	25	199	1.16	7	568	1.8	32
Zoroastrian Central OP	278	1.78	16	66	0.49	1	345	1.5	17
Zoroastrian South OP	421	1.80	24	47	0.52	1	468	1.7	25
Bulletin South OP	581	1.91	36	44	0.99	1	625	1.8	37
Aphrodite Stage 1 OP	1,017	1.86	61	22	2.18	2	1,039	1.9	62
Aphrodite Stage 2 OP	2,991	1.78	171	5	1.62	0	2,997	1.8	172
Mayday OP	621	1.63	32	1	7.27	0	622	1.6	33
Zoroastrian UG	737	4.23	100	398	2.34	30	1,134	3.6	130
Aphrodite UG	2,775	3.91	349	921	2.59	77	3,696	3.6	426
<b>TOTAL</b>	<b>15,531</b>	<b>2.0</b>	<b>1,020</b>	<b>2,130</b>	<b>1.9</b>	<b>129</b>	<b>17,661</b>	<b>2.0</b>	<b>1,149</b>

**Table 3-8: Bardoc Gold Project Probable Ore Reserves**

PROJECT	PROBABLE			TOTAL		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold
	(kt)	(g/t)	(koz)	(kt)	(g/t)	(koz)
Excelsior OP	5,690	1.11	203	5,690	1.1	203
Zoroastrian North OP	365	2.10	25	365	2.1	25
Zoroastrian Central OP	276	1.78	16	276	1.8	16
Zoroastrian South OP	417	1.80	24	417	1.8	24
Bulletin South OP	561	1.95	35	561	2.0	35
Aphrodite Stage 1 OP	1,050	1.82	61	1,050	1.8	61
Aphrodite Stage 2 OP	2,916	1.80	168	2,916	1.8	168
Mayday OP	622	1.62	32	622	1.6	32
Zoroastrian UG	839	3.63	98	839	3.6	98
Aphrodite UG	3,139	3.41	344	3,139	3.4	344
<b>TOTAL</b>	<b>15,874</b>	<b>2.0</b>	<b>1,007</b>	<b>15,874</b>	<b>2.0</b>	<b>1,007</b>

## 4 DFS TEAM

The 2021 Definitive Feasibility Study (DFS) was managed by Bardoc working with in-house specialists and external consultants. Key contributors are listed below:

- Study Manager – Bardoc (Andrew Francis);
- Mineral Resource Estimate – Bardoc (Bradley Toms);
- Processing – Bardoc (Mark Roberts) and External Consultant Greg Durack;
- Environmental and Stakeholder Management – Bardoc (Helen Chernoff)
- Open Pit Mine Design and scheduling – SMJ Engineering and Galt Mining Services;
- Underground Mine Design and scheduling – WestAuz and Bardoc;
- Metallurgical Testwork – Strategic Metallurgy;
- Process Plant Design – Como Engineering;
- Road & Rail Re-Alignment – WML Consultants & Longrun Infrastructure Pty Ltd;
- Tailings Dam Design – ATC Williams;
- Geotechnical – Peter O’Bryan and Associates;
- Excelsior Tailings Assessment – REC Engineering;
- Blast Impact Assessment – Orica Limited;
- Geology – Cube Consulting;
- Infrastructure – IME Consultants; Como Engineering; Bardoc;
- Hydrogeology – AQ2;
- Waste Classification – Landloch Pty Ltd;
- Environmental – Talis Consulting; and
- Financial Modelling – Bardoc; BurnVair Corporate Finance (Burnvair)

## 5 KEY PROJECT PARAMETERS

The DFS is based on the following key project parameters:

- JORC Compliant Mineral Resource at a gold price of A\$2,500/oz;
- JORC Compliant Ore Reserve at a gold price of A\$2,000/oz;
- Processing Plant to treat both free milling and refractory ore;
- Refractory ore to be developed into a gold concentrate for a concentrate sale;
- 12-month construction period for the Processing Plant;
- Processing Plant to be constructed under an Engineering, Procurement and Construction (EPC) Model;
- Goldfields Highway and Kalgoorlie-to-Leonora rail re-alignment for the Excelsior Project to be completed before the commencement of the Excelsior Pit;
- Water to be sourced from the Scotia and Goongarrie Paleochannels and existing Scotia Borefield;
- Open pit and underground mining to be undertaken by contractors;
- Infrastructure to be managed by Bardoc;
- Project implementation to be managed by Bardoc; and
- Project located in close proximity to Kalgoorlie, enabling a residential workforce. No aerodrome or camp facility is required to be built, enabling mining to commence as soon as financing is approved.

## 6 BACKGROUND

The Bardoc Gold Project is located 40km north of the city of Kalgoorlie in Western Australia, in one of the world's largest gold mining regions. With the tenements straddling the Goldfields Highway – the major transport route linking Kalgoorlie to the Menzies, Leonora and Laverton mining regions – the Project is well positioned to leverage off the established road networks, logistics routes, mining contractors, suppliers and highly skilled resources based in Kalgoorlie.

The Project covers 250 square kilometres (km<sup>2</sup>) of granted Mining Leases and Prospecting Licences over the intersection of the well-mineralised Bardoc Tectonic Zone greenstone sequence with the cross-cutting Black Flag Fault system.

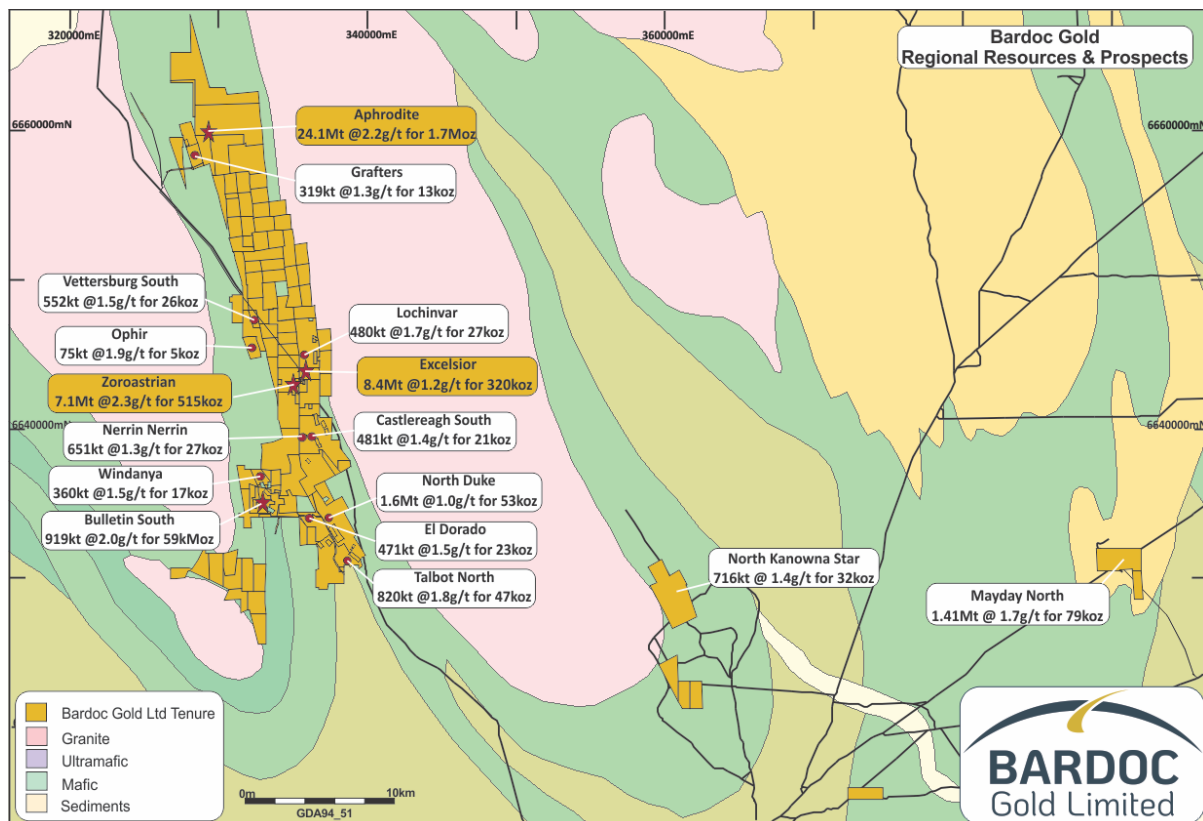


Figure 6-1: Tenement and Resource Map

During the period 2017/2018, Bardoc Gold Limited (previously named Spitfire Materials Limited) merged with fellow ASX-listed gold explorers Aphrodite Gold Limited (ASX: AQQ) and Excelsior Gold Limited (ASX: EXG). The key projects of the merged company – the Aphrodite Gold Project, the Kalgoorlie North Gold Project and the Mulwarrie Gold Project – have collectively been renamed the “Bardoc Gold Project”. This reflects the location of the combined project area along the highly prospective Bardoc Tectonic Zone and Bardoc’s focus on establishing a new long-term gold business in the Kalgoorlie region.

In May 2019, the Company expanded its Kalgoorlie position with the acquisition of a contiguous tenement package from Torian Resources Limited (ASX: TNR) in and around the Bardoc Gold Project that included 40 tenements covering an area of 49km<sup>2</sup>.

In September 2019, Bardoc delivered a substantial increase in the Global Mineral Resource Estimate for the Bardoc Gold Project to over 3 Moz. The updated project-wide Measured, Indicated and Inferred Mineral Resource, which follows highly successful drilling, exploration and strategic acquisition initiatives completed during the past year, now stands at 54.6Mt at 1.8g/t Au for 3.07Moz of contained gold.

This updated Mineral Resource Estimate (MRE) contains 46.2Mt at 1.4g/t Au for 2.08Moz classified as being potentially mineable by open pit methods and 8.4Mt at 3.7g/t Au for 988koz that may be amenable to underground mining methods.

Bardoc further expanded its strategic footprint in the North Kalgoorlie district by purchasing the Mayday North and North Kanowna Star gold projects in November 2019 from Strategic Projects Mining Pty Ltd (SPMPL). These Project areas include a combined JORC compliant Indicated and Inferred Mineral Resource totalling 115.5koz. The tenements have had minimal modern exploration and offer numerous exploration opportunities and walk-up drill targets, including immediate extensions of the currently defined JORC Mineral Resources.

## **7 PRODUCTION HISTORY**

Mining reports dating back to the late 1890s to the early 1900s show that 56.7koz was mined from the Bardoc mining area, located in the central part of the Bardoc Gold Project. The previously mined ounces at the turn of the previous century included 6,719 tonnes at 19.8g/t Au for 4.3koz at Excelsior, 13,815 tonnes at 17.2g/t Au for 7.7koz at Zoroastrian, and 26,535 tonnes at 23.5g/t Au for 20koz at the Slug Hill Gold Mine.

More recent mining of the Excelsior and Zoroastrian Open Pits by Aberfoyle Gold occurred from 1987 to 1991, where a total of 2.2Mt at 1.6g/t Au for 113koz of gold was mined. Excelsior Gold Limited, now Bardoc, mined 953kt at 2.1g/t Au for 63koz from 2015-2017.

Mining has occurred at other recently acquired tenement packages that are not stated here, however these projects are not included as part of the DFS and form growth opportunities for Bardoc for future studies.

Bardoc is positioned to capitalise on these previously mined high-grade deposits that have been typically under-explored in modern times.

## **8 PERMITTING & APPROVAL**

The Bardoc Gold Project will be governed by legislation relating to the regulation of environmental, heritage and health and safety management of the proposed operations.

The Project will be legislated in accordance with Part V of the *Environmental Protection Act 1986* (EP Act), regulated by the Department of Water and Environmental Regulation (DWER). Bardoc will apply for a number of licences and permits under the Part V management. These include: Native Vegetation Clearing Permits (NVCP); Prescribed premises licences; Groundwater Abstraction licences; and environmental approvals.

Applications are scheduled to be submitted to the Department of Water and Environmental Regulation in the second quarter of this year. The following activities require a prescribed premises licence:

- Processing or beneficiation of metallic ore that is crushed, ground, milled or otherwise processed >50,000 tpa;
- Tailings from metallic ore that are discharged into a containment cell or dam >50,000 tpa;
- Mine dewatering premises on which water is extracted and discharged into the environment to allow mining of ore >50,000 tpa;
- Electric power generation <20 MW natural gas or >10 MW using fuel other than natural gas;
- Used tyre storage >100 tyres; and
- Putrescible landfill site >20 tpa but <5,000 tpa.

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Licence applications will be sought from the Department of Water and Environmental Regulation for the construction of bores and the abstraction of groundwater. These include:

- 26D Licence to Construct or Alter a Well; and
- 5C Groundwater Abstraction Licence (licence amendment)

Mining Proposals and Mine Closure Plans for the Bardoc and Aphrodite sites are scheduled to be submitted to the Department of Mines, Industry Regulation & Safety in the second quarter of this year. A Mining Proposal for Bulletin South is approved.

Bardoc has secured a Native Vegetation Clearing Permit (NVCP) for the Bardoc and Bulletin South project areas. An NVCP application for the proposed re-alignment of a section of the Goldfields Highway and Kalgoorlie Menzies Railway has been assessed and is currently awaiting a period of public comment prior to approval. Subsequent NVCP applications will include the following areas: Aphrodite haul road, Aphrodite site; and the Scotia borefield expansion.

Bardoc has commenced consultation with the EPA and intends to self-refer the project under Part IV of the EP Act. Referral to the EPA is not mandatory for this project and it is not expected that the EPA will elect to assess the project. The purpose of the self-referral is to provide surety and certainty that the project will be regulated under Part V of the EP Act and not expose Bardoc to unnecessary delays.

Archaeological and ethnographic surveys have been completed across the project to identify Aboriginal Heritage sites. Where Aboriginal heritage sites have been identified Bardoc has implemented management controls to preserve these sites. There are no Aboriginal heritage sites required to be disturbed as part of the project footprint, and therefore Bardoc does not intend to submit any Section 18 applications as part of the project.

Safety management is regulated by the Department of Mines, Industry Regulation & Safety (DMIRS) in accordance with the Mines Safety & Inspection Act 1994. Bardoc will submit a Project Management Plan prior to commencing operations. A safety management plan will be developed and will include management plans and procedures for all safety management practices across the project including emergency management and incident response.

Other permits and licences relating to health and safety regulation include:

- Dangerous Goods Licences for the storage of dangerous goods and management of explosives;
- Registration of classified plant across the whole site; and
- Poisons Permit for chemicals used within the processing facility.

A number of approvals and permits associated with the re-alignment of the Goldfields Highway and Kalgoorlie to Menzies Railway are required. The specifications relating to the engineering design and construction of the highway will be included in an Agreement with Main Roads WA. Details of the design and construction of the railway will be incorporated into a tripartite agreement between the Public Transport Authority, Arc Infrastructure (railway operating entity) and Bardoc.

A Native Title claim was registered by Maduwongga (WC2017/001) on 21 April 2017; a subsequent Native Title claim was registered by Marlinyu Ghoorlie on 22 December 2017. An all access agreement is currently in place with Maduwongga, with ongoing negotiations occurring with the Marlinyu Ghoorlie claimants for a partial access agreement.

An agreement is in place with the leaseholder of the Mt Vettors pastoral lease which covers most of Bardoc's mining tenure. An agreement is also in place with two neighbouring freehold landowners.

## 9 GEOLOGY AND MINERAL RESOURCE ESTIMATE

As part of this announcement, the Company is releasing an updated Mineral Resource Estimate. The key points to be noted are:

- The Mineral Resource estimate enables the Company to plan for future growth:
  - Overall Mineral Resource ounces **increased to 3.07Moz Au**;
  - Measured and Indicated ounces **increased to 2.06Moz**;
  - Measured and Indicated tonnes **increased to 36.5Mt**; and
  - Measured and Indicated ounces now comprise **67% of global ounces**.
- Aphrodite underground Resource upgraded:
  - 36% increase in Indicated ounces **from 366koz to 497koz Au**; and
  - 8% increase in total underground Resource **from 710koz to 768koz Au**.
- Excelsior open pit Resource upgraded:
  - 18% increase in Indicated ounces **from 266koz to 313koz Au**;
  - 11% increase in total resource **from 320koz to 354koz Au**.

The Bardoc Gold Project contains a total Mineral Resource Estimate of **54.6Mt @ 1.8g/t Au for 3.07Moz** of contained gold.

The new Mineral Resources used for the DFS are reported here in this March 2021 announcement. The Material Information for these new Resource models is included in following sections. All other Resources have been the subject of previous ASX Announcements. The updated Mineral Resource Estimates are for the Aphrodite Open Pit, Aphrodite Underground and Excelsior Open Pit Resources.

The DFS has proposed mining from only 5 of the 17, JORC 2012 compliant deposit areas. This will provide the Company with the opportunity to add additional value as these currently excluded 12 areas are further explored, with the potential both to increase the amount of Measured or Indicated Resources as well as an opportunity to add additional new resource ounces at all of them.

Significantly, the Bardoc Gold Project now has over 2Moz of contained gold in Measured and Indicated Resources. The Measured and Indicated categories represent higher-confidence material that supports the mine planning process and makes the Project more robust.

As a result of the exploration work completed by the Company – as well as improved mining and treatment costs – the Aphrodite underground model has seen a 36% increase in higher-confidence Indicated material.

This has a positive impact on the Project overall and, additionally, with successful exploration there is potential to bring more material into higher-confidence Resource categories as well as exceptional untested exploration areas that may contain significant mineralisation at depth and along strike on the main lodes of Aphrodite Alpha, Phi and Epsilon.

Zoroastrian and Aphrodite are multi-lode systems that have areas of untested down-plunge potential, such as the Blueys South and Zoroastrian South Lodes at Zoroastrian and the above-mentioned lodes at Aphrodite. Importantly, outside of these two deposits the Company has identified significant potential for ongoing Resource growth at several deposits.

The geology of the deposits is well understood and the Company's geological and mineralisation understanding is supported by detailed work completed by the CSIRO, various University Honours and Masters investigations and ongoing external expert consultant review (of both Mineral Resource Estimates and geology), as well as having an experienced geological team which has an extended track record of success in the Kalgoorlie area mining and exploring for gold.

With funds available for exploration and an appetite for discovery, Bardoc is well placed to expand on the current Resources to strengthen the mine plan as well as make new significant discoveries that will provide longer term options for mining and gold production.

The full technical descriptions and requisite disclosures for the MRE can be found in the ASX announcements dated as per the Table below.

**Table 9-9: Mineral Resource Table**

BARDOC GOLD PROJECT: RESOURCES															
Deposit	Type	Cut-Off (g/t Au)	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES			Original ASX Report Date
			Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	
Aphrodite	OP	various	-	-	-	13,458	1.5	666	5,321	1.3	229	18,780	1.5	895	
Aphrodite	UG	1.7	-	-	-	4,156	3.7	497	2,571	3.3	271	6,726	3.6	768	
Aphrodite	TOTAL		-	-	-	17,614	2.1	1,163	7,892	2.0	500	25,506	2.0	1,663	
Zoroastrian	OP	0.3	-	-	-	3,987	1.8	231	1,918	1.5	90	5,904	1.7	321	22/5/18
Zoroastrian	UG	1.6	-	-	-	800	4.7	120	812	3.4	90	1,612	4.0	209	30/9/20
Zoroastrian	TOTAL		-	-	-	4,787	2.3	351	2,730	2.0	180	7,516	2.2	530	
Excelsior	OP	0.3	-	-	-	9,645	1.0	313	1,685	0.8	41	11,330	1.0	354	
Mayday North	OP	0.5	-	-	-	1,303	1.6	66	431	1.2	17	1,778	1.5	83	30/9/20
Talbot North	OP	0.4	-	-	-	698	1.8	40	123	1.8	7	820	1.8	47	30/9/19
Bulletin South	OP	0.4	152	2.2	11	546	2.1	36	150	2.1	10	849	2.1	57	30/9/19
Duke North	OP	0.4	-	-	-	851	1.0	28	795	1.0	25	1,646	1.0	53	30/9/19
Lochinvar	OP	0.4	-	-	-	423	1.8	24	57	1.6	3	480	1.7	27	19/2/14
El Dorado	OP	0.5	-	-	-	203	1.4	9	383	1.5	18	586	1.5	28	
El Dorado	UG	2.0	-	-	-	-	-	-	51	6.5	11	51	6.5	11	
El Dorado	TOTAL		-	-	-	203	1.4	9	434	2.1	29	637	1.9	39	30/9/20
North Kanowna Star	OP	0.5	-	-	-	157	1.6	8	559	1.3	24	716	1.4	32	9/9/19
South Castlereagh	OP	0.5	-	-	-	111	1.6	6	369	1.3	15	481	1.4	21	30/9/19
Mulwarrie	OP	0.5	-	-	-	-	-	-	881	2.8	79	881	2.8	79	13/11/18
Nerrin Nerrin	OP	0.5	-	-	-	-	-	-	651	1.3	26	651	1.3	26	30/9/19
Vettersburg South	OP	0.6	-	-	-	-	-	-	552	1.5	26	552	1.5	26	11/12/13
Windanya	OP	0.6	-	-	-	-	-	-	360	1.5	17	360	1.5	17	11/12/13
Grafters	OP	0.5	-	-	-	-	-	-	319	1.3	14	319	1.3	14	30/9/19
Ophir	OP	0.6	-	-	-	-	-	-	75	1.9	5	75	1.9	5	11/12/13
TOTAL RESOURCES			152	2.3	11	36,338	1.7	2,044	18,063	1.8	1,018	54,597	1.8	3,073	

Note: Differences may occur due to rounding.

## 10 GEOTECHNICAL

Geotechnical studies were completed by Peter Bryan & Associates for the Zoroastrian, Excelsior, Aphrodite and Bulletin South mining locations for both the open pit and underground projects.

Geotechnical reviews of ground conditions for open pit and underground excavation were generated from historical geotechnical reports, mining study reports, hydrogeology reports, waste rock reports, core logging and photos, geology models, assessment of diamond drill core, historical pit performance in the case of Excelsior and Zoroastrian, and site inspections.

Open pit design recommendations from geotechnical study are as follows:

- Zoroastrian North Pit are 10-20m face heights with pit wall angles of 55-70° and a berm width of 5-10m. Geotechnical recommendations were established by RLs and wall domains;
- Zoroastrian Central Pit are 15-20m face heights with pit wall angles of 55-70° and a berm width of 6-7m. Geotechnical recommendations were established by RLs and wall domains;
- Zoroastrian South Pit are 15-20m face heights with pit wall angles of 55-70° and a berm width of 6-7m. Geotechnical recommendations were established by RLs and wall domains;

- Excelsior Pit are 10-20m face heights with pit wall angles of 50-70° and a berm width of 5-8m. Geotechnical recommendations were established by RLs and wall domains;
- Aphrodite Pit are 10-20m face heights with pit wall angles of 55-70° and a berm width of 6-8m. Geotechnical recommendations were established by rock type domains and did not distinguish by wall domain;
- Bulletin South Pit are 10-20m face heights with pit wall angles of 60-70° and a berm width of 5-7m. Geotechnical recommendations were established by RLs and wall domains; and;
- Mayday Pit are 10-20m face heights with pit wall angles of 55-70° and a berm width of 5-7m. Geotechnical recommendations were established by RLs and wall domains.

Orebody geometry and rock conditions assessed indicate that long-hole open stoping techniques are suitable for the mining of Zoroastrian and Aphrodite Underground. Floor-to-floor spacing adopted was 20m, which is in line with other similar deposits in the Goldfields. Decline stand-off distances were maintained at a minimum of 40m. Stope stability will be managed with rib and sill pillars appropriately located to minimise stope failure. No fill has been selected for the DFS, however, would provide an alternate practical means for stope stability and should be further investigated for Aphrodite underground should gold prices remain favourable.

## **11 HYDROGEOLOGY**

The Project area is located within the catchment of the Rebecca and Roe Palaeodrainages. The main groundwater occurrences in the region are found within fractured bedrock and paleochannel sands. The groundwater quality is typically saline to hypersaline, with small amounts of lower salinity groundwater known to occur in elevated outcrops of granitoid rocks and adjacent eluvium.

Groundwater inflows to the pits and underground developments are likely to be associated with fractures in the otherwise intact bedrock and are likely to be higher in the weathered zone. In the Bulletin South pit, inflows will also report from a shallow alluvial aquifer. In the short term, higher-than-anticipated inflows are likely immediately following the interception of water-bearing fractures, with yields decreasing rapidly as the structures are dewatered.

Pit inflows (and thus dewatering requirements) were predicted using analytical groundwater flow models and using aquifer parameters derived from both historical dewatering records and recent field investigations. Predicted maximum dewatering requirements, taking into account the sequence of mining and dewatering interference (as outlined above) are as follows:

- Excelsior Open Pit - 1.5L/s;
- Bulletin South Open Pit - 3.0L/s;
- Zoroastrian Open Pit – 2.5 L/s or dry due to advancement of Underground;
- Aphrodite Stage 1 open pit - 8.8L/s;
- Aphrodite Stage 2 Open Pit - dry, due to advance dewatering from Stage 1 pit and Underground;
- Zoroastrian Underground - 2.5L/s; and
- Aphrodite Underground - 12.8L/s.

Mine dewatering of the open pits is to be achieved by a combination of in-pit sump pumping and ex-pit dewatering bores targeting water-bearing structural features which extend beyond the pit perimeter. Dewatering of the underground will be achieved by using a series of sumps and transfer pumps.

## 12 ORE RESERVES

Bardoc have completed an updated Ore Reserve Estimate for the Project based on the 2021 Mineral Resource Estimate contained within this announcement. The Mineral Resource Estimated for Excelsior, Zoroastrian, Aphrodite and Mayday was completed by Bardoc and reviewed externally by Cube Consulting, and the Bulletin Mineral Resource was completed by Cube Consulting.

The Ore Reserve estimated is supported by the 2021 DFS and has been completed by Bardoc for both the Open Pit and underground Ore Reserve Estimation.

A detailed financial model was generated for the DFS and has been used to determine the economic parameters for the Ore Reserve Estimate.

The Ore Reserve (Table 12-10) has been completed in accordance with the JORC Code (2012). The Probable Ore Reserve is based on the Measured and Indicated portion of the Mineral Resource Estimate. The Ore Reserve estimate represents the portion of the DFS mine plan based on Measured and Indicated Mineral Resources only. No Inferred material has been included in the Ore Reserve estimate. Table 12-10 presents a summary of the Probable Ore Reserve based on the mine designs using an A\$2,000/oz gold price optimisation. Refer to Appendix Table 1, Section 4, for full details on the Ore Reserve Estimate.

Table 12-10: Bardoc Ore Reserves

PROJECT	PROBABLE			TOTAL		
	Tonnes	Grade	Gold	Tonnes	Grade	Gold
	(kt)	(g/t)	(koz)	(kt)	(g/t)	(koz)
Excelsior OP	5,690	1.11	203	5,690	1.1	203
Zoroastrian North OP	365	2.10	25	365	2.1	25
Zoroastrian Central OP	276	1.78	16	276	1.8	16
Zoroastrian South OP	417	1.80	24	417	1.8	24
Bulletin South OP	561	1.95	35	561	2.0	35
Aphrodite Stage 1 OP	1,050	1.82	61	1,050	1.8	61
Aphrodite Stage 2 OP	2,916	1.80	168	2,916	1.8	168
Mayday OP	622	1.62	32	622	1.6	32
Zoroastrian UG	839	3.63	98	839	3.6	98
Aphrodite UG	3,139	3.41	344	3,139	3.4	344
<b>TOTAL</b>	<b>15,874</b>	<b>2.0</b>	<b>1,007</b>	<b>15,874</b>	<b>2.0</b>	<b>1,007</b>

This Ore Reserve estimate realises a 28% increase in ounces from the previously released March 2020 estimate following an aggressive drilling campaign through 2020 to improve confidence in the underground Mineral Resource, combined with increased Gold Price used, improved economics and inclusion of further extensions on the Zoroastrian Open Pit.

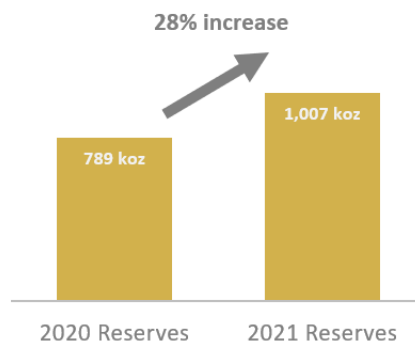


Figure 12-2: Ore Reserve Change March 20 to March 21

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## **13 MINING**

### **13.1 UNDERGROUND**

The Project consists of two underground mines, Zoroastrian and Aphrodite. The Zoroastrian mine is planned to commence off the southern end of the existing Zoroastrian central pit and is the priority focus due to the high-grade, free-milling nature of the ore, and the ability to rapidly commence mining activities. The Aphrodite Underground extends from the base of the Aphrodite Stage 1 Pit.

Both underground mines will extract ore from multiple lode systems which are open in all directions. Additional lodes are expected to be encountered as underground mining progresses with progressive underground exploration drilling, currently cost prohibitive from surface.

### **13.2 DESIGN OVERVIEW**

Gold is estimated and reported within the underground models to be evaluated within the processing and financial summaries. All ore planned to be extracted from the mines is contained within fresh rock. In order to determine the economically mineable part of the resource, the total value of the gold mineralised material was calculated.

### **13.3 DESIGN METHODOLOGY**

This study undertakes a full mine design from the geology resource block model using Cut-off Grades as a preliminary assessment tool for potentially economic material, followed by economic assessment of the design based on unit costs used to generate the Cut-off Grades. Designs, stope shapes and development, are generated throughout the orebody, then processed and evaluated with designs flagged to be included or excluded based on an economic or risk-based assessment.

Design work is carried out with Datamine's Studio 5DP © and Studio UG © software. Mine Stope Optimiser (MSO) is run in conjunction with existing mine designs to create a baseline to commence the mine design. Review of all potentially economic material is completed based on variable cut-off grades, ensuring assessment of all possible material without constraining the mine on pre-determined factors, specifically production rates. Geology, geotechnical and industry standard mining assumptions are used for stope and development designs, such as minimum stope widths and development profiles for design constraints.

Designs are initially completed on all inventory, with the design refined to Measured and Indicated for Reserves evaluation.

Datamine's Enhanced Production Scheduler © software (EPS) is used as a flagging and calculation tool in the processing of the economic design. Factors for dilution and recovery are applied in EPS.

#### **13.3.1 CUT-OFF GRADE**

Cut-off Grade calculations are generated from the financial modelling completed for the DFS with external contractor rates underpinning this based on quotations on the preliminary mine design and schedules provided for each mine.

The Break-Even Cut-off Grade is calculated to be 2.2 g/t for Zoroastrian and 2.0 g/t for Aphrodite, Table 13-11.

Table 13-11: Break Even Cut-off Grades

UNIT COST	UNIT	Zoroastrian UG	Aphrodite UG
Gold Price	A\$/oz	2,000	2,000
Metallurgical Recovery (LOM average)	%	94.7%	95.6%
Exchange Rate	(\$AUD/\$USD)	0.75	0.75
Mining Operating Costs	A\$/t	111.76	69.72
Processing Operating Costs	A\$/t	17.69	32.97
G&A Operating Costs	A\$/t	3.43	3.33
Surface Haulage	A\$/t	0.00	3.48
Total BCOG Operating Costs	A\$/t	132.9	109.5
Royalty	A\$/recovered oz	51.5	101.5
<b>Break Even Cut-off Grade</b>	<b>g/t</b>	<b>2.2</b>	<b>2.0</b>

A variable Cut-off Grade of 1.6 g/t for Zoroastrian and 1.5 g/t for Aphrodite is calculated which removes fixed costs associated with the project such that the project is not constrained by pre-determined factors, Table 13-12.

Table 13-12: Variable Cut-Off Grades

UNIT COST	UNIT	Zoroastrian UG	Aphrodite UG
Gold Price	A\$/oz	2,000	2,000
Metallurgical Recovery (LOM average)	%	94.7%	95.6%
Exchange Rate	(\$AUD/\$USD)	0.75	0.75
Mining Operating Costs	A\$/t	82.40	51.31
Processing Operating Costs	A\$/t	11.99	27.27
G&A Operating Costs	A\$/t	2.57	2.50
Surface Haulage	A\$/t	0.00	3.48
Total VCOG Operating Costs	A\$/t	96.7	84.6
State Royalty	A\$/recovered oz	51.5	101.5
<b>Variable Cut-off Grade</b>	<b>g/t</b>	<b>1.6</b>	<b>1.5</b>

### 13.3.2 ECONOMIC EVALUATION

Economic assessments are completed on the resulting design using economic assumptions (mining unit rates, processing costs, processing recovery, gold price, royalties, haulage etc.) which are derived from the Feasibility costs. These designed activities are assessed and flagged to whether they generate profit and if deemed economic then they are included in the final design.

### 13.3.3 ZOROASTRIAN UNDERGROUND

The Zoroastrian Underground is located at, and will be accessed off, the southern end of the existing Zoroastrian Central Pit.

The study evaluates the Zoroastrian Underground to contain a production target of 1.13Mt at 3.6g/t Au for 130koz, of which 839kt at 3.6g/t Au for 98koz is designated as Ore Reserves. Bardoc completed an infill drilling campaign in 2020 to convert near surface inferred Resources to indicated Resources, this resulted in an increase of 25koz on the previous 2020 Reserve estimations. The remainder of the inferred Resources is associated with material at depth, predominantly associated with the Southern Zoroastrian Shear lode, which will be drilled for potential conversion progressively during underground mining.

Mining at Zoroastrian Underground may commence as soon as permitting and approvals are received and is not constrained by surrounding open pit mining. Based on this, Bardoc will prioritise Zoroastrian as an early underground production ore source.

Key metrics for the Zoroastrian Underground Deposit are summarised in Table 13-13.

Table 13-13: Zoroastrian Underground Key Metrics

ECONOMICS	UNIT	ZOROASTRIAN
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimised)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	94.7%
Recovered Gold	oz	123,265
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,154/oz</b>
PHYSICALS	UNIT	ZOROASTRIAN <sup>4</sup>
<b>Ore Tonnes</b>		
Stope Ore Tonnes (t)	t	824,000
Stope Ore Grade (g/t)	g/t	3.9
Stope Gold Ounces (oz)	oz	102,900
Development Ore Tonnes (t)	t	310,100
Development Ore Grade (g/t)	g/t	2.7
Development Gold Ounces (oz)	oz	27,300
<b>Total Ore Tonnes (t)</b>	<b>t</b>	<b>1,134,100</b>
<b>Total Ore Grade (g/t)</b>	<b>g/t</b>	<b>3.6</b>
<b>Total Gold Ounces (oz)</b>	<b>oz</b>	<b>130,100</b>
<b>Material Movement</b>		
Total Waste Tonnes (t)	t	415,200
Total Ore Tonnes (t)	t	1,134,200
<b>Total Material Movement (t)</b>	<b>t</b>	<b>1,549,400</b>
<b>Lateral Development</b>		
Total Capital Development (m)	m	4,780
Total Operating Development (m)	m	4,960
<b>Total Lateral Development (m)</b>	<b>m</b>	<b>9,740</b>
<b>Vertical Development</b>		
Total Capital Vertical Development (m)	m	590
<b>Total Vertical Development (m)</b>	<b>m</b>	<b>590</b>

The underground mine is designed to be accessed off a portal from the southern end of the existing Zoroastrian pit. Lateral development will be carried out using conventional mechanised drill and blast techniques, using twin-boom jumbos.

Stoping will be carried out via a top-down mining method using conventional mechanised sub-level long-hole open stoping techniques, utilising rib and sill pillars for void stability and dilution control. Level spacing for the stoping is 20m floor-to-floor with typical 15.5m up-dip stope heights. No fill is designed to be used, although where benefit may be realised to reduce trucking requirements, filling may be implemented.

Ventilation will be provided via a series of ventilation shafts to be developed on each level to maintain the highest quality airflow to the working areas. Aside from the top ventilation rise, which will be completed using a 4.5m diameter raisebore, the remainder of ventilation development will be completed using long-hole rise methodologies with resources readily available for conventional stoping.

Escapeway's will be developed on every second level using a 1.5m diameter raisebore.

The design parameters of the Zoroastrian Underground are shown in Table 13-14 and a layout of the underground mine is provided in Figure 13-3.

<sup>4</sup> Table may contain errors from rounding

Table 13-14: Development Design Criteria

Criteria	Value
<b>LATERAL DEVELOPMENT</b>	
Decline	Level 5.3mW x 5.4mH
Access	Level 5.0mW x 5.0mH
Ore Drives	Level 4.5mW x 4.5mH
Other Lateral Development	Level 4.5mW x 4.5mH
<b>VERTICAL DEVELOPMENT</b>	
Escapeways	1.5m Diameter RB
Vent Rise to Surface	4.5m Diameter RB
Sub-Level Vent Rises	4.5m x 4.5m LHR
<b>STOPING</b>	
Minimum Mining Width	2.5m
Level Spacing	20.0m
Stope Strike	25.0m
Minimum Pillar Width	5.0m
Dilution	10%
In situ Stope Recovery	95%
Rib Pillar Recovery	0%
Sill Pillar Recovery	0-60% <sup>5</sup>

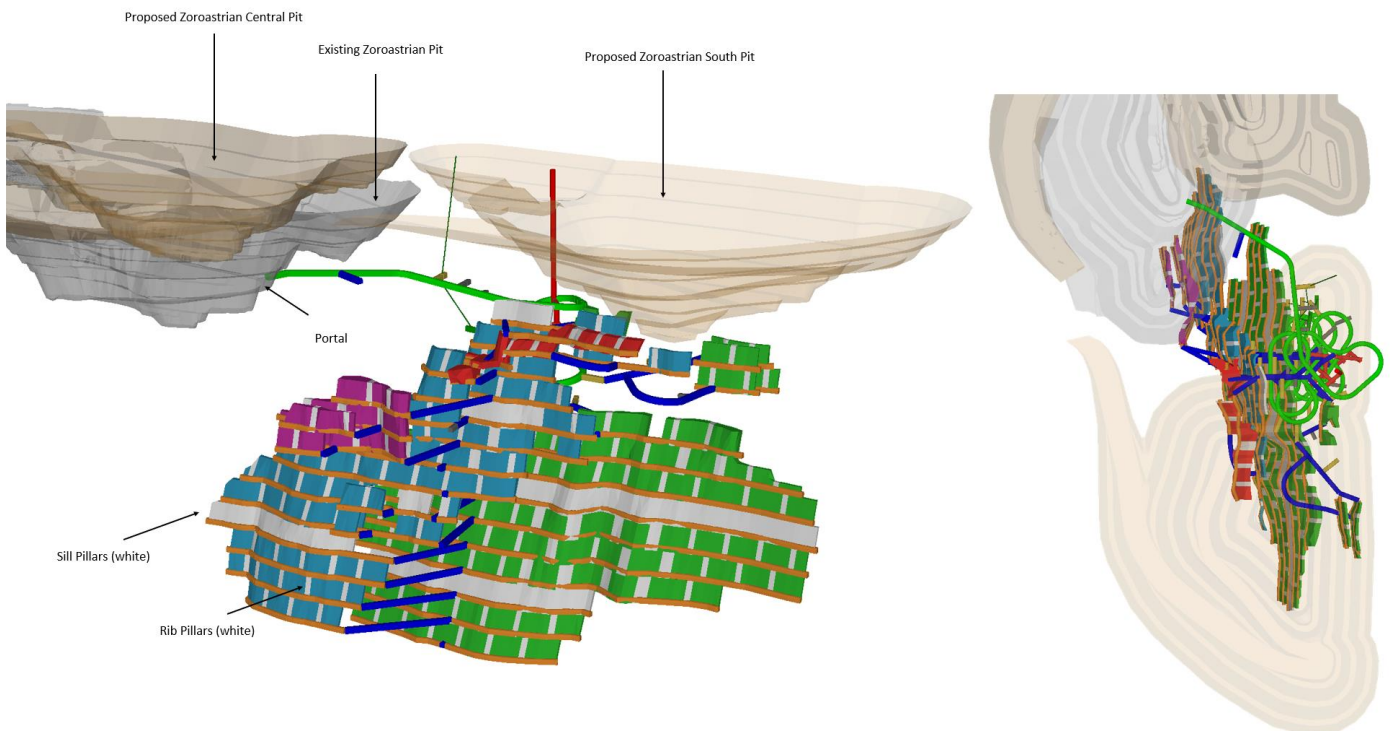


Figure 13-3: Zoroastrian Underground Design

<sup>5</sup> Sill recovery dependent on stope width, strike length and surrounding mining activities

### 13.3.4 APHRODITE UNDERGROUND

The Aphrodite Underground is located beneath the proposed Aphrodite pit, and will be accessed off the northern end of the Phi Stage 1 Pit, as shown in Figure 13-4.

The study evaluates Aphrodite Underground to contain a production target of 3.7Mt at 3.6g/t Au for 426koz, including 3.1Mt at 3.4g/t Au for 344koz of Ore Reserves. Bardoc completed an aggressive resource conversion campaign throughout 2020 increasing reserves from 287koz (+57koz).

Mining at Aphrodite is proposed to commence following the completion of the Stage 1 pit, which will provide an adequate location to commence a decline portal in fresh and competent rock material. Based on this, Bardoc will prioritise mining of the Aphrodite Stage 1 pit for the commencement of underground activities at Aphrodite as early as possible.

Key metrics for the Aphrodite underground deposit are summarised in Table 13-15 below:

Table 13-15: Aphrodite Underground Key Metrics

ECONOMICS	UNIT	APHRODITE
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery	%	95.6%
Recovered Gold	oz	406,600
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$977/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>APHRODITE<sup>6</sup></b>
<b>Ore Tonnes</b>		
Stope Ore Tonnes (t)	t	2,647,100
Stope Ore Grade (g/t)	g/t	3.8
Stope Gold Ounces (oz)	oz	322,900
Development Ore Tonnes (t)	t	1,045,900
Development Ore Grade (g/t)	g/t	3.1
Development Gold Ounces (oz)	oz	102,500
<b>Total Ore Tonnes (t)</b>	<b>t</b>	<b>3,693,000</b>
<b>Total Ore Grade (g/t)</b>	<b>g/t</b>	<b>3.6</b>
<b>Total Gold Ounces (oz)</b>	<b>oz</b>	<b>425,400</b>
<b>Material Movement</b>		
Total Waste Tonnes (t)	t	717,000
Total Ore Tonnes (t)	t	3,696,000
<b>Total Material Movement (t)</b>	<b>t</b>	<b>4,413,000</b>
<b>Lateral Development</b>		
Total Capital Development (m)	m	8,160
Total Operating Development (m)	m	17,600
<b>Total Lateral Development (m)</b>	<b>m</b>	<b>25,760</b>
<b>Vertical Development</b>		
Total Capital Vertical Development (m)	m	780
<b>Total Vertical Development (m)</b>	<b>m</b>	<b>780</b>

The underground mine is designed to be accessed off a portal from the northern end of the proposed Aphrodite Stage 1 Pit. Lateral development will be carried out using conventional mechanised drill-and-blast techniques, using twin-boom jumbos.

Stoping will be carried out via a top-down mining method using conventional mechanised sub-level long-hole open stoping techniques, utilising rib and sill pillars for void stability and dilution control. Level spacing for the stoping is 20m floor-to-floor with typical 15.5m up-dip stope heights. No fill is designed to be used, although where benefit may be realised to reduce trucking requirements, filling may be implemented.

<sup>6</sup> Tables are subject to rounding

Ventilation will be provided via a series of ventilation shafts to be developed on each level to maintain the highest quality airflow to the working areas. Aside from the top two ventilation rises, which will be completed using a 4.5m diameter raisebore, the remainder of ventilation development will be completed using long-hole rise methodologies with resources readily available for conventional stoping.

Escapeway's will be developed at every second level using a 1.5m diameter raisebore.

The design parameters for the Aphrodite Underground are shown in Table 13-16 and a layout of the underground mine is shown in Figure 13-4:

Table 13-16: Design Criteria

Criteria	Value
<b>LATERAL DEVELOPMENT</b>	
Decline	Level 5.3mW x 5.4mH
Access	Level 5.0mW x 5.0mH
Ore Drives	Level 4.5mW x 4.5mH
Other Lateral Development	Level 4.5mW x 4.5mH
<b>VERTICAL DEVELOPMENT</b>	
Escapeways	1.5m Diameter RB
Vent Rise to Surface	4.5m Diameter RB
Sub-Level Vent Rises	4.5m x 4.5m LHR
<b>STOPING</b>	
Minimum Mining Width	2.5m
Level Spacing	20.0m
Stope Strike	25.0m
Minimum Pillar Width	5.0m
Dilution	5%
In-situ Stope Recovery	95%
Rib Pillar Recovery	0%
Sill Pillar Recovery	0-60% <sup>7</sup>

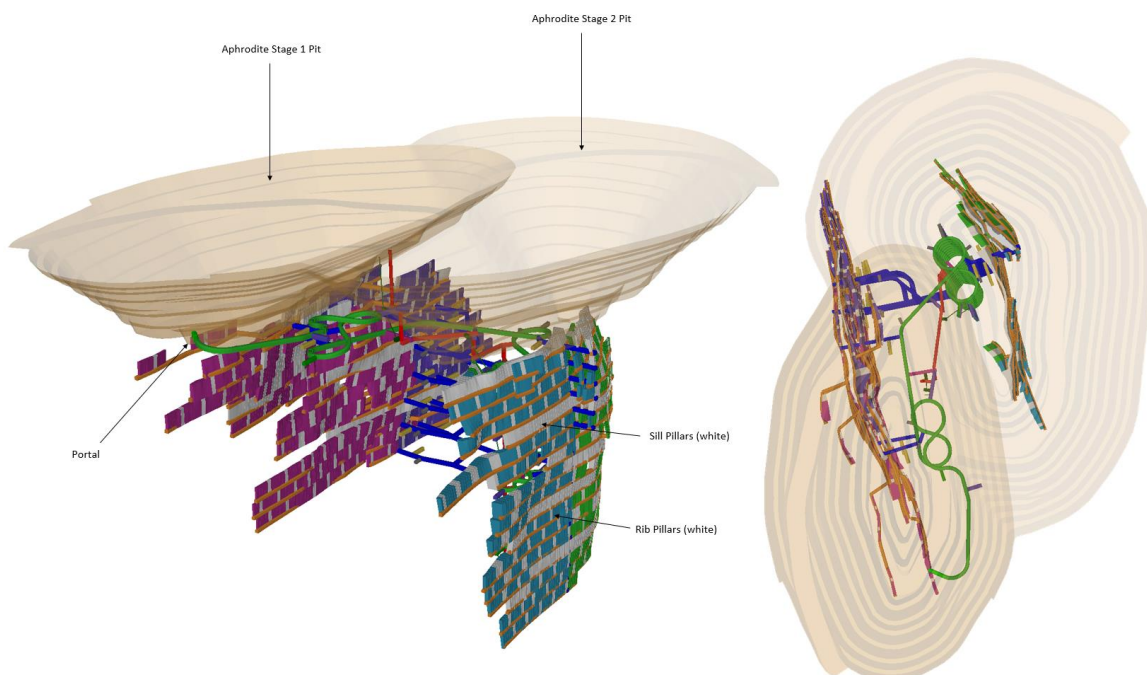


Figure 13-4: Aphrodite Underground Mine Layout

<sup>7</sup> Sill recovery dependent on stope width, strike length and surrounding mining activities

### 13.4 OPEN PIT MINING

The Bardoc open pits consist of the Excelsior, Zoroastrian, Aphrodite, Bulletin South and Mayday open pits, which will be mined using conventional open pit mining methods. It is proposed for the larger pits that 190-tonne excavators will be used with a fleet of 90-tonne dump trucks.

Open pit mining is planned on a double-shift continuous roster basis, using both a 120-tonne and a 190-tonne excavator loading 90-tonne dump trucks, with mining benches approximately 5m in height.

The 120 tonne excavator fleets are expected to commence the open pit mining of the Zoroastrian North and Bulletin South pits. 190 tonne excavator fleets will be utilised to commence the Excelsior and Aphrodite pits to service the initial waste stripping, after which each of the projects will transition back to 120 tonne excavator fleets. All other pits will utilise the 120 tonne excavator fleets.

The Resource models are regularised to Selective Mining Units (SMU), as shown Table 13-17, to replicate potential mineable blocks. The regularised models are used for the optimisations to delineate material to guide final pit designs.

**Table 13-17: Block Model Selective Mining Unit (SMU)**

PIT	Block Model Selective Mining Unit (SMU)
Excelsior	4.0mX x 8mY x 2.5mZ
Zoroastrian	2.0mX x 5.0mY x 2.5mZ
Aphrodite	2.5mX x 5.0mY x 2.5mZ
Bulletin	2.0mX x 5.0mY x 2.5mZ
Mayday	4.0mX x 5.0mY x 5.0mZ

Pit optimisations were completed on all the pits at a A\$2,000/oz gold price using DFS mining and processing costs.

The SMU regularised models are classed as a diluted model and, as such, are considered suitable for optimisation and scheduling. No additional dilution was applied. A global ore loss of 3% was applied to the optimisation and schedule.

#### 13.4.1 OPEN PIT CUT-OFF GRADES

Cut-Off Grade (COG) calculations are based on the financial modelling completed for the DFS and corporate guidance. Table 13-18 details the COG's prepared and used for the open pit deposits.

**Table 13-18: Open Pit Cut-off Grades**

Material Type	Cut-off (g/t)
<b>Excelsior</b>	
Oxide - Free Milling	0.31
Transitional - Free Milling	0.31
Fresh - Free Milling	0.35
<b>Zoroastrian North</b>	
Oxide - Free Milling	0.32
Transitional - Free Milling	0.35
Fresh - Free Milling	0.40
<b>Zoroastrian Central</b>	
Oxide - Free Milling	0.32
Transitional - Free Milling	0.33
Fresh - Free Milling	0.40
<b>Zoroastrian South</b>	
Oxide - Free Milling	0.33
Transitional - Free Milling	0.34
Fresh - Free Milling	0.42

Material Type	Cut-off (g/t)
<b>Bulletin South</b>	
Oxide - Free Milling	0.39
Transitional - Free Milling	0.40
Fresh - Free Milling	0.49
<b>Aphrodite Stage 1</b>	
Oxide - Free Milling	0.41
Transitional - Free Milling	0.44
Transitional - Refractory	0.75
Fresh - Refractory	0.79
<b>Aphrodite Stage 2</b>	
Oxide - Free Milling	0.39
Transitional - Free Milling	0.44
Transitional - Refractory	0.70
Fresh - Refractory	0.81
<b>Mayday</b>	
Oxide - Free Milling	0.44
Transitional - Free Milling	0.48
Transitional - Refractory	0.77
Fresh - Refractory	0.82

#### 13.4.2 EXCELSIOR OPEN PIT

The Excelsior Open Pit, located adjacent to the existing Zoroastrian Open Pit, is the larger of the two in this area and utilises a dual-lane ramp cresting midway along the western wall at the 435 RL and follows the western wall to the north, where it continues back on the eastern wall down to the 310RL where it transitions to a single-lane ramp to the base of pit at the 240 RL.

The planned mining is a cut-back of an open pit originally mined in this location, and the design has considered a reasonable cut-back width to practically mine the proposed open pit.

Historical mine voids at Excelsior have since been back-filled with tailings material to near the original surface RL. The removal and mining of this material has been included in the DFS.

The final design for the Excelsior pit has a strike length of 810 m and an overall pit depth of 195 m, mining a production target of 6.2Mt at 1.1 g/t Au for 215koz with an overall strip ratio of 5:1, as shown in Table 13-19. Figure 13-5 details the key design parameters and summary of the pit:

Table 13-19: Excelsior Open Pit Design Parameters and Metrics

ECONOMICS	UNIT	EXCELSIOR
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	96.7%
Recovered Gold	oz	208,100
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,428/oz</b>
<b>PHYSICALS</b>		
<b>Total Ore Tonnes</b>	<b>t</b>	<b>6,167,800</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.1</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>215,200</b>
Total Waste Tonnes	t	32,283,000
<b>Strip Ratio</b>	<b>W:O</b>	<b>5.2</b>
<b>Pit Geometry</b>		
Strike Length	m	810
Strike Width	m	445
Depth	m	195
<b>DESIGN PARAMETERS</b>		
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		4.0mX x 8mY x 2.5mZ
Mining Dilution	%	0.0% <sup>9</sup>
Mining Ore Loss	%	3.0%

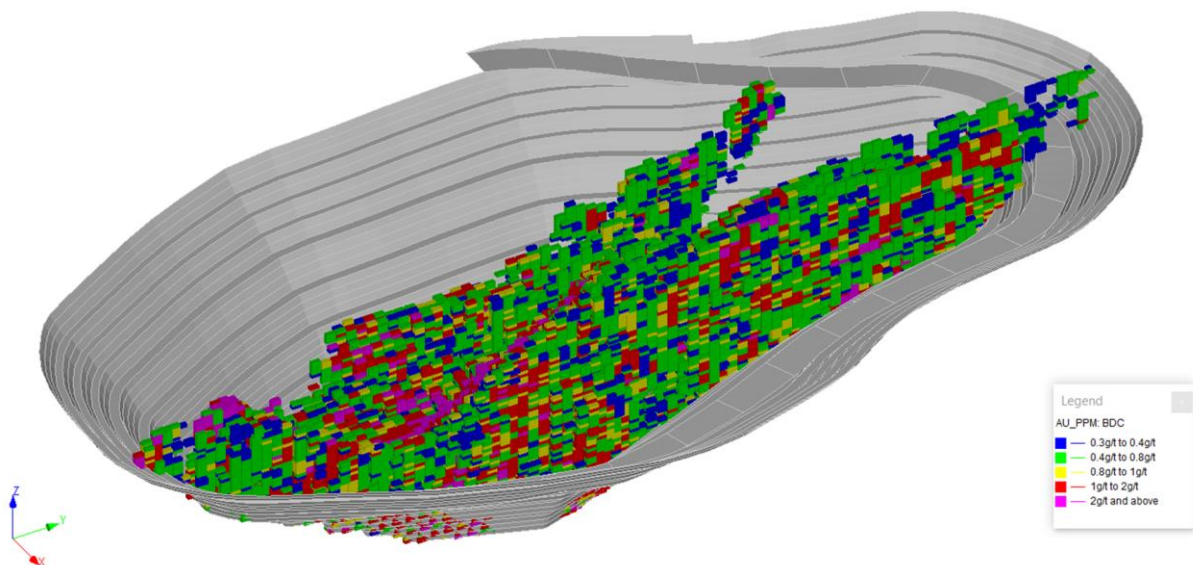


Figure 13-5: Excelsior Pit Design

<sup>8</sup> Tables are subject to rounding

<sup>9</sup> Dilution has been built into geological model

### 13.4.3 ZOROASTRIAN NORTH OPEN PIT

The Zoroastrian North Open Pit is a small cutback pit, mining the northern lode extension of the Zoroastrian complex and located to the north of the existing Central Zoroastrian Pit. The final design for the Zoroastrian North Pit has a strike length of 530 m and an overall pit depth of 125 m, mining a production target of 0.6Mt @ 1.8 g/t for 32koz with an overall strip ratio of 18:1, as shown in Figure 13-6.

The Zoroastrian North Open Pit design allows for a dual-lane access ramp, cresting to the south on the western wall at the 435 RL following the eastern wall in an anti-clockwise direction, until the 385 RL which time it is narrowed to a single-lane ramp access that continues to the base of pit at the 330 RL.

This pit will be mined first, and provides further benefit of providing a closely located future waste storage location for the Excelsior pit.

Table 13-20: Zoroastrian North Open Pit Design Parameters and Metrics

ECONOMICS	UNIT	ZOROASTRIAN NORTH
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	96.5%
Recovered Gold	oz	31,200
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,281/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>ZOROASTRIAN NORTH<sup>10</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>567,900</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.8</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>32,300</b>
Total Waste Tonnes	t	10,344,300
<b>Strip Ratio</b>	<b>W:O</b>	<b>18.2</b>
<b>Pit Geometry</b>		
Strike Length	m	530
Strike Width	m	285
Depth	m	125
<b>DESIGN PARAMETERS</b>	<b>UNIT</b>	<b>ZOROASTRIAN NORTH</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.0mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>11</sup>
Mining Ore Loss	%	3.0%

### 13.4.4 ZOROASTRIAN CENTRAL OPEN PIT

The Zoroastrian Central Open Pit is a small cutback pit, mining the eastern lode extension of the Zoroastrian complex and located to the east of the existing Central and original Zoroastrian Pit. The final design for the Zoroastrian Central Pit has a strike length of 530 m and an overall pit depth of 125 m, mining a production target of 0.3Mt at 1.5 g/t for 17koz with an overall strip ratio of 11:1, as shown in Figure 13-6. Table 13-21 details the key design parameters and summary of the pit.

The Zoroastrian Central Open Pit design allows for a single-lane access ramp, cresting to the north on the eastern wall, following the Eastern wall in a clockwise direction, until the 375RL where the ramp switches back and continues anticlockwise back along the eastern wall to the base of pit at the 340 RL. The design includes a small splay to the north, which is mined at the base of the existing Zoroastrian pit from the 390 RL down to the 375 RL. The ramp access is maintained along the western wall.

<sup>10</sup> Tables are subject to rounding

<sup>11</sup> Dilution has been built into geological model

While the northern extents of the open pit do encroach on the old surface ROM pad, the impact of this on mining activities is assumed to be minimal. While no standoff has been assumed for the movement of material away from the proposed pit crest, material within the ROM that is mined is accounted for and costed within the optimisation assessment and financial outcomes.

Table 13-21: Zoroastrian Central Design Parameters and Metrics

ECONOMICS	UNIT	ZOROASTRIAN CENTRAL
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	96.0%
Recovered Gold	oz	16,300
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,566/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>ZOROASTRIAN CENTRAL<sup>12</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>344,700</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.5</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>17,000</b>
Total Waste Tonnes	t	3,864,100
<b>Strip Ratio</b>	<b>W:O</b>	<b>11.2</b>
<b>Pit Geometry</b>		
Strike Length	m	530
Strike Width	m	285
Depth	m	125
<b>DESIGN PARAMETERS</b>	<b>UNIT</b>	<b>ZOROASTRIAN CENTRAL</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.0mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>13</sup>
Mining Ore Loss	%	3.0%

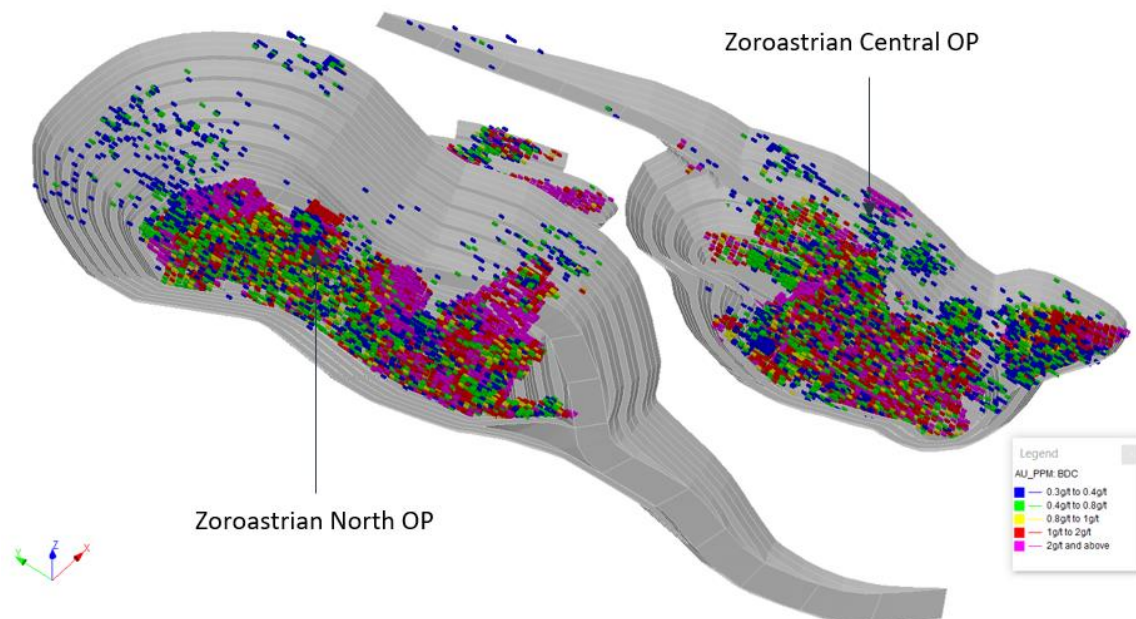


Figure 13-6: Zoroastrian North and Central Pit Design

<sup>12</sup> Tables are subject to rounding

<sup>13</sup> Dilution has been built into geological model

#### 13.4.5 ZOROASTRIAN SOUTH OPEN PIT

The Zoroastrian South Open Pit is a small pit, mining the southern lode extension of the Zoroastrian complex and located to the south of the existing Central Zoroastrian Pit. The final design for the Zoroastrian South Pit has a strike length of 510 m and an overall pit depth of 115 m, mining a production target of 0.5Mt @ 1.7 g/t for 25koz with an overall strip ratio of 13:1, as shown in Figure 13-7.

Table 13-22 details the key design parameters and summary of the pit.

The Zoroastrian South Open Pit design allows for a dual-lane access ramp, cresting to the north on the western wall at the 435 RL, following the southern wall in an anti-clockwise direction, until the 395 RL which is when the ramp switches back and continues in a clockwise direction along the southern wall where it is narrowed to a single-lane ramp access that continues to the base of pit at the 325RL.

Table 13-22: Zoroastrian South Design Parameters and Metrics

ECONOMICS	UNIT	ZOROASTRIAN SOUTH
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	96.1%
Recovered Gold	oz	24,100
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,559/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>ZOROASTRIAN SOUTH<sup>14</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>467,600</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.7</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>25,100</b>
Total Waste Tonnes	t	6,203,900
<b>Strip Ratio</b>	<b>W:O</b>	<b>13.3</b>
<b>Pit Geometry</b>		
Strike Length	m	510
Strike Width	m	285
Depth	m	115
<b>DESIGN PARAMETERS</b>	<b>UNIT</b>	<b>ZOROASTRIAN SOUTH</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.0mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>15</sup>
Mining Ore Loss	%	3.0%

<sup>14</sup> Tables are subject to rounding

<sup>15</sup> Dilution has been built into geological model

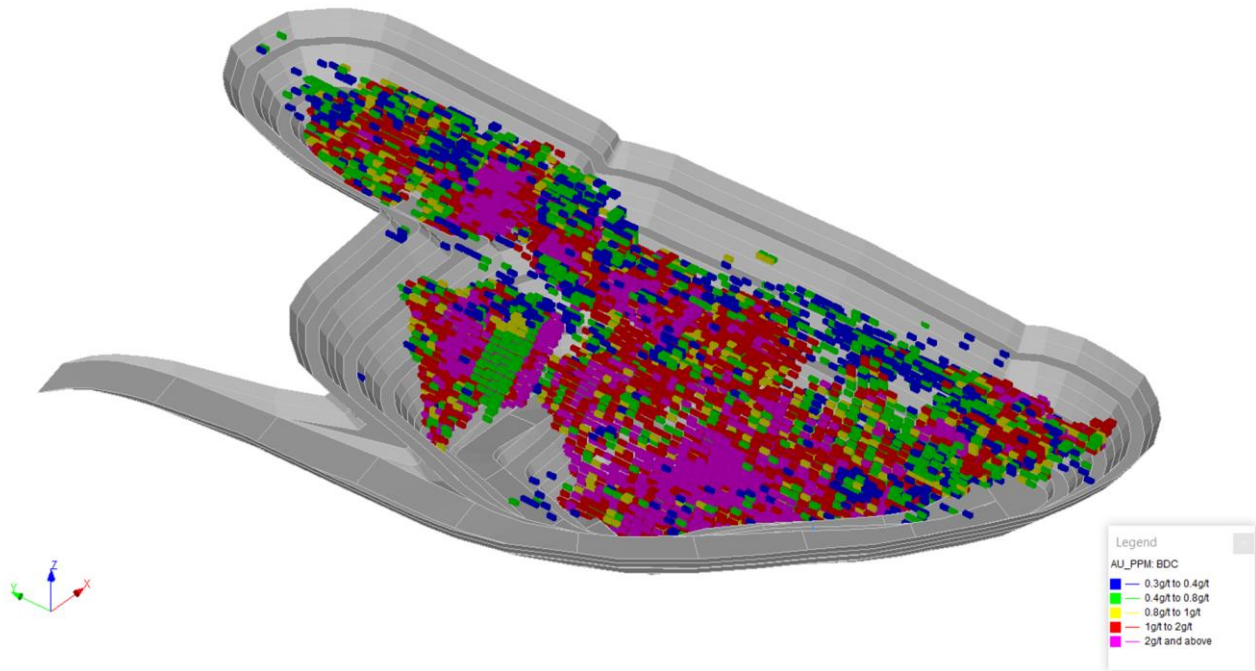


Figure 13-7: Zoroastrian South Open Pit Design

#### 13.4.6 APHRODITE OPEN PIT DESIGN

The Aphrodite Open Pit is designed to mine two prominent ore lodes, the Phi (western) and the Alpha (eastern) lode. The two prominent ore lodes create an open pit design comprising of two main mining areas, Stage 1 to the West and Stage 2 to the East with a natural saddle being created between them as a result.

Mining the pit in two stages provides a platform to access the underground mine following the completion of Stage 1, enabling Stage 2 and the underground to be mined concurrently.

The design for the Aphrodite Stage 1 Open Pit has a strike length of 585 m and an overall pit depth of 145m, mining a production target of 1.0Mt at 1.9 g/t for 62koz with an overall strip ratio of 15:1, as shown Figure 13-8.

Table 13-23 details the key design parameters and summary of the pit.

The Aphrodite Stage 1 Open Pit design allows for a dual-lane access ramp, cresting to the south on the western wall at the 385 RL, following the western wall in a clockwise direction, until the 285 RL where it is narrowed to a single-lane ramp access that continues to the base of pit at the 245RL.

Table 13-23: Aphrodite Design Parameters and Metrics

ECONOMICS	UNIT	APHRODITE STAGE 1
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	95.8%
Recovered Gold	oz	59,800
All-In Sustaining Costs	A\$/oz	\$1,438/oz
<b>PHYSICALS</b>	<b>UNIT</b>	<b>APHRODITE STAGE 1<sup>16</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>1,039,300</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.9</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>62,400</b>
Total Waste Tonnes	t	15,643,000
<b>Strip Ratio</b>	<b>W:O</b>	<b>15.1</b>
<b>Pit Geometry</b>		
Strike Length	m	585
Strike Width	m	325
Depth	m	145
<b>DESIGN PARAMETERS</b>	<b>UNIT</b>	<b>APHRODITE STAGE 1</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.5mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>17</sup>
Mining Ore Loss	%	3.0%

The final design, Stage 2 for the Aphrodite Open Pit has a strike length of 650 m and an overall pit depth of 200 m, mining a production target of 3.0Mt at 1.8 g/t for 172koz with an overall strip ratio of 9:1, as shown in Figure 13-8.

Table 13-24 details the key design parameters and summary of the pit.

The Aphrodite Stage 2 Open Pit design allows for a dual-lane access ramp, cresting to the north on the western wall at the 390 RL, following the western wall in an anticlockwise direction, until the 330 RL where it is widened to 35m wide through the saddle area to the 305 RL where the ramp then transitions back to a dual ramp following the eastern wall in an anticlockwise direction to the 265 RL where the ramp transitions to a single ramp to the base of the pit at the 190RL.

<sup>16</sup> Tables are subject to rounding

<sup>17</sup> Dilution has been built into geological model

Table 13-24: Aphrodite Design Parameters and Metrics

ECONOMICS	UNIT	APHRODITE STAGE 2
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimisation)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	94.7%
Recovered Gold	oz	162,600
All-In Sustaining Costs	A\$/oz	\$1,335/oz
<b>PHYSICALS</b>		
	<b>UNIT</b>	<b>APHRODITE STAGE 2<sup>18</sup></b>
Total Ore Tonnes	t	2,996,500
Total Ore Grade	g/t	1.8
Total Gold Ounces	oz	171,600
Total Waste Tonnes	t	27,867,800
Strip Ratio	W:O	9.3
<b>Pit Geometry</b>		
Strike Length	m	650
Strike Width	m	465
Depth	m	200
<b>DESIGN PARAMETERS</b>		
	<b>UNIT</b>	<b>APHRODITE STAGE 2</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.5mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>19</sup>
Mining Ore Loss	%	3.0%

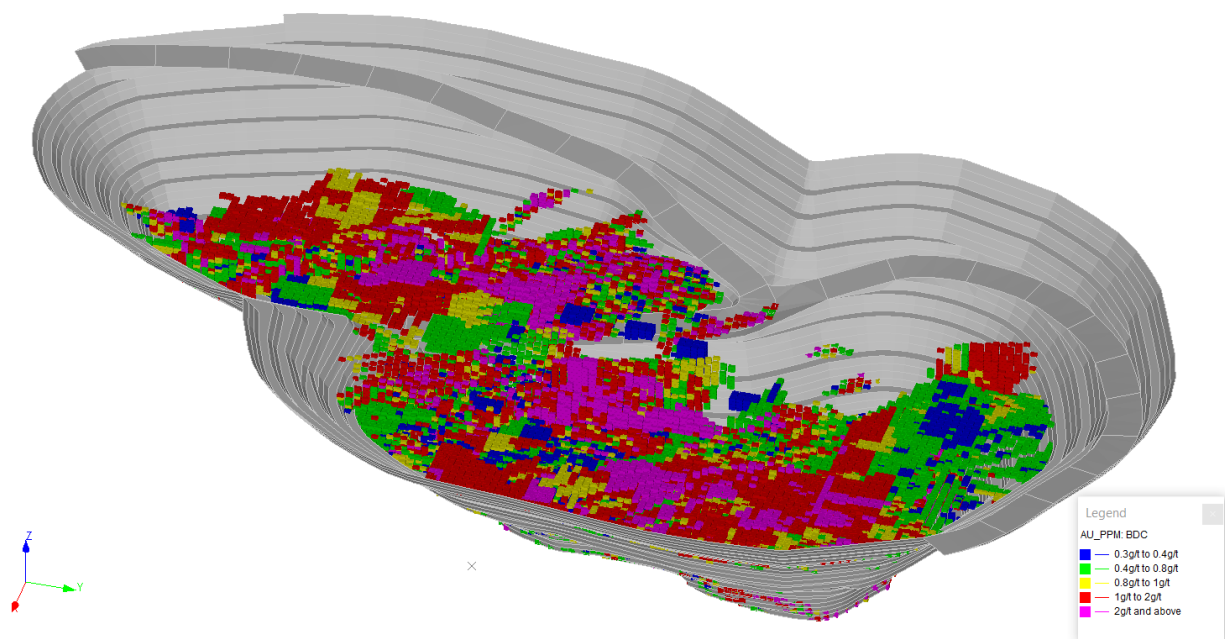


Figure 13-8: Aphrodite Pit Design

<sup>18</sup> Tables are subject to rounding

<sup>19</sup> Dilution has been built into geological model

### 13.4.7 BULLETIN SOUTH OPEN PIT

The Bulletin South Open Pit is a cut-back of an existing open pit and mines the ore body to current depth. The dual-lane access ramp crests in the north of the open pit at the 430RL and travels along the eastern wall in a clockwise direction, reducing in width to a single lane access at the 400RL as the ramp turns around the southern wall and continues along the western wall to the base of the pit.

While the eastern extents of the open pit do encroach on the surface waste dump, the impact of this on mining activities is assumed to be minimal. While no standoff has been assumed for the movement of material away from the proposed pit crest, material within the waste dump that is mined is accounted for and costed within the optimisation assessment and financial outcomes.

The final design for the Bulletin South Open Pit has a strike length of 435 m and an overall pit depth of 115 m, mining a production target of 0.6Mt at 1.9g/t Au for 37koz with an overall strip ratio of 12:1, as shown in Figure 13-9. Table 13-25 details the key design parameters and summary of the pit.

Table 13-25: Bulletin South Design Parameters and Metrics

ECONOMICS	UNIT	BULLETIN SOUTH
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimised)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	95.0%
Recovered Gold	oz	35,300
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$991/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>BULLETIN SOUTH<sup>20</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>625,000</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.9</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>37,100</b>
Total Waste Tonnes	t	7,805,365
<b>Strip Ratio</b>	<b>W:O</b>	<b>12.5</b>
<b>Pit Geometry</b>		
Strike Length	m	435
Strike Width	m	255
Depth	m	115
<b>DESIGN PARAMETERS</b>	<b>UNIT</b>	<b>BULLETIN SOUTH</b>
Ramp Gradient		1:10
Ramp Widths		15m Single Lane; 25m Double Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.0mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>21</sup>
Mining Ore Loss	%	3.0%

<sup>20</sup> Tables are subject to rounding

<sup>21</sup> Dilution has been built into geological model

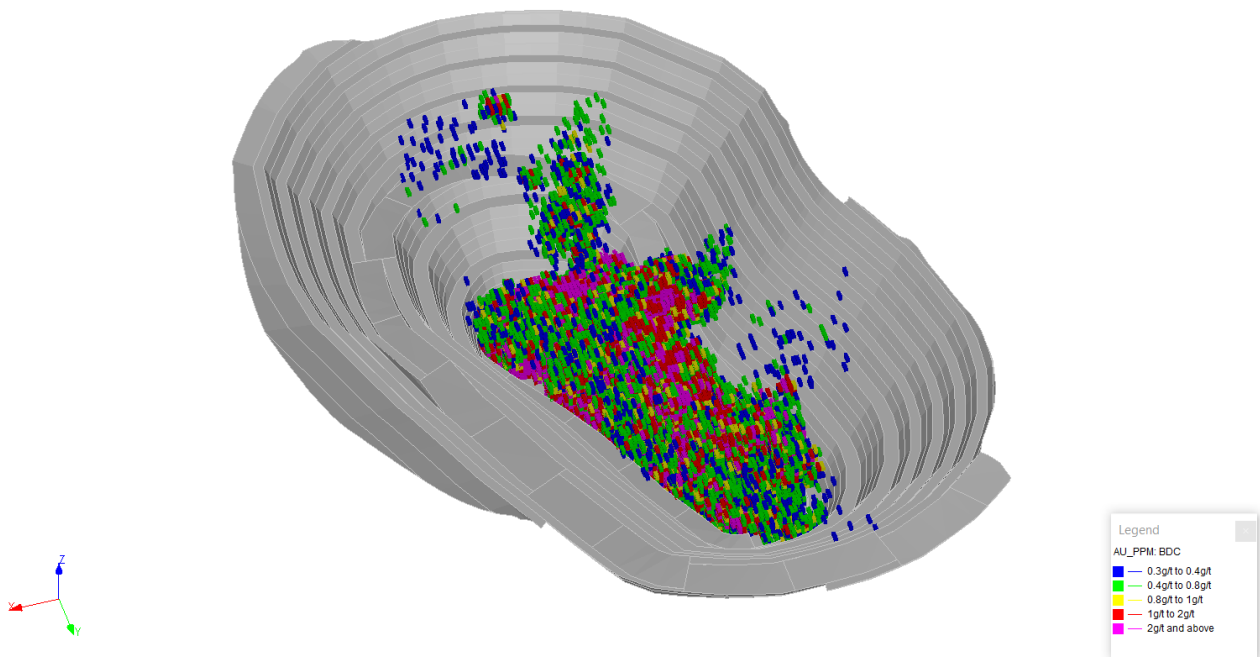


Figure 13-9: Bulletin South Pit Design

#### 13.4.8 MAYDAY OPEN PIT

The Mayday Open Pit is a cut-back of an existing open pit and mines the ore body to current depth. The single-lane access ramp crests in the north of the open pit at the 355 RL and travels along the eastern wall in a clockwise direction to the base of the pit at 270RL.

The final design for the Mayday Open Pit has a strike length of 330 m and an overall pit depth of 85 m, mining a production target of 0.6Mt at 1.6g/t Au for 33koz with an overall strip ratio of 5:1, as shown in Figure 13-10. Table 13-26 details the key design parameters and summary of the pit.

Table 13-26: Mayday Design Parameters and Metrics

ECONOMICS	UNIT	MAYDAY
<b>Parameters</b>		
Gold Price (Financial Evaluation)	A\$/oz	2,250
Gold Price (Optimised)	A\$/oz	2,000
Metallurgical Recovery (Average)	%	92.2%
Recovered Gold	oz	30,200
<b>All-In Sustaining Costs</b>	<b>A\$/oz</b>	<b>\$1,095/oz</b>
<b>PHYSICALS</b>	<b>UNIT</b>	<b>MAYDAY<sup>22</sup></b>
<b>Total Ore Tonnes</b>	<b>t</b>	<b>622,100</b>
<b>Total Ore Grade</b>	<b>g/t</b>	<b>1.6</b>
<b>Total Gold Ounces</b>	<b>oz</b>	<b>32,800</b>
Total Waste Tonnes	t	3,036,100
<b>Strip Ratio</b>	<b>W:O</b>	<b>4.9</b>
<b>Pit Geometry</b>		
Strike Length	m	330
Strike Width	m	225
Depth	m	85

<sup>22</sup> Tables are subject to rounding

DESIGN PARAMETERS	UNIT	MAYDAY
Ramp Gradient		1:10
Ramp Widths		15m Single Lane
Bench Height		5m
Minimum Mining Width		20m
Block Model Selective Mining Unit (SMU)		2.0mX x 5.0mY x 2.5mZ
Mining Dilution	%	0.0% <sup>23</sup>
Mining Ore Loss	%	3.0%

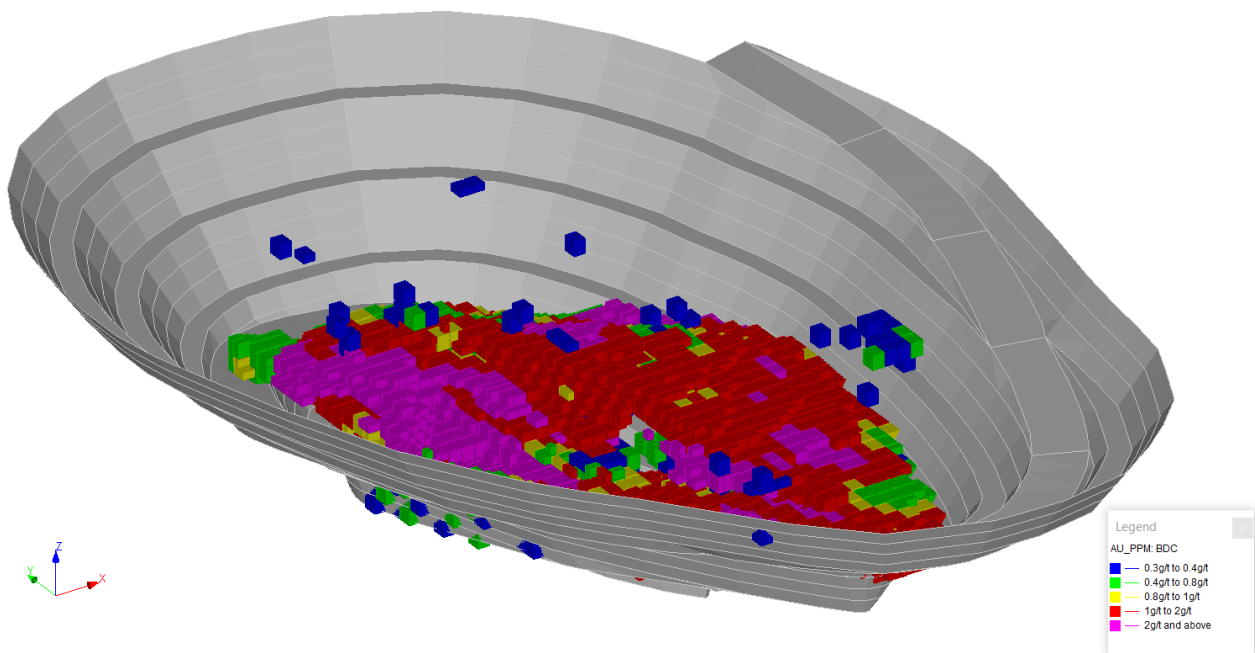


Figure 13-10: Mayday Pit Design

### 13.5 MINE SCHEDULING

The resulting mine schedule for the seven open pit operations and two underground operations is shown in Table 13-27. The mine schedule considers the initial mining of free-milling material from the Zoroastrian North and Bulletin South Open Pit projects, before commencing Excelsior Open Pit and Zoroastrian Underground, once the processing plant has been commissioned. The refractory material from Aphrodite commences in Year 4. This mining schedule shows an average 2.2Mt of ore mined each year, with a peak of 3.5Mt mined in year 4, when the tail of Excelsior Open Pit and Zoroastrian underground is being mined concurrently with the tail of Aphrodite Stage 1 and commencement of Aphrodite Underground and Aphrodite Stage 2. Additional satellite pits not discussed within this DFS are available to be included to improve on the existing schedules if required.

<sup>23</sup> Dilution has been built into geological model

Table 13-27: Bardoc Project Mining Schedule

Item	Unit	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	LOM
<b>Open Pit</b>	kt	<b>126</b>	<b>1,691</b>	<b>1,844</b>	<b>3,180</b>	<b>1,578</b>	<b>549</b>	<b>2,117</b>	<b>1,054</b>	<b>667</b>	<b>25</b>	<b>12,831</b>
	g/t Au	<b>1.0</b>	<b>1.5</b>	<b>1.0</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.7</b>	<b>2.0</b>	<b>1.7</b>	<b>2.4</b>	<b>1.4</b>
Excelsior	kt	-	625	1,844	2,488	1,212	-	-	-	-	-	6,168
	g/t Au	-	0.9	1.0	1.1	1.2	-	-	-	-	-	1.1
Zoroastrian North	kt	43	525	-	-	-	-	-	-	-	-	568
	g/t Au	0.8	1.8	-	-	-	-	-	-	-	-	1.8
Zoroastrian Central	kt	-	-	-	-	-	-	276	69	-	-	345
	g/t Au	-	-	-	-	-	-	1.4	2.2	-	-	1.5
Zoroastrian South	kt	-	-	-	-	-	-	-	398	70	-	468
	g/t Au	-	-	-	-	-	-	-	1.4	2.9	-	1.7
Bulletin South	kt	83	542	-	-	-	-	-	-	-	-	625
	g/t Au	1.2	2.0	-	-	-	-	-	-	-	-	1.8
Aphrodite Stage 1	kt	-	-	-	692	347	-	-	-	-	-	1,039
	g/t Au	-	-	-	1.9	1.9	-	-	-	-	-	1.9
Aphrodite Stage 2	kt	-	-	-	-	19	549	1,841	587	-	-	2,997
	g/t Au	-	-	-	-	1.2	1.2	1.7	2.4	-	-	1.8
Mayday	kt	-	-	-	-	-	-	-	-	597	25	622
	g/t Au	-	-	-	-	-	-	-	-	1.6	2.4	1.6
<b>Underground</b>	kt	-	<b>271</b>	<b>545</b>	<b>318</b>	<b>230</b>	<b>932</b>	<b>947</b>	<b>969</b>	<b>615</b>	-	<b>4,827</b>
	g/t Au	-	<b>2.9</b>	<b>3.6</b>	<b>4.1</b>	<b>2.9</b>	<b>3.1</b>	<b>3.4</b>	<b>3.8</b>	<b>4.4</b>	-	<b>3.6</b>
Aphrodite UG	kt	-	-	-	-	230	932	947	969	615	-	3,693
	g/t Au	-	-	-	-	2.9	3.1	3.4	3.8	4.4	-	3.6
Zoroastrian UG	kt	-	271	545	318	-	-	-	-	-	-	1,134
	g/t Au	-	2.9	3.6	4.1	-	-	-	-	-	-	3.6
<b>Total</b>	kt	<b>126</b>	<b>1,962</b>	<b>2,388</b>	<b>3,498</b>	<b>1,808</b>	<b>1,481</b>	<b>3,064</b>	<b>2,023</b>	<b>1,282</b>	<b>25</b>	<b>17,658</b>
	g/t Au	<b>1.0</b>	<b>1.7</b>	<b>1.6</b>	<b>1.5</b>	<b>1.5</b>	<b>2.4</b>	<b>2.2</b>	<b>2.9</b>	<b>3.0</b>	<b>2.4</b>	<b>2.0</b>

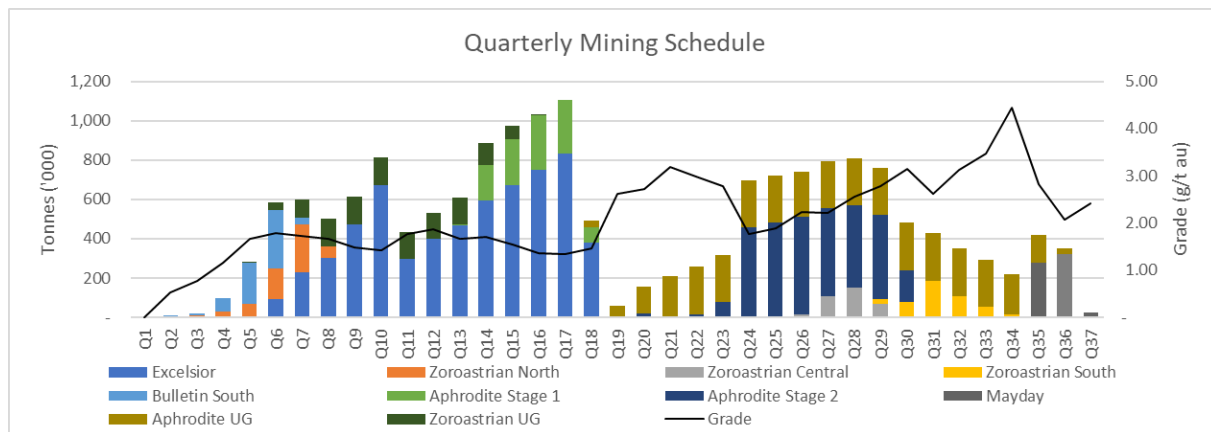


Figure 13-11: Bardoc Gold Project Mining Schedule (Quarterly) by Area

Table 13-28: Bardoc Project Processing Schedule

Item	Unit	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	LOM
<b>Open Pit</b>	<b>kt</b>	-	<b>1,751</b>	<b>1,725</b>	<b>1,914</b>	<b>1,905</b>	<b>1,276</b>	<b>1,273</b>	<b>1,230</b>	<b>1,505</b>	<b>252</b>	<b>12,831</b>
	<b>g/t Au</b>	-	<b>1.5</b>	<b>1.0</b>	<b>1.6</b>	<b>1.3</b>	<b>0.9</b>	<b>1.9</b>	<b>1.8</b>	<b>1.5</b>	<b>1.5</b>	<b>1.4</b>
	<b>%</b>	-	<b>95.9</b>	<b>97.0</b>	<b>96.7</b>	<b>96.2</b>	<b>95.4</b>	<b>94.1</b>	<b>95.7</b>	<b>93.9</b>	<b>95.4</b>	<b>95.6</b>
Excelsior	Kt	-	625	1,698	1,468	1,254	874	-	182	68	-	6,168
	g/t Au	-	0.9	1.1	1.5	1.2	0.7	-	0.7	0.7	-	1.1
	%	-	97.0	97.0	97.0	96.6	95.3	-	95.3	95.3	-	96.7
Zoroastrian North	kt	-	539	13	16	-	-	-	-	-	-	568
	g/t Au	-	1.8	0.8	0.8	-	-	-	-	-	-	1.8
	%	-	96.5	96.7	96.7	-	-	-	-	-	-	96.5
Zoroastrian Central	Kt	-	-	-	-	-	-	241	103	-	-	345
	g/t Au	-	-	-	-	-	-	1.5	1.7	-	-	1.5
	%	-	-	-	-	-	-	96.3	95.3	-	-	96.0
Zoroastrian South	Kt	-	-	-	-	-	-	-	398	70	-	468
	g/t Au	-	-	-	-	-	-	-	1.4	2.9	-	1.7
	%	-	-	-	-	-	-	-	96.5	94.9	-	96.1
Bulletin South	Kt	-	587	13	22	2	-	-	-	-	-	625
	g/t Au	-	1.9	0.8	0.8	0.8	-	-	-	-	-	1.8
	%	-	95.0	95.0	95.0	95.0	-	-	-	-	-	95.0
Aphrodite Stage 1	Kt	-	-	-	409	630	-	-	-	-	-	1,039
	g/t Au	-	-	-	2.2	1.7	-	-	-	-	-	1.9
	%	-	-	-	95.9	95.7	-	-	-	-	-	95.8
Aphrodite Stage 2	Kt	-	-	-	-	19	402	1,032	546	771	227	2,997
	g/t Au	-	-	-	-	1.2	1.4	2.0	2.4	1.3	1.3	1.8
	%	-	-	-	-	95.8	94.5	93.7	95.4	95.5	95.4	94.8
Mayday	Kt	-	-	-	-	-	-	-	-	597	25	622
	g/t Au	-	-	-	-	-	-	-	-	1.6	2.4	1.6
	%	-	-	-	-	-	-	-	-	92.0	95.4	92.2
<b>Underground</b>	<b>Kt</b>	-	<b>271</b>	<b>545</b>	<b>318</b>	<b>230</b>	<b>932</b>	<b>947</b>	<b>969</b>	<b>615</b>	-	<b>4,827</b>
	<b>g/t Au</b>	-	<b>2.9</b>	<b>3.6</b>	<b>4.1</b>	<b>2.9</b>	<b>3.1</b>	<b>3.4</b>	<b>3.8</b>	<b>4.4</b>	-	<b>3.6</b>
	<b>%</b>	-	<b>94.8</b>	<b>94.7</b>	<b>94.7</b>	<b>95.7</b>	<b>95.6</b>	<b>95.6</b>	<b>95.5</b>	<b>95.6</b>	-	<b>95.4</b>
Aphrodite UG	Kt	-	-	-	-	230	932	947	969	615	-	3,693
	g/t Au	-	-	-	-	2.9	3.1	3.4	3.8	4.4	-	3.6
	%	-	-	-	-	95.7	95.6	95.6	95.5	95.6	-	95.6
Zoroastrian UG	Kt	-	271	545	318	-	-	-	-	-	-	1,134
	g/t Au	-	2.9	3.6	4.1	-	-	-	-	-	-	3.6
	%	-	94.8	94.7	94.7	-	-	-	-	-	-	94.7
<b>Total</b>	<b>Kt</b>	-	<b>2,022</b>	<b>2,269</b>	<b>2,233</b>	<b>2,135</b>	<b>2,208</b>	<b>2,220</b>	<b>2,199</b>	<b>2,120</b>	<b>252</b>	<b>17,658</b>
	<b>g/t Au</b>	-	<b>1.7</b>	<b>1.6</b>	<b>2.0</b>	<b>1.5</b>	<b>1.8</b>	<b>2.6</b>	<b>2.7</b>	<b>2.3</b>	<b>1.5</b>	<b>2.0</b>
	<b>%</b>	-	<b>95.7</b>	<b>95.8</b>	<b>96.1</b>	<b>96.1</b>	<b>95.5</b>	<b>94.9</b>	<b>95.6</b>	<b>94.8</b>	<b>95.4</b>	<b>95.5</b>

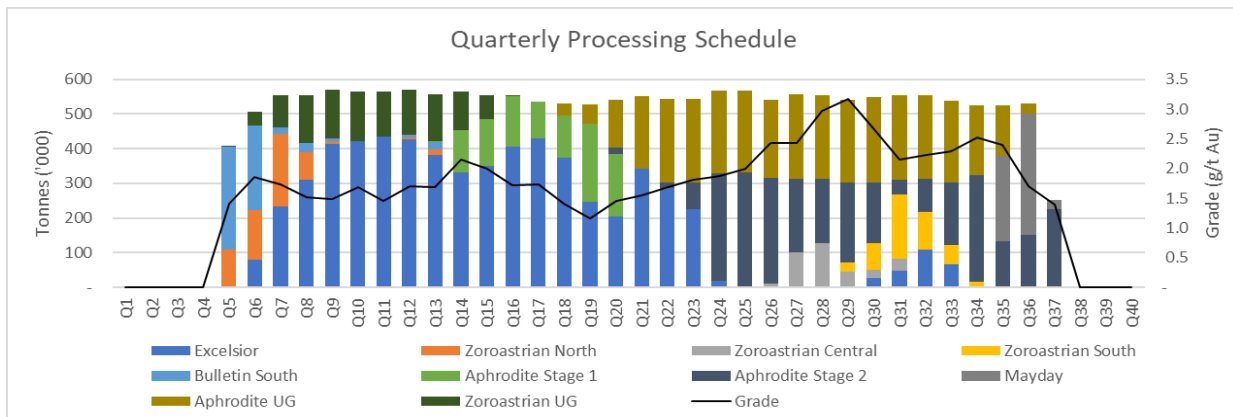
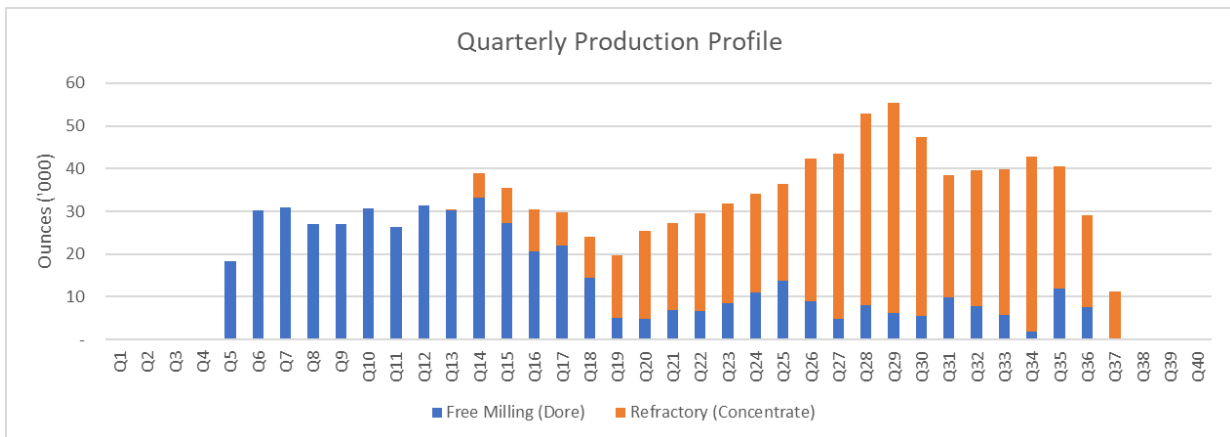


Figure 13-12: Bardoc Gold Project Processing Schedule (Quarterly) by Area



**Figure 13-13: Gold Produced (Dore & Concentrate)**

## 14 METALLURGY

In March 2020, Bardoc engaged Strategic Metallurgy to undertake a metallurgical testwork program to a DFS standard. Samples from Excelsior, Zoroastrian, Aphrodite and Mayday were included in the program. The works built on the current metallurgical body of knowledge to provide the following:

- Sample selection to understand the variability within each ore body with respect to weather and/or lithologies;
- Mineralogy of each main ore body to understand gold deportment, mineral make-up and liberation characteristics;
- Comprehensive comminution program to allow for the sizing and selection of the crushing and grinding circuit;
- Gravity gold recovery and cyanidation of the free milling and refractory ore bodies to determine optimal grind size and leach conditions and development of recovery models;
- Flotation testwork to determine the optimal flotation flowsheet, conditions (ie grind size, reagent types, addition rates, residence time), locked cycle tests to confirm circuit stability and variability tests to understand performance across the ore body spatially and at depth and development of flotation recovery models;
- Material characterisation of the feed for plant design and the concentrate for the sales process and vendor specific testwork including thickening and filtration; and
- Generation of tailings of the main ore and weathering zones samples for characterisation and tailings storage facility design.

Each deposit has been tested at various points in time. Excelsior, Zoroastrian, Bulletin South and Mayday have all been processed via cyanidation processes. Historical testwork and operational results for Excelsior, Zoroastrian and Bulletin South have demonstrated ore with free-milling characteristics. Mayday oxide, Mayday transitional, Aphrodite oxide and Alpha lode transitional material also demonstrate free-milling characteristics.

Aphrodite Phi Transitional and Primary lodes gold is predominately associated with pyrite and arsenopyrite and responds favourable to froth flotation. The DFS determined the optimal flowsheet configuration to produce a valuable saleable concentrate.

All of the testwork was conducted in site water.

## 14.1 COMMINUTION

The results of the current and historical comminution results presented in the table below represents the 85th percentile design point. The ore is typical of greenstone belt ores and is moderately hard with softer oxidized/transitional zones. The comminution circuit has been sized on the fresh ore hardness, therefore when processing a blend of fresh ore with the softer oxide and transitional ore a higher throughput is achievable.

Table 14-29: Comminution Testwork

Composite	Units	85 <sup>th</sup> Percentile
UCS	MPa	78.0
CWi	kWh/t	9.3
BRWi	kWh/t	20.1
BBWi	kWh/t	16.6
Ai	kg/kWh	0.13
		15 <sup>th</sup> Percentile
SMC (A x b)		37.0

## 14.2 CIL PROCESSING

Ore from the Excelsior, Zoroastrian, Bulletin South deposits and Aphrodite oxide and Mayday oxide weathering zones all exhibit typical free-milling responses to cyanidation with high gold recoveries. Aphrodite Alpha and Mayday transitional are also free milling albeit at a slightly lower recovery.

The testwork demonstrated at a grind size of P<sub>80</sub> 106 to P<sub>80</sub> 75 µm a CIL circuit with 24 hours residence time will produce high gold extraction rates. Nominal cyanide consumption rates of (0.24 to 0.35 kg/t) and lime consumption (1.7 to 3.2 kg/t) were observed, which is inline with typical Western Australian Goldfields ranges.

Recovery models were established directly from the testwork results and do not have any scaling factors unless specifically stated. The models are described below:

Excelsior gold recovery models were developed from historic and DFS testwork. Note [Au] is the gold head grade:

- Excelsior oxide and transition ores: recovery function of head grade:  $([Au] - (0.003[Au] + 0.023))/[Au]$ ; and,
- Excelsior primary ore: recovery function of head grade:  $([Au] - (0.014[Au] + 0.022))/[Au]$ .

Zoroastrian gold recovery models were developed from historic and DFS testwork. The oxide and transitional model also included 14 samples taken during toll milling campaigns at Paddington in 2016:

- Zoroastrian oxide and transition ores: recovery function of head grade:  $([Au] - (0.0245[Au] + 0.01))/[Au]$ ; and,
- Zoroastrian primary ore: recovery function of head grade:  $([Au] - (0.058[Au] - 0.019))/[Au]$ .

Aphrodite oxide and alpha transitional models were based on historic testwork:

- Aphrodite oxide ore: fixed tail grade of 0.05 g/t Au; and,
- Aphrodite Alpha transitional: fixed recovery 89.4%

Bulletin South ore has been processed in the past via conventional CIL. A fixed recovery of 95% has been used which is conservative given the lab testwork result of 98.1% but this is due to limited sample numbers.

Mayday oxide and transitional ore has been processed in the past via a conventional CIL process. Oxide uses a fixed tail of 0.05 g/t Au and Mayday transitional ore has a fixed recovery of 89.4%, discounted from the lab testwork result of 91.4% due to limited sample numbers.

Table 14-30: Free Milling Recoveries

Ore Source	Mined Tonnes (Mt)	Mined Au Grade (g/t)	Modelled LOM Gold Recovery (%)	Testwork Au Recovery (%)
Excelsior Oxide	1.6	1.06	97.0	95.2 – 99.4
Excelsior Transition	1.7	1.13	97.0	96.1 – 98.7
Excelsior Primary	2.8	1.07	96.4	93.9 – 97.5
Zoroastrian Oxide	0.5	1.23	96.7	92.2 – 98.7
Zoroastrian Transition	0.5	1.81	97.0	84.7 – 98.7
Zoroastrian Primary	0.4	2.00	95.1	94.8 – 95.5
Zoroastrian Underground Primary	1.5	3.41	94.7	94.8 – 95.5
Aphrodite Oxide	0.7	1.26	96.0	97.4
Aphrodite Transitional Free Milling	0.5	1.52	89.4	84.8 – 98.9
Bulletin South Oxide	0.1	1.34	95.0	-
Bulletin South Transition	0.3	1.54	95.0	-
Bulletin South Fresh	0.3	2.34	95.0	98.1
Mayday Oxide	0.1	1.48	96.6	-
Mayday Transition	0.4	1.60	89.4	91.4

### 14.3 FLOTATION

Several Aphrodite samples were used to produce composites in the DFS flotation testwork program. The tests have covered spatial variability samples as well as the respective lithologies at different locations. The objective was to develop a flowsheet that maximises gold recovery to the concentrate whilst minimising mass recovery.

A simple bulk sulphide flotation process with roughing, cleaning, cleaner scavenger and recleaning stages was determined to be the optimal flowsheet. The flowsheet utilises conventional sulphide flotation reagents using copper sulphate to activate the iron sulphides, sodium isobutyl xanthate (SIBX) as a collector and methyl isobutyl carbinol (MIBC) as a frother. The laboratory flotation times were 12 minutes for the roughers, 9 minutes for cleaner and recleaner stages and 6 minutes for the cleaner scavenger stage. Testwork has indicated that a primary grind size distribution  $P_{80}$  of 75  $\mu\text{m}$  was optimal for liberation and flotation kinetics and negates the need for a regrinding circuit.

Laboratory batch flotation test results (ie tailings not recycled) subjected to this flowsheet produced a high gold recovery greater than 91% (range of 91.1% to 95.6%) for all samples except for Composite 6 which was 87.3% (Table 14-31). This sample had one of the highest cyanide soluble content (>40%) and leaching the flotation tail resulted in a total recovery of 94%. The locked cycle tests (ie recycling tailings streams in-line with the full scale plant) using composites represent the early stages and final stages of the project produced an average gold recovery of 95.5%.

Table 14-31: Flotation Testwork Results

Composite	Head Grade			Concentrate						
	Au (g/t)	As (%)	S (%)	Mass Recovery (%)	Au Recovery (%)	Au Grade (g/t)	As Recovery (%)	As Grade (%)	S Recovery (%)	S Grade (%)
1	4.46	0.20	3.5	8.4	94.2	47.8	94.6	2.2	96.2	40.2
2	1.45	0.06	2.9	7.1	93.9	19.0	91.2	0.8	97.4	39.9
3	7.59	0.66	3.1	8.4	95.6	86.0	94.7	7.4	96.8	35.5
4	2.30	0.39	2.8	7.1	95.4	31.1	94.5	5.2	96.2	38.5
5	1.70	0.31	2.9	7.6	93.4	20.8	93.4	3.8	96.6	36.8
6	4.27	0.22	1.5	5.0	87.2	74.7	89.2	3.9	92.1	27.6
7	1.88	0.11	1.4	4.1	91.1	42.2	89.7	2.4	94.3	33.4

Composite	Head Grade			Concentrate						
	Au (g/t)	As (%)	S (%)	Mass Recovery (%)	Au Recovery (%)	Au Grade (g/t)	As Recovery (%)	As Grade (%)	S Recovery (%)	S Grade (%)
8	4.88	0.76	3.7	10.5	94.6	43.9	95.7	7.0	97.7	34.5
9	4.86	0.19	2.9	7.9	91.4	56.3	91.8	2.2	94.1	35.0
16	5.95	0.23	1.9	5.9	94.8	96.2	94.8	3.7	95.3	30.3
17	5.67	0.53	1.8	6.1	94.7	88.2	96.4	8.3	96.4	29.2
19	5.82	0.27	2.8	7.2	94.5	76.6	95.8	3.5	97.5	37.6
24	4.68	0.15	1.9	6.1	94.8	73.0	93.9	2.4	96.6	30.3
Stage 1 LCT	1.85	0.27	2.2	5.9	96.3	30.2	97.1	4.4	94.3	34.9
Stage 4 LCT	4.28	0.27	2.6	7.3	94.7	55.5	95.9	3.6	98.0	35.3

(note: LCT is locked cycle test)

From this testwork models were developed which utilise sulphur, gold and arsenic feed grades to determine the mass, gold and arsenic recoveries and the grades of gold and arsenic in the concentrate. These were applied to the geological models to determine the modelled life of mine flotation performance (Table 14-32). The quarterly modelled concentrate quality overtime is shown in Figure 14-14.

The high gold recovery typically allows for the flotation tails to be sent directly to the TSF, bypassing the leaching circuit which results in operating cost savings. The circuit design does allow for flexibility to direct flotation tailings to the leaching circuit should it become economical (ie if treating material such as Composite 6).

Table 14-32: LOM Modelled Concentrate

PRODUCT	Mass	Gold		Arsenic Grade
	%	g/t	%dist	%
LOM Concentrate	4.3	64.5	95.6	2.4

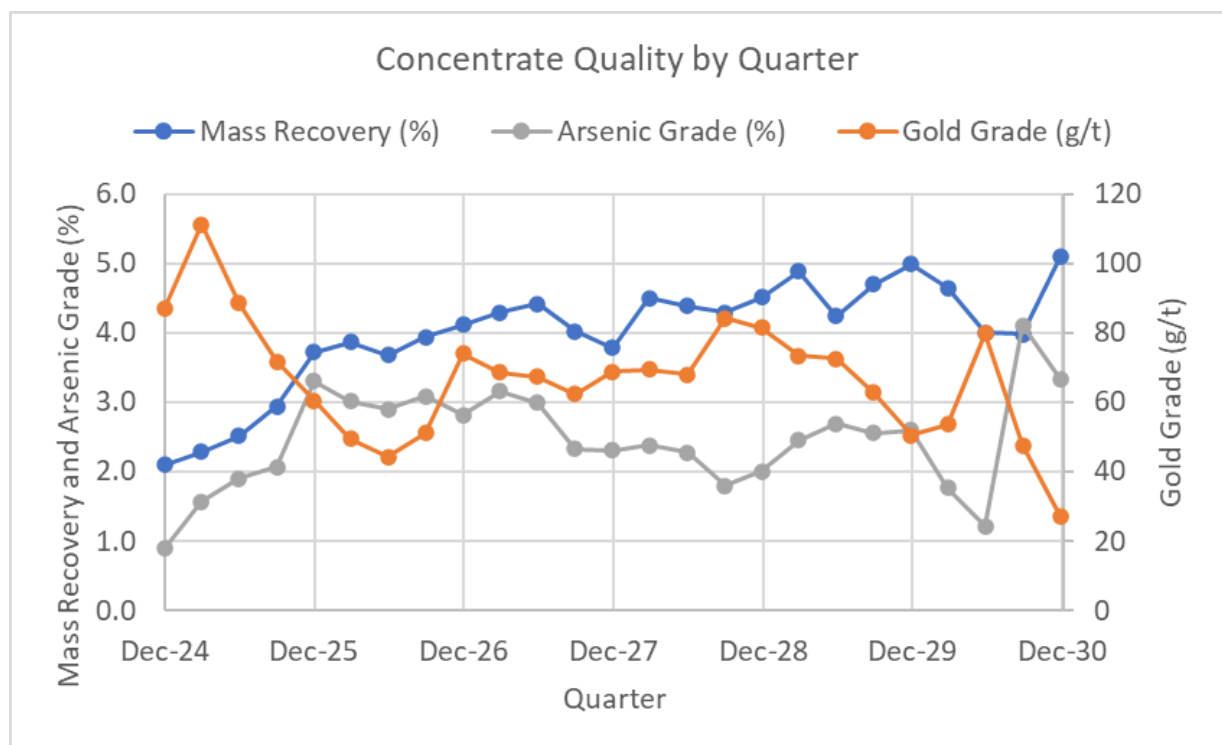


Figure 14-14: Concentrate Quality Over the Life of Mine

Bardoc has completed a comprehensive and competitive offtake tender process and has signed a binding offtake agreement with MRI Trading AG (MRI), the world's largest independent (non-asset holding) trader of non-ferrous concentrates. MRI trades over 2 Mt/pa and operates a large blending facility in Port Klang, Malaysia. Oz Minerals and Silver Lake Resources, amongst others, currently supply MRI with concentrate. Concentrate sales terms have been agreed as part of this process regarding gold payability, concentrate penalties and treatment charges. These indicative terms have been used as a basis of evaluation of concentrate value and recovery in the DFS.

Material characterisation work was conducted from both a dewatering and concentrate shipping perspective. The concentrate showed to thicken and filter well and the chlorine from the process water was removed with 0.3 m<sup>3</sup> of potable water per tonne of concentrate, which is in-line with expectations.

The concentrate characterisation was conducted on a bulk concentrate most representative sample of the Aphrodite life-of-mine production. The concentrate was deemed not applicable for Class 4 dangerous goods (division 4.1, 4.2 or 4.3). Class 6 (toxic substances), Class 8 dangerous good (corrosive substance) or Class 9 (environmentally hazardous substances) classifications.

## **15 PROCESS PLANT**

The Bardoc Processing Plant is designed to treat both free-milling and refractory ore. The plant will be designed for construction in two stages. Stage 1 will consist of CIL processing, while Stage 2 is an upgrade to include the flotation and dewatering circuits to treat the Aphrodite refractory material to be mined in year 2. Concentrate generated from the flotation circuit will be sold into a concentrate sale agreement as described in Section 2.

The Bardoc Stage 1 Processing Plant has been designed to treat free-milling ore from multiple sources. The plant design is based on a nominal throughput of 2.1 Mtpa. The mill throughput rate, based on 8,000 operating hrs per annum (91.3% availability), is 262.5 t/h. The comminution circuit is designed for processing the harder fresh ore. When processing a blend that includes oxide and transitional a higher throughput will be achieved. The downstream circuit design allows this higher throughput.

The circuit comprises of:

- Primary Jaw crushing capable of operating at a nominal rate of 300 t/h (based on 80% availability). The crusher product size is targeted at 80% passing 125mm to provide suitable lump size for autogenous grinding;
- A surge bin with cast off radial stacker conveyor to generate separate refractory and free milling stockpiles;
- A SAG mill which is a 6.7m (IS) diameter by 4.7m (EGL) long and powered by a 4,100kW variable speed motor. A polyurethane trommel screen will remove oversize and direct them to the pebble crushing circuit;
- A pebble crusher with a 132kW motor and operated with a closed sized setting of 13mm, which discharges into the SAG mill feed conveyor;
- A Ball mill which is a 5.5m (IS) diameter by 8.7m (EGL) long and powered by a 4,100kW variable speed motor. A 12mm aperture polyurethane trommel screen will remove oversize and deposit it into the scats bunker;
- Classification with cyclones with a portion of the underflow reporting to the gravity separation and intensive leach circuit;
- A 22m diameter leach feed thickener;
- Carbon in leach (CIL) comprising of six simultaneous leach and adsorption tanks. The total circuit residence time will be 24 hours comprised of 6 x 1,440m<sup>3</sup> tanks (live volume);

- 
- A 22m tailings thickener and tailings disposal pumps;
  - An elution circuit which is a 5 tonne Pressure Zadra system comprising of acid and elution columns, electrowinning cells, gold room and carbon regeneration kiln; and
  - Reagent, water and air services.

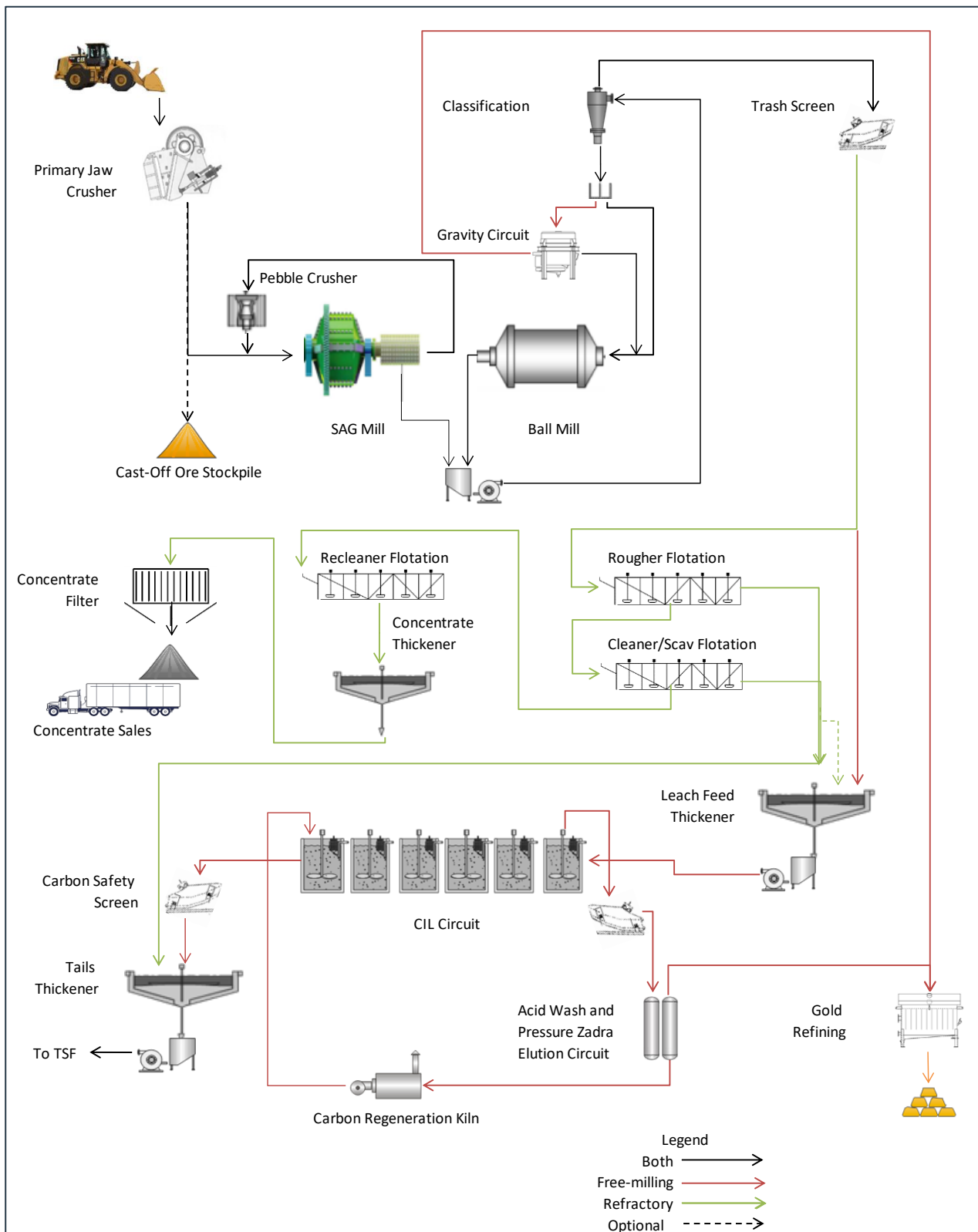
Stage 2 will require the addition of the following circuits:

- Flotation circuit consisting of a rougher and cleaner conditioning tanks, five 50 m<sup>3</sup> rougher tank cells, five 8 m<sup>3</sup> cleaner u-shape cells, two 8 m<sup>3</sup> cleaner scavenger u-shape cells and four 8 m<sup>3</sup> recleaner u-shape cells
- Concentrate thickener, pressure filter and storage shed;
- On Stream Analyser;
- Cyanide destruction circuit for the recycled process water streams; and
- Flotation reagent and service upgrades.

The Process Plant general arrangements from the 3D model and the Stage 2 process flow sheet is shown in Figure 15-15 and Figure 15-16.

Figure 15-15: Process Plant Site Layout





**Figure 15-16: Stage 1 and Stage 2 Process Flow Sheet**

## 16 TAILINGS STORAGE FACILITY

The Project Tailings Storage Facility (TSF) was designed by ATC Williams in accordance with the Department of Mines, and Petroleum guideline on “Tailings Storage Facilities in Western Australia - Code of Practice” (2013) and the Australian National Committee on Large Dams (ANCOLD) ‘Guidelines on tailings dams – Planning, design, construction, operation and closure’ (2012).

The life of project tailings plan is to deposit into the integrated waste landform (IWL) TSF for the first three years and then direct tailings to Excelsior pit once mining is complete (Table 16-33). For contingency, the IWL TSF has been designed for 5 years capacity and a TSF south option has been developed, which has two cells each with 1 year capacity.

Table 16-33: Life of Mine Tailings Strategy

Option	Volume (Mm <sup>3</sup> )	Capacity (years)
IWL TSF Stage 1	2.6	1.5
IWL TSF Stage 2	2.4	1.5
Excelsior Pit	11.5	7.0
Contingency Options	Volume (Mm <sup>3</sup> )	Capacity (years)
IWL TSF Stage 3	3.0	2.0
TSF South Cell 1	1.7	1.0
TSF South Cell 2	1.7	1.0

The initial tailings storage facility is an integrated waste landform (IWL), which utilizes the existing waste dump and old TSF. The IWL TSF consists of a stage 1 facility and two subsequent downstream lifts named stage 2 and stage 3. Although only the first two stages will be used the total capacity is 5 years with the capacity of each stage shown in Table 16-33. The TSF covers 78 hectares.

The embankment wall will be formed from four zones as described below. Suitable material sources have been identified on site or will be generated from mining.

- Zone 1A low permeability layer (Clay) – installed on the upstream face of the stage 1 TSF to prevent lateral seepage through the embankment;
- Zone 1B oxide waste rock – underneath zone 1 in stage 1 to further reduce seepage and for use on the upstream face of during stage 2 and 3;
- Zone 2 filter material – provides a protective granular (non-critical) filter zone in the embankment between the low permeability zone 1 material and the zone 3 waste rock. The filter also provides a preferential pathway for any seepage to flow out of the embankment without affecting its structural integrity; and
- Zone 3 waste rock to form the bulk embankment.

To further reduce seepage risks proof compaction of the clayey near surface soils will be conducted on the impoundment immediately upstream of the embankment. In addition, a seepage interception trench will be constructed at the downstream toe of the main embankment to allow for collection and return of any near surface seepage should it occur. The trench will run parallel to the downstream toe of the embankment and be discharged into the Return Water Pond.

Monitoring bores located around the perimeter of the TSF will be used to monitor ground water quality. A piezometer network is included in the design, which will be routinely monitored to ensure no movements in the embankments.

Tailings, at 55% solids with a final settled density of 1.20-1.40 t/m<sup>3</sup>, will be discharged into the facility by deposition via spigots spaced at regular intervals. The active tailings beach will be regularly rotated around the facility to maximise tailings density and decant return water. Deposition will occur from the external embankments pushing the pond towards a southern end of the TSF. Return water will then pass through the gravity decant system and into the decant return pond where it is pumped back to the process water pond for re-use.

Tailings representing the main deposits and weather types have shown the tailings is not acid forming, has sufficient stability and does not contain any deleterious elements in sufficient quantities.

Seepage, stability, deformation, water balance analysis and a dam break assessment were performed as part of the development of the design.

Following the completion of the IWL TSF stage 2 the tailings will be deposited into the Excelsior Pit. This currently aligns with the mining schedule however the stage 3 IWL TSF is included as a contingency. Along with this contingency a preliminary TSF South design has been developed which has two-cells each with one year capacity.

The general layout of the TSF is shown in Figure 16-17.

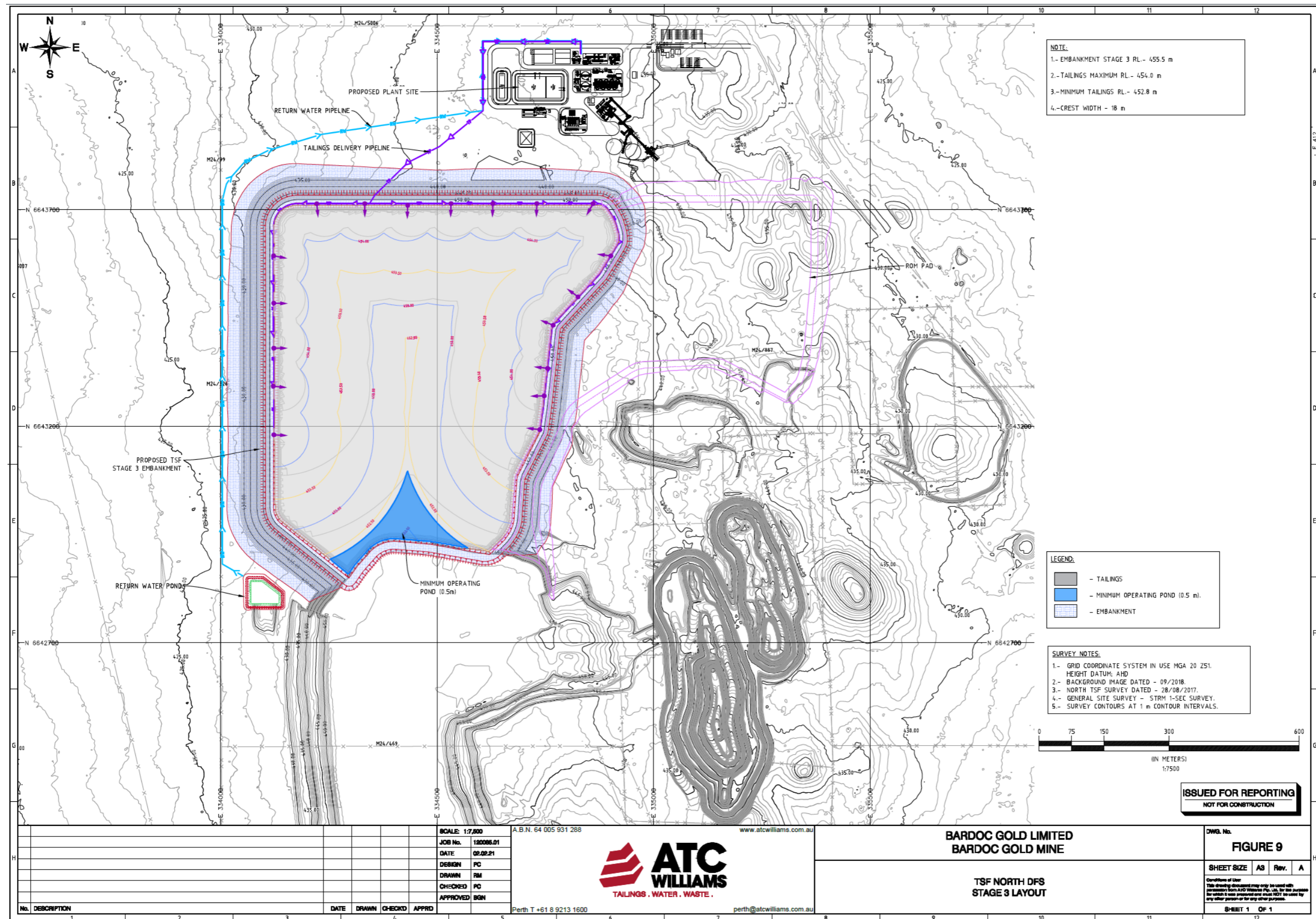


Figure 16-17: Tailings Storage Facility General Arrangement

## **17 INFRASTRUCTURE & SERVICES**

Excelsior, Zoroastrian and Bulletin South are brownfield projects with some, but limited, existing infrastructure available at each of the sites. Aphrodite is a greenfields project requiring all site infrastructure and services to be established.

However, the Project is well positioned to leverage off the significant infrastructure located in the Goldfields region and the nearby city of Kalgoorlie, 50km from the Project centre hub. Transport of materials and personnel will be along the extensively used Goldfields Highway, which links Kalgoorlie to the Menzies mining hub.

As Excelsior and Zoroastrian open pits are located adjacent to each other, the infrastructure and services are to be shared between the operations. The infrastructure includes:

- Power Supply;
- Administration Building;
- Warehouse;
- Open Pit Mining Offices;
- Ablutions;
- First aid facility;
- Open Pit Workshop;
- Fuel Bay;
- Washdown Pad;
- Communications;
- Explosives Magazine; and
- Water Tanks.

A separate office and workshop facility will be established for the Zoroastrian Underground project including:

- Power Supply;
- Warehouse;
- Underground Mining Offices;
- Changerooms and ablutions;
- First aid facility;
- Underground Workshop;
- Fuel Bay;
- Washdown Pad;
- Communications;
- Explosives Magazine;
- Water Tanks; and
- Underground Ventilation Primary Ventilation Fans.

As Aphrodite is located 21km to the north-east of the Excelsior and Zoroastrian operations, site infrastructure cannot be shared and all necessary infrastructure required for the operations are to be established, including:

- Power Supply;
- Warehouse;
- Open Pit and Underground Mining Offices;
- Changerooms and ablutions;
- First aid facility;
- Open Pit Workshop;
- Underground Workshop;
- Fuel Bay;
- Washdown Pad;
- Communications;
- Explosives Magazine;
- Water Tanks; and
- Underground Ventilation Primary Ventilation Fans.

Due to the relatively short life of mine at Bulletin South (14 months) and Mayday (7 Months) and the proximity of the pits to the Excelsior and Zoroastrian operation, some facilities will be managed from the Excelsior mining centre.

The following outlines the infrastructure to be established at Bulletin South:

- Temporary Crib Room / Small Office and Meeting Area;
- Toilet Facility;
- Open Pit Workshop;
- Fuel Bay;
- Washdown Pad; and
- Communications.

Proposed infrastructure layouts for each of the sites are shown in Figure 17-18 to Figure 17-23.

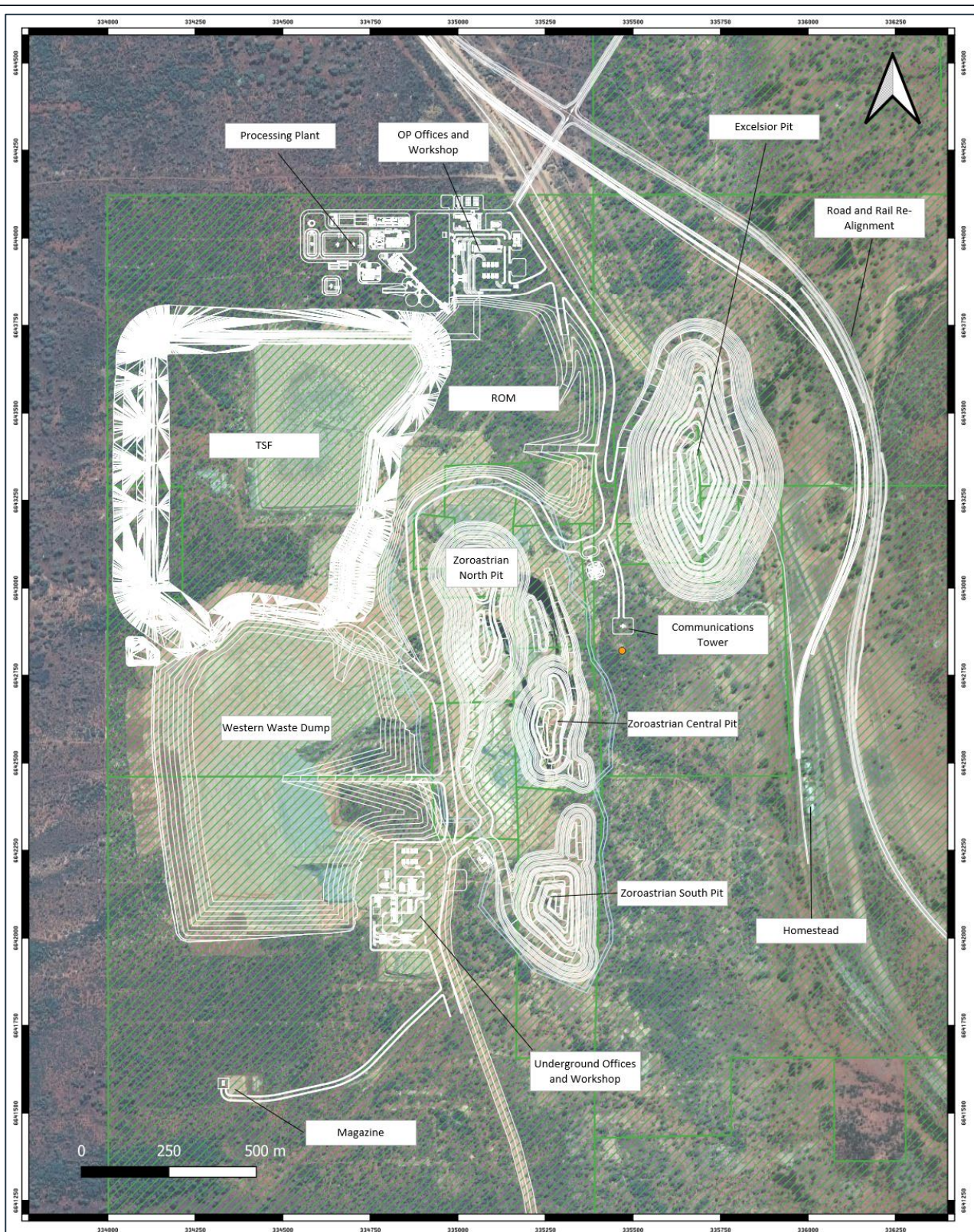


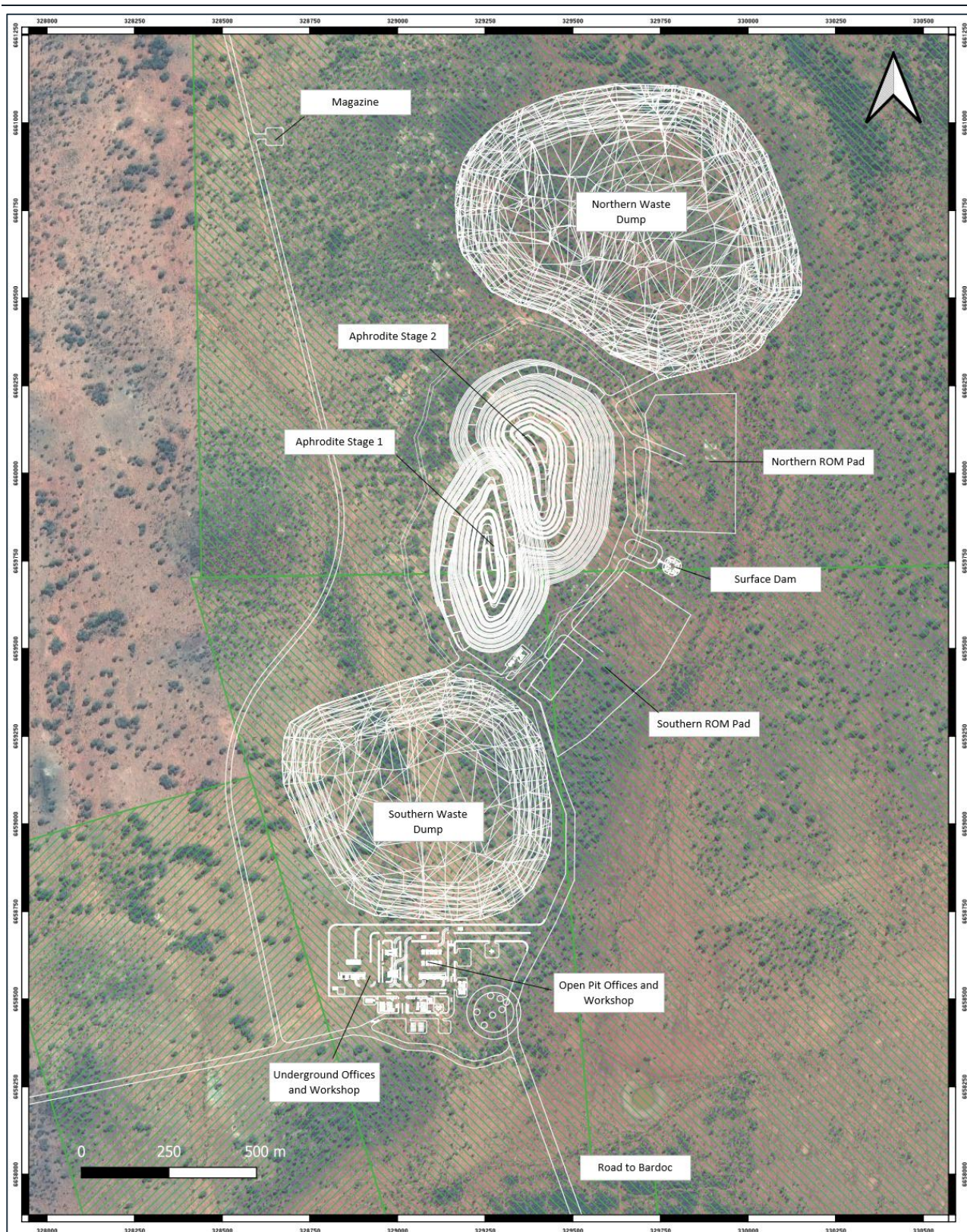
Figure 17-18: Excelsior and Zoroastrian Site Layout



Figure 17-19: 3D View of proposed Excelsior and Zoroastrian Site Layout



Figure 17-20: Plan View of proposed Excelsior and Zoroastrian Site Layout



**Figure 17-21: Aphrodite Site Layout**

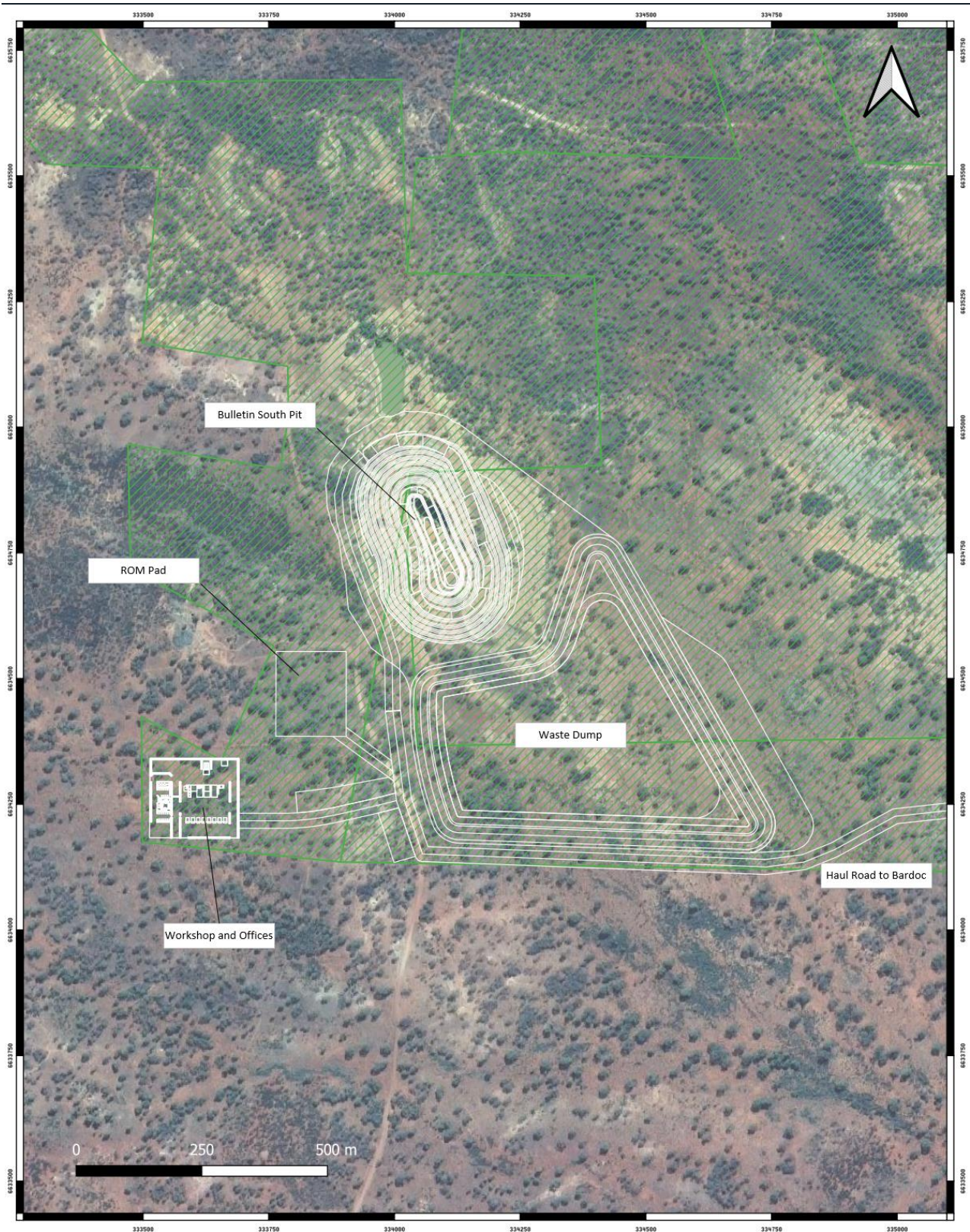
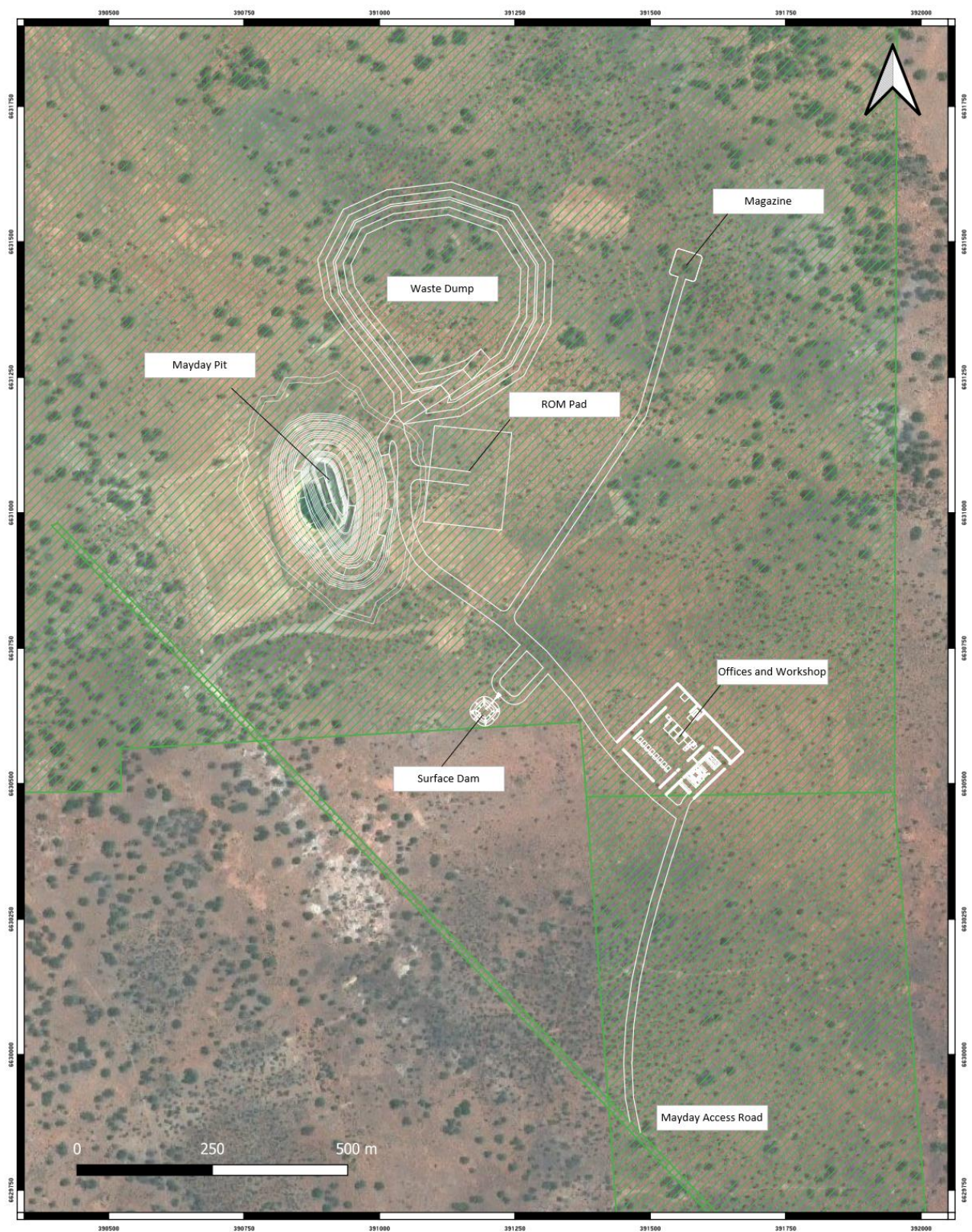


Figure 17-22: Bulletin South Site Layout



**Figure 17-23: Mayday Site Layout**

## 17.1 INFRASTRUCTURE RELOCATION

### 17.1.1 GOLDFIELDS HIGHWAY INTERSECTIONS

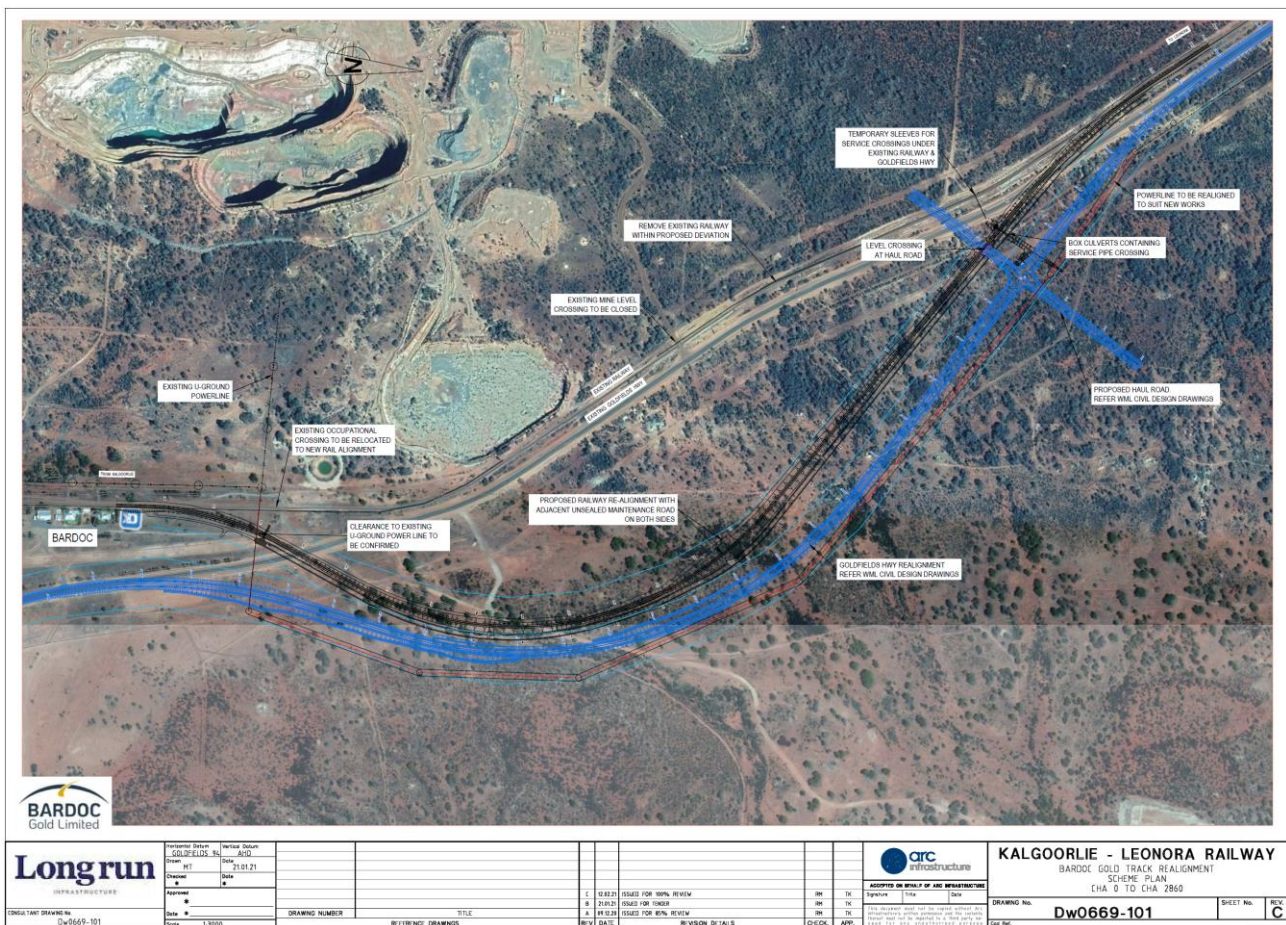
Two intersections are to be established off the existing Goldfields Highway to service the Excelsior and Aphrodite operations. They will be located at the Northern end of the highway and rail re-alignment. The existing access into Bardoc will be used in the interim until the road and rail has been re-aligned. The intersection of the access road with the highway has been designed in accordance with Austroads Guide to Road Design, applying the relevant MRWA supplements. It includes the provision for turning lanes on and off the Goldfields highway.

Haulage from Aphrodite to the Processing Facility located at the Excelsior hub is proposed to be along a purposed built haul road from the Aphrodite project area to the Bardoc project area. A crossing will occur at the access intersections to the Northern end of the alignment. This will enable the use of larger capacity road trains to operate reducing haulage costs for the operation.

### 17.1.2 GOLDFIELDS HIGHWAY AND RAIL RE-ALIGNMENT

The mining of the Excelsior pit extends across the existing Goldfields Highway and Kalgoorlie-to-Leonora Rail line. The Project includes provision to re-align a 2.5km section of the road and rail, as designed by WML and Longrun Infrastructure Pty Ltd, to accommodate the mining of the pit, as shown in Figure 17-24.

An overhead powerline owned by Western Power and Telstra distribution cables are also located within the disturbance area of the Excelsior pit and have been included for relocation within this design.



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### **17.1.3 GAS PIPELINE**

An existing gas pipeline, the Cawse Lateral Pipeline, with provision to supply gas to the Cawse Nickel Project passes across the proposed South Zoroastrian Pit. The Cawse pipeline is currently not supplying or flowing any gas to the mine site or other facilities. The pipeline has been isolated at the inlet (double block and bleed) and delivery stations and depressurised to approximately 200 kPa(g). A study was completed by OSD Asset Services to relocate the pipeline and has been included as part of the study.

## **17.2 INFRASTRUCTURE SUPPLY**

### **17.2.1 POWER SUPPLY**

Power for the Excelsior site, processing facility, buildings and operations is proposed to be supplied under a Build-Own-Operate (BOO) model using a Natural Gas and solar array solution.

Power for the Zoroastrian Underground will be supplied by 2 x 1,250kVa generator sets located adjacent to offices and portal. Further investigation will be taken to identify if power can economically be transferred to the Zoroastrian Underground operation from the proposed BOO arrangement feeding the processing plant.

Power for the Aphrodite operation will initially consist of a 150kVa genset for power provision for the workshop and office complex for the open pit mining of the Stage 1 pit. For underground power requirements a transmission line will be extended from the Bardoc processing complex to the Aphrodite mine site along Miscellaneous Licence L 24/243. This will feed into a 2.0MVa surface substation and fed to underground.

### **17.2.2 OFFICES / ADMINISTRATION BUILDINGS**

The Bardoc Gold Project main administration building will be located at the Excelsior and Zoroastrian complex which hosts the processing facility. This administration building will consist of a one-off administration building, open plan office with reception, six workspaces and four private offices for managers including Site Manager, boardroom and kitchenette.

Each of the Excelsior and Aphrodite mining centres will have a mining office. The mining office will be split into two complexes although closely located, to suit both the open pit and underground operational needs. The open pit mining building will consist of a single building with open plan offices for 10 workspaces, four private offices for managers and contractors, including a meeting room and kitchenette.

The underground offices will consist of a one-off building with two meeting/training rooms, 10 private offices, kitchenette, server room, storeroom, administration area and open plan workspaces to suit provision for technical staff and underground contractor management. The offices will be modular to enable relocation as required on completion of the Project should it be required.

### **17.2.3 WAREHOUSE**

A secure warehouse and storage facility will be constructed at both the Excelsior operation and the Aphrodite operation. The Excelsior warehouse will service both mining and processing, while the Aphrodite warehouse will service the Aphrodite mining operations only. Each warehouse will include an adjacent laydown yard with secure fencing.

### **17.2.4 SURFACE WORKSHOP**

It is proposed that each open pit operation will have a workshop available at the operation for all maintenance activities. Each workshop will consist of standard relocatable workshops that can be moved as required to other operations. The study considers the provision of two workshop facilities for the Bardoc Project, one for the Excelsior, Zoroastrian and Mayday open pits and one for the Bulletin South and Aphrodite open pit. The Bulletin South workshop facility will be relocated to Aphrodite on completion, with additional facilities added due to the size of Aphrodite, whereas the Excelsior workshop facility will be located for use at both the Excelsior and Zoroastrian Open pits and is proposed to be relocated to Mayday as required.

The workshops will consist of:

- 3 x Domed HV Workshops – consisting of double stacked 40’ containers and domed roof;
- 1 x Drill Workshop;
- 1 x Tyre Change Area / Workshop;
- 1 x Fuel Bay with 2 x 110KL self bundled fuel tanks;
- 1 x HV/LV Washbay;
- Waste Oil Storage Tanks;
- Oil Dispensing Systems;
- 150kVa Generator Set;
- Air Compressor; and
- Laydown area and tyre yard.

Figure 17-25 and Figure 17-26 demonstrate the layout configurations for the Excelsior / Zoroastrian and Aphrodite Open Pit workshops and offices.

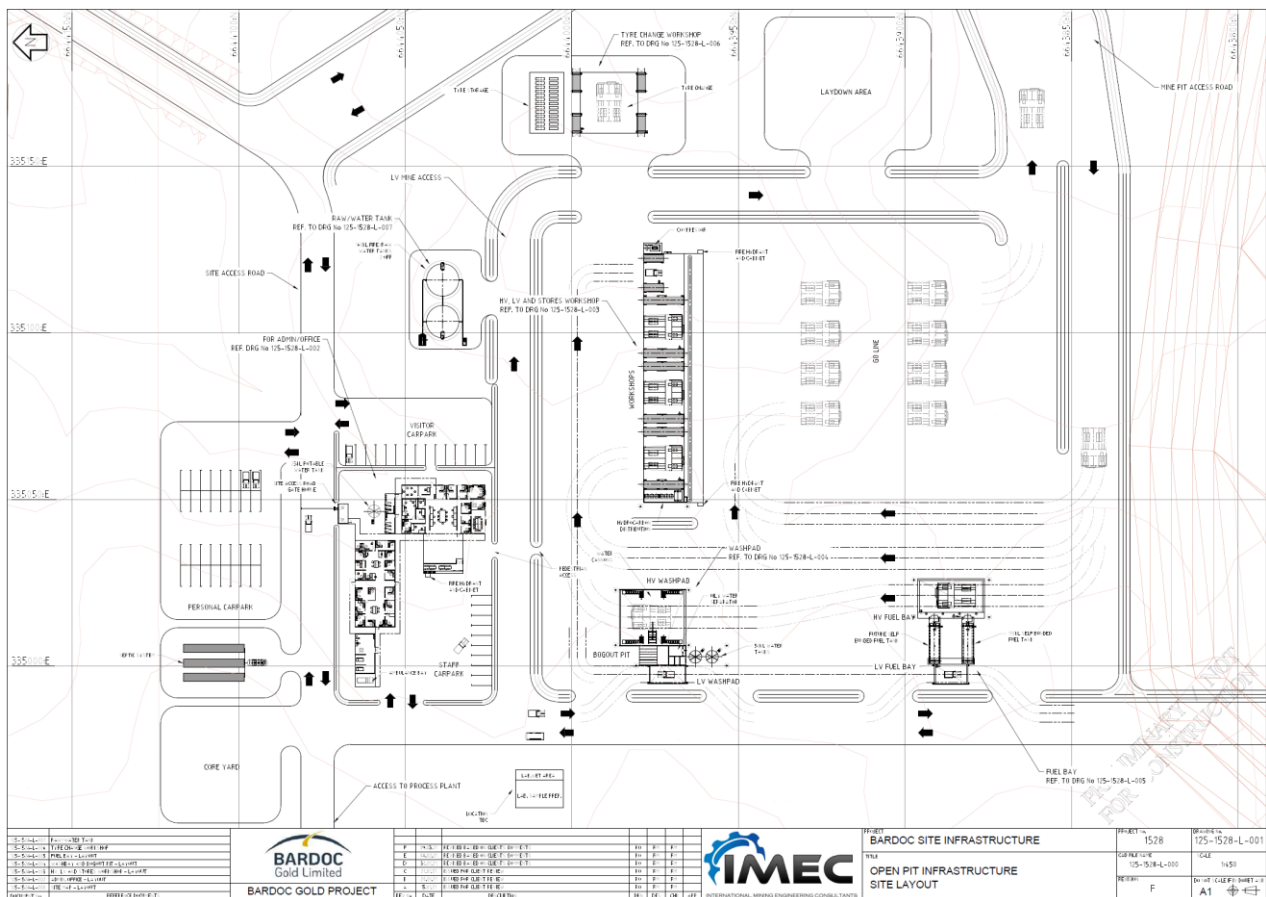


Figure 17-25: Excelsior / Zoroastrian Open Pit Workshop Arrangement

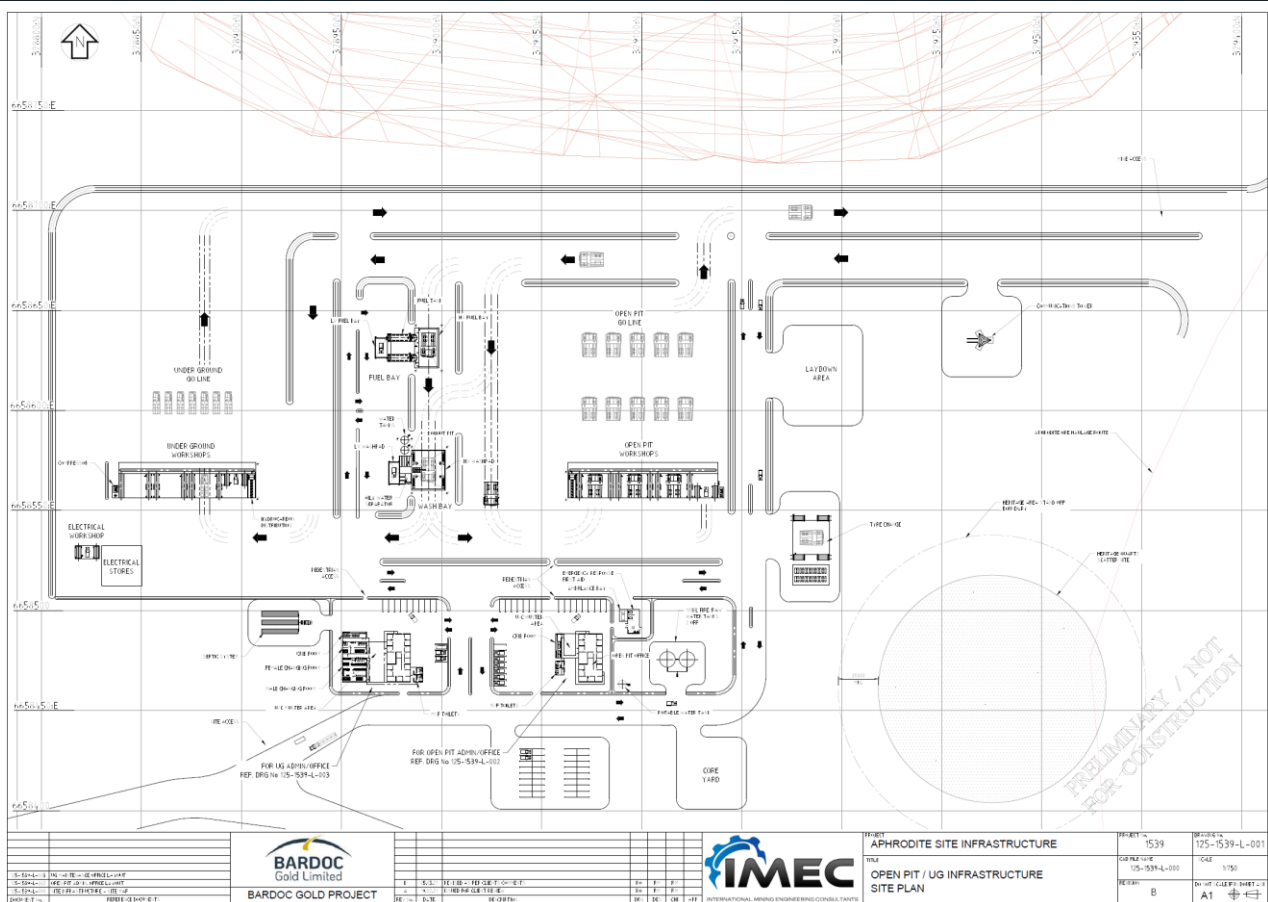


Figure 17-26: Aphrodite Open Pit and Underground Workshop Arrangement

Open Pit workshop arrangements for Bulletin South and Mayday pits will be much smaller due to the life of mine. Where possible infrastructure established at Bulletin South will be relocated to Aphrodite complex, and the facilities from Excelsior will be relocated for re-use at Mayday. The workshops at these locations will consist of:

- 1 x domed workshop;
- 1 x Drill Workshop;
- 1 x 110KL Fuel bay;
- 1 x HV Washbay;
- Air Compressor;
- 150kVa generator set;
- Waste Oil Tanks; and
- Oil Dispensing System.

### 17.2.5 UNDERGROUND WORKSHOP

Each underground operation will have a purpose-built maintenance workshop constructed on surface to support the maintenance of the underground mining fleet. The surface workshops will have provision for, but not limited to:

- Drill maintenance bay with 1000V power;
- Loader / truck maintenance bay;
- Tool and critical spares storage;

- Electrical maintenance workshop;
- Compressor;
- Waste oil storage;
- Warehouse;
- Fuel Bay;
- Washdown Bay;
- Laydown yard; and
- Go Line.

The underground workshops at Zoroastrian will be located adjacent to the portal, whereas the underground workshop for Aphrodite will be located adjacent to the Open Pit workshop to provide centralised facilities such as power, compressor, waste oil storage and bunding facilities however will remain separate from each other from use.

Figure 17-26 and Figure 17-27 demonstrate the layout configurations for the Zoroastrian and Aphrodite underground workshops and offices.

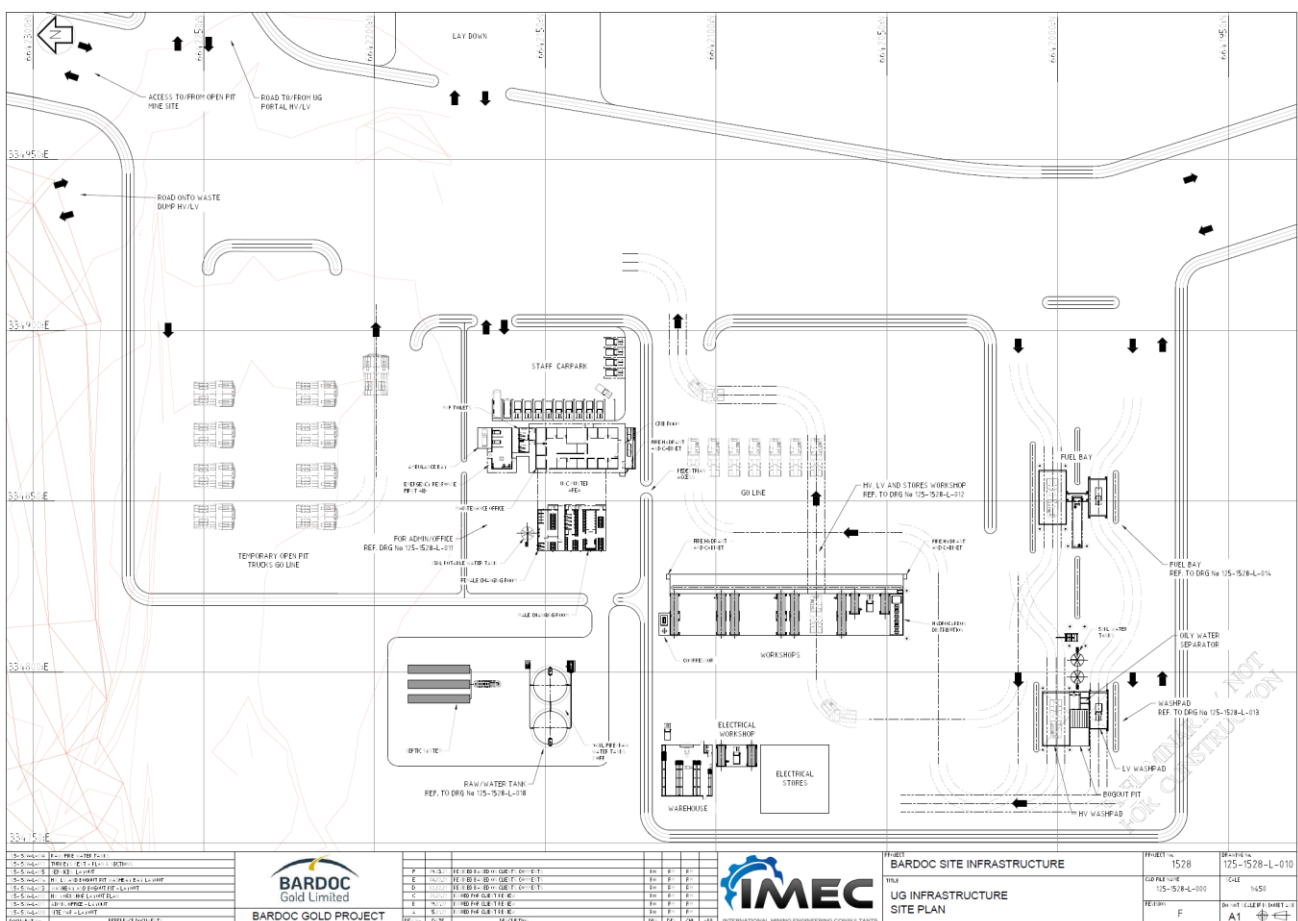


Figure 17-27: Zoroastrian Underground Workshop Arrangement

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#### **17.2.6 WASH-DOWN BAY**

A washdown bay will be constructed at each of the Excelsior and Aphrodite operations to service, mining and processing operations. The washdown bay will consist of a Heavy Vehicle (HV) pad and Light Vehicle (LV) pad, with a centrally located sump, with oil separator. Used water will be pumped back into a wastewater tank and recycled for cleaning down heavy equipment and fresh potable water will be available predominantly for LV purposes.

#### **17.2.7 COMMUNICATIONS**

To supply the Bardoc area with communications a tower is to be built adjacent to the existing Telstra tower with fibre cable run between the two. Microwave links are to be established to connect the Bardoc Site Main Office and surrounding structures to the tower.

The Bardoc Site Server will operate via microwave link to the Bardoc tower. Internet and server access throughout the main admin building and all other proposed buildings would be available via wired connections and Wi-Fi. All telephones would work on a VoIP system (Voice over Internet Protocol, also called IP telephony) and would function off the wired internet connections throughout the buildings.

Wi-Fi connectivity would be available in the mining locations backed up by the existing good 4G coverage.

For the Aphrodite operations a further tower is to be built at the Aphrodite site to establish microwave links between the Bardoc tower and Aphrodite tower. A third, mid-way will be required to assist in transmitting the link.

A further server at the Aphrodite site will be established, although this is expected to be considerably smaller than the main site office. VoIP telephones will be available to all staff and Wi-Fi connectivity across the office and mining areas.

The short life of mine sites of Bulletin South and Mayday will operate with temporary/short term infrastructure consisting of:

- Roof mount antenna for internet connectivity;
- Surge suppressors;
- Server racks;
- UPS;
- Switch;
- Wi-Fi point; and
- Telephones.

The roof mount antennas will provide sufficient internet connectivity to support the required number of staff working from these locations at any one time.

All sites will be established with UHF and VHF radio transmitters to support mining activities.

It is expected that all communications and information technology establishment and support will be completed by external contractors.

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## **18 WASTE ROCK MANAGEMENT**

Bardoc has undertaken materials characterisation programs at the Zoroastrian, Excelsior and Aphrodite deposits. The materials characterisation program included a review of existing data and the development of a waste sampling methodology. An initial review of the drilling database was completed to define the geological units to be disturbed by mining and interrogate the database to select samples that are representative of waste to be mined and inclusive of a range of oxidation states (oxide, transition and fresh).

The results from the materials characterisation testwork indicated that most of the waste types are saline, however, it is not expected that the degree of salinity will limit the growth of salt tolerant vegetation species during revegetation.

Likelihood of Potentially Acid Forming (PAF) materials at Zoroastrian and Excelsior is considered extremely low and as such waste material is considered Non Acid Forming (NAF).

Limited Aphrodite Alpha and Phi materials recorded some PAF material, however these volumes are considered low. As PAF has been encountered a PAF management plan will be implemented whereby any PAF material intersected through mining will be managed in containment cells on the waste dump as required.

None of the mined or process waste materials contained asbestiform materials and no samples recorded elevated Naturally Occurring Radioactive Materials (NORM) levels.

## **19 WATER SUPPLY & MANAGEMENT**

AQ2 have completed a detailed ground water exploration and modelling during the DFS. The study demonstrated that the Scotia and Goongarrie Borefield, along with mine dewatering, will provide sufficient bore water to meet the Projects demand for the life of mine.

The bore field system will consist of thirteen bores, comprising of four low TDS (50,000 to 65,000 mg/L) bores for the reverse osmosis plant and nine high TDS (110,000 to 190,000 mg/L) bores for mining, process water make-up and haul road maintenance. Total water demand is estimated to peak at 80-100 L/sec on processing plant start up. Once the TSF is established and a consistent decant return is obtained the demand will reduce to 50-70 L/sec.

## **20 ENVIRONMENT**

The Project lies partially within Mt Vettors pastoral lease, approximately 60km north of Kalgoorlie-Boulder, where it straddles the Goldfields Highway and Kalgoorlie to Menzies Railway. The northernmost tenements are within the Menzies local authority area and the remainder within Kalgoorlie-Boulder local authority area.

The Project area is located near the boundary of the Coolgardie Bioregion of the South-West Interzone and the Murchison Bioregion of the Eremaean Province. The Coolgardie and Murchison Bioregions are further divided into subregions, based on the Interim Biogeographic Regionalisation of Australia (IBRA), with the project area located within the Eastern Murchison subregion and Eastern Goldfields subregion. The climate is arid to semi-arid warm Mediterranean with 250-300mm of mainly winter rainfall.

The Eastern Murchison subregion is characterised by internal drainage and extensive areas of elevated red desert sandplains with minimal dune development. Salt lake systems are associated with the occluded paleodrainage system. Broad plains of red-brown soils and breakaways complexes as well as red sandplains are widespread.

The Eastern Goldfields subregion comprises gently undulating plains interrupted in the west by low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. The underlying strata are eroded flat and covered with Tertiary sand and gravel soils, scattered exposures of bedrock, and plains of calcareous earths.

The risk of environmental impact to the groundwater system and Groundwater Dependent Ecosystems (GDEs) in the area resulting from open pit and underground dewatering are considered very low, given that:

- Drawdown is minimised to the immediate area of the pit and underground;
- There are no identified GDE's in the immediate area of the pit; and
- The groundwater is likely to be saline to hypersaline.

Vegetation communities are commonly eucalypt and casuarina woodlands over either chenopods, or non-chenopodiaceous shrubs on broad loamy plains, drainage tracts and greenstone low hills, rises and undulating plains. Acacia dominated vegetation communities, often with isolated casuarina trees, are also common.

The Project area has been grazed by livestock and feral animals. Tracks and grid lines cross the project area and there are extensive historical and more recent mining disturbances including mine shafts, pits and waste landforms. Based on the vegetation condition rating scale adapted from Keighery, 1994 and Trudgen, 1988 vegetation ranged from 'good' to 'very good'. Flora and vegetation surveys have identified introduced flora within the project area, none of which are listed as a Declared Plant under the Biosecurity and Agriculture Management Act 2007.

No threatened or priority flora taxa listed under the Wildlife Conservation Act 1950, or Threatened Species listed under the Environmental Protection and Biodiversity Act, and no Priority Flora listed by Department of Biodiversity, Conservation and Attractions (DBCAs) have been recorded within project tenements during field surveys. No Threatened Ecological Communities (TECs) listed under State or Commonwealth legislation have been recorded within the project area. No Priority Ecological Communities (PECs) as listed by DBCAs have been identified within the project area.

No significant fauna were observed during field surveys. Based on the habitats present and, in some cases, direct observations or recent nearby records, the following species of conservation significance can be regarded as possibly utilising the survey area for some purpose at times, these being:

- **Leipoa ocellata (Malleefowl)** - No active malleefowl mounds or other evidence of malleefowl activity were observed during the field surveys. Available information suggests that a breeding population of this species is unlikely to be present in the surveyed area, though transient non-breeding individuals may occasionally occur. Significant impact unlikely.
- **Falco peregrinus (Peregrine Falcon)**
- This species potentially utilises some sections of the project area as part of a much larger home range, though records in this area are uncommon. It is considered unlikely to breed within the survey area. Significant impact unlikely.
- **Nyctophilus major tor (Central Long-eared Bat)**
- Listed as a potential species however it is generally uncommon and rarely recorded north of Kalgoorlie. Significant impact unlikely.

There are no listed Priority or Threatened Ecological Communities (PECs and TECs) of subterranean fauna within the footprint of the project. No matters of national environmental significance as defined by the Commonwealth EPBC Act were identified within the survey area. No threatened species or critical habitat listed under the BC Act were recorded within the survey area.

The project area does not contain any world or national heritage places, wetlands of international importance (Ramsar Wetlands), national importance (ANCA Wetlands) or conservation category wetlands. The project area does not contain any Environmentally Sensitive Areas (ESAs), proposed or gazetted conservation reserves. The nearest noise-sensitive premise is Bardoc Station, which comprises two homesteads situated 800m east of the Zoroastrian Pit. Agreements are executed with each of the two landowners and include provisions for ongoing consultation between the Company and the Owner; delineation of a 400m surface mining exclusion zone around the homestead; and potential construction of noise abatement to minimise the impacts of mining activities at the homestead.

Bardoc has developed an environmental risk assessment to identify risk pathways across all phases of the mine life. The risk assessment includes the inherent and residual risks to demonstrate the effectiveness of controls established are as low as reasonably practicable. Bardoc has identified risks and established assessment and controls in accordance with the *Leading Practice Handbook: Risk Management*. Risks are classified as follows:

- Environmental Risk – Interactions with the natural environment as a result of mining activities including impacts to ecosystems, floods, extended dry periods;
- Community Risk – Potential to affect the community through emissions, cultural, social;
- Regulatory Risk – Addressing regulatory requirements including permits and licences;
- Production Risk – Impacts to sustaining activities or affect production, largely economic risks;
- Reputational Risk – A negative impact on the operation, failure to meet stakeholder expectations.

A Native Title claim was registered by Maduwongga (WC2017/001) on 21 April 2017; a subsequent Native Title claim was registered by Marlinyu Ghoorlie on 22 December 2017. An all access agreement is currently in place with Maduwongga, with ongoing negotiations occurring with the Marlinyu Ghoorlie claimants for a partial access agreement.

Bardoc manages Aboriginal and non-Aboriginal heritage sites in accordance with its Heritage Management Plan. Bardoc has conducted project wide Aboriginal heritage surveys. The location of any sites are recorded on Bardoc's spatial data records to inform project planning of the project as well as ensuring the protection and preservation of any sites identified. There are no sites located within the disturbance footprint of the project. Bardoc does not intend to apply for any Section 18 (consent to impact a heritage site in accordance with Section 18 of the Aboriginal Heritage Act) for any disturbances required for the Project.

There are no heritage sites in or adjacent to the survey area on either the State or National Estate Register<sup>24</sup>. The Fetter's Cottage at the Bardoc Homestead c1897 is registered on the Heritage Council's InHerit database (place number 00197). The cottage (now an occupied homestead) are within 600 m of project development sites.

Based on the findings of the reports, there are no matters of environmental significance that have currently been identified that would indicate delay to the Project.

## **21 CAPITAL COSTS**

The total life of mine capital cost for the Project including the processing plant, site infrastructure and mining capital is estimated at A\$447.9M, including a A\$21.9M<sup>25</sup> contingency for establishment of infrastructure. Table 21-34 provides the breakdown of capital spend.

The capital cost estimate for the processing plant and some supporting infrastructure has been based upon an EPC (Engineer, Procure and Construct) approach. The estimate is based upon preliminary engineering, quantity take-offs, budget price quotations for major equipment and bulk commodities.

Pre-production capital is estimated at A\$177.4M for the establishment of the Stage 1 Processing plant, Site Access and mining infrastructure works and initial mining capital. Pre-production capital includes a contingency of A\$12.2M<sup>26</sup>.

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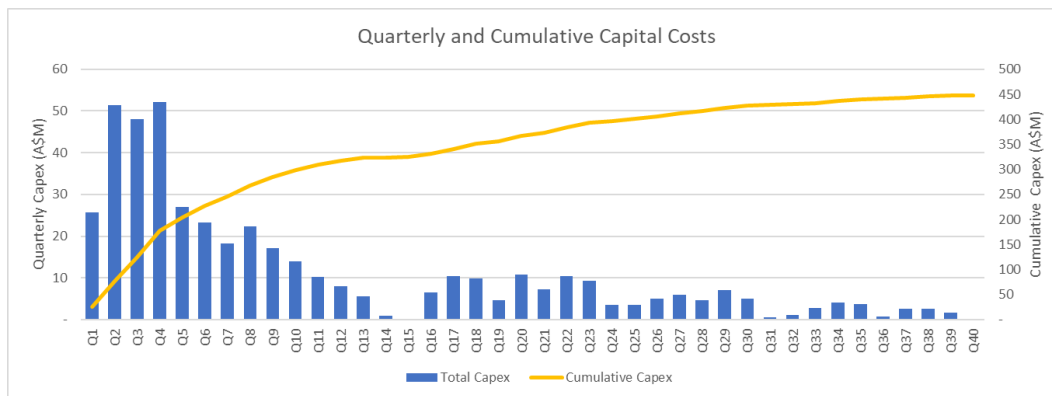
<sup>24</sup> <http://www.environment.gov.au/erin/ert/epbc/>

<sup>25</sup> Contingency not applied to mining activities

<sup>26</sup> Contingency not applied to mining activities

**Table 21-34: Pre-Productions and Post-Production Capital Costs**

Item	Amount (A\$M)
<b>Pre-Production Capital</b>	<b>177.4</b>
Process Plant – Stage 1	104.3
Site Infrastructure (Non – Processing)	29.7
OP Mining - Infrastructure	36.7
UG Mining - Infrastructure	-
Other	6.7
<b>Post-Production</b>	<b>270.5</b>
Process Plant – Sustaining	22.2
Process Plant – Stage 2	21.5
Site Infrastructure (Non-Processing)	54.7
OP Mining – Capitalized Waste	68.3
OP Mining - Infrastructure	6.5
UG Mining – Capitalized Waste	73.4
UG Mining - Infrastructure	14.9
Other Sustaining	9.0
<b>Total Capital</b>	<b>447.9</b>



**Figure 21-28: Quarterly and Cumulative Capital Costs**

## 22 OPERATING COSTS

The key operating cost estimates have been prepared by Como Engineering and the Bardoc Gold Project team. Mining costs have been sourced from quotations received from reputable mining contractors. Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database. Surface haulage costs were sourced from quotations received from reputable road haulage contractors that operate in the Goldfields region.

The LOM average AISC is A\$1,188/oz. The operating costs are summarised in Table 22-35.

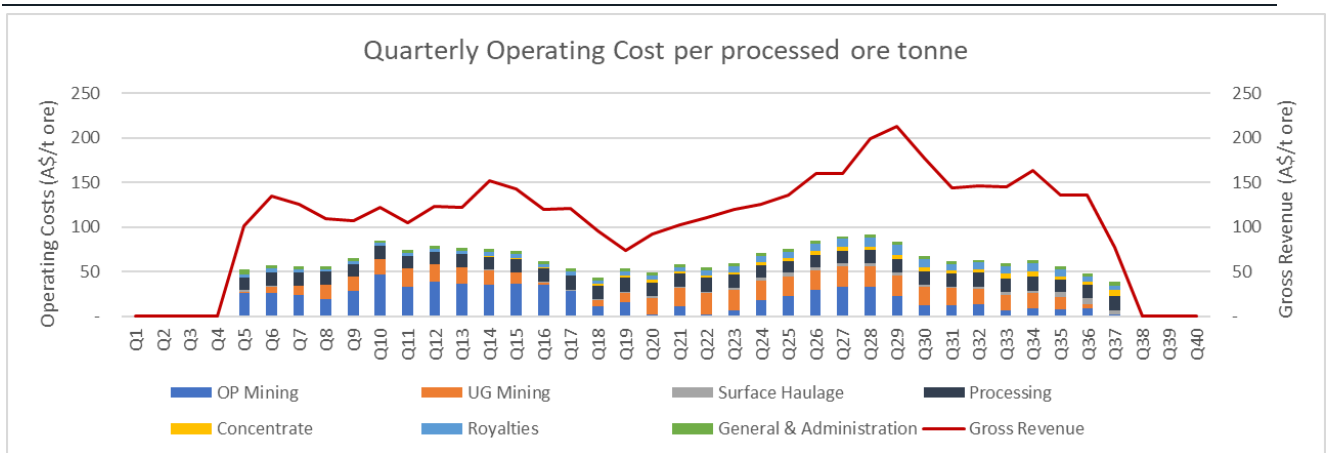


Figure 22-29: Quarterly Operating Cost per processed ore tonne

Table 22-35: LOM Operating Cost per tonne of Ore Processed and per ounce of Ore Recovered/Sold

Item	A\$M	A\$/t	A\$/oz
OP Mining	364.7	20.7	332.3
UG Mining	268.4	15.2	244.6
Surface Haulage	33.9	1.9	30.9
Processing	262.9	14.9	239.5
Concentrate	39.7	2.2	36.2
General & Administration	60.9	3.4	55.5
Royalties	100.6	5.7	91.7
Sustaining Capital	172.9	9.8	157.5
<b>AISC</b>	<b>1,303.9</b>	<b>73.8</b>	<b>1,188.2</b>

Concentrate charges are derived from indicative concentrate sale prices, which consider the treatment costs and penalties for the concentrate's expected metallurgical conditions. The total concentrate charge shown in Table 22-36 includes transport, port handling, and container costs associated with shipping the concentrate.

Table 22-36: Concentrate Charges

Item	Unit	Amount
Transportation Charges	A\$/t con	137.2
Treatment Charge	A\$/t con	88.7
Refining Charge	A\$/t con	16.4
Penalties	A\$/t con	179.9
<b>Total Concentrate Charges</b>	<b>A\$/t con</b>	<b>422.2</b>
Total Concentrate Charges	A\$/t ref ore	18.0

## 23 ECONOMIC EVALUATION AND SENSITIVITY

The financial assessment is based on a base case using a A\$2,250/oz gold price (US \$1,688/oz and a USD:AUD exchange rate of 0.75).

Based on the operating cost estimates for mining, milling and administration, capital cost estimates for initial development capital and sustaining capital, metallurgical recoveries for the various ore types, the mining schedule and other operating and cost parameters of the DFS, a discounted cashflow analysis was undertaken to generate a Net Present Value of the Project. At a gold price of A\$2,250/oz and using a 6% discount rate the Project generates a Pre-Tax NPV of \$479 million, an IRR of 41% and a payback period of 2.7 years from the start of production.

The Project financial returns and ratios shown in Table 23-37 below show that the Project is financially robust, generating positive post-tax NPV, high IRR, strong revenue and payback.

Table 23-37: LOM Financial Returns Summary

Mining	Unit	Value (A\$2,250/oz)	Value (A\$2,100/oz)
Life of Mine (LOM)	Years	9	9
Mined Ore Tonnes	kt	18	18
% Indicated	%	89%	89%
% Inferred	%	11%	11%
Nominal Throughput Capacity	Mtpa	2.1	2.1
Processed Tonnes	kt	17,658	17,658
Avg Gold grade	g/t	2.0	2.0
Contained Gold	oz	1,149	1,149
Avg Gold Recovery	%	95.5%	95.5%
Recovered Gold - Doré	oz	505	505
Recovered Gold - Concentrate	oz	593	593
Economic Assumptions	Unit	Value (A\$2,250/oz)	Value (A\$2,100/oz)
Gold Price	US\$/oz	1,688	1,575
Exchange Rate	A\$:US\$	0.75	0.75
Discount rate	%	6.0%	6.0%
Cash Flow	Unit	Value (A\$2,250/oz)	Value (A\$2,100/oz)
Gross Revenue	A\$M	2,319	2,159
Opex - Royalties	A\$M	101	94
Opex - OP Mining	A\$M	365	365
Opex - UG Mining	A\$M	268	268
Opex - Surface Haulage	A\$M	34	34
Opex – Processing	A\$M	263	263
Opex – Concentrate	A\$M	40	40
Opex - G&A	A\$M	61	61
Pre-Production Capex	A\$M	177	177
Post-Production Capex	A\$M	271	271
<b>Net Cash Flow (Pre-Tax)</b>	<b>A\$M</b>	<b>740</b>	<b>586</b>
Corporate Tax	A\$M	176	130
<b>Net Cash Flow (Post-Tax)</b>	<b>A\$M</b>	<b>563</b>	<b>456</b>
AISC	A\$/oz	1,188	1,182
Value Metrics	Unit	Value (A\$2,250/oz)	Value (A\$2,100/oz)
Pre-Tax NPV <sup>27</sup>	A\$M	479	365
Pre-Tax IRR	%	41.3%	33.3%
Pre-Tax Payback Period <sup>28</sup>	Years	2.7	3.1
Post-Tax NPV <sup>29</sup>	A\$M	365	283
Post-Tax IRR	%	37.7%	30.5%
Post-Tax Payback Period <sup>30</sup>	Years	2.7	3.1

<sup>27</sup> NPV calculated as at start of construction, October 2021.

<sup>28</sup> Calculated from the date of first production.

<sup>29</sup> NPV calculated as at start of construction, October 2021.

<sup>30</sup> Calculated from the date of first production.

The quarterly and cumulative post-tax cashflow of the Project is shown in Figure 23-30. The Project is expected to generate A\$563 million of post-tax free cash over the LOM.

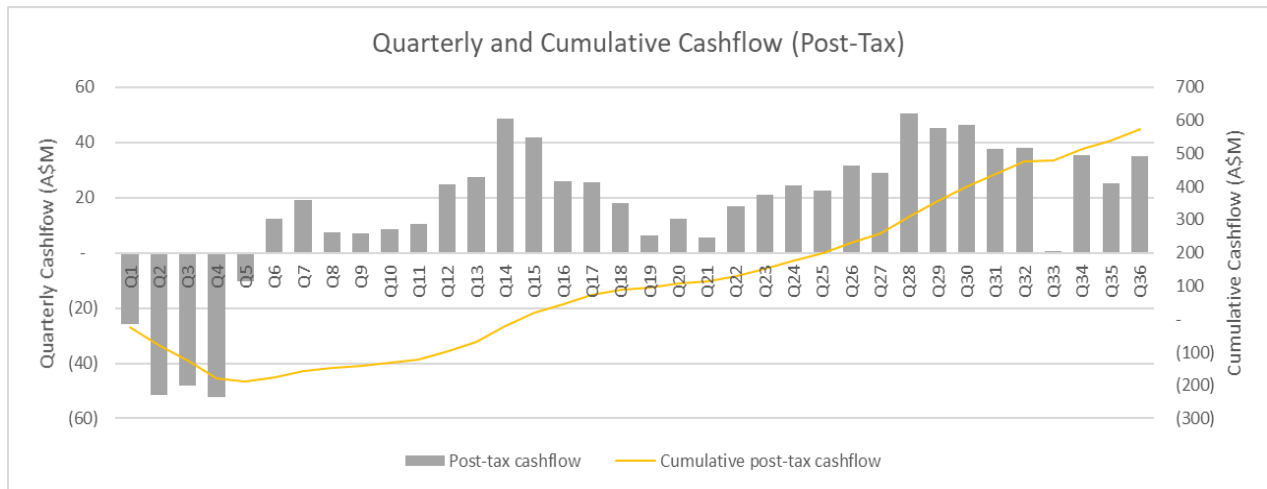


Figure 23-30: Quarterly post-tax cash flow

Figure 23-31 demonstrates how robust the Bardoc Gold Project is at a A\$2,250/oz.

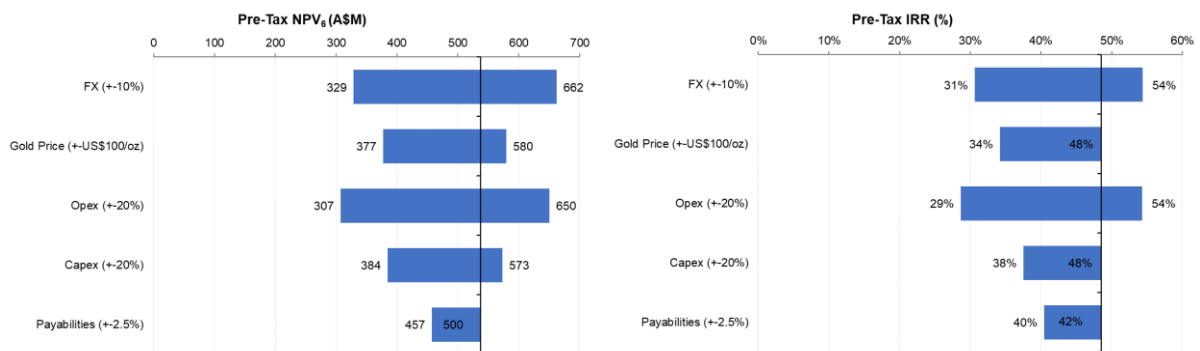


Figure 23-31: Key NPV and IRR sensitivities

Table 23-38 illustrates the NPV metrics for the Project under a range of Gold Price and exchange rate scenarios. It is only under a combination of higher exchange rate and lower Gold Price scenario that the Project generates a negative NPV. On the contrary, a weaker exchange rate and a higher Gold Price would provide additional valuation upside to the Project.

Table 23-38: Variable Price and Exchange Rate Scenario Analysis

NPV Pre-tax (A\$M)		Gold Price (US\$/oz)								
A\$:US\$ Exchange Rate		\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$1,800	\$1,900	\$2,000
	0.6	275	402	528	654	781	907	1,034	1,160	1,287
	0.65	164	280	397	514	631	747	864	981	1,098
	0.7	68	177	285	393	502	610	719	827	935
	0.75	(15)	87	188	289	390	491	592	694	795
	0.8	(87)	8	103	198	292	387	482	577	672
	0.85	(151)	(62)	28	117	206	296	385	474	563

## 24 PROJECT FINANCING

Project financing for the development of the Project has not yet been secured, which is typical for a project that has very recently released a DFS. Bardoc has held discussions with a number of commercial banks and non-bank lenders who have indicated their interest in potentially providing debt funding for the project. These discussions will be advanced over the coming months, in parallel with lender due diligence (which is generally a requirement for credit approvals).

The Company has appointed BurnVair Corporate Finance Ltd (BurnVair) as its financial advisor for the development of the Project. Bardoc intends to shortly commence a detailed lender due diligence process.

Overall, the Company's Board considers that, based on the positive DFS, there is a reasonable basis to assume that the necessary funding for development of the Project can be obtained, based on the following:

- the Project's economics support a decision to invest, given that the Project is forecast to generate A\$740M of pre-tax free cash over the LOM;
- the projected cash flows can support sufficient debt funding from 50% to 65% (general maximum gearing) of the total construction Capex, while meeting typical project debt financing requirements;
- post-tax NPV<sub>6</sub> of A\$365m, with a robust IRR of 38% (above typical returns sought by investors of circa 20%) and pay-back period of 2.7 years from first production;
- the Project is located in Tier-1 gold mining jurisdiction, approximately 55km north of Kalgoorlie covering 250km<sup>2</sup> of land;
- the Project has multiple Resource locations with three cornerstone deposits (Aphrodite, Zoroastrian, Excelsior) and numerous smaller deposits which provide potential for satellite operations and Resource growth;
- large and growing Resource Base with approximately 3Moz comprising Measured (0.01Moz), Indicated (2.0Moz) and Inferred (1.0Moz) with significant Brownfield and Greenfield exploration potential;
- Bardoc was able to raise A\$24M last year in an oversubscribed placement to fund ongoing development of the Project. The Company's major investors and shareholders have been strongly supportive of the Company since the definition of the Project and continue to demonstrate strong support for the Company; and
- the Board, senior management and its financial adviser have substantial experience in financing and developing projects in Australia and overseas and have an appropriate mix of skills to oversee and direct the progression of the Project through to Final Investment Decision (FID), project funding, construction, commissioning, and into operations.

The Company is in a strong position with cash (as at 31 December 2020) of A\$22.9M and no debt and is fully funded to FID. FID is targeted for Q3 CY2021.

## 25 RISKS & OPPORTUNITIES

Key opportunities identified during the 2021 DFS include, but are not limited to:

- Not all of the Bardoc Project Resources were investigated or included in the DFS mine plan/study;
- Mine extensions through additional drilling, specifically for Zoroastrian and Aphrodite Underground;
- Optimised mine plan through scheduling opportunities with multiple ore sources;
- Optimised mill throughput to increase ounces produced based on various mill feed types;
- Optimised Tailings Storage Facility to reduce up front capital costs;
- Review of further opportunities to bring forward high grade underground mines, Zoroastrian and Aphrodite;

- Improved mining contractor rates through competitive tender process;
- Decreased Processing Infrastructure costs through competitive tender process and including additional items into scope, e.g. borefield establishment, to improve management and overhead costs currently estimated.
- Exploration success specifically at the Mayday and North Kanowna Star deposits; and
- Commencing production early and utilising toll treatment options in the goldfields.

Key risks identified during the 2021 DFS include, but are not limited to:

- Adverse movement in gold price;
- Adverse movement in USD:AUD exchange rates;
- Access to project funding;
- Approvals by government authorities;
- Access to land associated with water supply;
- Increased mining costs as a result of competitive tender process due to current labour and resource market;
- Not achieving mining production rates, gold grade in orebody, recovery and dilution assumptions and metallurgical recovery rates; and
- Supply chain and resource disruptions due to events such as COVID-19.

## 26 INFORMATION PROVIDED IN ACCORDANCE WITH ASX LISTING RULE 5.8

### MATERIAL INFORMATION SUMMARY FOR MINERAL RESOURCES

#### APHRODITE

The Aphrodite deposit has a current JORC Resource of **25.5Mt @ 2.03g/t Au for 1.66Moz** of contained Au.

Table 26-39: Aphrodite Various cut-off grades: Oxide  $\geq 0.3\text{g/t Au}$ , Transitional  $\geq 0.5\text{g/t Au}$ , Fresh  $\geq 0.7\text{g/t Au}$ , Au above 230mbs – OP resource

Class	Measured		Indicated		Inferred		Total		
	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Ounces
Oxide			1,672,285	0.89	516,549	0.91	2,188,834	0.89472	62,962
Transitional			2,691,746	1.10	979,771	1.16	3,671,517	1.11601	131,733
Fresh			9,093,998	1.79	3,825,175	1.44	12,919,173	1.68637	700,436
<b>Total</b>			<b>13,458,000</b>	<b>1.54</b>	<b>5,321,000</b>	<b>1.34</b>	<b>18,780,000</b>	<b>1.48</b>	<b>895,000</b>

Note: Appropriate rounding applied

Table 26-40: Aphrodite  $\geq 1.7\text{g/t Au}$  below 230mbs – UG resource

Class	Measured		Indicated		Inferred		Total		
	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Ounces
Oxide									
Transitional									
Fresh			4,155,891	3.72	2,570,541	3.28	6,726,432	3.55185	768,105
<b>Total</b>			<b>4,156,000</b>	<b>3.72</b>	<b>2,571,000</b>	<b>3.28</b>	<b>6,726,000</b>	<b>3.55</b>	<b>768,000</b>

Note: Appropriate rounding applied

Table 26-41: Aphrodite combined resource

Domain	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces
OP				13,458,000	1.54	666,000	5,321,000	1.34	229,000	18,780,000	1.48	895,000
UG				4,156,000	3.72	497,000	2,571,000	3.28	271,000	6,726,000	3.55	768,000
<b>Total Resource</b>				<b>17,614,000</b>	<b>2.05</b>	<b>1,163,000</b>	<b>7,892,000</b>	<b>1.97</b>	<b>500,000</b>	<b>25,506,000</b>	<b>2.03</b>	<b>1,663,000</b>

Note: Appropriate rounding applied

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## **GEOLOGY AND GEOLOGICAL INTERPRETATION**

The local stratigraphy comprises of a package of mafics, epiclastic sediments of predominantly volcanic origin, intermediate to felsic intrusives, and ultramafics. The package strikes NNW. From west to east the lithologies broadly progress from a megacrystic dolerite through sediments intruded by intermediate porphyries and finally ultramafics in the east. The mixed epiclastic and volcanoclastic succession was intruded by felsic to intermediate porphyries that are all in turn intruded by dolerite sills and dykes. The Aphrodite deposit is a series of steep, WSW-dipping shear zones often located along lithological contacts. Hydrothermal alteration associated with the gold mineralisation is characterised by a quartz-albite-sericite  $\pm$  biotite, chlorite assemblage which is pale-cream coloured, with an increased hardness. The geological interpretation was completed by Geological Consultants Model Earth Pty Ltd in 2018 and was used as a basis for the interpretation of the mineralisation.

## **DRILLING TECHNIQUES**

Drilling completed by numerous operators using RC and Diamond drilling. Upper portions of the deposit are well drilled on a 20m x 20m grid with wider spaced drilling at depth and further along strike. Drilling was dominantly at -60° towards the west or east. The majority of holes were downhole surveyed by various methods and collars located by contracted or mine surveyors.

All BDC drilling was either RC or HQ or NQ2 diamond core. The diamond core holes regularly have a mud rotary precollar. All holes were downhole surveyed at least every 30m and collars located by contract surveyor.

## **SAMPLING TECHNIQUES, SUB-SAMPLING TECHNIQUES, SAMPLE PREPARATION AND ANALYSIS**

RC sampling of a ~3kg split from the bulk sample was commonly done with assay by 40g or 50g Fire Assay. NQ2 or HQ core was sawn in half and one quarter or one half sent for assay. Sampling of core was commonly to 1m intervals and occasionally to intervals of geological interest. Core drilled by BDC was sawn and one half sampled, usually to 1m intervals. Samples were sent to accredited laboratories for gold analysis by Fire Assay with ICP finish, and Peroxide Fusion Digest with ICP finish for As, S & Cu. Quality control data was included in all drill programs. A review of the QAQC data found analytical results to be satisfactory and suitable for inclusion in the resource estimation.

## **ESTIMATION METHODOLOGY**

Localised Uniform Conditioning (LUC) was used for the open pit resource model. LUC is a non-linear technique suitable for estimating into smaller blocks (SMU scale) using wider spaced resource drilling. The LUC model implies a level of selectivity at the SMU scale that would not be achievable in an underground mining scenario so an ordinary kriged model was developed for underground estimation. Samples composited to 1m were used, top cuts were applied on a domain basis based on disintegration analysis of the probability curve and visual inspection of the histogram. Variography was used to determine directions of gold grade continuity, supported by geological evidence. Ellipsoidal search parameters were applied on a domain basis with distances between 80m to 130m. A minimum of 7 samples with an optimal 3 or 4 samples for each of the four sectors was used, with an optimal 3 samples per borehole. Two search passes were carried out, with the second increasing in volume by three-fold. The kriged block size and LUC panel size was 10mE x 20mN x 5mRL and the LUC SMU size was 2.5mE x 5mN x 2.5mRL. Bulk density values were applied from average density readings in different lithologies and weathering states.

Ordinary Kriging was used for the underground resource model. Samples composited to 1m were used, top cuts were applied on a domain basis based on disintegration analysis of the probability curve and visual inspection of the histogram. Variography was used to determine directions of gold grade continuity, supported by geological evidence. Ellipsoidal search parameters were applied on a domain basis with distances between 80m to 200m. Minimum samples utilised was 7 with a maximum of 15 samples in the first pass. Minimum sample and search distance parameters were relaxed for subsequent searches. The ordinary kriged block size used is 5mE x 5mN x 5mRL. Bulk density values were applied from average density readings in different lithologies and weathering states.

## MINERAL RESOURCE CLASSIFICATION

Mineral resource classification OP resource component:

Confidence is dominantly dependent on drill hole spacing. In well drilled (up to 40m x 40m) areas grade continuity is good and ore body geometry is predictable. These areas were classified as indicated. Less well drilled areas up to ~ 80m x 80m defined areas of inferred material.

Mineral resource classification UG resource component

Confidence is dominantly dependent on drill hole spacing. In well drilled (up to 40m x 40m) areas grade continuity is good and ore body geometry is predictable. These areas were classified as indicated. Less well drilled areas up to ~ 80m x 80m defined areas of inferred material.

## CUT-OFF GRADES AND REPORTING

The cut-off grade for reporting is oxide=0.3g/t Au, transitional=0.5g/t Au, fresh=0.7g/t Au, to reflect potential development by open pit mining. Open pit resources are reported above an RL representative of 230m below surface. A resource below 230m below surface is reported at a cut-off grade of 1.7g/t, which reflects economics of possible underground mining.

## METALLURGY

The Aphrodite deposit has never been mined. Bardoc has conducted extensive metallurgical test work on all lithology types from various weathering profiles. The testwork has concluded the fresh and transitional ore is refractory in nature. There has been many generations of testwork and several processing methods investigated but Bardoc has determined that a flotation concentrate of sulphide ore will be produced and sold to 3<sup>rd</sup> parties. Recoveries, Capital Costs and Operating Costs will be based on this flow sheet, with concentrate tails being processed through a CIL process facility.

## MODIFYING FACTORS

No modifying factors were applied to the reported Mineral Resources. Parameters including geotechnical, mining dilution, ore loss and metallurgical recoveries will be considered during the mining evaluation of the project.

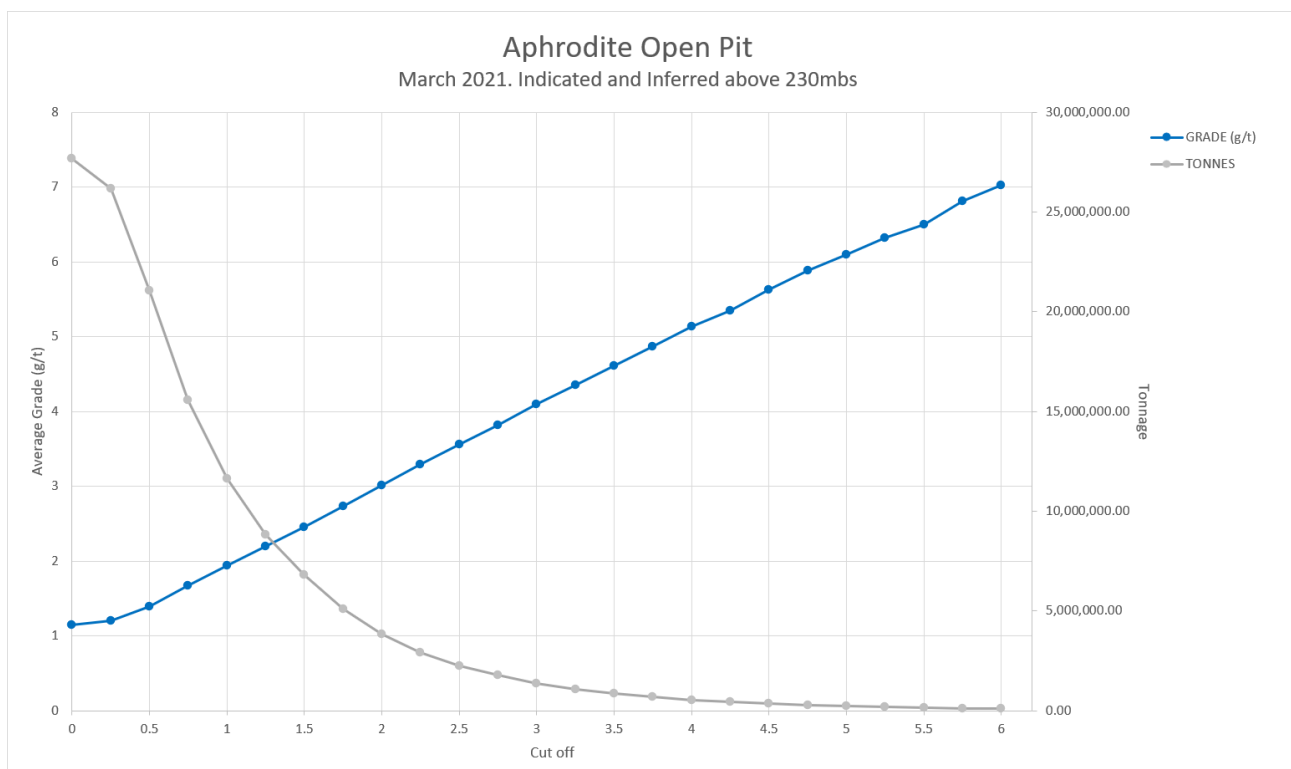


Figure 26-32: Grade tonnage curve for open pit material

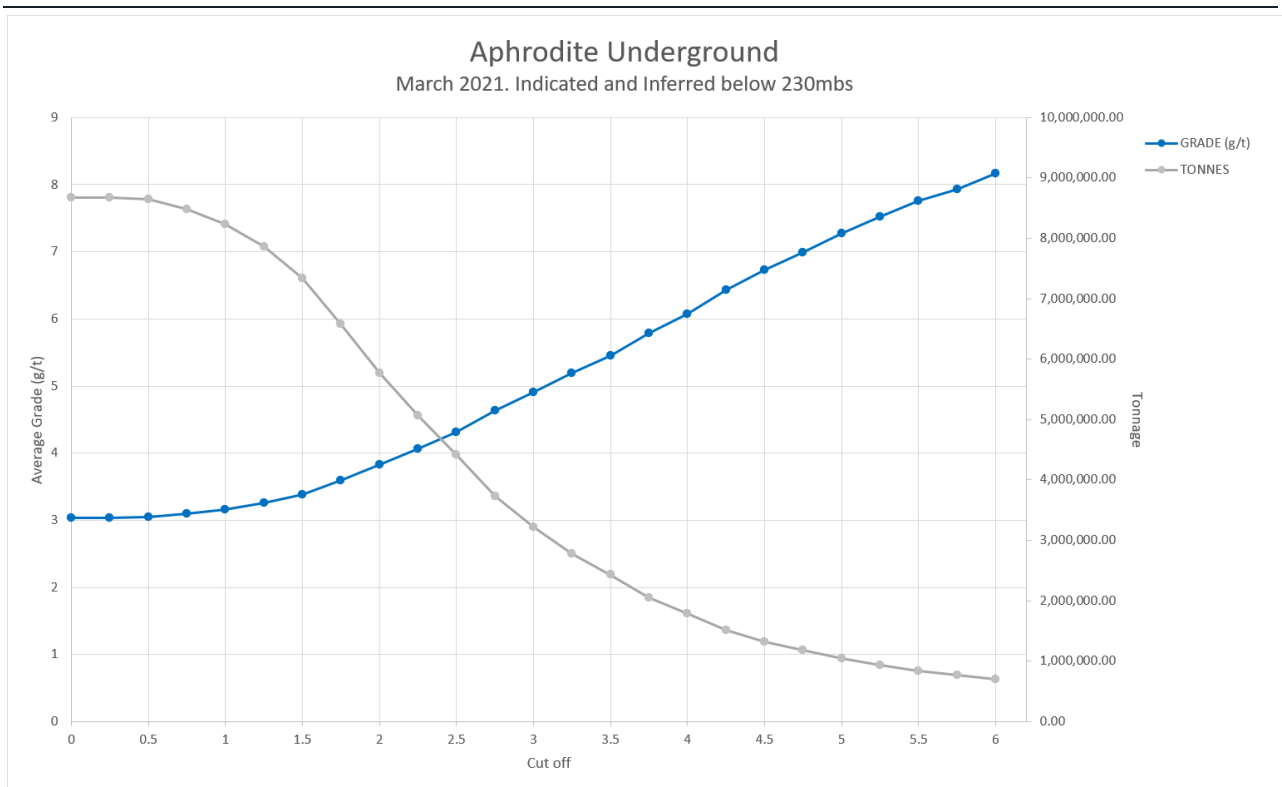


Figure 26-33: Grade tonnage curve for underground material

## EXCELSIOR

The Excelsior deposit has a current JORC Resource of **11.3Mt @ 0.97g/t Au for 354koz** of contained Au.

Table 26-42: Excelsior cut-off grades  $\geq 0.30\text{g/t Au}$  above 250mbs – OP Resource:

Class	Measured		Indicated		Inferred		Total		
	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Tonnes	g/t	Ounces
Oxide			1,635,493	1.06	46,870	0.51	1,682,364	1.04	56,504
Transitional			1,792,471	1.13	67,372	0.63	1,859,843	1.11	66,484
Fresh			6,216,804	0.96	1,570,980	0.77	7,787,784	0.92	230,766
<b>Total</b>			<b>9,645,000</b>	<b>1.01</b>	<b>1,685,000</b>	<b>0.76</b>	<b>11,330,000</b>	<b>0.97</b>	<b>354,000</b>

Note: Appropriate rounding applied

Table 26-43: Excelsior resource

Domain	Measured			Indicated			Inferred			Total		
	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces	Tonnes	g/t	Ounces
OP				9,645,000	1.01	313,000	9,645,000	1.01	313,000	11,330,000	0.97	354,000
UG												
<b>Total Resource</b>				<b>9,645,000</b>	<b>1.01</b>	<b>313,000</b>	<b>9,645,000</b>	<b>1.01</b>	<b>313,000</b>	<b>11,330,000</b>	<b>0.97</b>	<b>354,000</b>

Note: Appropriate rounding applied

## GEOLOGY AND GEOLOGICAL INTERPRETATION

The local stratigraphy comprises of a package of sediments, mafics and ultramafics which strike consistently north-south with variable although steep dips. Excelsior mineralisation is hosted by a sequence of tuffaceous and pelitic sediments and minor intercalated volcanics and intrusives that mark a thin (150 metres) interflow horizon bounded by massive komatiitic flow rocks. Gold mineralisation at Excelsior is associated with three N-S striking, sub-vertical brittle-ductile shear zones within a variety of host lithologies.

Shears are generally broad, up to 60m wide in the oxide zone, and characterised by pervasive strong foliation. Gold mineralisation is associated with intense carbonate, sericite/fuchsite and sulphide alteration. The resource model is for the most part interpreted to a 0.3g/t Au cut-off grade assisted by presence and intensity of quartz veining and alteration.

## **DRILLING TECHNIQUES**

The Excelsior deposit has been defined by an extensive database of drilling completed by historic operators and BDC. Historic digital data has been verified against hardcopy records and ground truthed where possible. The majority of historic drilling (50%) was completed by Aberfoyle who completed 4-3/4" RC roller drilling with minor RC hammer drilling in heavily quartz veined or fresher lithologies. Aberfoyle drilled NQ2 diamond core. For BDC drilling, the RC drilling system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter). All BDC drill core is orientated by the drilling contractor. Holes are down hole surveyed usually every 30m downhole and deeper holes are gyro surveyed by a contract surveyor. All collars are picked up by a mine or contract surveyor.

## **SAMPLING TECHNIQUES, SUB-SAMPLING TECHNIQUES, SAMPLE PREPARATION AND ANALYSIS**

Aberfoyle collected the entire RC sample in a large plastic bag sealed tight over the base of the cyclone to avoid dust loss. The full sample was then multiple riffled to provide two approximately 2kg splits, one for assay and the other for storage/metallurgical purposes. Wet samples were collected in a bucket after passing through a rotary disc wet splitter, flocculated, dried and split to give two 2kg samples. Diamond drilling was NQ diameter and where the material drilled was intensely oxidised drilling was performed using a triple tube. One half NQ core was submitted for assay. Core was sawn where hard enough, or cut with a knife when intensely oxidised. All Bardoc Gold RC drilling was sampled at one metre down hole intervals. The recovered samples were passed through a cone splitter and a representative 2.5kg – 3.5kg sample was taken to a Kalgoorlie contract laboratory for gold assay. The core samples were collected at nominated intervals by Bardoc staff from core that was cut in half at a Kalgoorlie based laboratory or onsite at the Bardoc core yard. All samples were oven dried, crushed to a nominal 10mm by a jaw crusher, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm prior to being assayed for gold. Initial assaying by Aberfoyle (24 holes) was by Aqua Regia. Subsequent assaying was by 40 or 50g charge fire assay. All BDC pulverised samples were prepared for standard fire assay techniques using a 40 or 50g charge. A review of the QAQC data found analytical results to be satisfactory and suitable for inclusion in the resource estimation.

## **ESTIMATION METHODOLOGY**

Localised Uniform Conditioning (LUC) was used as open pit mining is the likely extraction method. Composited samples of 1m width are used, grade top cutting was completed on a domain basis based on disintegration analysis of the probability curve and visual inspection of the histogram. Variography was used to determine directions of grade continuity, supported where possible by geological evidence. Ellipsoidal search parameters were applied on a domain basis with distances between 60m to 100m. A minimum of 7 samples with an optimal 4 samples for each of the four sectors was used, with an optimal 4 samples per borehole. Two search passes were carried out, with the second increasing in volume by three-fold. The estimation panel size used was 8mE x 16mE x 10mRL with a SMU block size of 4mE x 8mN x 2.5mRL chosen (no rotation) for use in the localisation process. This SMU block size is considered appropriate for the generally broad nature of mineralisation where a highly selective mining method (dictated by an even smaller SMU size) is considered unlikely. The SMU sizes were selected based on the geometry of the mineralisation and the likely degree to which selective mining could be achieved given the visual appearance of mineralisation. Bulk density values were applied from average density readings in different lithologies and weathering states.

## MINERAL RESOURCE CLASSIFICATION

The classification attempts to categorise areas of the block model to reflect confidence in the geological framework and estimation quality. The classification takes account of confidence in the geological interpretation and sample density. In order to avoid a mosaic style of classification, strings were constructed to encompass areas considered to adequately fulfil the requirement to be classified as either indicated or inferred:

**Indicated** - Areas with drill spacing up to approximately 30mE x 30mN and with good confidence in the geology.

**Inferred** – Areas with wider spaced drilling but reasonable confidence in geological continuity.

## CUT-OFF GRADES AND REPORTING

The cut-off grade for reporting is 0.3g/t, to reflect potential development by open pit mining. Open pit resources are reported above an RL representative of 250m below surface.

The currently defined extent of mineralisation above 2.0g/t Au does not warrant reporting of resources with potential for extraction by underground mining.

## METALLURGY

Both deposits have been recently successfully previously mined. Metallurgical testwork and milling reconciliations confirm gold recoveries for both deposits exceeds 92% for primary ore

## MODIFYING FACTORS

No modifying factors were applied to the reported Mineral Resources. Parameters including geotechnical, mining dilution, ore loss and metallurgical recoveries will be considered during the mining evaluation of the project.

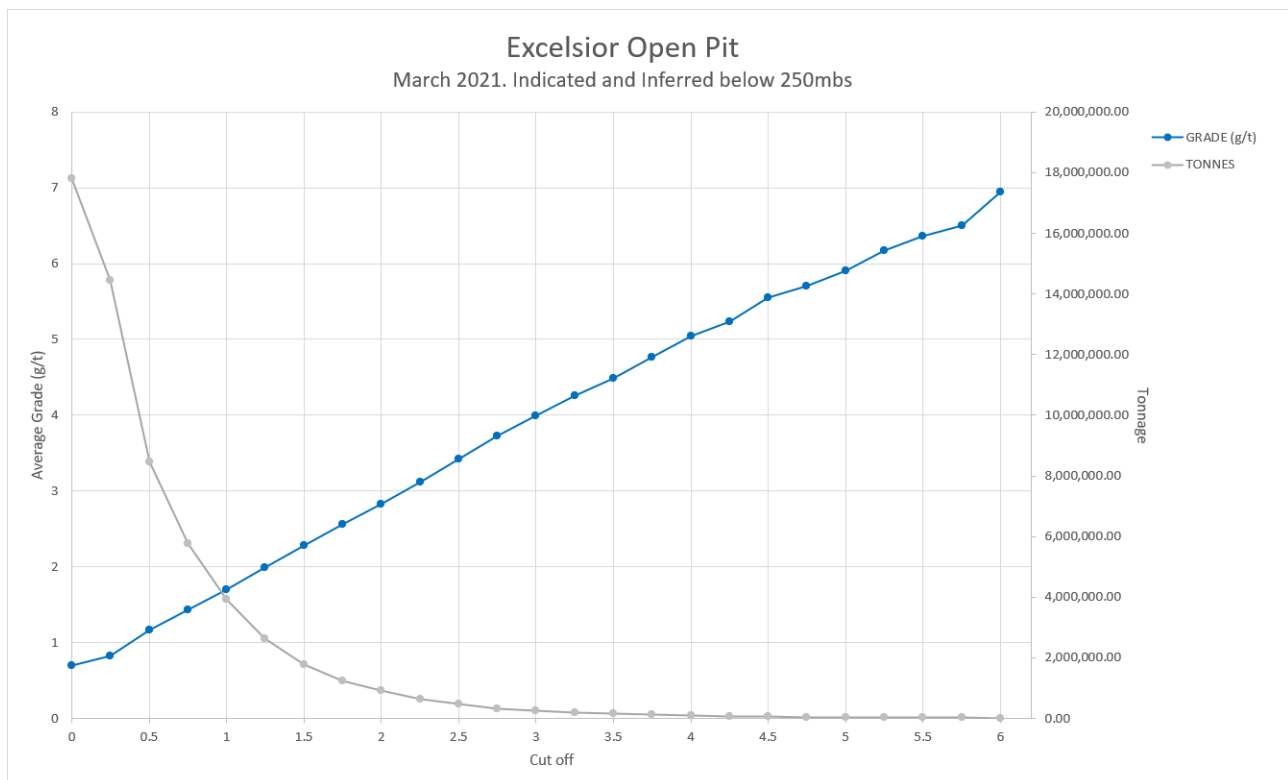


Figure 26-34: Grade tonnage curve for Excelsior

## **DISCLAIMERS AND FORWARD-LOOKING STATEMENTS**

This announcement contains forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions.

The forward-looking statements in this announcement are based on current expectations, estimates, forecasts and projections about Bardoc and the industry in which they operate. They do, however, relate to future matters and are subject to various inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied by any forward-looking statements. The past performance of Bardoc is no guarantee of future performance.

None of Bardoc's directors, officers, employees, agents or contractors makes any representation or warranty (either express or implied) as to the accuracy or likelihood of fulfilment of any forward-looking statement, or any events or results expressed or implied in any forward-looking statement, except to the extent required by law. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

Approved for release by the Board of Directors

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## **Competent Person's Statement – Exploration Results**

*Information in this announcement that relates to exploration results and exploration targets is based on information compiled by Mr. Bradley Toms who is the Exploration Manager of Bardoc Gold Limited. Mr. Toms is a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Toms consents to the inclusion in the document of the information in the form and context in which it appears. Mr Toms has declared that he holds Shares and Performance Rights in Bardoc Gold Limited.*

## **Competent Person's Statements – Mineral Resources**

*The information contained in this report relating to Resource Estimation results for the Aphrodite and Excelsior Mineral Resources, relates to information compiled by Mr. Bradley Toms. Mr. Toms is a member of the Australian Institute of Geoscientists and is a full time employee of the company. Mr. Toms has sufficient experience of relevance to the styles of mineralisation and the types of deposit under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Toms consents to the inclusion in this report of the matters based on information in the form and context in which it appears. Mr Toms has declared that he holds Shares and Performance Rights in Bardoc Gold Limited.*

*The Company confirms that for all other Resource Estimates, material assumptions and technical parameters, referenced in this document and underpinning these estimates, continue to apply and have not materially changed from previous announcements.*

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**Competent Person's Statements – Ore Reserves – Open Pit**

*The information in this report relating to Ore Reserves is based on information compiled by Andrew Francis of Bardoc Gold a Competent Person who is a member of The Australian Institute of Mining and Metallurgy (AUSIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Francis is the full-time Chief Operating Officer for Bardoc Gold Limited. Mr Francis consents to the inclusion in this document of the information in the form and context in which it appears. Mr Francis has declared that he holds Performance Rights in Bardoc Gold Limited.*

**Competent Person's Statements – Ore Reserves – Underground**

*The information in this report relating to Ore Reserves is based on information compiled by Andrew Francis a Competent Person who is a member of The Australian Institute of Mining and Metallurgy (AUSIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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 Francis is the full-time Chief Operating Officer for Bardoc Gold Limited. Mr Francis consents to the inclusion in this document of the information in the form and context in which it appears. Mr Francis has declared that he holds Performance Rights in Bardoc Gold Limited.*

## APPENDIX 1

### JORC, 2012 Edition – Tables – APHRODITE

#### Section 1 Sampling techniques and data – Aphrodite

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralization was primarily sampled by Reverse Circulation (RC) and Diamond Core (DC) drilling on nominal 40m x 40m (N x E) grid spacing. The holes were generally drilled towards grid east at varying angles to optimally intersect the mineralized zones.</li> <li>Complete details are un-available for historic drilling.</li> <li>BDC RC recovered chip samples were collected and passed through a cone splitter.</li> <li>Limited numbers of field duplicates and screen fire assays have been undertaken to support sample representivity.</li> <li>BDC DC core has been sampled by submission of a minimum of cut quarter core.</li> <li>All BDC RC drilling was sampled on one metre down hole intervals. The recovered samples were passed through a cone splitter and a nominal 2.5kg – 3.5kg sample was taken to a Kalgoorlie contract laboratory. Samples were oven dried, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 40g charge. Approximately 200g of pulp material is returned to BDC for storage and potential assay at a later date. The BDC DC samples are collected at nominated intervals by BDC staff from core that has been cut in half and transported to a Kalgoorlie based laboratory. Samples were oven dried, crushed to a nominal 10mm by a jaw crusher, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 40g charge. Approximately 200g of pulp material is returned to BDC for storage and potential additional assay at a later date.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 style="list-style-type: none"> <li>There are holes drilled by previous owners over the area prior to mid 2010. These holes are occasionally without documentation of the rig type and capability, core size, sample selection and handling.</li> <li>For BDC drilling, the RC drilling system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is HQ size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter).</li> <li>All BDC drill core is orientated by the drilling contractor, usually every 3m run.</li> <li>There are no new results announced in this announcement.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All BDC RC 1m samples are logged for drilling recovery by a visual estimate and this information is recorded and stored in the drilling database. At least every 10<sup>th</sup> metre is collected in a plastic bag and these are weighed when they are utilized for the collection of field duplicate samples. All samples received by the laboratory are weighed with the data collected and stored in the database.</li> <li>The BDC DC samples are orientated, length measured and compared to core blocks placed in the tray by the drillers, any core loss or other variance from that expected from the core blocks is logged and recorded in the database. Sample loss or gain is reviewed on an ongoing basis and feedback given to the drillers to enable the best representative sample to always be obtained.</li> <li>BDC RC samples are visually logged for moisture content, sample recovery and contamination. This is information is stored in the database. The RC drill system utilizes a face sampling hammer which is industry best practice and the contractor aims to maximize recovery at all times. RC holes are drilled dry whenever practicable to maximize recovery of sample.</li> <li>The DC drillers use a core barrel and wire line unit to recover the core, they aim to recover all core at all times and adjust their drilling methods and rates to minimise core loss, i.e. different techniques for broken ground to ensure as little core as possible is washed away with drill cuttings.</li> <li>Study of sample recovery vs gold grade does not show any bias towards differing sample recoveries or gold grade. The drilling contractor uses standard industry drilling techniques to ensure minimal loss of any size fraction.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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. Core (or costean, channel, etc) photography.</li> </ul>	<ul style="list-style-type: none"> <li>All BDC RC samples are geologically logged directly into hand-held devices generally using Geobank Mobile software.</li> <li>All BDC DC is logged for core loss, marked into metre intervals, orientated, structurally logged, geotechnically logged and logged with a hand lens with the following parameters recorded where observed: weathering, regolith, rock type, alteration, mineralization, shearing/foliation and any other features that are present</li> </ul>

	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All BDC DC is photographed both wet and dry after logging but before cutting.</li> <li>The entire lengths of BDC RC holes are logged on a 1m interval basis, i.e. 100% of the drilling is logged, and where no sample is returned due to voids (or potentially lost sample) it is logged and recorded as such. Drill core is logged over its entire length and any core loss or voids intersected are recorded.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>BDC Exploration results reported are for a minimum of quarter cut drill core taken from the right hand side of the core looking down hole. Core is cut by BDC staff onsite at the core cutting facility.</li> <li>All BDC RC samples are put through a cone splitter and the sample is collected in a unique pre-numbered calico sample bag. The moisture content of each sample is recorded in the database.</li> <li>The BDC RC samples are sorted, oven dried, the entire sample is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 40 or 50g fire assay charge.</li> <li>The BDC DC samples are oven dried, jaw crushed to nominal &lt;10mm, 3.5kg is obtained by riffle splitting and the remainder of the coarse reject is bagged while the 3.5kg is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for a 40g or 50g fire assay charge.</li> <li>BDC RC and DC samples submitted to the laboratory are sorted and reconciled against the submission documents. BDC inserts blanks and standards with blanks submitted in sample number sequence at 1 in 50 and standards submitted in sample number sequence at 1 in 20. The laboratory uses their own internal standards of 2 duplicates, 2 replicates, 2 standards, and 1 blank per 40 or 50g fire assay batch. The laboratory also uses barren flushes on the pulveriser.</li> <li>In the field every 10<sup>th</sup> metre from the bulk sample port on the cone splitter is bagged and placed in order on the ground with other samples. This sample is then used for collection of field duplicates via riffle splitting. RC field duplicate samples are collected after results are received from the original sample assay. Generally, field duplicates are only collected where the original assay result is equal to or greater than 0.1g/t Au. The field duplicates are submitted to the laboratory for the standard assay process. The laboratory is blind to the original sample number.</li> <li>For DC, historically no core duplicates (i.e. half core) have been collected or submitted. BDC inserts blank samples and standards at the rate of about 1 in 20. The results and core used for this announcement will undergo metallurgical testwork, this will involve performing check assays on the samples which will act as a field duplicate.</li> <li>The sample sizes are considered to be appropriate for the type, style, thickness and consistency of mineralization located at this project. The sample size is also appropriate for the sampling methodology employed and the gold grade ranges returned.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>BDC has routinely used local Kalgoorlie Certified Laboratories for all sample preparation and analysis. The most commonly used laboratories have been SGS Australia, Bureau Veritas Australia and Intertek. No complete details (i.e. most details captured, but not all details for all holes) of the sample preparation, analysis or security are available for either the historic AC, DD or RC drilling results in the database.</li> <li>The assay method is designed to measure total gold in the sample. The laboratory procedures are appropriate for the testing of gold at this project given its mineralization style. The technique involves using a 40g or 50g sample charge with a lead flux which is decomposed in a furnace with the prill being totally digested by 2 acids (HCl and HNO<sub>3</sub>) before measurement of the gold content by an AA machine.</li> <li>The QC procedures are industry best practice. The laboratories are accredited and use their own certified reference materials.</li> <li>BDC submits blanks at the rate of 1 in 50 samples and certified reference material standards at the rate of 1 in 20 samples in the normal run of sample submission numbers. As part of normal procedures BDC examines all standards and blanks to ensure that they are within tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grade exists.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>BDC's Exploration Manager and site geologist have inspected RC chips and drill core in the field to verify the correlation of mineralized zones between assay results and lithology/alteration/mineralization</li> <li>A number of RC holes have also been drilled that confirmed results obtained from historical drillholes. No holes have been directly twinned, there are however holes within 12m of each other.</li> <li>Primary data is sent digitally every 2-3 days from the field to BDC's Database Administrator (DBA). The DBA imports the data into the</li> </ul>

		<p>commercially available and industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory. The responsible geologist reviews the data in the database to ensure that it is correct and has merged properly and that all data has been received and entered. Any variations that are required are recorded permanently in the database.</p> <ul style="list-style-type: none"> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drill holes have their collar location recorded by a contract surveyor using RTK GPS. Downhole surveys are completed at least every 30m downhole. Incomplete down hole surveying information is available for the historic RC or DD drilling. No detailed down hole surveying information is available for the historic RC or DD drilling.</li> <li>BDC routinely contracted down hole surveys during the programmes of exploration drilling for each RC and DC drill hole completed using either digital electronic multi-shot tool or north seeking gyro, both of which are maintained by Contractors to manufacturer specifications. The current drill program was downhole surveyed by the drill contractor using a north seeking gyro.</li> <li>All drill holes and resource estimation use the MGA94, Zone 51 grid system.</li> <li>The topographic data used was obtained from consultant surveyors and is based on a LiDAR survey flown in 2012. It is adequate for the reporting of Exploration Results and subsequent Mineral Resource estimates.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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. Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The nominal exploration drill spacing is 40m x 40m with many E-W cross-sections in-filled to 20m across strike. This has been infilled with variable spacing for resource estimate purposes to 20 x 20m. There are no new exploration results reported in this announcement. The drill spacing, spatial distribution and quality of assay results is sufficient to support the JORC classification of material reported previously and is appropriate for the nature and style of mineralisation being reported.</li> <li>The majority of RC holes were sampled at 1m, but when this isn't the case, sample compositing to 4m has been applied.</li> <li>The BDC DC drilling has no sample composites applied to the raw sample assays. Any results reported are length weighted averages.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of 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 style="list-style-type: none"> <li>The majority of previous drilling is to grid east and west. The bulk of the mineralized zones are perpendicular to this drilling direction.</li> <li>The current drilling is oriented towards grid east (89 degrees magnetic) or grid west (269 degrees magnetic).</li> <li>There is no sampling bias recognised from the intersection angle of the drilling and the lode orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>RC samples are delivered directly from the field to the Kalgoorlie laboratory by BDC personnel on a daily basis with no detours, the laboratory then checks the physically received samples against an BDC generated sample submission list and reports back any discrepancies.</li> <li>Drill core is transported daily directly from the drill site to BDC's core processing facility by BDC personnel. The core is then placed on racks and processed until it requires cutting. Core is then cut onsite by BDC's staff. The core is then assayed in Kalgoorlie by the assay laboratory after transport by BDC staff with no stops or detours.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Internal audits of sampling techniques as well as data handling and validation was regularly conducted by Aphrodite Geologists prior to the merger, as part of due diligence and continuous improvement and review of procedures.</li> </ul>

## Section 2 Reporting of Exploration Results – Aphrodite

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

Criteria	JORC Code explanation	Commentary																
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"><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 licence to operate in the area.</li></ul>	<ul style="list-style-type: none"><li>The results reported in this Announcement are on granted Mining Tenements held by Aphrodite Gold Pty Ltd, a wholly owned subsidiary of Bardoc Gold Limited. A 2.5% State Royalty and 2.5% Franco Nevada Royalty exist on gold ores mined from the Aphrodite Deposit.</li></ul>																
		<table><tr><th>Tenement</th><th>Holder</th><th>Area (Ha)</th><th>Expiry Date</th></tr><tr><td>M24/662</td><td>Aphrodite Gold Pty Ltd</td><td>363.3</td><td>27/06/2028</td></tr><tr><td>M24/720</td><td>Aphrodite Gold Pty Ltd</td><td>995.4</td><td>20/08/2028</td></tr><tr><td>M24/681</td><td>Aphrodite Gold Pty Ltd</td><td>446.3</td><td>09/08/2030</td></tr></table>	Tenement	Holder	Area (Ha)	Expiry Date	M24/662	Aphrodite Gold Pty Ltd	363.3	27/06/2028	M24/720	Aphrodite Gold Pty Ltd	995.4	20/08/2028	M24/681	Aphrodite Gold Pty Ltd	446.3	09/08/2030
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		M24/720	Aphrodite Gold Pty Ltd	995.4	20/08/2028													
M24/681	Aphrodite Gold Pty Ltd	446.3	09/08/2030															
<ul style="list-style-type: none"><li>At this time, the tenements are in good standing. There are known existing impediments to obtain a license to operate a mine.</li></ul>																		
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"><li>Acknowledgment and appraisal of exploration by other parties.</li></ul>	<ul style="list-style-type: none"><li>Project has had many owners over more than 20 years and has been reviewed multiple times. Historic documents are not always available.</li><li>Drilling, geological, sampling and assay protocols and methods were to industry standard and adequate for inclusion in Mineral Resource Estimation</li></ul>																

<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• Discontinuous shoots of low to moderate tenor gold mineralisation within two broader sub-parallel mineralised structural zones. Mineralisation is beneath a substantial thickness of leached overburden. Free milling in upper oxidized and partially oxidized zones but mostly refractory in the primary zone.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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: <ul style="list-style-type: none"> <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> </ul> </li> <li>• If the exclusion of this information is justified on the basis 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.</li> </ul>	<ul style="list-style-type: none"> <li>• There are no new drill holes reported in this announcement.</li> <li>• No results from previous un-reported exploration are the subject of this announcement.</li> <li>• Easting and Northing define the collar location in MGA94 zone 51 map projection. The map projection is a transverse Mercator projection, which conforms with the internationally accepted Universal Transverse Mercator Grid system. Collar elevations are RL's (elevation above sea level)</li> <li>• Dip is the inclination of the hole from the horizontal (i.e. a vertically down drilled hole from the surface is -90°). Azimuth for current drilling is reported in magnetic degrees as the direction toward which the hole is drilled. MGA94 and magnetic degrees vary by approximately 1° in this project area</li> <li>• Down hole length of the hole is the distance from the surface to the end of the hole, as measured along the drill trace. Intercept depth is the distance down the hole as measured along the drill trace. Intersection width is the downhole distance of an intersection as measured along the drill trace.</li> <li>• Hole length is the distance from the surface to the end of the hole, as measured along the drill trace.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 style="list-style-type: none"> <li>• No high grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay. DC assay results are distance (length) weighted using the grades and intersection width applicable to each individual sample.</li> <li>• Intersections are reported if the interval is at least 1m wide at 0.5g/t Au grade. Intersections greater than 1m in downhole distance can contain up to 2m of low grade or barren material.</li> <li>• No metal equivalent reporting is used or applied.</li> <li>• There are no new assay results reported in this announcement.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 (e.g. 'down hole length, true width not known')</li> </ul>	<ul style="list-style-type: none"> <li>• The intersection width is measured down the hole trace, it is not usually the true width. Cross sections in this announcement allows the relationship between true and down hole width to be viewed.</li> <li>• Data collected from historical workings and shafts within the area and from structural measurements from orientated diamond core drilling show the primary ore zones to be sub-vertical (steeply west or east dipping) in nature with a general northerly strike.</li> <li>• All drill results within this announcement are downhole intervals only and true widths are not reported. True widths are approximately 40% of the reported drill intercept widths.</li> <li>• There are no new assay results reported in this announcement.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Views are contained within this announcement.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• There are no new assay results reported in this announcement.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The previous exploration work completed on the deposit was done by previous owners and are too extensive to report in the context of this announcement.</li> <li>• Fresh rock samples are refractory in nature and in order to maximize gold recoveries, alternative processing methods to standard CIL/CIP are being investigated.</li> <li>• Arsenic and Sulphur are present in quantities that will require additional consideration of tailings disposal options</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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 style="list-style-type: none"> <li>• Exploration work is ongoing at this time and may involve the drilling of more drill holes, both DC and RC, to further extend the mineralised zones and to collect additional detailed data on known and as yet unidentified mineralized zones.</li> <li>• Bardoc Gold is continuing with mine planning studies, including metallurgical test work. There are metallurgical testwork results in the body of this announcement.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Aphrodite – Open Pit (OP)

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the BDC Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits are regularly undertaken by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the system and the gold distribution is complex, however recent structural knowledge has elevated confidence in ore lode geometries. There is good continuity of mineralisation established by 20m x 20m close spaced drilling near surface and reasonable continuity from 40m x 40m drilling. Ore shoot geometries are predicted from structural evidence and confirmed from geostatistics</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the collar location and downhole survey data.</li> <li>The lithology units have been modelled using drilling data and consist of a north-south striking, sub-vertical sequence of sediments, volcanics and porphyry. Mineralisation is oriented NNW within 2 major shear systems. Individual structures are evident within the shear systems and are associated with veining, alteration, foliation, and gold. Geological information such as veining, alteration and structure, plus gold and Arsenic grades, were used to guide the interpretation.</li> <li>Structural continuity of the shear systems is extensive. The grade continuity within the shears is less continuous.</li> <li>The selection of mineralised domains has used geological factors such as logged quartz and sulphides in conjunction with a ~0.3g/t Au cut off which represents the mineralised shear in all modelled domains.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation within the 2 major shears extending for ~1.6km along strike and 500m in elevation. The shears are separated by ~120m. Locally, between the major shears are mineralised linking structures. An extensive supergene blanket extends for up to 400m east of the deposit. Depth below surface to the top of the resource is between 35 and 60m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>BDC has used 3DM wireframes to constrain the mineralised shear zones. All lodes have been interpreted on a sectional basis using the available exploration drilling data on variable spacing.</li> <li>Raw assay samples were composited to 1m. Compositing started where each drill hole entered a mineralised wireframe and continued until exiting the wireframe. A minimum composite width of 0.7m was chosen and any residual composites were averaged with the previous sample.</li> <li>Given the sometimes relatively wide drill spacing, it was decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method. This method is suited to estimating grades into SMU scale blocks from widely spaced data.</li> <li>The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>The coherence and stability of the upper tail of the gold grade distribution.</li> <li>Visual inspection of the spatial location of outlier values.</li> </ul> </li> <li>The statistics show that in most cases there is only a small reduction in mean grade and variability following top cutting.</li> <li>The LUC estimates were implemented using the Isatis NeoTM software package before being transferred into a Micromine™ block model. SupervisorTM software used for geostatistics, variography and block model validation.</li> <li>No consideration has been made to by-products.</li> <li>Deleterious elements (Sulphur and Arsenic) have been estimated in this model for use in upcoming metallurgy studies, but not used in the reporting of resources.</li> <li>The estimation panel size used was 10mE x 20mE x 5mRL. An SMU block size of 2.5mE x 5mN x 2.5mRL was chosen (no rotation) for use in the localisation process. This SMU block size is considered appropriate for the deposit and predicted mining fleet. While the data spacing in areas other than near surface would be considered too wide for such a small block size if conventional linear estimation methods were used, BDC has</li> </ul>

		<p>used the LUC method, which is suited to estimating the grade distribution of smaller blocks using wide spaced data.</p> <ul style="list-style-type: none"> <li>Panel estimates were completed using Ordinary Kriging, both within the Uniform conditioning step.</li> <li>The UC Panel estimates uses a minimum of seven samples, with an optimal three samples per drillhole. Four sectors are used, and each has an optimum number of seven samples per sector.</li> <li>Search orientations are largely based on variogram orientations, with maximum ranges set high to ensure blocks are estimated in the one pass. This leads to a relatively smooth panel estimate.</li> <li>Support correction between point grades and panel grades are used in assigning SMU grades within the Localisation step.</li> <li>Validation was completed on both panel models and the localisation to SMU's <ul style="list-style-type: none"> <li>visually, comparing block estimated grades to local drilling.</li> <li>Using swath plots on a N-S, E-W and depth and</li> <li>Comparing estimated grades to composite grades on a domain by domain basis.</li> <li>Comparison to the previous model to understand changes</li> </ul> </li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are reported on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The open pit-able MRE has been reported above a 0.4g/t Au cut-off and above an RL which represents 235m below surface. The underground resource is reported above a 1.2g/t cut-off and below an RL which represents 235m below surface. It should be note that the LUC estimation method implies a mining selectivity which is unlikely to be achieved during underground mining.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>This MRE has been undertaken on the assumption of open pit mining methods, the selection of SMU size was based on the scale of mining equipment likely to be used.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Aphrodite deposit has never been mined. BDC has conducted extensive metallurgical test work on all lithology types from various weathering profiles. The testwork has concluded the fresh and transitional ore is refractory in nature. There have been many generations of testwork and several processing methods investigated, currently BDC has determined that a flotation concentrate of sulphide ore will be produced and sold to 3rd parties. Recoveries, Capital Costs and Operating Costs will be based on this flow sheet, with concentrate tails being processed through a CIL process facility.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Characterisation of representative waste rock samples at Aphrodite indicated that there is Potentially Acid Forming (PAF) material in the Alpha and Phi transition materials. Volumes of PAF material are to be confirmed with subsequent testing, however, are not expected to be significant. PAF material will be subject to a containment cell located within the waste dump, which will be adequately capped with fresh rock such that drainage is managed.</li> <li>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitat, surface hydrology and groundwater dependent ecosystems.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>Dry bulk density estimates have been made for mineralisation according to position within the oxidation profile and mineralised domain.</li> <li>Estimates are based on historic core measurements and gamma-gamma logging for underground extractable material and on recent core measurements alone for surface extractable material.</li> <li>Where deemed appropriate, waxing of cores has been undertaken prior to measurement by water displacement.</li> </ul>

<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralisation is currently reasonably well understood. The MRE is classified into indicated and inferred to reflect the confidence in the estimate of different areas of the MRE. The classification is based on drill hole spacing, geological continuity and estimation quality parameters.</li> <li>Indicated – Areas with drill spacing up to approximately ~40mE x 40mN and with reasonable confidence in the geological interpretation.</li> <li>Inferred – Areas with drill spacing up to ~80mE x 80mN.</li> <li>There is a high level of confidence in input data, geology, and gold grades. At depth where drilling is more separated, confidence in geological and grade continuity is reduced and this is accounted for by having an inferred or unclassified classification.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The current resource estimate is currently being independently reviewed.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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 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>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>Several measures were incorporated in the MRE to provide confidence in the estimate including: <ul style="list-style-type: none"> <li>The estimate has used top-cuts to restrict the influence of high grade samples without having a detrimental effect on metal content.</li> <li>Adoption of the LUC estimation method provides an estimate of tonnages and grades at the SMU scale which can be achieved during mining.</li> </ul> </li> <li>The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.</li> <li>Aphrodite is previously unmined, there are no production records with which to compare this estimate to.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Aphrodite – Underground (UG)

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the BDC Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits are regularly undertaken by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the system and the gold distribution is complex, however recent structural knowledge has elevated confidence in ore lode geometries. There is good continuity of mineralisation established by 20m x 20m close spaced drilling near surface and reasonable continuity from 40m x 40m drilling. Ore shoot geometries are predicted from structural evidence and confirmed from geostatistics</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the collar location and downhole survey data.</li> <li>The lithology units have been modelled using drilling data and consist of a north-south striking, sub-vertical sequence of sediments, volcanoclastics and porphyry. Mineralisation is oriented NNW within 2 major shear systems. Individual structures are evident within the shear systems and are associated with veining, alteration, foliation, and gold. Geological information such as veining, alteration and structure, plus gold and Arsenic grades, were used to guide the interpretation.</li> <li>Structural continuity of the shear systems is extensive. The grade continuity within the shears is less continuous.</li> <li>The selection of mineralised domains has used geological factors such as a logged quartz and sulphides in conjunction with a ~1g/t Au cut off which represents the mineralised shear in all modelled domains.</li> </ul>

<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation within the 2 major shears extending for ~1.6km along strike and 500m in elevation. The shears are separated by ~120m. Locally, between the major shears are mineralised linking structures. An extensive supergene blanket extends for up to 400m east of the deposit. Depth below surface to the top of the resource is between 35 and 60m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>BDC has used 3DM wireframes to constrain the mineralised shear zones. All lodes have been interpreted on a sectional basis using the available exploration drilling data on variable spacing. Lode interpretations were modelled using Leapfrog Geo vein modelling tools.</li> <li>Estimation was completed using Ordinary Kriging (OK) using Datamine RM software</li> <li>Variography, using composited drill data, was completed in Snowden Supervisor software.</li> <li>Raw assay samples were composited to 1m. Compositing started where each drill hole entered a mineralised wireframe and continued until exiting the wireframe. A minimum composite width of 0.1m was chosen and any residual composites were averaged with the previous sample.</li> <li>The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>The coherence and stability of the upper tail of the gold grade distribution, and the effect of outlier values to mean and variance.</li> <li>Visual inspection of the spatial location of outlier values;</li> </ul> </li> <li>Using Kriging Neighbourhood Analysis (KNA) a block size of 5mE x 5mE x 5mRL was selected to reflect the drill spacing noted in the well-informed areas. The spacing is arguably too fine for the lesser-informed, lower confidence areas, but this is reflected in the classification.</li> <li>Original search ellipse dimensions and orientation reflect the parameters derived from the variography analysis.</li> <li>A process of Dynamic Anisotropy (DA) applied where orientations adjusted locally based on the orientation of lode wireframes.</li> <li>Original search samples parameters derived from KNA. Maximum of 3 samples per drillhole, with 5 samples required as a minimum and 15 samples as a maximum.</li> <li>A process of Localised Kriging Neighbourhood Optimisation (LKNO) applied where samples counts (minimum and maximum) adjusted iteratively to ensure each block has the optimal parameters applied.</li> <li>Classification was used to mitigate risk associated with less well estimated blocks.</li> <li>Validation was completed using multiple approaches including: <ul style="list-style-type: none"> <li>Global mean analysis</li> <li>Local Mean analysis (using swath plots NS, EW, and RL)</li> <li>Visually, comparing block estimated grades to local drilling.</li> </ul> </li> <li>No consideration has been made to by-products.</li> <li>Sulphur and Arsenic zones were calculated using a Categorical indicator approach, and estimated using Ordinary kriging.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are reported on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The open pitable MRE has been reported above oxide=0.3g/t Au, transitional=0.5g/t Au, fresh=0.7g/t Au cut-off and above an RL which represents 235m below surface. The underground resource is reported above a 1.7g/t cut-off and below an RL which represents 235m below surface.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>This MRE has been undertaken on the assumption of underground mining methods. Further work, including additional drilling, will determine the optimal mining method for this material.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Aphrodite deposit has never been mined. BDC has conducted extensive metallurgical test work on all lithology types from various weathering profiles. The testwork has concluded the fresh and transitional ore is refractory in nature. There has been many generations of testwork and several processing methods investigated but currently BDC has determined that a flotation concentrate of sulphide ore will be produced and sold to 3rd parties. Recoveries, Capital Costs and Operating Costs will be based on this flow sheet, with concentrate tails being processed through a CIL process facility.</li> </ul>

<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Characterisation of representative waste rock samples at Aphrodite indicated that there is Potentially Acid Forming (PAF) material in the Alpha and Phi transition materials. Volumes of PAF material are to be confirmed with subsequent testing, however, are not expected to be significant. PAF material will be subject to a containment cell located within the waste dump, which will be adequately capped with fresh rock such that drainage is managed.</li> <li>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitat, surface hydrology and groundwater dependent ecosystems.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>Dry bulk density estimates have been made for mineralisation according to position within the oxidation profile and mineralised domain.</li> <li>Estimates are based on historic core measurements and gamma-gamma logging for underground extractable material and on recent core measurements alone for surface extractable material.</li> <li>Where deemed appropriate, waxing of cores has been undertaken prior to measurement by water displacement.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralisation is currently reasonably well understood. The MRE is classified into indicated and inferred to reflect the confidence in the estimate of different areas of the MRE. The classification is based on drill hole spacing, geological continuity and estimation quality parameters.</li> <li>Indicated – Areas with drill spacing up to approximately ~40mE x 40mN and with reasonable confidence in the geological interpretation.</li> <li>Inferred – Areas with drill spacing up to ~80mE x 80mN.</li> <li>There is a high level of confidence in input data, geology, and gold grades. At depth where drilling is more separated, confidence in geological and grade continuity is reduced and this is accounted for by having an inferred or unclassified classification.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The current resource estimate is currently being independently reviewed.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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 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>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>Several measures were incorporated in the MRE to provide confidence in the estimate including: <ul style="list-style-type: none"> <li>The estimate has used top-cuts to restrict the influence of high grade samples without having a detrimental effect on metal content.</li> <li>Adoption of the LUC estimation method provides an estimate of tonnages and grades at the SMU scale which can be achieved during mining.</li> </ul> </li> <li>The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.</li> <li>Aphrodite is previously unmined, there are no production records with which to compare this estimate to.</li> </ul>

## Section 4 Estimation and Reporting of Ore Reserves – Aphrodite Underground & Open Pit

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Bardoc Gold Mineral Resource as reported in March 2021
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserve.
<b>Site visits</b>	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person has conducted multiple site visits and is familiar with the region and is comfortable relying on site visit reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
<b>Study status</b>	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Definitive Feasibility Study carried out by Bardoc and independent consultants SMJ Engineering provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
<b>Cut-off parameters</b>	The basis of the cut-off grade(s) or quality parameters applied.	<p>Definitive Feasibility costs, revenue factors and physicals form the basis for Cut Off Grade calculations.</p> <p>Mill recovery is calculated based on metallurgical testwork carried out as part of the Definitive Feasibility Study.</p> <p>A gold price of A\$2,000 / oz (US\$1,500/oz) was assumed for the Cut Off Grade calculations.</p> <p>For refractory ore, cut-off grades include the concentrate costs which include logistics, insurances, treatment costs, penalties and payabilities.</p> <p>The underground COG of 1.5 g/t was used as the basis for initial stope design, with all designs assessed by detailed financial analysis to confirm their profitability in consideration to the works required to access and extract them.</p> <p>The stage 1 open pit COG of 0.41 g/t Au for oxide material, 0.44 g/t Au for oxide material, 0.75 g/t Au for refractory transitional material and 0.79 g/t Au for fresh material was applied to define ore and waste for non-refractory and refractory ore types respectively.</p> <p>The stage 2 open pit COG of 0.39 g/t Au for oxide material, 0.44 g/t Au for free milling transitional material, 0.70 g/t Au for refractory transitional material and 0.81 g/t Au for refractory fresh material.</p>
<b>Mining factors or assumptions</b>	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).	Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.
	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.	<p>The underground ore reserve is planned to be mined using conventional underground mining methods. The mining will consist of Longhole open Stopping (LHOS) on 20m level spacing with voids remaining open and insitu rock rib and sill pillars used for stability. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional fleet of twin boom jumbo's, 76mm production drills, 10-15t loaders and 60 tonne trucks.</p> <p>The open pit Ore Reserve is planned to be mined using conventional surface mining methods. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional diesel fleet of 120 t-class and 190 t-class excavators and 100 t dump trucks. 30% of oxide material was assumed to be drilled and blasted using Emulsion-type explosives. 85% of transition material was assumed to be drilled and blasted using Emulsion-type explosives and 100% of the fresh material is to be drilled and blasted using Emulsion-type explosives.</p> <p>A minimum working width of 20 m has been applied based on the proposed fleet.</p> <p>The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists to the mine.</p>
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	<p>Underground designs are based on geotechnical parameters provided by independent consultants PETER O'BRYAN &amp; Associates.</p> <p>Stope parameters used in the underground reserves are 20m level spacing (height), maximum 25m strike length, staggered rib pillars (minimum 1:1 width to length ratio) with sill pillars less than or equal to 80m spacing.</p>

		<p>Underground grade control will be carried out using diamond drill holes from stockpiles off the decline. The costs have been based off estimated drilling requirements and current diamond drill rates incurred by the company.</p> <p>Pit slopes have been designed based on geotechnical analysis by independent consultants Peter O'Bryan and Associates (POA).</p> <p>Open pit grade control will be carried out using RC drilling in the pit floor. These activities have been costed based on a recent request for quotation process involving experienced and reputable contractors</p>
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mineral Resources used for optimisation were those detailed previously. Cut-off grades and geotechnical inputs used for optimisations were also applied as detailed previously.
	The mining dilution factors used.	<p>A 5% waste (i.e. zero grade) dilution factor was applied to underground stoping and 10% waste dilution factor was used for mine development.</p> <p>Open pit mining blocks were regularised in the Mineral Resource to model selective mining unit (SMU) size based on the proposed fleet.</p> <p>Minimum Resource block sizes were 5.0 m across strike x 5.0 m along strike x 2.5mH.</p> <p>No other mining dilution was applied to the open pit ore.</p>
	The mining recovery factors used.	<p>In-situ stope recovery was assumed at 95%; Stope recovery where rib pillars are required was 0%; Stope recovery on levels where sill pillars are left varied from 30% to 0%, based on stope widths. It was assumed all development is fully recovered.</p> <p>Open pit ore had a 97% mining recovery applied.</p>
	Any minimum mining widths used.	A minimum mining width of 2.5m was applied to underground stopes and open pit SMU.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	<p>Inferred Resources were not taken into account during valuation in the underground design process, and as such did not have an impact on stope shape or development design. Any Inferred material contained within underground designs was treated as waste (i.e. zero grade).</p> <p>Inferred Resources were not taken into account during valuation in the pit optimisation process, and as such did not have an impact on pit shape. Any Inferred material contained within pit designs was treated as waste (i.e. zero grade).</p>
	The infrastructure requirements of the selected mining methods.	Aphrodite is a greenfields site and will require all surface and underground infrastructure to be installed, including offices, workshops, first aid facilities, power supply, water management, stores, communications, fuel farm, magazines, waste dumps, run-of-mine (ROM) pads and access road upgrades. This has been allowed for in the Definitive Feasibility Study.
<b>Metallurgical factors or assumptions</b>	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	<p>Carbon-In-Leach (CIL) Processing will be adopted for the oxide and Alpha transitional ore based on the free milling characteristics from the metallurgical testwork.</p> <p>The refractory material will undergo flotation to form a concentrate which is proposed to be sold under a concentrate sale offtake agreement for downstream smelting and refining.</p> <p>Aphrodite underground is 100% refractory material.</p> <p>Aphrodite stage 1 open pit contains 6% free milling and 94% refractory material.</p> <p>Aphrodite stage 2 open pit contains 27% free milling and 73% refractory material.</p> <p>The Definitive Feasibility included construction of a CIL Processing Facility with flotation circuit to be located at the Excelsior / Zoroastrian complex 21.1km from Aphrodite. Ore will be transported by an external contractor, utilising road trains to the mill ROM. The free milling and refractory ore will be processed separately in campaigns.</p>
	Whether the metallurgical process is well-tested technology or novel in nature.	CIL and flotation is a standard and common gold extraction process for free milling and refractory ores.
	<p>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</p> <p>Any assumptions or allowances made for deleterious elements.</p> <p>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.</p> <p>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</p>	<p>A total of 24 Aphrodite composites were used in the DFS testwork program. The composites have covered spatial variability samples including lithologies at different locations within Alpha and Phi lodes as well as high and low grade and waste material. The lithologies consist of coarse sediments, fine sediments, intermediate volcanoclastic rock. The program involved mineralogy, comminution, flotation, gravity and leaching investigations.</p> <p>The DFS flotation testwork results were used to develop models which utilise sulphur, gold and arsenic feed grades to determine the mass, gold and arsenic recovery and the grade of gold and arsenic in the concentrate. The models are shown below where [Au] is the gold head grade in g/t, [S] is the sulphur head grade in % and [As] is the arsenic head grade in %</p>

		<table><tr><th colspan="2">Model</th></tr><tr><td>Mass Recovery</td><td>2.0128 x [S] + 1.8576</td></tr><tr><td colspan="2"><b>Gold Models</b></td></tr><tr><td>Rougher Tail Gold Grade</td><td>0.039 x [Au]</td></tr><tr><td>Cleaner Tail Gold Grade</td><td><math>([Au] \times 0.2044e^{0.754[S]})/100</math></td></tr><tr><td>Flotation Gold Recovery</td><td><math>(([Au] - (Rougher\ Au\ Tail + Cleaner\ Au\ Tail)) / [Au])</math></td></tr><tr><td>Concentrate Gold Grade</td><td><math>(([Au] \times Flotation\ Au\ Recovery\ \%) / Mass\ Recovery\ \%)</math></td></tr><tr><td>CIL Tailings Gold Grade</td><td>0.039 x [Au]</td></tr><tr><td colspan="2"><b>Arsenic Models</b></td></tr><tr><td>Rougher Tail Arsenic Grade</td><td>0.024 x [As]</td></tr><tr><td>Cleaner Tail Arsenic Grade</td><td><math>([As] \times 0.151e^{0.974[S]})/100</math></td></tr><tr><td>Flotation Arsenic Recovery</td><td><math>(([As] - (Rougher\ As\ Tail + Cleaner\ As\ Tail)) / [As])</math></td></tr><tr><td>Concentrate Arsenic Grade</td><td><math>(([As] \times Flotation\ As\ Recovery\ \%) / Mass\ Recovery\ \%)</math></td></tr></table> <p>These were applied to the Geology models and mining schedule to determine the modelled life of mine flotation performance. The life of mine results are shown below:</p> <ul style="list-style-type: none"><li>- Mass recovery – 4.4%</li><li>- Gold recovery – 95.6%</li><li>- Gold grade – 57 g/t</li><li>- Arsenic Grade – 2.7%</li></ul> <p>Samples from the free milling oxide and Alpha transitional ore were tested during the prefeasibility and scoping studies and used to generate recovery models. The resulting recovery for the material type are:</p> <ul style="list-style-type: none"><li>- Aphrodite Free Milling Oxide – fixed tail of 0.05 g/t Au</li><li>- Aphrodite Free Milling Transition Open Cut – fixed recovery of 89.4%</li></ul> <p>No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.</p>	Model		Mass Recovery	2.0128 x [S] + 1.8576	<b>Gold Models</b>		Rougher Tail Gold Grade	0.039 x [Au]	Cleaner Tail Gold Grade	$([Au] \times 0.2044e^{0.754[S]})/100$	Flotation Gold Recovery	$(([Au] - (Rougher\ Au\ Tail + Cleaner\ Au\ Tail)) / [Au])$	Concentrate Gold Grade	$(([Au] \times Flotation\ Au\ Recovery\ \%) / Mass\ Recovery\ \%)$	CIL Tailings Gold Grade	0.039 x [Au]	<b>Arsenic Models</b>		Rougher Tail Arsenic Grade	0.024 x [As]	Cleaner Tail Arsenic Grade	$([As] \times 0.151e^{0.974[S]})/100$	Flotation Arsenic Recovery	$(([As] - (Rougher\ As\ Tail + Cleaner\ As\ Tail)) / [As])$	Concentrate Arsenic Grade	$(([As] \times Flotation\ As\ Recovery\ \%) / Mass\ Recovery\ \%)$
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Environmental	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.	<p>Baseline environmental studies have been completed for Aphrodite including vegetation and landform, macro fauna, subterranean fauna, short range endemics, surface hydrology, hydrogeology, waste rock classification and Aboriginal heritage surveys. No mining approvals have been sought at this stage; however it is expected that any required approvals would be granted within a reasonable timeframe to allow mining to commence.</p> <p>Characterisation of representative waste rock samples at Aphrodite indicated that there is Potentially Acid Forming (PAF) material in the Alpha and Phi transition materials. Volumes of PAF material are to be confirmed with subsequent testing, however, are not expected to be significant. PAF material will be subject to a containment cell located within the waste dump, which will be adequately capped with fresh rock such that drainage is managed.</p> <p>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitat, surface hydrology and groundwater dependent ecosystems.</p>																										
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.	<p>The Aphrodite project is located 70km from the city of Kalgoorlie, adjacent the Goldfields highway, a sealed all-weather highway that is frequently travelled. This provides ready access to the site for transportation of infrastructure and consumables for the project. The infrastructure is designed to be located on tenement areas owned by Bardoc Gold.</p> <p>Labour will be sourced from the nearby town of Kalgoorlie, where available, or on a fly-in fly-out basis through the Kalgoorlie airport, housing the relevant people within the city of Kalgoorlie.</p> <p>Power will be provided by on site natural gas and diesel generators.</p> <p>Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.</p>																										
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	<p>Capital costs for the project have been provided by several external studies completed for the project including:</p> <ul style="list-style-type: none"><li>• Como Engineering – Processing Plant</li><li>• ATC Williams – Tailings Dam</li><li>• WML– Road &amp; Rail Re-alignment</li><li>• AQ2 – Water Supply</li></ul>																										

		<ul style="list-style-type: none"> <li>• IME Consultants – Surface Mining infrastructure</li> <li>• OSD Asset Services – Gas Pipeline relocation</li> <li>• Capital costs are based on vendor supplied quotations and / or the consultancies cost database.</li> <li>• Capital costs include: <ul style="list-style-type: none"> <li>○ Processing Plant;</li> <li>○ Tailings Dam;</li> <li>○ Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure, <ul style="list-style-type: none"> <li>- Power Supply;</li> <li>- Road &amp; Rail re-alignment;</li> <li>- Road Access;</li> <li>- Site Clearing;</li> <li>- Water Supply;</li> </ul> </li> </ul> </li> </ul> <p>Capital infrastructure costs include a minimum 10% contingency.</p>
	The methodology used to estimate operating costs.	<p>The key processing operating cost estimates have been prepared by Como Engineering and the Bardoc Project team. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.</p> <p>Mining costs are sourced from quotations received from reputable mining contractors.</p> <p>Surface haulage costs were sourced from quotations received from reputable road haulage contractors that operate in the Goldfields region.</p> <p>Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles.</p>
	Allowances made for the content of deleterious elements.	No deleterious elements have been identified in ore testwork and as such no allowance has been made.
	The source of exchange rates used in the study.	A USD:AUD exchange rate of 0.75 has been derived from corporate guidance and independent advice from reputable financial institutions that take into account historical exchange rates and current market trends.
	Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	<p>Bardoc have entered into a binding offtake agreement with concentrate trading partner MRI. Costs for treatment, penalties, refining and payments are based on the binding offtake agreement in place.</p> <p>All other transportation, handling, insurances etc. have been derived from an assessment completed by logistics company Qube assuming the transportation of concentrate via lined 20' GP containers through the port of Fremantle.</p>
	The allowances made for royalties payable, both Government and private.	Aphrodite incurs a 2.5% state royalty and a 2.5% Franco Nevada Royalty.
<b>Revenue factors</b>	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.	<p>Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Feasibility study.</p> <p>Commodity prices and forward looking exchange rates are provided by Bardoc's financial consultants Burnvoir.</p> <p>Bardoc have entered into a binding offtake agreement with concentrate trading partner MRI. Costs for treatment, penalties, refining and payments are based on the binding offtake agreement in place.</p> <p>All other transportation, handling, insurances etc. have been derived from an assessment completed by logistics company Qube assuming the transportation of concentrate via lined 20' GP containers through the port of Fremantle.</p>
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	<p>Gold price and exchange rates have been determined by an external financial expert group because of current market trends and by peer company comparison. A gold price of A\$2,000 / oz (US\$1,500/oz) has been used for the ore reserve estimation.</p> <p>The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work.</p>
<b>Market assessment</b>	<p>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</p> <p>A customer and competitor analysis along with the identification of likely market windows for the product.</p> <p>Price and volume forecasts and the basis for these forecasts.</p> <p>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</p>	<p>Gold ore from the mine is to be sold to the Perth mint.</p> <p>Concentrate from the mine is to be sold to Bardoc's concentrate offtake partner, MRI., entered into after a formal tender and assessment phase of several high quality concentrate traders.</p> <p>Price is formulated from the concentrate sale terms.</p>

<b>Economic</b>	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.	The March 2021 Ore Reserve estimate is based on a Definitive-Feasibility level of accuracy with inputs from open pits, underground mines, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	The March 2021 Ore Reserve returns a positive NPV based on the assumed commodity price and the Competent Person is satisfied that the project economics that make up the initial Ore Reserve retains a suitable profit margin against reasonable future commodity price movements.  Sensitivity analysis has indicated that the project drivers are exchange rate, gold price, metallurgical recovery followed by operating expenditure. NPV at A\$2,000/oz is sensitive to reasonable unfavourable changes to these drivers.
<b>Social</b>	The status of agreements with key stakeholders and matters leading to social licence to operate.	Bardoc are in liaison with the government and key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	A compensation Agreement is in place with the leaseholder of the Mt Vettors pastoral station and the Bardoc Homestead. These have been included in the cost but are not material to the plan.  Aphrodite has two Native Title claimants currently across its tenure. Bardoc has entered into ongoing consultation with both parties. An all-areas agreement is in place with Maduwonga and final consultation is underway with Marlinyu Ghoorlie for a partial area access agreement. Both agreements provide for required access to tenure required for the project.  Bardoc has entered into a binding offtake agreement with MRI for the sale of the concentrate.
	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.	There are no government agreements or approvals identified that are likely to materially impact the project.  It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project.  There are no known matters pertaining to any third parties to affect the development of the project.
<b>Classification</b>	The basis for the classification of the Ore Reserves into varying confidence categories.	The classification of the March 2021 Ore Reserve has been carried out in accordance with the JORC Code 2012.  The March 2021 Ore Reserve results reflect the Competent Persons view of the deposit.  The Probable Ore Reserve is based on that portion of Indicated Mineral Resource within the mine designs that may be economically extracted and includes allowance for dilution and ore loss.  There are no Proved Ore Reserves.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The result appropriately reflects the Competent Person's view of the deposit.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Measured Mineral resources form the basis of the Ore Reserves
<b>Audits or reviews</b>	The results of any audits or reviews of Ore Reserve estimates.	The Ore reserve estimates have been reviewed by Bardoc Gold. No further external audits have been completed.
<b>Discussion of relative accuracy/ confidence</b>	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.  The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.  Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.  It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Definitive-Feasibility standard with a better than +/- 10-15% level of confidence.  A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.  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.  The Competent Person(s) are 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.  There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.

## JORC Code, 2012 Edition – Table 1 – BULLETIN SOUTH

### Section 1 Sampling Techniques and Data – Bulletin South

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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 representativity 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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The Bulletin South open pit was mined up to April 1994. The drill hole database consists of historic (pre-2003) and EXG drilling data. The historical data is concentrated mostly within the part that has been mined, whilst the EXG drill holes extend below the pit.</li> <li>Historical holes consist of 562 grade control RB (possibly some form of RC), 70 RC holes and 9 grade control RC holes (RCGC). The grade control holes were drilled at an average spacing of 3m x 5m (N x E) and in general 1m samples were collected.</li> <li>Complete details are un-available for historic drilling.</li> <li>EXG holes, 2 diamond drill holes and 34 RC holes were drilled at variable azimuths at dips of -60° to -50° to optimally test for potential mineralized zones, at a nominal spacing of 40m x 20m (N x E). There are in total 677 drill holes used in the resource estimate.</li> <li>All RC recovered samples were collected and passed through a cone splitter. Prior to drilling, the drill hole locations were pegged using either contract surveyors or handheld GPS units. After drilling, all drill hole locations are picked up by surveyors using an RTK system. All drill holes greater than 80m drilled by EXG are down hole surveyed by contractors using industry standard digital tools.</li> <li>All RC drilling was sampled on one metre down hole intervals. The recovered samples were passed through a cone splitter and a nominal 2.5kg -3.5kg sample was collected. Where the original 1m samples were not collected, nominal 4m composite samples were collected by spear sampling individual 1m composite intervals.</li> <li>Industry standard work undertaken by EXG has in most instances supported the grades and widths indicated by historic drilling – there is a risk inherent in this MRE that the historic drilling data is to some unknown extent biased or not representative as this cannot be demonstrated due to lack of QA/QC information.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 style="list-style-type: none"> <li>Little information is available on the drilling techniques for the historical holes. However, holes have been drilled by Caris Corporation during 1984; by Getty Oil in 1984 and 1985 (using a Schramm T66H RC rig); by Aberfoyle during 1986, 1987; by MMC Management during 1993; by Goldfields during 1996 and 1998 (using a Schramm660 RC rig drilling 5.5" holes) and by Halycon during 2003 and 2004.</li> <li>For (post 2011) EXG drilling, the RC drilling (Redmond Drilling – Schramm RC with cyclone attached) system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter).</li> <li>All EXG drill core is orientated by the drilling contractor with a down the hole Ace system. Core diameter is noted in the assay results table for DC assay results.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Historical holes were generally sampled at 1m intervals which were split on site and reduced to samples of between 1-1.5kg in weight. A four-metre composite was taken at the same time which was assayed for Au and As by Kalgoorlie Assay Laboratory. Intervals containing anomalous gold were re-assayed using the 1m samples. The Goldfield holes were sampled on 1m intervals, with samples being placed on the ground. All dry samples were riffle split to 4kg and all wet samples were scoop sampled. Alternate samples were submitted for analysis, and infill samples were subsequently tested once any anomalous zones were identified. All alternate samples were analysed by either ALS or Analabs for gold by Fire Assay to 0.01ppm using a 50g charge</li> <li>All EXG RC 1m samples are logged for drilling recovery by a visual estimate and this information is recorded and stored in the drilling database. At least every 10<sup>th</sup> metre is collected in a plastic bag and these are weighed when they are utilized for the collection of field duplicate samples. All samples received by the laboratory are weighed with the data collected and stored in the database.</li> <li>The EXG DC samples are orientated, length measured and compared to core blocks placed in the tray by the drillers, any core loss or other variance from that expected from the core blocks is logged and recorded in the database. Sample loss or gain is reviewed on an ongoing basis and feedback given to the drillers to enable the best representative sample to always be obtained.</li> <li>EXG RC samples are visually logged for moisture content, sample recovery and contamination. This information is stored in the database. The RC drill system utilizes a face sampling hammer which is industry best practice and the contractor aims to maximize recovery at all times. RC holes are drilled dry whenever practicable to maximize recovery of sample.</li> <li>The DC drillers use a core barrel and wire line unit to recover the core, they aim to recover all core at all times and adjust their drilling methods and rates to minimise core loss, i.e. different techniques for broken ground to ensure as little core as possible is washed away with drill cuttings.</li> </ul>

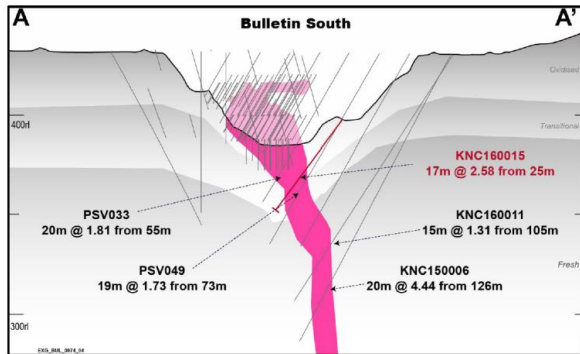
		<ul style="list-style-type: none"> <li>Study of sample recovery vs gold grade does not show any bias towards differing sample recoveries or gold grade. The drilling contractor uses standard industry drilling techniques to ensure minimal loss of any size fraction.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All EXG RC samples are geologically logged directly into hand-held Geobank devices.</li> <li>All EXG DC is logged for core loss, marked into metre intervals, orientated, structurally logged, geotechnically logged and logged with a hand lens with the following parameters recorded where observed: weathering, regolith, rock type, alteration, mineralization, shearing/foliation and any other features that are present</li> <li>All EXG DC is photographed both wet and dry after logging but before cutting.</li> <li>The entire lengths of EXG RC holes are logged on a 1m interval basis, i.e. 100% of the drilling is logged, and where no sample is returned due to voids (or potentially lost sample) it is logged and recorded as such. Drill core is logged over its entire length and any core loss or voids intersected are recorded.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>EXG Exploration results reported for drill core are half core taken from the right-hand side of the core looking down hole. Core is cut by contractors with a diamond core saw and all sampling is conducted by Excelsior geologists.</li> <li>All EXG RC samples are put through a cone splitter and the sample is collected in a unique pre-numbered calico sample bag. The moisture content of each sample is recorded in the database.</li> <li>The EXG RC samples are sorted, oven dried, the entire sample is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 50g fire assay charge.</li> <li>The EXG DC samples are oven dried, jaw crushed to nominal &lt;10mm, 3.5kg is obtained by riffle splitting and the remainder of the coarse reject is bagged while the 3.5kg is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 50g fire assay charge.</li> <li>EXG RC and DC samples submitted to the laboratory are sorted and reconciled against the submission documents. EXG inserts blanks and standards with blanks submitted in sample number sequence at 1 in 50 and standards submitted in sample number sequence at 1 in 20. The laboratory uses their own internal standards of 2 duplicates, 2 replicates, 2 standards, and 1 blank per 50 fire assays. The laboratory also uses barren flushes on the pulveriser.</li> <li>In the field every 10<sup>th</sup> metre from the bulk sample port on the cone splitter is bagged and placed in order on the ground with other samples. This sample is then used for collection of field duplicates via riffle splitting. RC field duplicate samples are collected after results are received from the original sample assay. Generally, field duplicates are only collected where the original assay result is equal to or greater than 0.1g/t Au. The field duplicates are submitted to the laboratory for the standard assay process. The laboratory is blind to the original sample number.</li> <li>The results of this field duplicate process are within acceptable limits, indicating that the RC sample results are repeatable.</li> <li>For DC, no core duplicates (i.e. half core) have been collected or submitted.</li> <li>The sample sizes are considered to be appropriate for the type, style, thickness and consistency of mineralization located at this project. The sample size is also appropriate for the sampling methodology employed and the gold grade ranges returned.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>EXG has routinely used local Kalgoorlie Certified Laboratories for all sample preparation and analysis. The most commonly used laboratories have been SGS Australia and Bureau Veritas Australia which has two facilities in Kalgoorlie. No complete details of the sample preparation, analysis or security are available for either the historic AC, DD or RC drilling results in the database.</li> <li>The assay method is designed to measure total gold in the sample. The laboratory procedures are appropriate for the testing of gold at this project given its mineralization style. The technique involves using a 40g sample charge with a lead flux which is decomposed in a furnace with the prill being totally digested by 2 acids (HCl and HNO<sub>3</sub>) before measurement of the gold content by an AA machine.</li> <li>The QC procedures are industry best practice. The laboratory is accredited and uses its own certified reference material. The laboratory has 2 duplicates, 2 replicates, 1 standard and 1 blank per 50 fire assays.</li> <li>EXG submits blanks at the rate of 1 in 50 samples and certified reference material standards at the rate of 1 in 20 samples in the normal run of sample submission numbers. As part of normal procedures EXG examines all standards and blanks to ensure that they are within tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grade exists.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>No independent verification of significant intersections has been undertaken.</li> <li>A number of RC holes have been drilled throughout the deposit to twin historical RC holes. These twinned holes returned results comparable to the</li> </ul>

	<ul style="list-style-type: none"> <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>	<p>original holes and were also used to collect geological information and material for metallurgical assessment. Both historical and new diamond drilling has been drilled to confirm geological interpretation and results obtained from RC drill holes.</p> <ul style="list-style-type: none"> <li>Primary data is sent digitally every 2-3 days from the field to EXG's Database Administrator (DBA). The DBA imports the data into the commercially available and industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory. The responsible geologist reviews the data in the database to ensure that it is correct and has merged properly and that all data has been received and entered. Any variations that are required are recorded permanently in the database.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drill holes have their collar location recorded from a handheld GPS unit. Downhole surveys are completed every 30m downhole. No detailed down hole surveying information is available for the historic RC or DD drilling.</li> <li>EXG routinely contracted down hole surveys during the programmes of exploration drilling for each RC and DC drill hole completed using either digital electronic multi-shot tool or north seeking gyro, both of which are maintained by Contractors to manufacturer specifications.</li> <li>All drill holes and resource estimation use the MGA94, Zone 51 grid system.</li> <li>The topographic data used was obtained from consultant surveyors and is based on a LiDAR survey flown in 2012. It is adequate for the reporting of Exploration Results and subsequent Mineral Resource estimates. The original final pit survey has been used to deplete the resource model.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The nominal exploration drill spacing is 40m x 20m with some cross sections filled to 10m. This spacing includes data that has been verified from previous exploration activities on the project</li> <li>This report is for the reporting of the Mineral Resource Estimate. The drill spacing, spatial distribution and quality of assay results is sufficient to support the JORC classification of material reported within this report and is appropriate for the nature and style of mineralisation being reported.</li> <li>The majority of holes were sampled at 1m, but when this isn't the case, sample compositing to 1m has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of 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 style="list-style-type: none"> <li>The majority of drilling is to grid east or west. The bulk of the mineralized zones are perpendicular to the drilling direction. Field mapping and geophysical interpretations supports the drilling direction and sampling method.</li> <li>No drilling orientation and sampling bias has been recognized at this time.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>RC samples are delivered directly from the field to the Kalgoorlie laboratory by EXG personnel on a daily basis with no detours, the laboratory then checks the physically received samples against an EXG generated sample submission list and reports back any discrepancies</li> </ul>
<b>Audits or reviews</b>	<p>The results of any audits or reviews of sampling techniques and data.</p>	<ul style="list-style-type: none"> <li>An internal review of sampling techniques and procedures was completed in March 2014. No external or third-party audits or reviews have been completed.</li> </ul>

## Section 2 Reporting of Exploration Results – Bulletin South

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The results reported in this Announcement are on granted Mining tenements held by GPM Resources Pty Ltd, a wholly owned subsidiary of Excelsior Gold Limited.</li> <li>At this time, the tenements are believed to be in good standing. There is a royalty of \$2 per tonnes of ore removed payable to third parties.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration by other parties has been reviewed and is used as a guide to EXG's exploration activities. Previous parties have completed both open pit and underground mining, geophysical data collection and interpretation, soil sampling and drilling. This report only comments on exploration results collected by EXG.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The primary gold mineralisation at Bulletin South is predominantly associated with a quartz rich dolerite unit with a strongly porphyritic texture and associated second order structures. The gold mineralisation is associated with quartz, carbonate, sulphide alteration.</li> </ul>

		<ul style="list-style-type: none"><li>Whilst structure and primary gold mineralisation can be traced to the surface, depletion has occurred in the top 10-20m</li><li>Historical working and shafts exist within the area, detailed mapping and sampling of these workings and structural measurements from orientated diamond core drilling assists with the geological interpretation.</li><li>The table below summarise the recent exploration results carried out on Bulletin South during 2016.</li></ul>																																																																																																																																																																																																																																																																								
<b>Drill hole Information</b>	<ul style="list-style-type: none"><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:<ul style="list-style-type: none"><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></ul></li><li>If the exclusion of this information is justified on the basis 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.</li></ul>	<table><tr><th>HOLE NUMBER</th><th>EAST (MGA94 Z51)</th><th>NORTH (MGA94 Z51)</th><th>AHD RL (m)</th><th>FINAL DEPTH (m)</th><th>COLLAR DIP</th><th>COLLAR AZIM (Magnetic)</th><th>FROM (m)</th><th>TO (m)</th><th>LENGTH (m)</th><th>GRADE (Au g/t)</th></tr><tr><td>KNC160012</td><td>334047.18</td><td>6634838.27</td><td>389.55</td><td>45</td><td>-75</td><td>79</td><td>5</td><td>14</td><td>9</td><td>2.45</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>19</td><td>20</td><td>1</td><td>1.11</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>33</td><td>36</td><td>3</td><td>2.8</td></tr><tr><td>KNC160013</td><td>334062.19</td><td>6634820.57</td><td>391.96</td><td>45</td><td>-65</td><td>240</td><td>17</td><td>30</td><td>13</td><td>1.63</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>34</td><td>36</td><td>2</td><td>1.32</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>42</td><td>45</td><td>3</td><td>0.99</td></tr><tr><td>KNC160014</td><td>334077.09</td><td>6634806.77</td><td>393.84</td><td>50</td><td>-55</td><td>240</td><td>8</td><td>23</td><td>12</td><td>1.74</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>27</td><td>36</td><td>9</td><td>1.33</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>39</td><td>41</td><td>2</td><td>2.82</td></tr><tr><td>KNC160015</td><td>334083.1</td><td>6634786.64</td><td>393.55</td><td>55</td><td>-53</td><td>240</td><td>25</td><td>42</td><td>17</td><td>2.58</td></tr><tr><td>KNC160016</td><td>334082.46</td><td>6634765.56</td><td>398.08</td><td>54</td><td>-60</td><td>240</td><td>23</td><td>34</td><td>11</td><td>3.64</td></tr><tr><td>KNC160017</td><td>334080.42</td><td>6634747.74</td><td>400.73</td><td>60</td><td>-61</td><td>227</td><td>28</td><td>33</td><td>5</td><td>1.23</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>36</td><td>44</td><td>8</td><td>1.51</td></tr><tr><td>KNC160018</td><td>334058.25</td><td>6634725.34</td><td>403.56</td><td>45</td><td>-70</td><td>240</td><td>29</td><td>31</td><td>2</td><td>1.65</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>35</td><td>36</td><td>1</td><td>1.13</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>38</td><td>39</td><td>1</td><td>3.72</td></tr><tr><td>KNC160019</td><td>334045.7</td><td>6634874.32</td><td>425.57</td><td>45</td><td>-50</td><td>255</td><td>21</td><td>22</td><td>1</td><td>1.46</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>29</td><td>35</td><td>6</td><td>1.52</td></tr><tr><td>KNC160020</td><td>334010.48</td><td>6634842.52</td><td>419.66</td><td>60</td><td>-55</td><td>63</td><td>4</td><td>11</td><td>7</td><td>1.56</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10</td><td>11</td><td>1</td><td>6.32</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>34</td><td>35</td><td>1</td><td>1.13</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>41</td><td>46</td><td>5</td><td>1.8</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>50</td><td>51</td><td>1</td><td>1.5</td></tr></table> <ul style="list-style-type: none"><li>No results from previous unreported exploration are the subject of this announcement</li><li>No high-grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay.</li><li>Intersections are reported if the interval is at least 1m wide at 1.0g/t Au grade or for composite samples greater than 1.0 g/t Au. Intersections greater than 1m in downhole distance can contain up to 2m of ow grade of barren material.</li><li>No metal equivalent reporting is used or applied.</li></ul>	HOLE NUMBER	EAST (MGA94 Z51)	NORTH (MGA94 Z51)	AHD RL (m)	FINAL DEPTH (m)	COLLAR DIP	COLLAR AZIM (Magnetic)	FROM (m)	TO (m)	LENGTH (m)	GRADE (Au g/t)	KNC160012	334047.18	6634838.27	389.55	45	-75	79	5	14	9	2.45								19	20	1	1.11								33	36	3	2.8	KNC160013	334062.19	6634820.57	391.96	45	-65	240	17	30	13	1.63								34	36	2	1.32								42	45	3	0.99	KNC160014	334077.09	6634806.77	393.84	50	-55	240	8	23	12	1.74								27	36	9	1.33								39	41	2	2.82	KNC160015	334083.1	6634786.64	393.55	55	-53	240	25	42	17	2.58	KNC160016	334082.46	6634765.56	398.08	54	-60	240	23	34	11	3.64	KNC160017	334080.42	6634747.74	400.73	60	-61	227	28	33	5	1.23								36	44	8	1.51	KNC160018	334058.25	6634725.34	403.56	45	-70	240	29	31	2	1.65								35	36	1	1.13								38	39	1	3.72	KNC160019	334045.7	6634874.32	425.57	45	-50	255	21	22	1	1.46								29	35	6	1.52	KNC160020	334010.48	6634842.52	419.66	60	-55	63	4	11	7	1.56								10	11	1	6.32								34	35	1	1.13								41	46	5	1.8								50	51	1	1.5
HOLE NUMBER	EAST (MGA94 Z51)	NORTH (MGA94 Z51)	AHD RL (m)	FINAL DEPTH (m)	COLLAR DIP	COLLAR AZIM (Magnetic)	FROM (m)	TO (m)	LENGTH (m)	GRADE (Au g/t)																																																																																																																																																																																																																																																																
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<b>Data aggregation methods</b>	<ul style="list-style-type: none"><li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 style="list-style-type: none"><li>No high-grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay.</li><li>Intersections are reported if the interval is at least 1m wide at 1.0g/t Au grade or for composite samples greater than 1.0 g/t Au. Intersections greater than 1m in downhole distance can contain up to 2m of ow grade of barren material.</li><li>No metal equivalent reporting is used or applied.</li></ul>																																																																																																																																																																																																																																																																								
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"><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 (e.g. 'down hole length, true width not known').</li></ul>	<ul style="list-style-type: none"><li>The intersection width is measured down the hole trace and does not correspond to the true width. The cross section below demonstrates the relationship between true width and downhole width to be viewed.</li></ul> <div><p>Figure 2 Bulletin South Cross Section</p></div> <ul style="list-style-type: none"><li>Data collected from historical workings and existing shafts as well as structural measurements from orientated diamond drill core show the primary ore zones to be sub-vertical in nature with a general NW strike.</li><li>Refer to EXG ASX announcement on Operation Update dated 22 December 2016</li></ul>																																																																																																																																																																																																																																																																								
<b>Diagrams</b>	<ul style="list-style-type: none"><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>																																																																																																																																																																																																																																																																									
<b>Balanced reporting</b>	<ul style="list-style-type: none"><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>	<ul style="list-style-type: none"><li>Refer to EXG ASX announcement on Operation Update dated 22 December 2016</li></ul>																																																																																																																																																																																																																																																																								

<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No other exploration data is considered meaningful and material to this announcement</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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 style="list-style-type: none"> <li>Future exploration has not been planned and may involve the drilling of more drill holes, both DC and RC, to further extend the mineralised zones and collect additional detailed data on known mineralised zones.</li> <li>Further future drilling areas are not highlighted as they are not yet planned.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources - Bulletin South

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

Criteria	ORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>EXG data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the EXG Database Administrator and geological management prior to transmission to Cube.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mr Rick Adams and Mr Mike Millad visited the property from the 4th May 2016 to 5th May 2016 to review the geology and historic mining activities.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the mineralised system appears to be relatively simple however the gold distribution is more complex. Cube believes that the continuity of mineralisation and volume controls are well established where drilling is at a nominal 40 x 20 m hole spacing.</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the QAQC data and downhole survey data. As such at several locations through the deposit the company has twinned historical holes to confirm results and location.</li> <li>The close spaced (possibly RC) grade control drilling and mining pit floor exposure has allowed a detailed re-evaluation of the geological controls on mineralisation by EXG. The new interpretation of these controls impacts the estimation of the Mineral Resources and has triggered the need for the re-estimation.</li> <li>The result of this revision is that the majority of the mineralisation of economic interest is associated with the (45-50-degree east dipping) ladder veins rather than the previous interpretation of a steeper shear hosted (80 to 90-degree dipping) discontinuous mineralisation.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The main body of mineralisation extends approximately 300m along strike (NNW-SSE- Azi 335 degrees), an average of 40m across strike (ENE-WSW) and 150m in elevation. Mineralisation is present at surface and is exposed on the historic pit floor and walls from previous mining activities.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</li> </ul>	<ul style="list-style-type: none"> <li>Cube has used 3DM wireframes to constrain the mineralised zone, based on exploration (40m x 20m) and GC (3m x 5m) drill hole data. The wireframes were constructed on a sectional basis using the Surpac software package.</li> <li>A low grade "waste" domain was also modelled around the main mineralisation domain to the extents of the available drill data.</li> <li>Drill intervals falling within the wireframed estimation domains were coded in the database. Composites of gold assay values were then generated using the Surpac™ "best-fit" method. On the basis of sample size, selectivity assumption (2mE-W x 5mN-S x 2.5mRL) and selected estimation methodology, Cube chose to use 1m downhole composites for this estimation.</li> <li>It was evident that the estimation domains contained a limited number of outlier gold values, necessitating the use of gold grade top cuts to mitigate estimation risk. The highly positively skewed gold distributions mean that conventional linear estimation methods, such as Ordinary Kriging ("OK") are very likely to produce over-smoothed block grade estimates. For this reason, it was decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method.</li> </ul>

	<ul style="list-style-type: none"> <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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>• The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>○ The coherence and stability of the upper tail of the gold grade distribution;</li> <li>○ Visual inspection of the spatial location of outlier values;</li> <li>○ Sensitivity tests to gauge the effect of various top cuts on mean gold grade;</li> </ul> </li> <li>• The statistics show that there is not a large reduction in mean grade (approx. -7%) following top cutting of the main mineralisation domain (100). Cube therefore does not consider the use of top cutting to be a material risk with respect to the estimation.</li> <li>• The LUC estimates were implemented using the Isatis® software package before being transferred into a Surpac™ block model.</li> <li>• No consideration has been made of by-products.</li> <li>• A number of check estimates have been undertaken by Cube as part of the validation steps. Firstly, a comparison of an OK grade control model, based only on the tight 3m x 5m grade control drilling, to an LUC model undertaken using <u>only the exploration drill data</u> was undertaken within the volume covered by GC drilling (now mostly mined out). Results indicate that the LUC model based on only exploration data reconciles to the OK GC model to within 9% of contained metal at 0.6g/t and 0.9g/t Au cut-offs. This comparison gives some indication as to how the LUC method might perform in the remaining in-situ ground, which is largely informed by exploration data only. The final reported LUC model, however, is based on all available data (i.e.. both exploration and GC drill data).</li> <li>• Inverse Distance Squared (ID<sup>2</sup>) check estimates were undertaken for comparison to both the LUC model based on only the resource data, and also for the reported LUC model based on resource and GC data. This comparison demonstrated a good level of agreement between global mean ID<sup>2</sup> and LUC grades.</li> <li>• The LUC model was also validated by comparison of the block estimates to the informing composite data: <ul style="list-style-type: none"> <li>○ Global mean undeclustered and declustered composite grades were compared to the block estimates. Agreement was good.</li> <li>○ Semi-local comparison of undeclustered and declustered composite grades to block estimates was undertaken using swath plots by northing and RL slices. Observed agreement was good.</li> <li>○ Visual 3D comparison of raw assay grades to LUC block estimates revealed good spatial correspondence.</li> </ul> </li> <li>• Block size for gold grade estimation was chosen in consultation with EXG and with due regard to data spacing, orebody geometry, and practical mining considerations. The estimation panel size used was 6mE-W x 10mN-S x 5mRL. An SMU block size of 2mE-W x 5mN-S x 2.5mRL was chosen (no rotation) for use in the localisation process. This SMU block size corresponds exactly to the current block size for grade control modelling and mining selection at the nearby and currently active Zoroastrian Central pit, conforms to the mining flitch height and is elongated in the approximately the same direction (north-south axis) as the trend of the mineralised envelope at Bulletin South. While the data spacing in areas other than the grade control drilled volume would be considered too wide for such a small block size if conventional linear estimation methods were used, Cube has used the LUC method, which is intended specifically for estimating the grade distribution of smaller blocks.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages were estimated on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>• The selection of mineralised domains has used geological factors such as logged quartz and sulphides in conjunction with a 0.2 to 0.3g/t Au cut off which represents the mineralised shear modelled domains.</li> <li>• The MR has been reported above a 0.6g/t Au cut-off. This has been chosen to allow the application of modifying factors for the estimation of Mineral Reserves which indicate an economic cut-off of 0.9 to 1g/t Au.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• This MRE has been undertaken on the assumption of open pit mining methods, the selection of SMU size was based on the scale of mining equipment currently in use at Zoroastrian Central.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical testwork was conducted by ALS Global, on one sample of representative material, in their Perth laboratory. Overall cyanide leaching of Au in a 24-hour period was 98.2% with 77% being recovered by gravity.</li> </ul>

	<p>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.</p>	
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>There are no existing environmental issues concerning the extraction or disposal of waste or tailing material known to Cube.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>There are limited sources of relevant experimental bulk density data consisting of 14 determinations from 2015 EXG DD.</li> <li>These determinations are all on competent rock both within the mineralised porphyry and surrounding waste mafic rocks.</li> <li>On balance Cube believe that there are sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density. Cube have used assumed bulk density values based on the interpreted weathering surfaces.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralised domain is currently well understood due to the GC drilling and mining exposure of the mineralised lodes. The MRE has been validated by "ground truth" methods whereby an estimate using only resource exploration drilling on a 40x20m collar spacing has been compared to a volume estimated by close spaced GC drilling. The results of this comparison confirm that the deeper MR areas estimated outside the grade control volumes can be expected to be representative of what will be defined for mining by the GC data to within +/-10% contained metal.</li> <li>The MRE has been classified as Measured, Indicated and Inferred based on the assessment of geological continuity, sample representivity and spacing and geostatistical summary parameters derived from the variogram models.</li> <li>Mineralisation classified as Measured is within the primary porphyry domain with an average distance to sample data of 7-10m and an average slope of regression parameter of 0.72.</li> <li>Mineralisation classified as Indicated is within the primary porphyry domain with an average distance to sample data of 12m and an average slope of regression parameter of 0.44.</li> <li>Mineralisation classified as Inferred is within the primary porphyry domain or as isolated veins within the waste domain with an average distance to sample data of 18m and an average slope of regression parameter of 0.26.</li> <li>Inferred material has been included in the waste domain to ensure that during potential mining these smaller occurrences are grade control checked for mineable volumes.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audits or reviews have been undertaken on the Dec 2016 MRE</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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 relative accuracy and confidence of the estimate.</li> </ul>	<ul style="list-style-type: none"> <li>The conditional simulation methodology of gold grade has been used to quantify potential variations in the grade, tonnes and metal for portions of the estimate. The simulated outcomes at a 0.5g/t Au cut-off demonstrate that probable variations in grade (+/-14.3%), tonnes (+/-5.0%) and metal (+/-15.2%) are within reasonable expectations for moderate-to-high confidence. This relative accuracy summarised relates to a global mineral resource estimate of in-situ grade and tonnes within the potential pit design. Note that the conditional simulation cannot account for additional uncertainty due to sampling bias, volume or density estimation.</li> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> </ul>

<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.</li> </ul>
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#### Section 4 Estimation and Reporting of Ore Reserves – Bulletin South Open Pit

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Bardoc Gold Mineral Resource as reported in March 2021.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserves.
<b>Site visits</b>	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person has conducted multiple site visits of this area and is familiar with the region and is comfortable relying on site visit reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
<b>Study status</b>	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Definitive Feasibility Study carried out by Bardoc and independent consultants SMJ Engineering provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
<b>Cut-off parameters</b>	The basis of the cut-off grade(s) or quality parameters applied.	Definitive-Feasibility costs, revenue factors and physicals form the basis for Cut Off Grade calculations. Mill recovery is calculated based on metallurgical testwork carried out as part of the Pre-Feasibility Study. A gold price of A\$2,000 / oz (US\$1,500/oz) was assumed for the Cut Off Grade calculations. The open pit COG of 0.40 g/t Au for oxide material, 0.41 g/t Au for transitional material and 0.49 g/t Au for fresh material were applied to define ore and waste.
<b>Mining factors or assumptions</b>	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).	Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	The open pit Ore Reserve is planned to be mined using conventional surface mining methods. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional diesel fleet of 120 t-class and 100 t dump trucks. 30% of oxide material was assumed to be drilled and blasted using Emulsion-type explosives, 85% of transition material is assumed to be drilled and blasted using emulsion-type explosives and 100% of fresh material is assumed to be drilled and blasted using emulsion-type explosives. A minimum working width of 20 m has been applied based on the proposed fleet.  The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists to the mine.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Pit slopes have been designed based on geotechnical analysis by independent consultants Peter O'Bryan and Associates(POA).  Open pit grade control will be carried out using RC drilling in the pit floor. These activities have been costed based on a recent request for quotation process involving experienced and reputable contractors
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mineral Resources used for optimisation were those detailed previously. Cut-off grades and geotechnical inputs used for optimisations were also applied as detailed previously.
	The mining dilution factors used.	Open pit mining blocks were regularised in the Mineral Resource to model selective mining unit (SMU) size based on the proposed fleet.  Minimum Resource block sizes were 2.0 m across strike x 5.0 m along strike x 2.5mH.  No other mining dilution was applied to the open pit ore.
	The mining recovery factors used.	Open pit ore had a 97% mining recovery applied.

	Any minimum mining widths used.	Ore blocks conform to the minimum SMU size.  Working benches at Bulletin are generally 20 m minimum width, with some isolated areas towards the end of the mine life 10-15 m wide.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred Resources were not taken into account during valuation in the pit optimisation process, and as such did not have an impact on pit shape. Any Inferred material contained within pit designs was treated as waste (i.e. zero grade).
	The infrastructure requirements of the selected mining methods.	Bulletin is a satellite pit as part of the Bardoc Gold Project. Infrastructure will be required to support the open pit mining of Bulletin including offices, cribroom, workshop, fuel bay, washdown bay, ROM Pad and access roads. The processing facility will be established at the Excelsior / Zoroastrian site where ore from the Bulletin project will be hauled. This has been allowed for in the Definitive Feasibility Study.
<b>Metallurgical factors or assumptions</b>	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	A primary crusher, SAG and ball mill circuit with a pebble crusher will produce a final grind size distribution P <sub>80</sub> of 75 microns to be fed to a Carbon-In-Leach (CIL) circuit based on free milling nature of orebody based on metallurgical testwork.  The Definitive Feasibility included construction of a CIL Processing Facility with flotation circuit to be located at the Excelsior / Zoroastrian complex to treat both free milling and refractory ore, although only free milling ore is located at the Zoroastrian deposit. Ore will be transported to the mill ROM by surface road trains. and then fed into the crusher circuit via front end loader.  The Bulletin open pit contains 17% oxide, 43% transitional and 40% fresh ore material. The Definitive Feasibility included construction of a CIL Processing Facility with floatation circuit to be located at the Excelsior / Zoroastrian complex.
	Whether the metallurgical process is well-tested technology or novel in nature.	CIL is a standard and common gold extraction process for free milling ore.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Metallurgical testwork samples were sourced from diamond drill core. The metallurgical characterisation testwork program on the metallurgical core samples included detailed elemental head grade analysis, gravity and leach recovery testwork. Accordingly, the samples used for the metallurgical test work is considered representative of the deposits and proposed treatment methodology  A fixed recovery based on this testwork has been used to derive the following recovery factors: <ul style="list-style-type: none"> <li>- Bulletin Oxide Open Cut – 95.0%</li> <li>- Bulletin Transition Open Cut – 95.0%</li> <li>- Bulletin Fresh Open Cut – 95.0%</li> </ul> The recovery factors are conservative from the testwork result of 98.2% (at a grind size 80% passing 106 microns and 24 hour leach residence time). Additional testwork would improve the accuracy of the recovery model. No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.
<b>Environmental</b>	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.	Historical base line environmental assessments have been completed with no known impacts on the mining and processing operation for Bulletin. A mining proposal and Native Vegetation Clearing Permit are approved, it is expected that any other approvals would be granted within a reasonable timeframe to allow mining to commence.  Characterisation of representative waste rock samples from Bulletin South, indicated most waste components have low sulphide levels, and are classified Non-Acid Forming (NAF). Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitat, groundwater dependent ecosystems and surface hydrology.
<b>Infrastructure</b>	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.	The Bardoc project is located 50km from the city of Kalgoorlie, adjacent the Goldfields highway, a sealed all-weather highway that is frequently travelled. This provides ready access to the site for transportation of infrastructure and consumables for the project.

		<p>The infrastructure is designed to be located on tenement areas owned by Bardoc Gold.</p> <p>Labour will be sourced from the nearby town of Kalgoorlie, where available, or on a fly-in fly-out basis through the Kalgoorlie airport, housing the relevant people within the city of Kalgoorlie.</p> <p>Power will be provided by on site natural gas and diesel generators.</p> <p>Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.</p>
<b>Costs</b>	The derivation of, or assumptions made, regarding projected capital costs in the study.	<p>Capital costs for the mining infrastructure have been generated by Bardoc including:</p> <ul style="list-style-type: none"> <li>• Workshops,</li> <li>• fuel bays,</li> <li>• washdown bays,</li> <li>• offices,</li> <li>• magazines,</li> <li>• communications</li> <li>• dewatering infrastructure,</li> <li>• power infrastructure,</li> <li>• ROM Pads,</li> <li>• Waste Dumps, and,</li> <li>• Access Roads.</li> </ul> <p>Capital infrastructure costs include a minimum 10% contingency.</p>
	The methodology used to estimate operating costs.	<p>The key processing operating cost estimates have been prepared by Como Engineering and the Bardoc Project team. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.</p> <p>Mining costs are sourced from quotations received from reputable mining contractors.</p> <p>Surface haulage costs were sourced from quotations received from reputable road haulage contractors that operate in the Goldfields region.</p> <p>Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles.</p>
	Allowances made for the content of deleterious elements.	No deleterious elements have been identified in ore testwork and as such no allowance has been made.
	The source of exchange rates used in the study.	A USD: AUD exchange rate of 0.75 has been derived from corporate guidance and independent advice from reputable financial institutions that take into account historical exchange rates and current market trends.
	Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Transportation, treatment and refining costs have been estimated based on supply of Dore to the Perth mint.
	The allowances made for royalties payable, both Government and private.	Bulletin incurs a 2.5% state royalty and a \$2.00 per tonne royalty payable to the Barrick Administration Company Pty Ltd.
<b>Revenue factors</b>	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.	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Definitive feasibility study.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	<p>Gold price and exchange rates have been determined by an external financial expert group because of current market trends and by peer company comparison. A gold price of A\$2,000 / oz (US\$1,500/oz) has been used for the ore reserve estimation.</p> <p>The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work.</p>
<b>Market assessment</b>	<p>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</p> <p>A customer and competitor analysis along with the identification of likely market windows for the product.</p> <p>Price and volume forecasts and the basis for these forecasts.</p> <p>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</p>	<p>Gold doré from the mine is to be sold to the Perth mint.</p> <p>There is a transparent quoted market for the sale of gold.</p> <p>No industrial minerals have been considered.</p>
<b>Economic</b>	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.	The March 2021 Ore Reserve estimate is based on a Definitive Feasibility level of accuracy with inputs from open pits, underground mines, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.

	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	<p>The March 2021 Ore Reserve returns a positive NPV based on the assumed commodity price and the Competent Person is satisfied that the project economics that make up the initial Ore Reserve retains a suitable profit margin against reasonable future commodity price movements.</p> <p>Sensitivity analysis has indicated that the project drivers are exchange rate, gold price, metallurgical recovery followed by operating expenditure. NPV at A\$2,000/oz is sensitive to reasonable unfavourable changes to these drivers.</p>
<b>Social</b>	The status of agreements with key stakeholders and matters leading to social licence to operate.	Bardoc maintains frequent engagement with key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	<p>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.</p> <p>The status of material legal agreements and marketing arrangements.</p>	<p>No material naturally occurring risks have been identified for the project</p> <p>An Agreement is in place with the leaseholder of the Mt Vettors pastoral station. and the two freehold landowners of the Bardoc Homesteads. These have been included in the cost but are not material to the plan. No other material legal agreements and marketing arrangements are in place. There are no other legal or marketing agreements that are expected to be material to the ore reserves.</p>
	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.	<p>There are no government agreements or approvals identified that are likely to materially impact the project.</p> <p>It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project.</p> <p>There are no known matters pertaining to any third parties to affect the development of the project.</p>
<b>Classification</b>	The basis for the classification of the Ore Reserves into varying confidence categories.	<p>The classification of the March 2021 Ore Reserve has been carried out in accordance with the JORC Code 2012.</p> <p>The initial Ore Reserve results reflect the Competent Persons view of the deposit.</p> <p>The Probable Ore Reserve is based on that portion of Indicated Mineral Resource within the mine designs that may be economically extracted and includes allowance for dilution and ore loss.</p> <p>There are 9% Proved Ore Reserves.</p>
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The result appropriately reflects the Competent Person's view of the deposit.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	9% of Measured Mineral resources form the basis of the Ore Reserves
<b>Audits or reviews</b>	The results of any audits or reviews of Ore Reserve estimates.	The Ore reserve estimates have been reviewed by Bardoc Gold. No further external audits have been completed.
<b>Discussion of relative accuracy/ confidence</b>	<p>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.</p> <p>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.</p> <p>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</p> <p>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.</p>	<p>The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 10-15% level of confidence.</p> <p>A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.</p> <p>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.</p> <p>The Competent Person(s) are 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.</p> <p>There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.</p>

## JORC, 2012 Edition – Tables – Excelsior

### Section 1 Sampling techniques and data – Excelsior

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling database consists of historic (pre 2009) and BDC drilling data. The historic data consists of drilling by: <ul style="list-style-type: none"> <li>Hill Minerals – 75 RC Holes</li> <li>Aberfoyle - 157 RC Holes, 6 DD holes</li> <li>Halcyon – 5 RC holes , 2 DD Holes</li> </ul> </li> <li>Hill Minerals – Wet and dry sampling utilised rotary cone splitter (of Hill minerals design). 4m composite and 1m RC samples assayed by Genalysis Laboratory Services using Aqua Regia.</li> <li>Aberfoyle – When dry sampling, the entire 1.0 metre sample was collected in a large plastic bag sealed tight over the base of the cyclone to avoid dust loss. The full sample was then multiple riffled to provide two approximately 2kg splits, one for assay and the other for storage/metallurgical purposes. Initial samples assayed by Pilbara labs (Aqua Regia). Subsequent assaying by Classic Labs (50g Fire Assay)</li> <li>Halcyon – Sample collection systems unknown. Samples assayed by ALS Lab using either 30g or 50g charge for RC and only 50g charge for DD samples.</li> <li>Generally, BDC RC recovered chip samples were collected and passed through a cone splitter.</li> <li>Limited numbers of field duplicates and screen fire assays have been undertaken to support sample representivity.</li> <li>BDC DD core has been sampled by submission of cut half core.</li> <li>All BDC RC drilling was sampled on one metre down hole intervals. The recovered samples were passed through a cone splitter and a nominal 2.5kg – 3.5kg sample was taken to a Kalgoorlie contract laboratory. Samples were oven dried, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 50g charge. Approximately 200g of pulp material is returned to BDC for storage and potential assay at a later date. The BDC DC samples are collected at nominated intervals by BDC staff from core that has been cut in half and transported to a Kalgoorlie based laboratory. Samples were oven dried, crushed to a nominal 10mm by a jaw crusher, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 50g charge. Approximately 200g of pulp material is returned to BDC for storage and potential assay at a later date.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Hill Minerals – Reverse Circulation blade, or roller with minor hammer. Drill diameter unknown.</li> <li>Aberfoyle - Most of the Aberfoyle drilling was 4-3/4" reverse circulation roller drilling with minor R.C. hammer drilling in heavily quartz veined or fresher lithologies. Diamond drilling was NQ diameter and where the material drilled was intensely oxidised drilling was performed using a triple tube</li> <li>Halcyon – Drilling techniques unknown</li> <li>For (post 2009) BDC drilling, the RC drilling system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter).</li> <li>All BDC drill core is orientated by the drilling contractor with a down the hole Ace system. Core diameter is noted in the assay results table for DC assay results.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Hill Minerals – sample recovery unknown.</li> <li>Aberfoyle - Dust loss in heavily oxidised material was minimal. In harder rock, minor dust loss occurred through the "smoke stack" of the cyclone. Very little wet sampling (through water injection), was done as it was preferable to keep the drill hole dry and continue with dry sampling where possible. This was achieved by periodically sealing the R.C. system and blowing the hole dry via the outside of the rods and then recommencing drilling/sampling through the inner tube when the hole had dried. Where water injection was necessary, samples were collected in a bucket after passing through a rotary disc wet splitter, flocculated, dried and split to give two 2kg samples. Core recovery was excellent in fresher rock and good in oxidised rock except where abundant quartz veining caused core loss due to competency contrast.</li> <li>All BDC RC 1m samples are logged for drilling recovery by a visual estimate and this information is recorded and stored in the drilling database. At least every 10th metre is collected in a plastic bag and these are weighed when they are utilized for the collection of field duplicate samples. All samples received by the laboratory are weighed with the data collected and stored in the database.</li> <li>The BDC DC samples are orientated, length measured and compared to core blocks placed in the tray by the drillers, any core loss or other variance from that expected from the core blocks is logged and recorded in the database. Sample loss or gain is reviewed on an ongoing basis and feedback given to the drillers to enable the best representative sample to always be obtained.</li> <li>BDC RC samples are visually logged for moisture content, sample recovery and contamination. This is information is stored in the database. The RC drill system utilizes a face sampling hammer which is industry best practice and the contractor aims to maximize recovery at all times. RC holes are drilled dry whenever practicable to maximize recovery of sample.</li> </ul>

		<ul style="list-style-type: none"> <li>The DC drillers use a core barrel and wire line unit to recover the core, they aim to recover all core at all times and adjust their drilling methods and rates to minimise core loss, i.e. different techniques for broken ground to ensure as little core as possible is washed away with drill cuttings.</li> <li>Study of sample recovery vs gold grade does not show any bias towards differing sample recoveries or gold grade. The drilling contractor uses</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Hill Minerals – All holes geologically logged.</li> <li>Aberfoyle – RC holes geologically logged, noting lithology, colour, weathering, alteration, veining and mineralisation (sulphides)</li> <li>Halcyon – RC holes geologically logged, noting lithology, colour, weathering, alteration, veining and mineralisation (sulphides)</li> <li>All BDC RC samples are geologically logged directly into hand-held Geobank devices.</li> <li>All BDC DC is logged for core loss, marked into metre intervals, orientated, structurally logged, geotechnically logged and logged with a hand lens with the following parameters recorded where observed: weathering, regolith, rock type, alteration, mineralization, shearing/foliation and any other features that are present</li> <li>All BDC DC is photographed both wet and dry after logging but before cutting.</li> <li>The entire lengths of BDC RC holes are logged on a 1m interval basis, i.e. 100% of the drilling is logged, and where no sample is returned due to voids (or potentially lost sample) it is logged and recorded as such. Drill core is logged over its entire length and any core loss or voids intersected are recorded.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Hill Minerals – RC samples split using rotary cone splitter.</li> <li>Aberfoyle - When dry sampling, the entire 1.0 metre sample was collected in a large plastic bag sealed tight over the base of the cyclone to avoid dust loss. The full sample was then multiple riffled to provide two approximately 2kg splits, one for assay and the other for storage/metallurgical purposes. Wet samples were collected in a bucket after passing through a rotary disc wet splitter, flocculated, dried and split to give two 2kg samples. Diamond core was sawn where hard enough, or cut with a knife when intensely oxidised. One half core submitted for assay.</li> <li>Halcyon – Sub sampling techniques unknown</li> <li>BDC Exploration results reported for drill core are half core taken from the right hand side of the core looking down hole. Core is cut with an on-site diamond core saw.</li> <li>All BDC RC samples are put through a cone splitter and the sample is collected in a unique pre-numbered calico sample bag. The moisture content of each sample is recorded in the database.</li> <li>The BDC RC samples are sorted, oven dried, the entire sample is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 50g fire assay charge.</li> <li>The BDC DC samples are oven dried, jaw crushed to nominal &lt;10mm, 3.5kg is obtained by riffle splitting and the remainder of the coarse reject is bagged while the 3.5kg is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 50g fire assay charge.</li> <li>BDC RC and DC samples submitted to the laboratory are sorted and reconciled against the submission documents. BDC inserts blanks and standards with blanks submitted in sample number sequence at 1 in 50 and standards submitted in sample number sequence at 1 in 20. The laboratory uses their own internal standards of 2 duplicates, 2 replicates, 2 standards, and 1 blank per 50 fire assays. The laboratory also uses barren flushes on the pulveriser.</li> <li>In the field every 10th metre from the bulk sample port on the cone splitter is bagged and placed in order on the ground with other samples. This sample is then used for collection of field duplicates via riffle splitting. RC field duplicate samples are collected after results are received from the original</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Hill Minerals – Aqua Regia (partial) analysis by Genalysis Laboratory. Technique considered appropriate for the style of mineralisation.</li> <li>Aberfoyle – initially Aqua Regia by Pilbara labs. A review of check assaying suggested doubts as to the reliability and integrity of Pilbara Labs, and it was decided to submit all future Excelsior samples to Classic Laboratories, Perth, for 50g charge gravimetric fire assay. Fire Assay considered a total technique. Conducted numerous checks to determine suitable levels of precision including inter laboratory checks. No data available to determine levels of assay accuracy.</li> <li>Halcyon – Fire Assay (Total) by ALS Laboratory. QAQC procedures unknown.</li> <li>BDC has routinely used local Kalgoorlie Certified Laboratories for all sample preparation and analysis. The most commonly used laboratories have been SGS Australia and Bureau Veritas Australia which has two facilities in Kalgoorlie. The fire assay method is designed to measure total gold in the sample. The laboratory procedures are appropriate for the testing of gold at this project given its mineralization style. The technique involves using a 40 or 50g sample charge with a lead flux which is decomposed in a furnace with the prill being totally digested by 2 acids (HCl and HNO3) before measurement of the gold content by an AA machine.</li> </ul>

		<ul style="list-style-type: none"> <li>The QC procedures are industry best practice. The laboratory is accredited and uses its own certified reference material. The laboratory has 2 duplicates, 2 replicates, 1 standard and 1 blank per 50 fire assays.</li> <li>BDC submits blanks at the rate of 1 in 50 samples and certified reference material standards at the rate of 1 in 20 samples in the normal run of sample submission numbers. As part of normal procedures BDC examines all standards and blanks to ensure that they are within tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grade exists.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>BDC's Exploration Manager and Senior Project Geologist have inspected RC chips in the field and DC in the field and the core yard to verify the correlation of mineralized zones between assay results and lithology/alteration/mineralization.</li> <li>A number of RC holes have also been drilled that confirmed results obtained from historical drillholes. No holes have been directly twinned, there are however holes within 10m of each other.</li> <li>Primary data is sent digitally every 2-3 days from the field to BDC's Database Administrator (DBA). The DBA imports the data into the commercially available and industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory. The responsible geologist reviews the data in the database to ensure that it is correct and has merged properly and that all data has been received and entered. Any variations that are required are recorded permanently in the database.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Hill Minerals – All Collars located on Local Grid by unknown method. Local Grid to GDA95_51 transformation parameters known. Holes generally not downhole surveyed but considered low risk as most holes were &lt; 60m in length.</li> <li>Aberfoyle – All Collars located on Local Grid by unknown method. Local Grid to GDA95_51 transformation parameters known. Holes routinely downhole surveyed usually every 30m by unknown method.</li> <li>Halcyon – Drill Collars surveyed by Datum Surveys using DGPS. AGD84_51 Grid system. Holes downhole gyro surveyed every 10m.</li> <li>BDC - All drill holes have their collar location recorded from a handheld GPS unit. Subsequent to drilling holes were picked up using RTKGPS by contracted surveyors. Downhole surveys are completed every 30m downhole by drill rig personnel.</li> <li>BDC routinely contracted down hole surveys during the programmes of exploration drilling for each RC and DC drill hole completed using either digital electronic multi-shot tool or north seeking gyro, both of which are maintained by Contractors to manufacturer specifications.</li> <li>All drill holes and resource estimation use the MGA94, Zone 51 grid system.</li> <li>The topographic data used was obtained from consultant surveyors and is based on a LiDAR survey flown in 2012. It is adequate for the reporting of Exploration Results and subsequent Mineral Resource estimates.</li> <li>The location of the old open pit and its dimensions are from post Aberfoyle mining completion data</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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> </ul> <p>Whether sample compositing has been applied.</p>	<ul style="list-style-type: none"> <li>The nominal exploration drill spacing is 15m x 15m to a depth of ~60m. Deeper drilling is usually at a nominal 30m x 30m drill spacing.</li> <li>This report is for the reporting of recent exploration drilling. The drill spacing, spatial distribution and quality of assay results is appropriate for the nature and style of mineralisation being reported.</li> <li>The majority of RC holes were sampled at 1m, but when this isn't the case, sample compositing to 4m has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of 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 style="list-style-type: none"> <li>The majority of drilling is to MGA grid east which is coincident with magnetic east. The mineralized zones are North-South striking and sub-vertical so are perpendicular to the drilling direction. Drilling towards the east or west is equally effective. Structural logging of orientated drill core supports the drilling direction and sampling method.</li> <li>No drilling orientation and sampling bias has been recognized at this time</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Hill Minerals – Sample security protocols unknown.</li> <li>Aberfoyle – Sample security protocols unknown.</li> <li>Halcyon – Sample security protocols unknown.</li> <li>BDC - RC samples are delivered directly from the field to the Kalgoorlie laboratory by BDC personnel, the laboratory then checks the physically received samples against an BDC generated sample submission list and reports back any discrepancies.</li> <li>Drill core is transported daily directly from the drill site to BDC's core processing facility by BDC personnel with no detours. The core is then placed on racks and processed until it requires cutting. BDC use an onsite core saw to cut core at the core processing facility. The core is then sampled on site and transported directly to the laboratory in Kalgoorlie for assay.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>An internal review of sampling techniques and procedures was completed in March 2018. No external or third party audits or reviews have been completed.</li> </ul>

## Section 2 Reporting of Exploration Results – Excelsior

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

Criteria	JORC Code explanation	Commentary																								
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"><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 licence to operate in the area.</li></ul>	<ul style="list-style-type: none"><li>The results reported in this Announcement are on granted Mining tenements held by GPM Resources Pty Ltd, a wholly owned subsidiary of Excelsior Gold Limited.</li></ul> <table><tr><th>Tenement</th><th>Holder</th><th>Area (Ha)</th><th>Expiry Date</th></tr><tr><td>M24/083</td><td>GPM Resources</td><td>110.65</td><td>02/04/2024</td></tr><tr><td>M24/854</td><td>GPM Resources</td><td>2.61</td><td>03/04/2022</td></tr><tr><td>M24/886</td><td>GPM Resources</td><td>8.25</td><td>22/04/2025</td></tr><tr><td>M24/888</td><td>GPM Resources</td><td>1.23</td><td>22/04/2025</td></tr><tr><td>M24/121</td><td>GPM Resources</td><td>36.95</td><td>22/04/2025</td></tr></table> <p>At this time, the tenements are in good standing. There are no 3<sup>rd</sup> party existing royalties, duties or other fees impacting on the Excelsior Deposit</p>	Tenement	Holder	Area (Ha)	Expiry Date	M24/083	GPM Resources	110.65	02/04/2024	M24/854	GPM Resources	2.61	03/04/2022	M24/886	GPM Resources	8.25	22/04/2025	M24/888	GPM Resources	1.23	22/04/2025	M24/121	GPM Resources	36.95	22/04/2025
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<b>Exploration done by other parties</b>	<ul style="list-style-type: none"><li>Acknowledgment and appraisal of exploration by other parties.</li></ul>	<ul style="list-style-type: none"><li>Exploration by other parties has been reviewed and is used as a guide to BDC's exploration activities. This includes work by Hill Minerals, Aberfoyle and Halycon Group. Previous parties have completed both open pit and underground mining, geophysical data collection and interpretation, soil sampling and drilling.</li><li>This report comments only on exploration results collected by Bardoc Gold.</li></ul>																								
<b>Geology</b>	<ul style="list-style-type: none"><li>Deposit type, geological setting and style of mineralisation.</li></ul>	<ul style="list-style-type: none"><li>The deposit occurs on the eastern limb of a narrow NNW trending structure, the Bardoc-Broad Arrow syncline within the Bardoc Tectonic Zone. In this zone the sequence comprises highly deformed fault slice lenses of intercalated Archaean mafic and ultramafic volcanics and metasediments. At the deposit scale, lithologies include ultramafics, basalts, schists, dolerites and porphyrys.</li><li>All lithologies have been affected by pervasive foliation development but major shearing occurs in three zones; the Western Contact Shear, the 10,000E Shear and along the eastern sediment contact, the Excelsior Shear. In these areas, shearing and/or attendant alteration have resulted in deep troughs in the base of oxidation, particularly associated within the 10,000E Shear, where intense oxidation occurs to depths greater than 100 metres and up to 30 metres wide. Shear related troughs in oxidation are all steeply dipping and parallel to lithological contacts and foliation in both strike and dip.</li><li>A 1-5 metre thick white quartz vein fills the interpreted position of the Excelsior Shear for a strike of a least 300 metres, and a prominent line of surface pitting traces the northern and southern extensions of the Excelsior Shear for several kilometres. Cross faulting has been observed at outcrop scale with minor probable displacement. Air photo interpretation by Aberfoyle suggested a strong ENE trending cross-fracture set that may have produced offsets in the stratigraphy. Correlation of lithology and mineralised zones along strike suggested that any movement along these structures is minimal</li></ul>																								
<b>Drill hole Information</b>	<ul style="list-style-type: none"><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:<ul style="list-style-type: none"><li><i>easting and northing of the drill hole collar</i></li><li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li><li><i>dip and azimuth of the hole</i></li><li><i>down hole length and interception depth</i></li><li><i>hole length.</i></li></ul></li><li>If the exclusion of this information is justified on the basis 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.</li></ul>	<ul style="list-style-type: none"><li>See Table in this announcement</li><li>No results from previous un-reported exploration are the subject of this announcement.</li><li>Easting and Northing define the collar location in MGA94 zone 51 map projection. The map projection is a transverse Mercator projection, which conforms with the internationally accepted Universal Transverse Mercator Grid system. Collar elevations are RL's (elevation above sea level)</li><li>Dip is the inclination of the hole from the horizontal (i.e. a vertically down drilled hole from the surface is -90°). Azimuth for current drilling is reported in magnetic degrees as the direction toward which the hole is drilled. MGA94 and magnetic degrees vary by approximately 1° in this project area</li><li>Down hole length of the hole is the distance from the surface to the end of the hole, as measured along the drill trace. Intercept depth is the distance down the hole as measured along the drill trace. Intersection width is the downhole distance of an intersection as measured along the drill trace.</li><li>Hole length is the distance from the surface to the end of the hole, as measured along the drill trace.</li></ul>																								
<b>Data aggregation methods</b>	<ul style="list-style-type: none"><li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></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 <i>values should be clearly stated.</i></li></ul>	<ul style="list-style-type: none"><li>No high grade cuts have been applied to assay results. RC and DC assay results are distance weighted using their applicable down hole width for each assay.</li><li>Intersections are reported if the interval is at least 1m wide at 0.5g/t Au grade. Intersections greater than 1m in downhole distance can contain up to 2m of low grade or barren material.</li><li>No metal equivalent reporting is used or applied.</li></ul>																								

<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The intersection width is measured down the hole trace, it is not usually the true width. Cross sections in this announcement allows the relationship between true and down hole width to be viewed.</li> <li>Data collected from historical workings within the area show the primary ore zones to be sub-vertical (east dipping) in nature with a general northerly strike.</li> <li>All drill results within this announcement are downhole intervals only and true widths are not reported. True widths are approximately 60% of the reported drill intercept widths.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Plan and sectional views are contained within this announcement.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All results <math>\geq 0.5\text{g/t Au}</math> are reported. The results are length weighted composites based on the Au grade and down hole length, a maximum of 2m of internal dilution is included.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No other exploration data is considered meaningful and material to this announcement.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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 style="list-style-type: none"> <li>Exploration work is ongoing at this time and may involve the drilling of more drill holes, both DC and RC, to further extend the mineralised zones and to collect additional detailed data on known and as yet unidentified mineralized zones.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Excelsior

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

Criteria	ORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Digital data from historic drilling is compared to hard copy reports to verify data integrity.</li> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the BDC Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits are regularly undertaken by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the system and the gold distribution is complex, however there is good continuity of mineralisation established by 15m x 15m close spaced drilling near surface and 30m x 30m drilling at depth. The ore body is broad (up to 30m wide) and extends for 800m along strike.</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the collar location and downhole survey data. Although holes were not deliberately twinned, ore grade intercepts in recent (EXG) drilling were intersected at similar depths and similar grades to nearby historic holes.</li> <li>The lithology units have been modelled using drilling data and consist of a north-south striking, sub-vertical sequence of tuffaceous and pelitic sediments and minor intercalated volcanics and intrusives bounded by massive komatiitic flow rocks. Mineralisation is oriented N-S within 3 shear systems. The extensive shearing (foliation and alteration makes identification of protoliths and grade correlations difficult.</li> </ul> <p>Structural continuity of the shear systems is extensive. The grade continuity within the shears is less continuous and likely affected by changes in host lithology.</p>
<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation extends 800m north/south, 100m east/west and 240m in elevation.</li> </ul>

<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>BDC has used 3DM wireframes to constrain the mineralised shear zones. All lodes have been interpreted on a sectional basis using the available exploration drilling data on variable spacing.</li> <li>Raw assay samples were composited to 1m. Compositing started where each drill hole entered a mineralised wireframe and continued until exiting the wireframe. A minimum composite width of 0.7m was chosen and any residual composites were averaged with the previous sample.</li> <li>It was evident that some of the estimation domains contained extreme outlier gold values. The moderately positively skewed gold distributions mean that conventional linear estimation methods, such as Ordinary Kriging ("OK") are very likely to produce over-smoothed block grade estimates. For this reason, it was decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method.</li> <li>The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>The coherence and stability of the upper tail of the gold grade distribution;</li> <li>Visual inspection of the spatial location of outlier values;</li> </ul> </li> <li>The statistics show that in most cases there is only a small reduction in mean grade and variability following top cutting.</li> <li>The LUC estimates were implemented using the Isatis.Neo software package before being transferred into a Datamine RM™ block model. Supervisor™ software used for geostatistics, variography and block model validation.</li> <li>No consideration has been made to by-products.</li> <li>The estimation panel size used was 8mE x 16mE x 10mRL. An SMU block size of 4mE x 8mN x 2.5mRL was chosen (no rotation) for use in the localisation process. This SMU block size is considered appropriate for the generally broad nature of mineralisation where a highly selective mining method (dictated by an even smaller SMU size) is considered unlikely. While the data spacing in areas other than near surface would be considered too wide for such a small block size if conventional linear estimation methods were used, EXG has used the LUC method, which is suited to estimating the grade distribution of smaller blocks using wide spaced data.</li> <li>Interpolation parameters – the search ellipse was aligned to variogram search which in turn is aligned to the mineralised trend. A minimum of 7 samples with an optimal 4 samples for each of the four sectors was used, with a maximum of 4 samples per borehole. Two search passes were carried out, with the second increasing in volume by three-fold.</li> <li>Classification was used to highlight confidence.</li> <li>Validation was completed <ul style="list-style-type: none"> <li>visually, comparing block estimated grades to local drilling and;</li> <li>Using swath plots on a N-S, E-W and depth and</li> <li>Comparing estimated grades to composite grades on a domain by domain basis.</li> </ul> </li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are reported on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The open pit-able MRE has been reported above a 0.3g/t Au cut-off and above an RL which represents 250m below surface.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>This MRE has been undertaken on the assumption of open pit mining methods, the selection of SMU size was based on the scale of mining equipment likely to be used</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Excelsior deposit has been mined successfully between 1985 and 1992 with no metallurgical issues. EXG has conducted metallurgical testwork on all ore types with recoveries in excess of 90% for all rock types.</li> </ul>

<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The currently mined open pit is filled with tailings which will be mined and encapsulated in the waste landform to minimise environmental disturbance. <ul style="list-style-type: none"> <li>Characterisation of representative waste rock samples from Excelsior indicated waste components have low sulphide levels, and are classified Non-Acid Forming (NAF).</li> </ul> </li> <li>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitats; groundwater dependent ecosystems; and surface hydrology.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>A total of 188 SG determinations have been made from core and rock samples by both Aberfoyle and EXG (55 oxide, 35 transitional, 170 fresh). Aberfoyle used certified laboratories for SG determination. EXG used laboratory and in-house methods (weight in air and weight in water).</li> <li>On balance BDC believe that there are sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density.</li> <li>BDC have used assumed bulk density values for ore and waste based on the interpreted weathering surfaces.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralisation is currently reasonably well understood The MRE is classified into indicated and inferred to reflect the confidence in the estimate of different areas of the MRE. The classification is based on drill hole spacing, geological continuity and estimation quality parameters. <ul style="list-style-type: none"> <li>Indicated – Areas with drill spacing up to approximately 30mE x 30mN and with reasonable confidence in the geological interpretation.</li> <li>Inferred – Areas with drill spacing in excess of 30mE x 30mN.</li> </ul> </li> <li>There is a high level of confidence in input data, geology and gold grades. At depth where drilling is more separated, confidence in geological and grade continuity is reduced and this is accounted for by having an inferred classification.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The current resource estimate is currently (March 2021) being independently reviewed.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>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 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>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>A number of measures were incorporated in the MRE to provide confidence in the estimate: <ul style="list-style-type: none"> <li>A conservative domain interpretation that limits volume and therefore tonnages in areas of sparse drilling</li> <li>The estimate has used top-cuts to restrict the influence of high grade samples without having a detrimental effect on metal content.</li> <li>Restricted search parameters</li> <li>Adoption of the LUC estimation method provides an estimate of tonnages and grades at the SMU scale which can be achieved during mining</li> </ul> </li> <li>The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.</li> <li>Although previously mined, there are no coherent production records available with which to compare this estimate to.</li> </ul>

#### Section 4 Estimation and Reporting of Ore Reserves – Excelsior Open Pit

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Bardoc Gold Mineral Resource as reported in March 2021.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserve
<b>Site visits</b>	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person has conducted multiple site visits of the area and is familiar with the region and is comfortable relying on site visit reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.

<b>Study status</b>	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Definitive Feasibility Study carried out by Bardoc and independent consultants SMJ Engineering provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
<b>Cut-off parameters</b>	The basis of the cut-off grade(s) or quality parameters applied.	Definitive Feasibility costs, revenue factors and physicals form the basis for Cut Off Grade calculations. Mill recovery is calculated based on metallurgical test work carried out as part of the Definitive Feasibility Study. A gold price of A\$2,000 / oz (US\$1,500/oz) was assumed for the Cut Off Grade calculations. The open pit COG of 0.31 g/t Au for oxide and 0.31 g/t Au for transitional ore and 0.35 g/t for fresh ore were applied to define ore and waste.
<b>Mining factors or assumptions</b>	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).	Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	The open pit Ore Reserve is planned to be mined using conventional surface mining methods. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional diesel fleet of 120 t-class and 190 t-class excavators and 100 t dump trucks. 30% of oxide material was assumed to be drilled and blasted using Ammonium nitrate-type explosives, 85% of transition material was assumed to be drilled and blasted using Ammonium nitrate-type explosive and 100% of fresh material is be drilled and blasted using Emulsion-type explosive.  A minimum working width of 20 m has been applied based on the proposed fleet with final goodbye cuts being a minimum width of 10m.  The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists to the mine.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Pit slopes have been designed based on geotechnical analysis by independent consultants Peter O'Bryan and Associates (POA).  Open pit grade control will be carried out using RC drilling in the pit floor. These activities have been costed based on a recent request for quotation process involving experienced and reputable contractors
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mineral Resources used for optimisation were those detailed previously. Cut-off grades and geotechnical inputs used for optimisations were also applied as detailed previously.
	The mining dilution factors used.	Open pit mining blocks were regularised in the Mineral Resource to model selective mining unit (SMU) size based on the proposed fleet. Minimum Resource block sizes were 4.0 m across strike x 8.0 m along strike x 2.5mH. No other mining dilution was applied to the open pit ore.
	The mining recovery factors used.	Open pit ore had a 97% mining recovery applied.
	Any minimum mining widths used.	Ore blocks conform to the minimum SMU size. Working benches at Excelsior are generally 20 m minimum width, with some isolated areas towards the end of the mine life 10-15 m wide.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred Resources were not taken into account during valuation in the pit optimisation process, and as such did not have an impact on pit shape. Any Inferred material contained within pit designs was treated as waste (i.e. zero grade).
	The infrastructure requirements of the selected mining methods.	Although Excelsior is a brownfields site and will require all surface and underground infrastructure to be installed, including offices, workshops, first aid facilities, power supply, water management, stores, communications, fuel farm, magazines, waste dumps, run-of-mine (ROM) pads and access road upgrades. This has been allowed for in the Pre-Feasibility Study.
<b>Metallurgical factors or assumptions</b>	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	A primary crusher, SAG and ball mill circuit with a pebble crusher will produce a final grind size distribution P <sub>80</sub> of 106 microns to be fed to a Carbon-In-Leach (CIL) circuit based on free milling nature of orebody based on metallurgical testwork.

		<p>The Definitive Feasibility included construction of a CIL Processing Facility with flotation circuit to be located at the Excelsior / Zoroastrian complex to treat both free milling and refractory ore, although only free milling ore is located at the Zoroastrian deposit. Ore will be stockpiled on the ROM pad and then fed into the crusher circuit via front end loader.</p> <p>Excelsior consists of 34% oxide, 29% transitional and 37% fresh material</p>								
	Whether the metallurgical process is well-tested technology or novel in nature.	CIL is a standard and common gold extraction process for free milling ore								
	<p>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</p> <p>Any assumptions or allowances made for deleterious elements.</p> <p>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.</p> <p>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</p>	<p>Excelsior metallurgical recovery has been determined from the definitive feasibility study test work and another sample from historic test work. The models determine the tailings grade and then use the head grade to calculate recovery. Two models were developed; an oxide and transitional model and a primary ore model. The oxide and transitional model consisted of 5 samples across the deposit and the primary model was from 11 samples. The models are shown below where [Au] is the gold head grade in g/t. When used in the model a recovery upper limit of 97% was applied.</p> <table><tr><th>Ore Source</th><th>Model</th></tr><tr><td>Excelsior Oxide</td><td><math>([Au] - (0.003[Au] + 0.023))/[Au]</math></td></tr><tr><td>Excelsior Transition</td><td><math>([Au] - (0.003[Au] + 0.023))/[Au]</math></td></tr><tr><td>Excelsior Primary</td><td><math>([Au] - (0.014[Au] + 0.022))/[Au]</math></td></tr></table> <p>No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.</p>	Ore Source	Model	Excelsior Oxide	$([Au] - (0.003[Au] + 0.023))/[Au]$	Excelsior Transition	$([Au] - (0.003[Au] + 0.023))/[Au]$	Excelsior Primary	$([Au] - (0.014[Au] + 0.022))/[Au]$
Ore Source	Model									
Excelsior Oxide	$([Au] - (0.003[Au] + 0.023))/[Au]$									
Excelsior Transition	$([Au] - (0.003[Au] + 0.023))/[Au]$									
Excelsior Primary	$([Au] - (0.014[Au] + 0.022))/[Au]$									
Environmental	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.	<p>Historical base line environmental assessments have been completed with no known impacts on the mining and processing operation for Excelsior. No recent mining approvals have been sought at this stage however, it is expected that any required approvals would be granted within a reasonable timeframe to allow mining to commence.</p> <p>Characterisation of representative waste rock samples from Excelsior indicated waste components have low sulphide levels, and are classified Non-Acid Forming (NAF).</p> <p>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact to native vegetation, faunal habitats; groundwater dependent ecosystems; and surface hydrology.</p>								
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.	<p>The Bardoc project is located 50km from the city of Kalgoorlie, adjacent the Goldfields highway, a sealed all-weather highway that is frequently travelled. This provides ready access to the site for transportation of infrastructure and consumables for the project.</p> <p>The infrastructure is designed to be located on tenement areas owned by Bardoc Gold.</p> <p>Labour will be sourced from the nearby town of Kalgoorlie, where available, or on a fly-in fly-out basis through the Kalgoorlie airport, housing the relevant people within the city of Kalgoorlie.</p> <p>Power will be provided by on site natural gas and diesel generators.</p> <p>Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.</p>								
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	<p>Capital costs for the project have been provided by several external studies completed for the project including:</p> <ul style="list-style-type: none"><li>- Como Engineering – Processing Plant</li><li>- ATC Williams – Tailings Dam</li><li>- WML– Road &amp; Rail Re-alignment</li><li>- AQ2 – Water Supply</li><li>- IME Consultants – Surface Mining infrastructure</li><li>- OSD Asset Services – Gas Pipeline relocation</li></ul> <p>Capital costs are based on vendor supplied quotations and / or the consultancies cost database.</p> <p>Capital costs include:</p> <ul style="list-style-type: none"><li>- Processing Plant;</li><li>- Tailings Dam;</li></ul>								

		<ul style="list-style-type: none"> <li>- Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure,</li> <li>- Power Supply;</li> <li>- Road &amp; Rail re-alignment;</li> <li>- Road Access;</li> <li>- Site Clearing;</li> <li>- Water Supply;</li> </ul> <p>Capital infrastructure costs include a minimum 10% contingency.</p>
	The methodology used to estimate operating costs.	<p>The key operating cost estimates have been prepared by Como Engineering and the Bardoc Project team. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.</p> <p>Mining costs are sourced from quotations received from reputable mining contractors.</p> <p>Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles.</p>
	Allowances made for the content of deleterious elements.	No deleterious elements have been identified in ore test work and as such no allowance has been made.
	The source of exchange rates used in the study.	A USD: AUD exchange rate of 0.75 has been derived from corporate guidance and independent advice from reputable financial institutions that take into account historical exchange rates and current market trends.
	Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Transportation, treatment and refining costs have been estimated based on supply of Dore to the Perth mint.
	The allowances made for royalties payable, both Government and private.	Excelsior incurs a 2.5% state royalty. No private royalties are incurred on the Zoroastrian tenements.
<b>Revenue factors</b>	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.	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Definitive feasibility study.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	<p>Gold price and exchange rates have been determined by an external financial expert group because of current market trends and by peer company comparison. A gold price of A\$2,000 / oz (US\$1,500/oz) has been used for the ore reserve estimation.</p> <p>The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work</p>
<b>Market assessment</b>	<p>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</p> <p>A customer and competitor analysis along with the identification of likely market windows for the product.</p> <p>Price and volume forecasts and the basis for these forecasts.</p> <p>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</p>	<p>Gold doré from the mine is to be sold to the Perth mint.</p> <p>There is a transparent quoted market for the sale of gold.</p> <p>No industrial minerals have been considered.</p>
<b>Economic</b>	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.	The March 2021 Ore Reserve estimate is based on a Definitive Feasibility level of accuracy with inputs from open pits, underground mines, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the update Ore Reserve cost model.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	<p>The March 2021 Ore Reserve returns a positive NPV based on the assumed commodity price and the Competent Person is satisfied that the project economics that make up the March 2021 Ore Reserve retains a suitable profit margin against reasonable future commodity price movements.</p> <p>Sensitivity analysis has indicated that the project drivers are exchange rate, gold price, metallurgical recovery followed by operating expenditure. NPV at A\$2,000/oz is sensitive to reasonable unfavourable changes to these drivers.</p>
<b>Social</b>	The status of agreements with key stakeholders and matters leading to social licence to operate.	Bardoc maintain ongoing and frequent engagement with key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	An agreement is in place with the leaseholder of the Mt Vettors pastoral lease and the two freehold landowners of the Bardoc Homesteads. These have been included in the cost but are not material to the plan.

		<p>Agreements with MRWA and PTA will be established to manage the proposed realignment of a section of the Goldfields Highway and Kalgoorlie to Menzies Railway.</p> <p>Excelsior has two Native Title claimants currently across its tenure. Bardoc has entered into ongoing consultation with both parties. An all-areas agreement is in place with Maduwongga and final consultation is underway with Marlinyu Ghoorlie for a partial area access agreement. Both agreements provide for required access to tenure required for the project.</p> <p>There are no other legal or marketing agreements that are expected to be material to the ore reserves.</p>
	<p>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.</p>	<p>There are no government agreements or approvals identified that are likely to materially impact the project.</p> <p>It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project.</p> <p>There are no known matters pertaining to any third parties to affect the development of the project.</p>
<b>Classification</b>	<p>The basis for the classification of the Ore Reserves into varying confidence categories.</p>	<p>The classification of the initial Ore Reserve has been carried out in accordance with the JORC Code 2012. The March 2021 Ore Reserve results reflect the Competent Persons view of the deposit.</p> <p>The Probable Ore Reserve is based on that portion of Indicated Mineral Resource within the mine designs that may be economically extracted and includes allowance for dilution and ore loss.</p> <p>There are no Proved Ore Reserves.</p>
	<p>Whether the result appropriately reflects the Competent Person's view of the deposit.</p>	<p>The result appropriately reflects the Competent Person's view of the deposit.</p>
	<p>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</p>	<p>No Measured Mineral resources form the basis of the Ore Reserves</p>
<b>Audits or reviews</b>	<p>The results of any audits or reviews of Ore Reserve estimates.</p>	<p>The Ore reserve estimates have been reviewed by Bardoc Gold. No further external audits have been completed.</p>
<b>Discussion of relative accuracy/ confidence</b>	<p>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.</p> <p>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.</p> <p>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</p> <p>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.</p>	<p>The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 10-15% level of confidence.</p> <p>A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.</p> <p>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.</p> <p>The Competent Person(s) area 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.</p> <p>There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.</p>

## Mayday North Mineral Resource Estimate – JORC Table 1

### JORC Table 1 Section 1 Sampling Techniques and Data – MayDay North

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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. 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 style="list-style-type: none"> <li>Drill holes used in the estimate include 9 diamond holes (“DD”) and 105 reverse circulation (“RC”) holes. In addition, large number of regional Rotary Air Blast (“RAB”) holes have been completed;</li> <li>The majority of drilling was completed by Geopeko Limited and Sovereign Gold Limited. Barmingo and Croesus Mining NL completed close spaced drilling prior to commencement of an open pit mine in 1999.</li> <li>In 2013 SPM completed 10 holes for 790m;</li> <li>In the deposit area, holes were generally vertical in the oxide zone or angled to the west in the primary zone to optimally intersect the mineralised zones;</li> <li>RC samples were collected at 1m intervals from a rig mounted cyclone and riffle splitter;</li> <li>For SPM RC drilling, samples were composited into 4m intervals for assay with anomalous intervals resubmitted at 1m intervals. The majority of RC holes were sampled and assayed at 1m intervals;</li> <li>DD core was cut using a diamond saw and half core samples submitted for analysis.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The majority of RC drilling used a face sampling bit but records were not available for much of the historic drilling;</li> <li>Diamond drilling was carried out with HQ and NQ sized equipment with standard tube;</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Recoveries from SPM drilling were good with RC samples visually monitored;</li> <li>Diamond core recovery was recorded in the drill logs and was excellent;</li> <li>There is no identified relationship between sample recovery and sample grades.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All diamond drill holes were logged for recovery, RQD, geology and structure;</li> <li>RC drilling was logged for various geological attributes;</li> <li>All drill holes were logged in full.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>RC samples were collected from a rig mounted cyclone and or free standing splitter in one metre intervals;</li> <li>For historic RC and DD drill programs, samples were assayed at contract laboratories using fire assay or aqua regia analysis.</li> <li>SPM samples were assayed at the Aurum laboratory in Perth. Samples were dried and a 1kg split was pulverized to 80% passing 75 microns;</li> <li>SPM drilling included QAQC protocols including blanks, standards and duplicates. Results were satisfactory and supported the use of the data in resource estimation;</li> <li>No QAQC reports have been located for the historic drilling data;</li> <li>Sample sizes are considered appropriate to correctly represent the gold mineralisation based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the 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 style="list-style-type: none"> <li>For SPM drilling, analysis was by fire assay and atomic absorption spectrometry (AAS) finish at the Aurum laboratory in Perth;</li> <li>For historic RC and DD drilling, analytical procedures are not known;</li> <li>The analytical technique used by SPM approaches total dissolution of gold in most circumstances;</li> <li>SPM drilling included QAQC protocols including blanks, standards and duplicates. Results were satisfactory and supported the use of the data in resource estimation.</li> </ul>

<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No independent verification of significant intersections has been carried out;</li> <li>Multiple phases of drilling have confirmed the overall tenor and distribution of mineralisation and the successful open pit mining in 1999/2000 verified the grade and thickness of the interpreted zones;</li> <li>Primary data documentation for recent drilling is electronic with appropriate verification and validation;</li> <li>Historic data was compiled from company and WAMEX reports;</li> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill hole collar coordinates used MGA transforms from a local grid;</li> <li>Drill hole collars have been surveyed either by licensed surveyors or using differential or hand held GPS;</li> <li>Topographic control is from detailed mine surveys carried out during the open pit mining in 1999/2000.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>For RC and DD drilling, holes were generally vertical and drilled on a regular 20m by 20m grid with some 10m infill. Deeper drilling is widely spaced and angled to the west;</li> <li>The drilling has demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource, and the classifications applied under the 2012 JORC Code;</li> <li>Samples used in the Mineral Resource were based largely on 1m samples without compositing. Some compositing of DD holes was required to provide equal support during estimation.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of 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 style="list-style-type: none"> <li>Holes were generally vertical for testing of the flat lying supergene mineralisation;</li> <li>Deeper holes were angled at -60° to 270° to optimize the intersection angle with the east dipping primary mineralisation;</li> <li>No orientation based sampling bias has been identified in the data.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>SPM samples were carefully identified and bagged on site for collection and transport by commercial or laboratory transport.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling techniques were located;</li> <li>The majority of work was carried out by reputable companies using industry standard methods.</li> </ul>

#### JORC Table 1 Section 2 Reporting of Exploration Results – MayDay North

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The deposit is located within Mining Lease M27/140 and M27/145 which is owned by Strategic Projects Mining Pty Ltd.;</li> <li>The M27/140 was granted for a term of 21 years and expires on 1 May 2032;</li> <li>M27/145 was granted for a term of 21 years and expires on 14 November 2032;</li> <li>Tenements M27/140 &amp; M27/102 will be subject to a Royalty of \$15 per ounce for the first 50,000oz mined on completion of the acquisition by Bardoc. In addition a potential royalty of Recovered grade (g/t) x \$5 is payable (to be confirmed following further investigation)</li> <li>Tenement M27/140 is currently subject to 3 Forfeiture notices; 1 for the late payment of rent with a fine payable; 1 Regulation 50 notice for non-compliance with reporting requirement; and a Regulation 50 Notice for non-compliance with expenditure and late lodgement of Form 5.</li> <li>Tenement M27/145 has 1 outstanding Forfeiture notice for non-compliance with reporting requirements.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement was previously held by various companies. The majority of drilling was completed by previous operators since the 1980's;</li> <li>The project was acquired by SPM in 2013. SPM completed 10 RC drill holes in 2014.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The basement geology of the project comprises a northeast trending sequence of fine to medium grained volcanics dipping at 45° to the northeast. Lithologies vary from gabbro in the west to foliated basalt in the east of the project area.</li> <li>Primary gold mineralisation occurs in a tabular, brecciated zone adjacent to the sheared contact between an amphibole basalt and a chloritic basalt. Sulphide veining and brittle fracturing filled with silica, pyrite and arsenopyrite are the dominant hosts of mineralisation. The mineralised zone dips at approximately 45° northeast and has a typical thickness of 10-20m.</li> </ul>

		<ul style="list-style-type: none"> <li>A deep weathering profile has developed over the Mayday North deposit and is typically 40m below surface. Distinct depletion and remobilisation of gold is evident within the oxide profile and as a result of this, substantial zones of flat lying, supergene gold mineralisation have formed above the primary mineralisation. A high grade portion of the supergene mineralisation was exploited in a small open pit.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <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: <ul style="list-style-type: none"> <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> </ul> </li> <li>If the exclusion of this information is justified on the basis 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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are not being reported;</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 style="list-style-type: none"> <li>Exploration results are not being reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Holes were generally vertical for testing of the flat lying supergene mineralisation;</li> <li>Deeper holes were angled at -60° to 270° to optimize the intersection angle with the east dipping primary mineralisation;</li> <li>The majority of intersections reflect the true width of mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Exploration results are not being reported.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <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>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>	<ul style="list-style-type: none"> <li>Drill hole collars were accurately surveyed by licenced surveyors using differential GPS or by SPM using hand held GPS;</li> <li>The majority of resource holes did not have down hole surveys however the generally shallow nature of the drilling is unlikely to have significant hole deviation;</li> <li>Results of RAB and AC holes are not material to the project.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Regional exploration programs have been conducted including RAB drilling and geochemical sampling. The results have not been used in the Mineral Resource estimate.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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 style="list-style-type: none"> <li>Further work at the deposit should include extensional and infill drilling as well as more regional exploration on the tenement;</li> <li>Future studies should also include metallurgical test work.</li> </ul>

## JORC Table 1 Section 3 Estimation and Reporting of Mineral Resources – MayDay North

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the BDC Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits are regularly undertaken by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>A pXRF study undertaken by BDC geologists have shown the deposit to lie upon a contact between a Basaltic and Andesitic unit.</li> <li>Shearing along this contact has created suitable architecture for fluid flow and a hospitable environment for mineralisation.</li> <li>The confidence in the geological interpretation is good, and primary mineralised structures are well defined by drilling.</li> <li>Mineralisation consists of a steeply dipping Primary contact/shear zone directly associated with the contact, a steeply dipping shear zone with detaches from the contact, and a flat strongly enriched supergene zone which was the focus of previous mining.</li> <li>Primary mineralisation is easily identified in geological logging and displays good continuity between wide spaced drilling.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The Mineral Resource area extends over a strike length of 500m and includes the 270m vertical interval from 370mRL to 100mRL.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>BDC has used 3DM wireframes interpreted on a sectional basis to constrain the mineralised envelope at 0.3g/t, based on RC drilling at spacing's down to 15m N x 15m E-W.</li> <li>A further high grading zone modelled at 1.5g/t defines the primary contact zone was created using an implicit approach.</li> <li>1m compositing was considered appropriate. 1m composite intervals falling within the wire framed estimation domains were coded in the database.</li> <li>Influences of extreme sample distribution outliers were reduced by top-cutting on a domain basis. Top-cuts were decided by using a combination of methods including grade histograms, log probability plots and statistical tools plus visual inspection of the spatial location of outlier values. Based on this statistical analysis of the data population some top cuts were applied, including domains 1000 (12g/t), 1500 (15g/t) and supergene (12g/t)</li> <li>Grade estimation using Ordinary Kriging (OK) was completed using Micromine software for Au only.</li> <li>Directional variograms were modelled by domain using normal score variograms. Nugget values are moderately low (around 30%) and structure ranges up to 70m.</li> <li>Block model was constructed with blocks of 4m (E) by 5m (N) by 5m (RL). Sub celling was permitted in the Z direction to 2.5m. All estimations were completed to the parent cell size. Discretisation was set to 3 by 3 by 3 for all domains.</li> <li>Three estimation passes were used with the first pass using a limit of 35m, the second pass 70m and the third pass searching a large distance to fill the blocks within the wire framed zones. Each pass used a maximum of 20 samples, a minimum of 9 samples and maximum per hole of 4 samples.</li> <li>Search ellipse sizes were based primarily on a combination of the variography and the trends of the wire framed mineralized zones. Hard boundaries were applied between all estimation domains.</li> <li>Validation of the block model included a volumetric comparison of the resource wireframes to the block model volumes. Validation of the grade estimate included comparison of block model grades to the declustered input composite grades plus swath plot comparison by easting, northing and elevation. Visual comparisons of input composite grades vs. block model grades were also completed.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>

<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been reported at a 0.5g/t Au cut-off based on assumptions about economic cut-off grades for open pit mining.</li> <li>The reported portion of the Mineral Resource was limited to a vertical depth of 200m.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Portions of the deposit are considered to have sufficient grade and continuity to be considered for open pit mining;</li> <li>No mining parameters or modifying factors have been applied to the Mineral Resource.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Supergene mineralisation displayed good recoveries using conventional processing during the mining phase in 1999/2000;</li> <li>Preliminary metallurgical test work suggests a refractory component to the primary mineralisation.</li> <li>BDC completed a suite of bottle roll test and the refractory nature is supported and requires further testwork.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The area is not known to be environmentally sensitive and there is no reason to think that approvals for further development including the dumping of waste would not be approved.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>Five Diamond drillholes were drilled and assessed for bulk density, using the water displacement method, during 2019 and 2020.</li> <li>The measurements are slightly higher than previously assumed due to sulphide component.</li> <li>The Oxide is relatively high but makes up a very small part of the resource so is not deemed material.</li> <li>The author is confident in using these measurements as part of a JORC compliant resource</li> <li>Oxide: 2.1</li> <li>Transition: 2.64</li> <li>Fresh: 2.9</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralized zones, drilling density, confidence in the underlying database and the available bulk density information.</li> <li>In part, the lodes have been drilled down to 15m x 15m spacing, on northing and easting, with drill lines running approximately ENE-WSW. To the north and south drilling is at greater spacing.</li> <li>The MRE is classified into indicated and inferred to reflect the confidence in the estimate of different areas of the MRE.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li><b>This reported Mineral Resource Estimate has not been reviewed.</b></li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource Estimates is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>The statement relates to global estimates of tonnes and grade.</li> </ul>

	<p><i>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 relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	
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#### Section 4 Estimation and Reporting of Ore Reserves – Mayday Open Pit

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Bardoc Gold Mineral Resource as reported in March 2021
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserves.
<b>Site visits</b>	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person did not conduct a site visit however, is familiar with the region and is comfortable relying on site visit reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
<b>Study status</b>	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Definitive Feasibility Study carried out by Bardoc and independent consultants SMJ Engineering provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
<b>Cut-off parameters</b>	The basis of the cut-off grade(s) or quality parameters applied.	Definitive-Feasibility costs, revenue factors and physicals form the basis for Cut Off Grade calculations. Mill recovery is calculated based on metallurgical testwork carried out as part of the Definitive-Feasibility Study. A gold price of A\$2,000 / oz (US\$1,500/oz) was assumed for the Cut Off Grade calculations. The open pit COG of 0.44 g/t Au for oxide material, 0.48 g/t Au for free milling transitional material and 0.85 g/t Au for fresh refractory material were applied to define ore and waste
<b>Mining factors or assumptions</b>	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).	Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	The open pit Ore Reserve is planned to be mined using conventional surface mining methods. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional diesel fleet of 120 t-class and 100 t dump trucks. 30% of oxide material was assumed to be drilled and blasted using Emulsion-type explosives, 85% of transition material is assumed to be drilled and blasted using emulsion-type explosives and 100% of fresh material is assumed to be drilled and blasted using emulsion-type explosives. A minimum working width of 20 m has been applied based on the proposed fleet. The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists to the mine.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Pit slopes have been designed based on inferred geotechnical assumptions based on rock competency. A detailed geotechnical assessment should be carried out prior to mining. Open pit grade control will be carried out using RC drilling in the pit floor. These activities have been costed based on a recent request for quotation process involving experienced and reputable contractors
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mineral Resources used for optimisation were those detailed previously. Cut-off grades and geotechnical inputs used for optimisations were also applied as detailed previously.
	The mining dilution factors used.	Open pit mining blocks were regularised in the Mineral Resource to model selective mining unit (SMU) size based on the proposed fleet. Minimum Resource block sizes were 4.0 m across strike x 5.0 m along strike x 5.0mH.

		No other mining dilution was applied to the open pit ore.																									
	The mining recovery factors used.	Open pit ore had a 97% mining recovery applied.																									
	Any minimum mining widths used.	Ore blocks conform to the minimum SMU size. Working benches at Mayday are generally 20 m minimum width, with some isolated areas towards the end of the mine life 10-15 m wide.																									
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred Resources were not taken into account during valuation in the pit optimisation process, and as such did not have an impact on pit shape. Any Inferred material contained within pit designs was treated as waste (i.e. zero grade).																									
	The infrastructure requirements of the selected mining methods.	Mayday is a satellite pit as part of the Bardoc Gold Project. Infrastructure will be required to support the open pit mining of Mayday including offices, cribroom, workshop, fuel bay, washdown bay, ROM Pad and access roads. The processing facility will be established at the Excelsior / Zoroastrian site where ore from the Mayday project will be hauled. This has been allowed for in the Definitive Feasibility Study.																									
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	<p>A primary crusher, SAG and ball mill circuit with a pebble crusher will produce a final grind size distribution P<sub>80</sub> of 75 microns to be fed to either a Carbon-In-Leach (CIL) circuit for the free milling components or a flotation circuit to treat the refractory ore.</p> <p>Carbon-In-Leach (CIL) Processing based on oxide and transitional ore based on the free milling characteristics from the metallurgical testwork.</p> <p>The refractory material will undergo flotation to produce a concentrate which is proposed to be sold under a concentrate sale offtake agreement for downstream smelting and refining.</p> <p>Mayday oxide and transitional is free-milling and the fresh material refractory.</p> <p>The Mayday open pit contains 12% oxide, 57% transitional and 31% fresh ore material.</p> <p>The Definitive Feasibility included construction of a CIL Processing Facility with flotation circuit to be located at the Excelsior / Zoroastrian complex. Ore will be transported to the mill ROM by surface road trains.</p>																									
	Whether the metallurgical process is well-tested technology or novel in nature.	CIL and flotation is a standard and common gold extraction process for free milling and refractory ore.																									
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	<p>Mayday recovery factors are based on historical testwork samples in oxide, transitional and fresh material.</p> <p>For the free milling oxide and transitional ore the following metallurgical factors have been applied:</p> <ul style="list-style-type: none"><li>- Mayday oxide – fixed tail of 0.05 g/t</li><li>- Mayday transitional – fixed recovery of 89.4%.</li></ul> <p>The Mayday transitional recovery factor is conservative from the testwork result of 91.4% (at a grind size 80% passing 75 microns and 24 hour leach residence time). Given the current ore volume this is sufficient data however additional testwork would improve the accuracy of the recovery models.</p> <p>A sample of fresh material has been subjected to the proposed flotation flowsheet to treat Bardoc’s Aphrodite ore. The results were consistent with the Aphrodite ore and therefore the same recovery factors where applied. These include:</p> <table><tr><th colspan="2">Model</th></tr><tr><td>Mass Recovery</td><td>2.0128 x [S] + 1.8576</td></tr><tr><td colspan="2"><b>Gold Models</b></td></tr><tr><td>Rougher Tail Gold Grade</td><td>0.039 x [Au]</td></tr><tr><td>Cleaner Tail Gold Grade</td><td>([Au] x 0.2044e<sup>0.754[S]</sup>)/100</td></tr><tr><td>Flotation Gold Recovery</td><td>(([Au] – (Rougher Au Tail +Cleaner Au Tail)) / [Au]</td></tr><tr><td>Concentrate Gold Grade</td><td>([Au] x Flotation Au Recovery %) / Mass Recovery %</td></tr><tr><td>CIL Tailings Gold Grade</td><td>0.039 x [Au]</td></tr><tr><td colspan="2"><b>Arsenic Models</b></td></tr><tr><td>Rougher Tail Arsenic Grade</td><td>0.024 x [As]</td></tr><tr><td>Cleaner Tail Arsenic Grade</td><td>([As] x 0.151e<sup>0.974[S]</sup>)/100]</td></tr><tr><td>Flotation Arsenic Recovery</td><td>([As] – (Rougher As Tail +Cleaner As Tail)) / [As]</td></tr><tr><td>Concentrate Arsenic Grade</td><td>([As] x Flotation As Recovery %) / Mass Recovery %</td></tr></table> <p>The laboratory testwork indicated that the arsenic level in the flotation concentrate is higher than Aphrodite ore. There are low volumes of Mayday fresh ore and blending with Aphrodite ore in the plant will mitigate the risk of a high arsenic content in the concentrate. Additional test work should be conducted to confirm the results.</p>	Model		Mass Recovery	2.0128 x [S] + 1.8576	<b>Gold Models</b>		Rougher Tail Gold Grade	0.039 x [Au]	Cleaner Tail Gold Grade	([Au] x 0.2044e <sup>0.754[S]</sup> )/100	Flotation Gold Recovery	(([Au] – (Rougher Au Tail +Cleaner Au Tail)) / [Au]	Concentrate Gold Grade	([Au] x Flotation Au Recovery %) / Mass Recovery %	CIL Tailings Gold Grade	0.039 x [Au]	<b>Arsenic Models</b>		Rougher Tail Arsenic Grade	0.024 x [As]	Cleaner Tail Arsenic Grade	([As] x 0.151e <sup>0.974[S]</sup> )/100]	Flotation Arsenic Recovery	([As] – (Rougher As Tail +Cleaner As Tail)) / [As]	Concentrate Arsenic Grade
Model																											
Mass Recovery	2.0128 x [S] + 1.8576																										
<b>Gold Models</b>																											
Rougher Tail Gold Grade	0.039 x [Au]																										
Cleaner Tail Gold Grade	([Au] x 0.2044e <sup>0.754[S]</sup> )/100																										
Flotation Gold Recovery	(([Au] – (Rougher Au Tail +Cleaner Au Tail)) / [Au]																										
Concentrate Gold Grade	([Au] x Flotation Au Recovery %) / Mass Recovery %																										
CIL Tailings Gold Grade	0.039 x [Au]																										
<b>Arsenic Models</b>																											
Rougher Tail Arsenic Grade	0.024 x [As]																										
Cleaner Tail Arsenic Grade	([As] x 0.151e <sup>0.974[S]</sup> )/100]																										
Flotation Arsenic Recovery	([As] – (Rougher As Tail +Cleaner As Tail)) / [As]																										
Concentrate Arsenic Grade	([As] x Flotation As Recovery %) / Mass Recovery %																										

		No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection. If Mayday fresh ore is treated on its own the arsenic content in the concentrate may impact on the off-taker costs.
<b>Environmental</b>	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.	Biological and heritage baseline studies will be conducted to inform management of the environment and preserve any identified heritage sites. Applications are expected to be submitted for Native Vegetation Clearing Permits; dewatering and discharge licences, Mining Proposals and Mine Closure Plans.
<b>Infrastructure</b>	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.	The Mayday project is located 50km from the city of Kalgoorlie, off the already established Yarri Road, which provides ready access to the site for transportation of infrastructure and consumables for the project. The infrastructure is designed to be located on tenement areas owned by Bardoc Gold. Labour will be sourced from the nearby town of Kalgoorlie, where available, or on a fly-in fly-out basis through the Kalgoorlie airport, housing the relevant people within the city of Kalgoorlie. Power will be provided by on site by diesel generators. Water will be sourced from the nearby underground paleochannels, with water exploration work to be completed for Mayday prior to operating.
<b>Costs</b>	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital costs for the mining infrastructure have been generated by Bardoc including: <ul style="list-style-type: none"> <li>• Workshops,</li> <li>• fuel bays,</li> <li>• washdown bays,</li> <li>• offices,</li> <li>• magazines,</li> <li>• communications</li> <li>• dewatering infrastructure,</li> <li>• power infrastructure,</li> <li>• ROM Pads,</li> <li>• Waste Dumps, and,</li> <li>• Access Roads.</li> </ul> Capital infrastructure costs include contingency.
	The methodology used to estimate operating costs.	The key operating cost estimates have been prepared by Como Engineering and the Bardoc Project team. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database. Mining costs are sourced from quotations received from reputable mining contractors. Surface haulage costs were sourced from quotations received from reputable road haulage contractors that operate in the Goldfields region. Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles.
	Allowances made for the content of deleterious elements.	No deleterious elements have been identified in ore testwork and as such no allowance has been made.
	The source of exchange rates used in the study.	A USD: AUD exchange rate of 0.75 has been derived from corporate guidance and independent advice from reputable financial institutions that take into account historical exchange rates and current market trends.
	Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Bardoc have entered into a binding offtake agreement with concentrate trading partner MRI. Costs for treatment, penalties, refining and payments are based on the binding offtake agreement in place. All other transportation, handling, insurances etc. have been derived from an assessment completed by logistics company Qube assuming the transportation of concentrate via lined 20' GP containers through the port of Fremantle.
	The allowances made for royalties payable, both Government and private.	Mayday incurs a 2.5% state royalty, a \$15/oz payment for first 50koz mined to Strategic Projects Mining Pty Ltd and a Recovered Grade/t x \$5 royalty to IGO Group.
<b>Revenue factors</b>	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.	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Feasibility study. Commodity prices and forward looking exchange rates are provided by Bardoc's financial consultants Burnvoir. Bardoc have entered into a binding offtake agreement with concentrate trading partner MRI. Costs for treatment, penalties, refining and payments are based on the binding offtake agreement in place.

		All other transportation, handling, insurances etc. have been derived from an assessment completed by logistics company Qube assuming the transportation of concentrate via lined 20' GP containers through the port of Fremantle.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	Gold price and exchange rates have been determined by an external financial expert group because of current market trends and by peer company comparison. A gold price of A\$2,000 / oz (US\$1,500/oz) has been used for the ore reserve estimation. The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work.
<b>Market assessment</b>	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Gold ore from the mine is to be sold to the Perth mint. Concentrate from the mine is to be sold to Bardoc's concentrate offtake partner, MRI, entered into after a formal tender and assessment phase of several high quality concentrate traders. Price is formulated from the concentrate sale terms.
<b>Economic</b>	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.	The March 2021 Ore Reserve estimate is based on a Definitive Feasibility level of accuracy with inputs from open pits, underground mines, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	The March 2021 Ore Reserve returns a positive NPV based on the assumed commodity price and the Competent Person is satisfied that the project economics that make up the initial Ore Reserve retains a suitable profit margin against reasonable future commodity price movements. Sensitivity analysis has indicated that the project drivers are exchange rate, gold price, metallurgical recovery followed by operating expenditure. NPV at A\$2,000/oz is sensitive to reasonable unfavourable changes to these drivers.
<b>Social</b>	The status of agreements with key stakeholders and matters leading to social licence to operate.	Bardoc maintain ongoing and frequent engagement with key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	No other material legal agreements and marketing arrangements are in place. There are no other legal or marketing agreements that are expected to be material to the ore reserves.
	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.	There are no government agreements or approvals identified that are likely to materially impact the project. An agreement with MRWA will be developed to manage the haulage of ore from Mayday to the Bardoc processing facility. It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project. There are no known matters pertaining to any third parties to affect the development of the project.
<b>Classification</b>	The basis for the classification of the Ore Reserves into varying confidence categories.	The classification of the March 2021 Ore Reserve has been carried out in accordance with the JORC Code 2012. The initial Ore Reserve results reflect the Competent Persons view of the deposit. The Probable Ore Reserve is based on that portion of Indicated Mineral Resource within the mine designs that may be economically extracted and includes allowance for dilution and ore loss. There are no Proved Ore Reserves.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The result appropriately reflects the Competent Person's view of the deposit.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Measured Mineral resources form the basis of the Ore Reserves
<b>Audits or reviews</b>	The results of any audits or reviews of Ore Reserve estimates.	The Ore reserve estimates have been reviewed by Bardoc Gold. No further external audits have been completed.
<b>Discussion of relative accuracy/ confidence</b>	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Feasibility standard with a better than +/- 10-15% level of confidence.  A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.

	<p>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.</p> <p>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</p>	<p>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.</p> <p>The Competent Person(s) are 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.</p> <p>There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.</p>
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## JORC, 2012 Edition – Tables - Zoroastrian

### Section 1 Sampling techniques and data – Zoroastrian

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. 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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>The mineralization was primarily sampled by Reverse Circulation (RC) and Diamond Core (DC) drilling on nominal 40m x 20m (N x E) grid spacing. The holes were generally drilled towards grid east at varying angles to optimally intersect the mineralized zones.</li> <li>The drilling database consists of historic (pre 2009) and EXG drilling data. The historic data consists of 19 DD and 420 RC holes; EXG drilling consists of 12 DD, 22 Reverse Circulation with diamond tail (RCD), 579 RC and 1800 Reverse Circulation grade control (RCGC) holes.</li> <li>Complete details are un-available for historic drilling.</li> <li>Generally, BDC RC recovered chip samples were collected and passed through a cone splitter.</li> <li>Limited numbers of field duplicates and screen fire assays have been undertaken to support sample representivity.</li> <li>EXG DD core has been sampled by submission of cut half core.</li> <li>All BDC RC drilling was sampled on one metre down hole intervals. The recovered samples were passed through a cone splitter and a nominal 2.5kg – 3.5kg sample was taken to a Kalgoorlie contract laboratory. Samples were oven dried, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 40g or 50g charge. Approximately 200g of pulp material is returned to EXG for storage and potential assay at a later date. The BDC DC samples are collected at nominated intervals by EXG staff from core that has been cut in half and transported to a Kalgoorlie based laboratory. Samples were oven dried, crushed to a nominal 10mm by a jaw crusher, reduced by riffle splitting to 3kg as required and pulverized in a single stage process to 85% passing 75 µm. The sample is then prepared by standard fire assay techniques with a 40g or 50g charge. Approximately 200g of pulp material is returned to EXG for storage and potential assay at a later date.</li> <li>Due to the presence of coarse gold and arsenopyrite some 150 samples were subjected to a 400g LeachWell® technique with a standard fire assay on the tail. This demonstrated that some of the gold is nuggetty in nature and that normal fire assay techniques may underestimate the grade. It also demonstrated that the mineralisation is non-refractory in nature.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>Prior to 2009 19 DC and 420 RC holes were drilled by previous owners over the area. These holes are without documentation of the rig type and capability, core size, sample selection and handling.</li> <li>For (post 2009) EXG and BDC drilling, the RC drilling system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter).</li> <li>All EXG and BDC drill core is orientated by the drilling contractor with a down the hole Ace system. Core diameter is noted in the assay results table for DC assay results.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>All EXG and BDC RC 1m samples are logged for drilling recovery by a visual estimate and this information is recorded and stored in the drilling database. At least every 10<sup>th</sup> metre is collected in a plastic bag and these are weighed when they are utilized for the collection of field duplicate samples. All samples received by the laboratory are weighed with the data collected and stored in the database.</li> <li>The EXG and BDC DC samples are orientated, length measured and compared to core blocks placed in the tray by the drillers, any core loss or other variance from that expected from the core blocks is logged and recorded in the database. Sample loss or gain is reviewed on an ongoing basis and feedback given to the drillers to enable the best representative sample to always be obtained.</li> <li>EXG RC samples are visually logged for moisture content, sample recovery and contamination. This information is stored in the database. The RC drill system utilizes a face sampling hammer which is industry best practice and the contractor aims to maximize recovery at all times. RC holes are drilled dry whenever practicable to maximize recovery of sample.</li> </ul>

		<ul style="list-style-type: none"> <li>The DC drillers use a core barrel and wire line unit to recover the core, they aim to recover all core at all times and adjust their drilling methods and rates to minimise core loss, i.e. different techniques for broken ground to ensure as little core as possible is washed away with drill cuttings.</li> <li>Study of sample recovery vs gold grade does not show any bias towards differing sample recoveries or gold grade. The drilling contractor uses standard industry drilling techniques to ensure minimal loss of any size fraction.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All EXG and BDC RC samples are geologically logged directly into hand-held Geobank devices.</li> <li>All EXG and BDC DC is logged for core loss, marked into metre intervals, orientated, structurally logged, geotechnically logged and logged with a hand lens with the following parameters recorded where observed: weathering, regolith, rock type, alteration, mineralization, shearing/foliation and any other features that are present</li> <li>All EXG and BDC DC is photographed both wet and dry after logging but before cutting.</li> <li>The entire lengths of EXG RC holes are logged on a 1m interval basis, i.e. 100% of the drilling is logged, and where no sample is returned due to voids (or potentially lost sample) it is logged and recorded as such. Drill core is logged over its entire length and any core loss or voids intersected are recorded.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>BDC Exploration results reported for drill core are half core taken from the right-hand side of the core looking down hole. Core is cut with an on-site diamond core saw.</li> <li>All EXG and BDC RC samples are put through a cone splitter and the sample is collected in a unique pre-numbered calico sample bag. The moisture content of each sample is recorded in the database.</li> <li>The EXG and BDC RC samples are sorted, oven dried, the entire sample is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 50g fire assay charge.</li> <li>The EXG and BDC DC samples are oven dried, jaw crushed to nominal &lt;10mm, 3.5kg is obtained by riffle splitting and the remainder of the coarse reject is bagged while the 3.5kg is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted by spatula to a numbered paper bag that is used for the 40g fire assay charge.</li> <li>EXG and BDC RC and DC samples submitted to the laboratory are sorted and reconciled against the submission documents. EXG inserts blanks and standards with blanks submitted in sample number sequence at 1 in 50 and standards submitted in sample number sequence at 1 in 20. The laboratory uses their own internal standards of 2 duplicates, 2 replicates, 2 standards, and 1 blank per 50 fire assays. The laboratory also uses barren flushes on the pulveriser.</li> <li>In the field every 10<sup>th</sup> metre from the bulk sample port on the cone splitter is bagged and placed in order on the ground with other samples. This sample is then used for collection of field duplicates via riffle splitting. RC field duplicate samples are collected after results are received from the original sample assay. Generally, field duplicates are only collected where the original assay result is equal to or greater than 0.1g/t Au. The field duplicates are submitted to the laboratory for the standard assay process. The laboratory is blind to the original sample number.</li> <li>For DC, no core duplicates (i.e. half core) have been collected or submitted.</li> <li>The sample sizes are considered to be appropriate for the type, style, thickness and consistency of mineralization located at this project. The sample size is also appropriate for the sampling methodology employed and the gold grade ranges returned.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>EXG and BDC has routinely used local Kalgoorlie Certified Laboratories for all sample preparation and analysis. The most commonly used laboratories have been SGS Australia and Bureau Veritas Australia which has two facilities in Kalgoorlie. No complete details of the sample preparation, analysis or security are available for either the historic AC, DD or RC drilling results in the database.</li> <li>The assay method is designed to measure total gold in the sample. The laboratory procedures are appropriate for gold analysis at this project given its mineralization style. The technique involves using a 40g or 50g sample charge with a lead flux which is decomposed in a furnace with the prill being totally digested by 2 acids (HCl and HNO<sub>3</sub>) before measurement of the gold content by an AA machine.</li> <li>The QC procedures are industry best practice. The laboratory is accredited and uses its own certified reference material. The laboratory has 2 duplicates, 2 replicates, 1 standard and 1 blank per 50 fire assays.</li> <li>EXG and BDC submits blanks at the rate of 1 in 50 samples and certified reference material standards at the rate of 1 in 20 samples in the normal run of sample submission numbers. As part of normal procedures EXG examines all standards and blanks to ensure that they are within tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grade exists.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Consultant geologist, Rick Adams from Cube Consulting, John Harris of Geological Services and independent geologist Matt Ridgway, have inspected drill core and RC chips in the field to verify the correlation of mineralized zones between assay results and lithology/alteration/mineralization. Recent drilling has been inspected by BDC site geologists.</li> <li>A number of diamond core holes were drilled throughout the deposit to twin RC holes. These twinned holes returned results comparable to the original holes and were also used to collect geological information and material for metallurgical assessment. A</li> </ul>

	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<p>number of RC holes have also been drilled that confirmed results obtained from historical drill holes.</p> <ul style="list-style-type: none"> <li>Primary data is sent digitally every 2-3 days from the field to BDC's Database Administrator (DBA). The DBA imports the data into the commercially available and industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory. The responsible geologist reviews the data in the database to ensure that it is correct and has merged properly and that all data has been received and entered. Any variations that are required are recorded permanently in the database.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drill holes have their collar location recorded from a handheld GPS unit. Subsequent to drilling holes were picked up using RTKGPS by the mine surveyor or by contracted surveyors. Downhole surveys are completed every 30m downhole. No detailed down hole surveying information is available for the historic RC or DD drilling.</li> <li>EXG routinely contracted down hole surveys during the programmes of exploration RC drilling. Surveys were completed using a digital electronic multi-shot tool. Diamond drilling was downhole surveyed by rig operators using a north seeking gyro. All survey tools were maintained by Contractors to manufacturer specifications.</li> <li>All drill holes and resource estimation use the MGA94, Zone 51 grid system.</li> <li>The topographic data used was obtained from consultant surveyors and is based on a LiDAR survey flown in 2012. It is adequate for the reporting of Exploration Results and subsequent Mineral Resource estimates.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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. Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The nominal exploration drill spacing is 40m x 40m with many E-W cross-sections infilled to 20m across strike. This has been infilled with variable spacing for Resource estimate purposes to 20 x 20m and with Grade control to 7.5 x 5m (N x E) spacing.</li> <li>The drill spacing, spatial distribution and quality of assay results is sufficient to support the JORC classification of material reported previously and is appropriate for the nature and style of mineralisation being reported.</li> <li>The majority of RC holes were sampled at 1m, but when this isn't the case, sample compositing to 4m has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of 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 style="list-style-type: none"> <li>The majority of drilling is to grid east. The bulk of the mineralized zones are perpendicular to the drilling direction. Structural logging of orientated drill core supports the drilling direction and sampling method.</li> <li>2019 DC drilling was oriented towards the SSE or NNW, (sub) parallel to a unit of fractionated (prospective) dolerite. As such core has intersected mineralised structures at oblique angles</li> <li>No drilling orientation and sampling bias has been recognized at this time.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>RC samples are delivered directly from the field to the Kalgoorlie laboratory by BDC personnel on a daily basis with no detours, the laboratory then checks the physically received samples against an EXG generated sample submission list and reports back any discrepancies</li> <li>Drill core is transported daily directly from the drill site to BDC's secure core processing facility by BDC personnel with no detours. The core is then placed on racks and processed until it requires cutting. Core was initially transported directly by EXG's staff to the Kalgoorlie laboratory where it is cut in half by laboratory staff and then sampled by EXG staff. BDC obtained a core saw and subsequently cut core at the core processing facility. The core is then prepared for assay in Kalgoorlie</li> </ul>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"> <li>An internal review of sampling techniques and procedures was completed in March 2013. No external or third-party audits or reviews have been completed.</li> </ul>

## Section 2 Reporting of Exploration Results – Zoroastrian

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

Criteria	JORC Code explanation	Commentary																																								
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"><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 licence to operate in the area.</li></ul>	<ul style="list-style-type: none"><li>The results reported in this Announcement are on granted Mining tenements held by GPM Resources Pty Ltd, a wholly owned subsidiary of Bardoc Gold Limited.</li></ul> <table><tr><th>Tenement</th><th>Holder</th><th>Area (Ha)</th><th>Expiry Date</th></tr><tr><td>M24/11</td><td>GPM Resources</td><td>1.80</td><td>23/03/2025</td></tr><tr><td>M24/43</td><td>GPM Resources</td><td>9.28</td><td>15/10/2026</td></tr><tr><td>M24/99</td><td>GPM Resources</td><td>190.75</td><td>02/12/2028</td></tr><tr><td>M24/121</td><td>GPM Resources</td><td>36.95</td><td>02/11/2029</td></tr><tr><td>M24/135</td><td>GPM Resources</td><td>17.75</td><td>10/06/2029</td></tr><tr><td>M24/869</td><td>GPM Resources</td><td>7.16</td><td>21/10/2024</td></tr><tr><td>M24/870</td><td>GPM Resources</td><td>7.04</td><td>21/10/2024</td></tr><tr><td>M24/871</td><td>GPM Resources</td><td>9.72</td><td>21/10/2024</td></tr><tr><td>M24/951</td><td>GPM Resources</td><td>190.03</td><td>16/04/2036</td></tr></table>	Tenement	Holder	Area (Ha)	Expiry Date	M24/11	GPM Resources	1.80	23/03/2025	M24/43	GPM Resources	9.28	15/10/2026	M24/99	GPM Resources	190.75	02/12/2028	M24/121	GPM Resources	36.95	02/11/2029	M24/135	GPM Resources	17.75	10/06/2029	M24/869	GPM Resources	7.16	21/10/2024	M24/870	GPM Resources	7.04	21/10/2024	M24/871	GPM Resources	9.72	21/10/2024	M24/951	GPM Resources	190.03	16/04/2036
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		<ul style="list-style-type: none"> <li>At this time, the tenements are in good standing. There are no existing royalties, duties or other fees impacting on the EXG Kalgoorlie North Project.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration by other parties has been reviewed and was used as a guide to EXG's and BDC's exploration activities. This includes work by AMAX, Hill Minerals, Aberfoyle and Halycon Group. Previous parties have completed both open pit and underground mining, geophysical data collection and interpretation, soil sampling and drilling.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The deposit occurs on the eastern limb of a narrow NNW trending structure, the Bardoc-Broad Arrow syncline within the Bardoc Tectonic Zone. In this zone the sequence comprises highly deformed fault slice lenses of intercalated Archaean mafic and ultramafic volcanics and metasediments.</li> <li>The mineralisation in the Zoroastrian area is predominately associated with a complex array of multiple dimensional and variable orientated quartz veins and stock works within the differentiated Zoroastrian Dolerite. In places a surficial 1-2m thick calcrete/lateritic gold bearing horizon and small near surface supergene pods exist.</li> <li>The Zoroastrian dolerite is thought to be the stratigraphic equivalent of the Paddington dolerite which hosted the 1m+oz mine at Paddington itself with both deposits bounded to the west by the Black Flag sediments and to the east by the Mount Corlac ultramafics. Shear zones up to 10m wide containing gold bearing laminated quartz veining (5cm to 1m wide) occur on both contacts.</li> <li>In late 2018 a fractionated unit within the dolerite sequence was defined using multielement pXRF data and machine learning. This dolerite strikes NNW and dips steeply to the NE. This unit is a preferred host for gold mineralisation where intersected by mineralised structures.</li> <li>At Zoroastrian slivers of the intruded sequence occur apparently internal to the dolerite throughout the area suggesting a more complex thrust/folding structural system than is readily apparent. Geological and structural interpretation at Zoroastrian is further complicated by contradicting and conflicting mapping and logging of the different units particularly between basalt and dolerite</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis 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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See Table 4 of this announcement</li> <li>No results from previous un-reported exploration are the subject of this announcement.</li> <li>Dip is the inclination of the hole from the horizontal (i.e. a vertically down drilled hole from the surface is -90°). Azimuth is reported in magnetic degrees as the direction toward which the hole is drilled. MGA94 and magnetic degrees vary by approximately 1° in this project area</li> <li>Down hole length of the hole is the distance from the surface to the end of the hole, as measured along the drill trace. Interception depth is the distance down the hole as measured along the drill trace. Intersection width is the downhole distance of an intersection as measured along the drill trace.</li> <li>Hole length is the distance from the surface to the end of the hole, as measured along the drill trace.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No high-grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay.</li> <li>Intersections are reported if the interval is at least 1m wide at 0.5g/t Au grade. Intersections greater than 1m in downhole distance can contain up to 2m of low grade or barren material.</li> <li>No metal equivalent reporting is used or applied.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>The intersection width is measured down the hole trace, it is not usually the true width. Cross sections in this announcement allows the relationship between true and down hole width to be viewed.</li> <li>Data collected historical workings and shafts exist within the area and structural measurements from orientated diamond core drilling show the primary ore zones to be sub-vertical to steep west dipping in nature with a general northerly strike.</li> <li>All drill results within this announcement are downhole intervals only and due to variable mineralisation and style true widths are not able to be calculated until modelling of the mineralisation.</li> </ul>

<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Plan and cross-sectional views are contained within this announcement.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All results <math>\geq 0.5\text{g/t Au}</math> are reported. The results are length weighted composites based on the Au grade and down hole length, a maximum of 2m of internal dilution is included.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No other exploration data is considered meaningful and material to this announcement.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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 style="list-style-type: none"> <li>Exploration work is ongoing at this time and may involve the drilling of more drill holes, both DC and RC, to further extend the mineralised zones and to collect additional detailed data on known mineralized zones.</li> <li>No additional information can be made available at this time as it is conceptual in nature and commercially sensitive.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Zoroastrian - Open Pit (OP)

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the EXG Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mr Ross Whittle-Herbert visited the site on numerous occasions to view ore geometries in the open pit and review RC chips and diamond core.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the system and the gold distribution is complex, however a greater understanding of the geology has been gained from the mining of Central open pit. The continuity of mineralisation and volume controls are well established where drilling is at a nominal 30 x 30 m hole spacing.</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the QAQC data and downhole survey data. As such throughout the deposit the company has twinned historical holes to confirm results and location.</li> <li>The close spaced RC grade control drilling and mining pit floor exposure has allowed a detailed re-evaluation of the geological controls on mineralisation by EXG. In addition, subsequent re-logging of diamond core and RC chips has enabled the identification and distinction between mineralised steep and flat structures. The new interpretation of these controls materially impacts the estimation of the Mineral Resources and has triggered the need for the re-estimation.</li> <li>The result of this revision is that the majority of the mineralisation outside of Central open pit is associated with the steep shear hosted (60-degree west dipping) structures as opposed to the flatter (35-45-degree west dipping) ladder veins. The bulk of mineralisation near surface in Central open pit was associated with the flat structures. However as the pit deepened, almost all the mineralisation was associated with the steep west dipping structure.</li> <li>The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a <math>\sim 0.3\text{g/t}</math> (open pit) Au cut off which represents the mineralised shear in all modelled domains</li> </ul>

<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation extends 1300m north/south, 250m east/west and 300m in elevation. Mineralised structures are present at surface for some lodes. There is a depletion zone that extends to about 30m below surface. Lodes are also present on historic pit floor and walls in previous mining activities.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>EXG has used 3DM wireframes to constrain the mineralised shear zones, with the most significant shear interpretation within Central open pit being completed by EXG site geologists and based on pit floor mapping, and observation, ore mark-outs and the close spaced RCGC drilling at spacing's of 7.5m N x 5m E-W. All other lodes have been interpreted on a sectional basis using the available exploration and RCGC drilling data on variable spacing ranging from 7.5 x 5m to 20 x 20m to 40 x 40m (N x E-W).</li> <li>On the basis of sample size, open pit selectivity assumption (2 EW x 5 NS x 2.5mRL) and selected estimation methodology, a 1m down hole composite was selected for the open pit estimation. 1m compositing was also appropriate for the underground estimation given the sometimes narrow nature of the steep lodes. 1m composite intervals falling within the wire framed estimation domains were coded in the database.</li> <li>It was evident that some of the estimation domains contained extreme outlier gold values. The highly positively skewed gold distributions mean that conventional linear estimation methods, such as Ordinary Kriging ("OK") are likely to produce over-smoothed block grade estimates. For this reason, it was decided to undertake open pit grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method. The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>The coherence and stability of the upper tail of the gold grade distribution;</li> <li>Visual inspection of the spatial location of outlier values;</li> </ul> </li> <li>The statistics show that in some cases there is a large reduction in mean grade and variability following top cutting. This is due to the elimination of the disproportionate effect of extreme outlier gold grade values. It should be noted that the difficulties posed by these extreme outliers significantly increases the inherent risk in the gold grade estimates. The LUC estimates were implemented using the Minestis™ software package before being transferred into a Micromine™ block model</li> <li>No consideration has been made to by-products.</li> <li>One check estimate has been undertaken by EXG as a validation step for the open pit model. This is a comparison of an OK grade control model, based only on the tight 5mE x 7.5mN grade control drilling, to an LUC model undertaken using only the resource drill data. Results indicate that the LUC model based on exploration data reconciles to within 9% of contained metal at a 0.6g/t Au cut-off. Both resource models were validated by comparison of composite grades to estimated grades on a domain basis, swath plots and visual checks</li> <li>The LUC estimation panel size used was 8mE x 15mE x 10mRL. An SMU block size of 2mE x 5mN x 2.5mRL was chosen (no rotation) for use in the localisation process. This SMU block size corresponds exactly to the current block size for grade control modelling, conforms to the mining flitch height and is elongated in the same direction (north-south axis) as the trend of the lodes at Zoroastrian Central. While the data spacing in areas other than the grade control drilled volume would be considered too wide for such a small block size if conventional linear estimation methods were used, EXG has used the LUC method, which is intended specifically for estimating the grade distribution of smaller blocks. Whilst the ore is associated with arsenopyrite, assay data and metallurgical test work indicate this does not affect recoveries. No other deleterious elements have been identified.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages were based on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The open pit Mineral Resource has been reported above a 0.4g/t Au cut-off above 240mRL (200m depth).</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>This MRE has been undertaken on the assumption of open pit mining methods, the selection of SMU size was based on the scale of mining equipment used in previous mining at Zoroastrian.</li> </ul>

<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Zoroastrian deposit has been mined successfully with no metallurgical issues. Gold recoveries in excess of 90% were achieved during mining of Central open pit during 2015-2016.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>There are no environmental issues concerning the extraction or disposal of waste or tailing material.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>There are three sources of experimental bulk density data. The first are the results of systematically collected DD core measurements and the second were downhole caliper SG readings every 0.1m for selected holes. The third source was bulk in-pit density determinations gathered by the mining staff. The DD core results provide a source of competent rock bulk density data however the data lacks any representative data for less competent oxide and transitional weathered rock. The in-pit data represents an attempt to measure the densities of the less competent material.</li> <li>A total of 103 determinations have been made from 13 EXG DD holes. Determinations were made using two methods – for 5 holes the densities were determined using a down hole probe, the Auslog A659 Caliper Tool, the balance were selected core sent to the Genalysis Laboratory in Kalgoorlie where specific gravity was determined by gravimetric technique. The majority of these data were taken on fresh dolerite core, with a small number of oxidised and transitional dolerite core results. The average depth of these determinations is 104m downhole.</li> <li>A total of 190 in-pit determinations have been made between the 430m, and 400m pit floor RLs, at surveyed locations within 29 high and low grade ore mark-out blocks. The RLs of these determinations places them within the oxide and transitional weathering profile.</li> <li>On balance BDC believe that there are sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density. BDC have used assumed bulk density values for ore and waste based on the interpreted weathering surfaces.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralisation is currently well understood due to the RCGC drilling, mining exposure of the mineralised lodes on the pit floor and distinction between steep and flat structures gained primarily from a re-log of RC chips.</li> <li>The MRE is classified into measured and inferred to reflect the confidence in the estimate of different areas of the MRE.</li> <li>The MRE has been validated by "ground truth" methods whereby estimates using only resource exploration drilling on a 20x20m collar spacing has been compared to a volume estimated by close spaced RCGC drilling. The results of this comparison confirm that the deeper MR areas estimated outside the grade control volumes can be expected to be representative of what will be defined for mining by the RCGC data to within 10% contained metal.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>A review of the 2018 LUC estimated MRE has been undertaken by Cube Consulting PTY LTD.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource Estimates is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>The significant amount of production (&gt;700kt) and geological information available from historical mining production data allows for a high degree of confidence in geological, mining and milling parameters. Grade and geological continuity can be estimated to a degree of accuracy high enough</li> </ul>

	<p>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 relative accuracy and confidence of the estimate.</p> <ul style="list-style-type: none"> <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>	<p>to allow for a proportion of the resource to be classified as Measured, Indicated or Inferred where appropriate.</p> <ul style="list-style-type: none"> <li>The LUC block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.</li> <li>Reconciliation between EXG mining production and the depleted resource within the August 1 2017 Central final pit demonstrates a close (less than +/- 10%) correlation in contained ounces.</li> </ul>
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### Section 3 Estimation and Reporting of Mineral Resources – Zoroastrian Underground (UG)

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data is logged in the field directly into the Geobank mobile device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the BDC Database Administrator and geological management prior to inclusion in the resource estimate.</li> <li>Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of data. If necessary, field checks are made to confirm validation issues.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits are regularly undertaken by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The geology of the system and the gold distribution is complex, however a greater understanding of the geology has been gained from the mining of Central open pit. The continuity of mineralisation and volume controls are well established where drilling is at a nominal 30 x 30 m hole spacing.</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the QAQC data and downhole survey data. As such throughout the deposit the company has twinned historical holes to confirm results and location.</li> <li>The close spaced RC grade control drilling and mining pit floor exposure has allowed a detailed re-evaluation of the geological controls on mineralisation by BDC. In addition, subsequent re-logging of diamond core and RC chips has enabled the identification and distinction between mineralised steep and flat structures. The new interpretation of these controls materially impacts the estimation of the Mineral Resources.</li> <li>The result of this revision is that the majority of the mineralisation outside of Central open pit is associated with the steep shear hosted (60-degree west dipping) structures as opposed to the flatter (35-45-degree west dipping) ladder veins. The bulk of mineralisation near surface in Central open pit was associated with the flat structures. However as the pit deepened, almost all the mineralisation was associated with the steep west dipping structure.</li> <li>The selection of mineralised domains has used geological factors such as logged quartz and sulphides in conjunction with a 0.7g/t cut-off for the underground model. The 0.7g/t threshold was chosen based on an observation from recent diamond drilling that there is frequently a very sharp grade contact on the hanging wall of the steep lodes. Gold values transition from background to ore grades over a very short distance. The hanging wall contact is the one likely to be followed in ore drives. The footwall contact was also interpreted to a 0.7g/t cut-off, although grades can be more diffuse, transitioning to background values over a longer distance.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation extends 1300m north/south, 250m east/west and 300m in elevation. Mineralised structures are present at surface for some lodes. There is a depletion zone that extends to about 30m below surface. Lodes are also present on historic pit floor and walls in previous mining activities.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>BDC has used 3DM wireframes to constrain the mineralised shear zones, with the most significant shear interpretation within Central open pit being completed by BDC site geologists and based on pit floor mapping, and observation, ore mark-outs and the close spaced RCGC drilling at spacing's of 7.5m N x 5m E-W. All other lodes have been interpreted on a sectional basis using the available exploration and RCGC drilling data on variable spacing ranging from 7.5 x 5m to 20 x 20m to 40 x 40m (N x E-W).</li> </ul>

	<ul style="list-style-type: none"> <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 (e.g. sulphur for acid mine drainage characterization).</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 behind modelling of selective mining units.</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 style="list-style-type: none"> <li>1m compositing was considered appropriate for the underground estimation given the sometimes narrow nature of the steep lodes. 1m composite intervals falling within the wire framed estimation domains were coded in the database.</li> <li>The underground resource model was estimated by Ordinary Kriging (OK) using Micromine software. The following criteria were considered when choosing gold grade top cuts: <ul style="list-style-type: none"> <li>The coherence and stability of the upper tail of the gold grade distribution;</li> <li>Visual inspection of the spatial location of outlier values;</li> <li>The statistics show that in some cases there is a large reduction in mean grade and variability following top cutting. This is due to the elimination of the disproportionate effect of extreme outlier gold grade values.</li> </ul> </li> </ul> <p>It should be noted that the difficulties posed by these extreme outliers significantly increases the inherent risk in the gold grade estimates.</p> <ul style="list-style-type: none"> <li>No consideration has been made to by-products.</li> <li>The resource model was validated by comparison of composite grades to estimated grades on a domain basis, swath plots and visual checks</li> <li>The underground model used a block size of 4mE x 15mN x 8mRL, considered appropriate for the drill hole spacing and probable mining method</li> </ul> <p>Whilst the ore is associated with arsenopyrite, assay data and metallurgical test work indicate this does not affect recoveries. No other deleterious elements have been identified.</p>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages were based on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The underground Mineral Resource has been reported above a <b>1.2g/t</b> Au cut-off below 240mRL, which is 200m below surface.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>A cut-off of <b>1.2g/t</b> was chosen for material below 240mRL to highlight the potential for underground extraction. Further work, including additional drilling, will determine the optimal mining method for this material.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Zoroastrian deposit has been mined successfully with no metallurgical issues. Gold recoveries in excess of 90% were achieved during mining of Central open pit.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>There are no environmental issues concerning the extraction or disposal of waste or tailing material.</li> <li>Historical base line environmental assessments have been completed with no known impacts on the mining and processing operation for Zoroastrian.</li> <li>Characterisation of representative waste rock samples from Zoroastrian indicated most waste components have low sulphide levels and are classified Non-Acid Forming (NAF).</li> <li>Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailings dams, and their impact to native vegetation, faunal habitat; groundwater dependent ecosystems; and surface hydrology</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <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 spaces (vugs, porosity, etc), moisture and differences 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>	<ul style="list-style-type: none"> <li>There are three sources of experimental bulk density data. The first are the results of systematically collected DD core measurements and the second were downhole caliper SG readings every 0.1m for selected holes. The third source was bulk in-pit density determinations gathered by the mining staff. The DD core results provide a source of competent rock bulk density data however the data lacks any representative data for less competent oxide and transitional weathered rock. The in-pit data represents an attempt to measure the densities of the less competent material.</li> <li>A total of 103 determinations have been made from 13 EXD DD holes. Determinations were made using two methods – for 5 holes the densities were determined using a down hole probe, the Auslog A659 Caliper Tool, the balance were selected core sent to the Genalysis Laboratory in Kalgoorlie where specific gravity was determined by gravimetric technique. The majority of these data were taken on fresh dolerite core, with a small</li> </ul>

		<p>number of oxidised and transitional dolerite core results. The average depth of these determinations is 104m downhole.</p> <ul style="list-style-type: none"> <li>A total of 190 in-pit determinations have been made between the 430m, and 400m pit floor RLs, at surveyed locations within 29 high and low grade ore mark-out blocks. The RLs of these determinations places them within the oxide and transitional weathering profile.</li> <li>Density measurements (Archimedes method) were made from recent 2019 DD drilling in fresh rock. In total 60 ore and 54 waste measurements were used. This resulted in an average waste density of 2.89kg/m<sup>3</sup> and ore density of 2.97kg/m<sup>3</sup>. A fresh ore density of 2.9 was adopted in the resource model. Oxide and Transitional ore densities used were 2.0 kg/m<sup>3</sup> and 2.5 kg/m<sup>3</sup> respectively</li> <li>On balance BDC believe that there are sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density. BDC have used assumed bulk density values for ore and waste based on the interpreted weathering surfaces.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <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 (i.e. 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 style="list-style-type: none"> <li>The geological model and continuity of the mineralisation is currently well understood due to the RCGC drilling, mining exposure of the mineralised lodes on the pit floor and distinction between steep and flat structures gained primarily from a re-log of RC chips.</li> <li>The MRE is classified into measured, indicated and inferred to reflect the confidence in the estimate of different areas of the MRE.</li> <li>The MRE has been validated by "ground truth" methods whereby estimates using only resource exploration drilling on a 20x20m collar spacing has been compared to a volume estimated by close spaced RCGC drilling. The results of this comparison confirm that the deeper MR areas estimated outside the grade control volumes can be expected to be representative of what will be defined for mining by the RCGC data to within ~10% contained metal.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The Ordinary Kriged underground MRE is currently under review by outside consultants.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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 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>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource Estimates is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code.</li> <li>The significant amount of production (&gt;700kt) and geological information available from historical mining production data allows for a high degree of confidence in geological, mining and milling parameters. Grade and geological continuity can be estimated to a degree of accuracy high enough to allow for a proportion of the resource to be classified as Indicated or Inferred where appropriate.</li> <li>The Kriged MRE statement relates to global estimates of tonnages and grade.</li> <li>Reconciliation between EXG mining production and the depleted resource within the August 1 2017 Central final pit demonstrates a close (less than +/- 10%) correlation in contained ounces.</li> </ul>

## Section 4 Estimation and Reporting of Ore Reserves – Zoroastrian Open Pit & Underground

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<p>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</p> <p>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</p>	<p>Bardoc Gold Mineral Resource as reported in March 2021</p> <p>The Mineral Resources are reported inclusive of the Ore Reserve</p>
<b>Site visits</b>	<p>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</p> <p>If no site visits have been undertaken indicate why this is the case.</p>	<p>The Competent Person has conducted multiple site visits and is familiar with the region and is comfortable relying on site visit reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.</p>
<b>Study status</b>	<p>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</p> <p>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.</p>	<p>A Definitive Feasibility Study carried out by Bardoc provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.</p>

<b>Cut-off parameters</b>	<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	<p>Definitive Feasibility costs, revenue factors and physicals form the basis for Cut Off Grade calculations.</p> <p>Mill recovery is calculated based on metallurgical testwork carried out as part of the Definitive Feasibility Study.</p> <p>A gold price of A\$2,000 / oz (US\$1,500/oz) was assumed for the Cut Off Grade calculations.</p> <p>The underground COG of 1.8 g/t was used as the basis for initial stope design, with all designs assessed by detailed financial analysis to confirm their profitability in consideration to the works required to access and extract them.</p> <p>The open pit COG were applied to define ore and waste for free milling ore types.</p> <p>Zoroastrian North - 0.33 g/t Au for oxide material  Zoroastrian Central – 0.33 g/t Au for oxide material  Zoroastrian South – 0.33 g/t Au for oxide material  Zoroastrian North - 0.36 g/t Au for transitional material  Zoroastrian Central – 0.34 g/t Au for transitional material  Zoroastrian South - 0.34 g/t Au for transitional material  Zoroastrian North - 0.42 g/t Au for fresh material  Zoroastrian Central – 0.41 g/t Au for fresh material  Zoroastrian South – 0.42 g/t Au for fresh material</p>
<b>Mining factors or assumptions</b>	<p><i>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).</i></p> <p><i>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.</i></p>	<p>Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.</p>
	<i>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.</i>	<p>The underground ore reserve is planned to be mined using conventional underground mining methods. The mining will consist of Longhole open Stopping (LHOS) on 20m level spacing with voids remaining open and insitu rock rib and sill pillars used for stability. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional fleet of twin boom jumbo's, 76mm production drills, 10-15t loaders and 60 tonne trucks.</p> <p>The open pit Ore Reserve is planned to be mined using conventional surface mining methods. Mining operations will be undertaken by an experienced and reputable mining contractor using a conventional diesel fleet of 120 t-class excavators and 100 t dump trucks. 30% of oxide material was assumed to be drilled and blasted using Ammonium nitrate-type explosives, 85% of transition material was assumed to be drilled and blasted using Ammonium nitrate-type explosive and 100% of fresh material is be drilled and blasted using Emulsion-type explosive. A minimum working width of 20 m has been applied based on the proposed fleet.</p> <p>The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists to the mine.</p>
	<i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i>	<p>Underground designs are based on geotechnical parameters provided by independent consultants Peter O'Bryan and Associates.</p> <p>Stoping was designed within the recommended HR parameters of 7.5. Stope parameters used in the underground reserves are 20m level spacing (height), maximum 25m strike length, staggered rib pillars (minimum 1:1 width to length ratio) with sill pillars less than or equal to 80m spacing.</p> <p>Underground grade control will be carried out using diamond drill holes from stockpiles off the decline. The costs have been based off estimated drilling requirements and current diamond drill rates incurred by the company.</p> <p>Pit slopes have been designed based on geotechnical analysis by independent consultants Peter O'Bryan and Associates (POA).</p> <p>Open pit grade control will be carried out using RC drilling in the pit floor. The costs have been based off estimated drilling requirements and current drill rates incurred by the company.</p>
	<i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i>	Mineral Resources used for optimisation were those detailed previously. Cut-off grades and geotechnical inputs used for optimisations were also applied as detailed previously.
	<i>The mining dilution factors used.</i>	<p>A 7% waste (i.e. zero grade) dilution factor was applied to underground stoping and mine development.</p> <p>Open pit mining blocks were regularised in the Mineral Resource to model selective mining unit (SMU) size based on the proposed fleet.</p> <p>Minimum Resource block sizes were 2.0 m across strike x 5.0 m along strike x 2.5mH.</p> <p>No other mining dilution was applied to the open pit ore.</p>
	<i>The mining recovery factors used.</i>	<p>Insitu stope recovery as assumed at 95%; Stope recovery where rib pillars are required was 0%; Stope recovery, on levels where sill pillars are left was 26%. It is assumed all development is fully recovered.</p> <p>Open pit ore had a 97% mining recovery applied.</p>

	<i>Any minimum mining widths used.</i>	A minimum mining width of 2.5m was applied to underground stopes. Open pit ore blocks conform to the minimum SMU size. Working benches in the open pit are generally 20 m minimum width, with some isolated areas towards the end of the mine life 10-15 m wide.														
	<i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i>	Inferred Resources were not taken into account during valuation in the underground design process, and as such did not have an impact on stope shape or development design. Any Inferred material contained within underground designs was treated as waste (i.e. zero grade). Inferred Resources were not taken into account during valuation in the pit optimisation process, and as such did not have an impact on pit shape. Any Inferred material contained within pit designs was treated as waste (i.e. zero grade).														
	<i>The infrastructure requirements of the selected mining methods.</i>	Although Zoroastrian is a brownfields site and will require all surface and underground infrastructure to be installed, including offices, workshops, first aid facilities, power supply, water management, stores, communications, fuel farm, magazines, waste dumps, run-of-mine (ROM) pads and access road upgrades. This has been allowed for in the Definitive Feasibility Study. It has been assumed that separate facilities will be set up for the Open Pit and Underground mining operations														
<b>Metallurgical factors or assumptions</b>	<i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i>	A primary crusher, SAG and ball mill circuit with a pebble crusher will produce a final grind size distribution P <sub>80</sub> of 75 microns to be fed to a Carbon-In-Leach (CIL) circuit based on free milling nature of orebody based on metallurgical testwork. The Definitive Feasibility included construction of a CIL Processing Facility with flotation circuit to be located at the Excelsior / Zoroastrian complex to treat both free milling and refractory ore, although only free milling ore is located at the Zoroastrian deposit. Ore will be stockpiled on the ROM pad and then fed into the crusher circuit via front end loader. The Zoroastrian Open Pits consists of 38% oxide, 34% transitional and 28% Fresh material. All underground Material is Fresh.														
	<i>Whether the metallurgical process is well-tested technology or novel in nature.</i>	CIL is a standard and common gold extraction process for free milling ore.														
	<i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i>	Metallurgical recovery has been determined from the Definitive Feasibility Study test work and laboratory test work conducted during toll treatment of the Zoroastrian oxide and transitional ore. The models determine the tailings grade and then use the head grade to calculate recovery. Two models were developed; a combined oxide and transitional model and a primary ore model. The oxide and transitional model was developed from 5 samples across the deposit tested during the DFS and 14 samples consisting of one sample from each batch processed in a toll treatment campaign in 2016 (CEN001 to 011, 014, 015 & 018). The primary model was developed from 9 composites tested during the DFS. The models are shown in the table below, where [Au] is the gold head grade in g/t. When used in the model a recovery upper limit of 97% was used. <table><tr><th>Ore Source</th><th>Model</th><th>Recovery Limit</th></tr><tr><td>Zoroastrian Oxide</td><td><math>([Au] - (0.0245[Au] + 0.01))/[Au]</math></td><td>97</td></tr><tr><td>Zoroastrian Transition</td><td><math>([Au] - (0.0245[Au] + 0.01))/[Au]</math></td><td>97</td></tr><tr><td>Zoroastrian Primary</td><td><math>([Au] - (0.058[Au] - 0.019))/[Au]</math></td><td>97</td></tr><tr><td>Zoroastrian Underground Primary</td><td><math>([Au] - (0.058[Au] - 0.019))/[Au]</math></td><td>97</td></tr></table>	Ore Source	Model	Recovery Limit	Zoroastrian Oxide	$([Au] - (0.0245[Au] + 0.01))/[Au]$	97	Zoroastrian Transition	$([Au] - (0.0245[Au] + 0.01))/[Au]$	97	Zoroastrian Primary	$([Au] - (0.058[Au] - 0.019))/[Au]$	97	Zoroastrian Underground Primary	$([Au] - (0.058[Au] - 0.019))/[Au]$
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Zoroastrian Underground Primary	$([Au] - (0.058[Au] - 0.019))/[Au]$	97														
	<i>Any assumptions or allowances made for deleterious elements.</i>	No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.														
	<i>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.</i>	Zoroastrian ore has historically been processed through toll treatment campaigns in the goldfields, bulk samples collected during this period produced an average recovery rate of 96.5% and median recovery of 97%.														
	<i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i>	The ore reserve has been estimated based on appropriate mineralogy to meet specifications from the Definitive Feasibility level testwork.														
<b>Environmental</b>	<i>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.</i>	Historical base line environmental assessments have been completed with no known impacts on the mining and processing operation for Zoroastrian. No recent mining approvals have been sought at this stage however, it is expected that any required approvals would be granted within a reasonable timeframe to allow mining to commence. Characterisation of representative waste rock samples from Zoroastrian indicated most waste components have low sulphide levels and are classified Non-Acid Forming (NAF). Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailings dams, and their impact to native vegetation, faunal habitat; groundwater dependent ecosystems; and surface hydrology.														

<b>Infrastructure</b>	<i>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.</i>	<p>The Bardoc project is located 50km from the city of Kalgoorlie, adjacent the Goldfields highway, a sealed all-weather highway that is frequently travelled. This provides ready access to the site for transportation of infrastructure and consumables for the project.</p> <p>The infrastructure is designed to be located on tenement areas owned by Bardoc Gold.</p> <p>Labour will be sourced from the nearby town of Kalgoorlie, where available, or on a fly-in fly-out basis through the Kalgoorlie airport, housing the relevant people within the city of Kalgoorlie.</p> <p>Power will be provided by on site natural gas and diesel generators.</p> <p>Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.</p>
<b>Costs</b>	<i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i>	<p>Capital costs for the project have been provided by several external studies completed for the project including:</p> <ul style="list-style-type: none"> <li>- Como Engineering – Processing Plant</li> <li>- ATC Williams – Tailings Dam</li> <li>- WML– Road &amp; Rail Re-alignment</li> <li>- AQ2 – Water Supply</li> <li>- IME Consultants – Surface Mining infrastructure</li> <li>- OSD Asset Services – Gas Pipeline relocation</li> </ul> <p>Capital costs are based on vendor supplied quotations and / or the consultancies cost database.</p> <p>Capital costs include:</p> <ul style="list-style-type: none"> <li>- Processing Plant;</li> <li>- Tailings Dam;</li> <li>- Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure;</li> <li>- Power Supply;</li> <li>- Road &amp; Rail re-alignment;</li> <li>- Road Access;</li> <li>- Site Clearing; and,</li> <li>- Water Supply;</li> </ul> <p>Capital infrastructure costs include a minimum 10% contingency.</p>
	<i>The methodology used to estimate operating costs.</i>	<p>The key operating cost estimates for processing have been prepared by Como Engineering and the Bardoc Project team.</p> <p>Mining costs are sourced from quotations received from reputable mining contractors. Costs not directly associated with mining contractor work were estimated by direct quotation or built from first principles.</p> <p>The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.</p>
	<i>Allowances made for the content of deleterious elements.</i>	<p>No deleterious elements have been identified in ore testwork and as such no allowance has been made.</p>
	<i>The source of exchange rates used in the study.</i>	<p>A USD: AUD exchange rate of 0.75 has been derived from corporate guidance and independent advice from reputable financial institutions that take into account historical exchange rates and current market trends.</p>
	<i>Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i>	<p>Transportation, treatment and refining costs have been estimated based on supply of Dore to the Perth mint.</p>
	<i>The allowances made for royalties payable, both Government and private.</i>	<p>Zoroastrian incurs a 2.5% state royalty. No private royalties are incurred on the Zoroastrian tenements.</p>
<b>Revenue factors</b>	<i>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.</i>	<p>Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Definitive feasibility study.</p>
	<i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i>	<p>Gold price and exchange rates have been determined by an external financial expert group because of current market trends and by peer company comparison. A gold price of A\$2,000 / oz (US\$1,500/oz) has been used for the ore reserve estimation.</p> <p>The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work.</p>
<b>Market assessment</b>	<i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i>	<p>Gold ore from the mine is to be sold to the Perth mint.</p> <p>There is a transparent quoted market for the sale of gold.</p> <p>No industrial minerals have been considered.</p>
<b>Economic</b>	<i>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.</i>	<p>The March 2021 Ore Reserve estimate is based on a Definitive Feasibility level of accuracy with inputs from open pits, underground mines, processing, transportation, sustaining capital and contingencies scheduled and costed to generate the update Ore Reserve cost model.</p>

	<i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i>	The March 2021 Ore Reserve returns a positive NPV based on the assumed commodity price and the Competent Person is satisfied that the project economics that make up the March 2021 Ore Reserve retains a suitable profit margin against reasonable future commodity price movements. Sensitivity analysis has indicated that the project drivers are exchange rate, gold price, metallurgical recovery followed by operating expenditure. NPV at A\$2,000/oz is sensitive to reasonable unfavourable changes to these drivers.
<b>Social</b>	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	Bardoc are in liaison with the government and key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	<i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.</i>	No material naturally occurring risks have been identified for the project
	<i>The status of material legal agreements and marketing arrangements.</i>	Compensation deeds are in place for Mt Vettors pastoralist and the Bardoc Homestead. These have been included in the cost but are not material to the plan. No other material legal agreements and marketing arrangements are in place. There are no other legal or marketing agreements that are expected to be material to the ore reserves.
	<i>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.</i>	There are no government agreements or approvals identified that are likely to materially impact the project. It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project. There are no known matters pertaining to any third parties to affect the development of the project.
<b>Classification</b>	<i>The basis for the classification of the Ore Reserves into varying confidence categories.</i>	The classification of the March 2021 Ore Reserve has been carried out in accordance with the JORC Code 2012. The March 2021 Ore Reserve results reflect the Competent Persons view of the deposit. The Probable Ore Reserve is based on that portion of Indicated Mineral Resource within the mine designs that may be economically extracted and includes allowance for dilution and ore loss. There are no Proved Ore Reserves.
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	The result appropriately reflects the Competent Person's view of the deposit.
	<i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i>	No Measured Mineral resources form the basis of the Ore Reserves
<b>Audits or reviews</b>	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	The Ore reserve estimates have been reviewed by Bardoc Gold. No further external audits have been completed.
<b>Discussion of relative accuracy/confidence</b>	<i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Definitive Feasibility standard with a better than +/- 10-15% level of confidence.  A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.  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.  The Competent Person(s) area 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.  There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.