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17 MARCH 2020 **ASX/MEDIA RELEASE**

BARDOC GOLD PROJECT – PRE-FEASIBILITY STUDY (PFS) RESULTS

OUTSTANDING PFS CONFIRMS POTENTIAL FOR SIGNIFICANT NEW LONG-LIFE, MID-TIER AUSTRALIAN GOLD PROJECT

Forecast average production of 135,000ozpa at AISC of A$1,220/oz over initial 8-year mine life positions Bardoc as the next significant producer in the Kalgoorlie region

HIGHLIGHTS

Compelling Project Economics

- **Life-of-mine (LOM) pre-tax cash-flow of A$551M at A$2,100/oz gold price**
- **LOM pre-tax cashflow of A$921M at A$2,530/oz spot gold price**
- **NPV (pre-tax 8%) of A$332M and 32% IRR based on A$2,100 Pre-Feasibility Study gold price**
- **NPV (pre-tax 8%) of A$600M and 55% IRR based on A$2,530 spot gold price**
- **Pre-production capital cost of A$142.4M with payback of 32 months from production start**
- **LOM All-In Sustaining Costs (AISC) of A$1,220/oz**

Key Project Parameters

- **Average gold sales of 135,000ozpa over 7-years mill production**
- **Standalone mining and processing operation with nominal 1.8Mtpa throughput, comprising conventional CIL processing circuit incorporating a flotation circuit to produce a gold concentrate**
- **Peak gold production of over 150,000ozpa for 5 years**
- **Total mined ounces of 1.02Moz and total recovered ounces of 951,000oz**

Maiden Ore Reserve Underpins Economics

- **Maiden Open Pit and Underground Probable Ore Reserve of 10.4 Mt at 2.4 g/t for 789,000oz**
- **Reserve represents 77% of LOM metal production forecast**

Substantial Project Upside with De-Risking Activities Continuing

- **PFS covers only four main deposits (Aphrodite, Zoroastrian, Excelsior and Bulletin), with significant upside via the Company's numerous satellite deposits and through regional exploration**
- **Ongoing in-fill drilling to upgrade Inferred Resources plus drilling at key satellite deposits to underpin next Mineral Resource upgrade in Q3 2020**

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MANAGEMENT COMMENTS

Bardoc Gold's Chief Executive Officer, Mr Robert Ryan, said the outstanding results of the PFS highlighted the opportunity to develop a substantial new mid-tier Australian gold project with outstanding economics and strong financial returns, positioned just north of the world-class mining hub of Kalgoorlie:

"The strong PFS outcomes demonstrate that the Bardoc Gold Project is one of the best undeveloped gold projects in the Eastern Goldfields, with the potential to deliver an average of 135,000ozpa at an AISC of A$1,220/oz over a 7 year production period, peaking at 170,000oz in year 5. At an assumed base case gold price of A$2,100/oz, well below current spot prices, the Project will deliver robust margins and generate strong cash-flows.

"Our project development strategy is underpinned by the construction of an on-site 1.8 million tonne per annum capacity CIL plant incorporating a flotation circuit capable of producing a gold concentrate for sale to international markets.

"A forecast pre-production capital investment of A$142.4 million and 32-month capital payback makes this a financially attractive proposition, with a base case pre-tax $NPV_{8\%}$ of A$332 million and 32% Internal Rate of Return at the assumed gold price of A$2,100/oz. Using current spot prices of around A$2,530/oz, the pre-tax NPV improves to A$600 million and the IRR to 55%.

"There is substantial upside to our base case PFS numbers with strong potential to grow the 1Moz mine plan within the current 3Moz Resource. In addition, with a significant exploration program planned over the coming months and a strong balance sheet, we are confident of growing the global Resource, building on the recent drilling successes at the Mayday North, El Dorado and North Kanowna Star deposits.

"The definition of a 789,000oz maiden Ore Reserve indicates the financial viability of the project, with 77% of the mining plan underpinned by Ore Reserves and 80% by Measured and Indicated Resources.

"The focus of our ongoing drilling will be to in-fill and upgrade a portion of the Inferred Resources to the Indicated category, so they become available for conversion to Ore Reserves, also to grow our overall Mineral Resource base, and to commence mining evaluations of the key satellite deposits. Given the already strong economics of the PFS, our focus will now be to optimise the project in terms of reserves, mining inventory, production levels, operating costs and financial returns in order to deliver the best possible return to shareholders."

Cautionary Statement

The Pre-Feasibility Study referred to in this announcement is based on a JORC Mineral Resources Estimate (Refer ASX Release: Bardoc Gold Resource Estimate 30 September 2019) and includes the maiden Probable Ore Reserves referred to in this announcement. The Ore Reserves and Mineral Resource Estimate underpinning the PFS have been prepared by Competent Persons in accordance with the 2012 JORC Code.

The Company advises that the Probable Ore Reserve provides 85% of the total milled tonnage and 77% of the total contained gold metal. The production target referred to is based on Mineral Resource estimates which are classified as Indicated (79.6%) and Inferred (20.4%).

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

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The early sequence of mine plans for the first two years has a ratio of 89% to 11% of Indicated to Inferred Mineral Resources 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 production target reporting and forecast financial information is not the determining factor in overall Project viability and that it is reasonable to report the PFS 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.

1 OVERVIEW

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

The PFS confirms the strong project economics and commercial viability of a new standalone mining and processing operation at Bardoc with a robust production profile, competitive operating costs and attractive financial returns.

The strong outcomes of the PFS demonstrate that Bardoc is well positioned to be the next significant mid-tier gold producer in the Kalgoorlie region.

As part of the PFS, Bardoc is pleased to announce the Maiden JORC Probable Ore Reserve of 10.4Mt @ 2.4 g/t for 789,000oz underpinning an estimated initial 7-year production period of 135,000ozpa, with peak gold production of over 150,000ozpa for 5 years.

The All-in Sustaining Costs (AISC) are estimated to be A$1,220/oz, which, at current gold prices will allow the Company to generate on average over A$100 million of free cash flow per year during the project's life.

2 PFS OVERVIEW/RESULTS

The following outlines the key outcomes of the PFS and is summarised in Table 2-1 to Table 2-8.

Table 2-1: Project Economics

PROJECT ECONOMICS	BASELINE	SPOT[1]
Gold Price (US$/oz)	**1,449**	**1,635**
Exchange Rate (USD:AUD)	**0.69**	**0.65**
Gold Price (A$/oz)	**2,100**	**2,530**
Life of Mine Revenue (A$,000,000)	**1,912**	**2,304**
C1 Cash Costs (C1) (A$/oz)	**978**	**984**
All-in Sustaining Costs (AISC) (A$/oz)	**1,220**	**1,242**
Pre-Tax Cashflow (A$,000,000)	**551**	**921**
Pre-Tax Net Present Value (8%) (A$,000,000)	**332**	**600**
Pre-Tax Internal Rate of Return (IRR)	**32%**	**55%**
Payback Period (Months)	**32**	**22**
Post-Tax Net Present Value (8%) (A$,000,000)	**252**	**445**
Post Tax Internal Rate of Return (IRR)	**27%**	**47%**

[1] All material assumptions other than exchange rate and gold price remain the same as the baseline case.

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Table 2-2: Project Area Cost / ounce

PROJECT	AISC (A$/oz)
Aphrodite OP	**$1,418/oz**
Zoroastrian OP	**$1,291/oz**
Excelsior OP	**$1,045/oz**
Bulletin South OP	**$1,211/oz**
Aphrodite UG	**$1,196/oz**
Zoroastrian UG	**$1,207/oz**
Total/Average	**$1,220/oz**

Table 2-3: Production Summary

PRODUCTION SUMMARY	
Life of Mine	**7.8 Years**
LOM Open Pit Strip ratio (Waste:Ore)	**10.6 : 1**
Nominal Processing Rate	**1.8 Mtpa**
LOM Processing Recovery	**93%**
Total Gold Recovered	**951 koz**

Table 2-4: Capital Costs

CAPITAL COSTS	PRE-PRODUCTION (A$M)	LOM (A$M)
Processing Plant - Stage 1	**73.3**	**95.0**
Processing Plant - Stage 2	**-**	**21.5**
Site Infrastructure	**15.9**	**15.9**
OP Mining	**53.2**	**120.5**
Underground Mining	**-**	**95.0**
Other Owners Costs	**-**	**5.9**
Total	**142.4**	**353.8**

Table 2-5: Operating Costs

OPERATING COSTS	TOTAL (A$M)	Unit Rate (A$/t Ore)
OP Mining	**201.1**	**26.8**[2]
UG Mining	**309.5**	**64.5**[3]
Total Mining	**510.6**	**41.5**
Surface Haulage	**29.3**	**2.4**
Processing	**343.6**	**27.9**
Royalty	**77.1**	**6.3**
General and Administration	**47.4**	**3.9**
Total	**1,007.9**	**82.0**

[2] Tonne of ore used in unit rate refers to open pit ore tonnes
[3] Tonne of ore used in unit rate refers to underground ore tonnes

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Table 2-6: Production Schedule

OPEN PIT MINING	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Waste[4]	kt	**68,100**	7,721	13,199	13,932	9,892	10,519	12,812	24	0
Mined Ore Tonnes	kt	**7,497**	446	1,157	2,154	904	780	2,039	18	0
Mined Ore Grade	g/t	**1.8**	1.1	1.3	1.6	1.6	1.9	2.4	3.7	0.0
Mined Gold Ounces	koz	**428**	16	49	112	45	47	156	2	0
UNDERGROUND MINING	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Lateral Development	m	**36,829**	183	5,999	7,590	8,740	8,406	4,992	918	0
Development Ore Mined	kt	**1,342**	0	148	238	340	360	202	55	0
Development Ore Grade	g/t	**3.4**	0.0	2.5	2.9	2.9	3.5	5.0	3.5	0.0
Stope Ore Mined	kt	**3,459**	0	167	355	759	599	760	748	71
Stope Ore Grade	g/t	**4.0**	0.0	3.2	3.5	3.9	3.6	4.2	4.8	4.6
Mined Ore Tonnes	kt	**4,802**	0	315	592	1,099	959	962	803	71
Mined Ore Grade	g/t	**3.8**	0.0	2.8	3.3	3.6	3.6	4.3	4.7	4.6
Mined Gold Ounces	koz	**593**	0	29	63	127	110	134	121	10
TOTAL MINING	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Total Mined Ore Tonnes	kt	**12,299**	446	1,471	2,746	2,003	1,739	3,001	821	71
Total Mined Ore Grade	g/t	**2.6**	1.1	1.6	2.0	2.7	2.8	3.0	4.7	4.6
Total Mined Gold Ounces	koz	**1,021**	16	78	175	172	157	290	123	10
PROCESSED TONNES	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
OP Oxide	kt	**2,003**	79	831	465	70	346	213	0	0
OP Transitional	kt	**1,804**	47	506	808	149	66	197	31	0
OP Fresh	kt	**3,236**	0	140	324	433	352	221	669	1,096
Underground	kt	**4,802**	0	315	592	1,099	959	962	803	71
Total Processed	kt	**12,299**	125	1,792	2,190	1,750	1,914	1,857	1,503	1,167
RECOVERED	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Recovered Grade	g/t	**2.4**	**1.0**	**1.5**	**2.0**	**2.7**	**2.5**	**2.8**	**3.3**	**2.4**
Recovered Gold	koz	**951**	4	86	138	149	153	170	162	90

Table 2-7: Bardoc Gold Production Target

PROJECT	INDICATED			INFERRED			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	210	0.8	5	3,750	1.3	161
Zoroastrian OP	350	1.9	21	0	0.7	0	350	1.8	21
Aphrodite OP	2,830	2.3	210	20	3.0	2	2,840	2.3	211
Bulletin OP	520	2.0	34	30	1.2	1	550	2.0	35
Zoroastrian UG	830	3.4	89	550	3.6	63	1,380	3.4	153
Aphrodite UG	2,570	3.7	303	850	5.0	137	3,420	4.0	440
TOTAL	**10,587**	**2.4**	**810**	**1,670**	**3.9**	**209**	**12,300**	**2.6**	**1,021**

[4] Excludes tailings

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Table 2-8: Bardoc Gold Project Ore Reserves

PROJECT	PROBABLE			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	3,540	1.4	160
Zoroastrian OP	350	1.9	20	350	1.9	20
Aphrodite OP	2,830	2.3	210	2,830	2.3	210
Bulletin OP	520	2.0	30	520	2.0	30
Zoroastrian UG	810	3.2	80	810	3.2	80
Aphrodite UG	2,380	3.7	290	2,380	3.7	290
TOTAL	10,430	2.4	790	10,430	2.4	790

3 PFS TEAM

The 2020 PFS was managed by Bardoc Gold working with in-house specialists and external consultants. Key contributors are listed below:

- Study Manager – Bardoc Gold (Andrew Francis);
- Mineral Resource Estimate – Bardoc Gold (Bradley Toms);
- Mining Reserves – Entech – Open Pit Reserves; Bardoc Gold – Underground Reserves;
- Metallurgical Testwork – Strategic Metallurgy;
- Process Plant Design – Como Engineering;
- Road & Rail Re-Alignment – SMEC;
- Tailings Dam Design – Knight Piésold Consulting;
- Mining– Entech; Bardoc;
- Geotechnical – Peter O'Bryan and Associates; Red Rock Geotechnical;
- Infrastructure – Entech; Como Engineering; Bardoc;
- Hydrogeology – Ground Water Management;
- Waste Classification – Landloch Pty Ltd;
- Environmental – Alexander Holm; and
- Financial Modelling – Entech; BurnVoir.

4 KEY PROJECT PARAMETERS

The PFS is based on the following key project parameters:

- JORC Compliant Mineral Resource at a gold price of A$2,400/oz;
- JORC Compliant Ore Reserve at a gold price of A$1,900/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 Brookfield Rail Re-Alignment for the Excelsior Project to be completed before Project start-up;
- Water to be sourced from the Scotia Borefield;

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- Open pit and underground mining to be undertaken by contractors;
- Infrastructure to be managed by Bardoc Gold;
- Project implementation to be managed by Bardoc Gold; 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.

5 PROJECT SUMMARY

The following outlines the key outcomes of the PFS and is summarised in Table 5-9 to Table 5-16.

Table 5-9: Project Economics

PROJECT ECONOMICS	BASELINE	SPOT[5]
Gold Price (US$/oz)	**1,449**	**1,635**
Exchange Rate (USD:AUD)	**0.69**	**0.65**
Gold Price (A$/oz)	**2,100**	**2,530**
Life of Mine Revenue (A$,000,000)	**1,912**	**2,304**
C1 Cash Costs (C1) (A$/oz)	**978**	**984**
All-in Sustaining Costs (AISC) (A$/oz)	**1,220**	**1,242**
Pre-Tax Cashflow (A$,000,000)	**551**	**921**
Pre-Tax Net Present Value (8%) (A$,000,000)	**332**	**600**
Pre-Tax Internal Rate of Return (IRR)	**32%**	**55%**
Payback Period (Months)	**32**	**22**
Post-Tax Net Present Value (8%) (A$,000,000)	**252**	**445**
Post Tax Internal Rate of Return (IRR)	**27%**	**47%**

Table 5-10: Project Area Cost / ounce

PROJECT	AISC (A$/oz)
Aphrodite OP	**1,418**
Zoroastrian OP	**1,291**
Excelsior OP	**1,045**
Bulletin South OP	**1,211**
Aphrodite UG	**1,196**
Zoroastrian UG	**1,207**
Total	**1,220**

Table 5-11: Production Summary

PRODUCTION SUMMARY	
Life of Mine Production	**7.8 Years**
LOM Open Pit Strip ration (Waste:Ore)	**10.6 : 1**
Nominal Processing Rate	**1.8 Mtpa**
LOM Processing Recovery	**93%**
Total Gold Recovered	**951 koz**

[5] All material assumptions other than exchange rate and gold price remain the same as the baseline case.

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Table 5-12: Capital Costs

CAPITAL COSTS	PRE-PRODUCTION (A$M)	LOM (A$M)
Processing Plant - Stage 1	**73.3**	**95.0**
Processing Plant - Stage 2	**-**	**21.5**
Site Infrastructure	**15.9**	**15.9**
OP Mining	**53.2**	**120.5**
Underground Mining	**-**	**95.0**
Other Owners Costs	**-**	**5.9**
Total	**142.4**	**353.8**

Table 5-13: Operating Costs

OPERATING COSTS	TOTAL (A$M)	Unit Cost (A$/t)
OP Mining	*201.1*	*26.8*[6]
UG Mining	*309.5*	*64.5*[7]
Total Mining	**510.6**	**41.5**
Surface Haulage	**29.3**	**2.4**
Processing	**343.6**	**27.9**
Royalty	**77.1**	**6.3**
General and Administration	**47.4**	**3.9**
Total	**1,007.9**	**82.0**

Table 5-14: Production Schedule

OPEN PIT MINING	UNIT	TOTAL	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Waste	kt	**68,100**	7,721	13,199	13,932	9,892	10,519	12,812	24	0
Mined Ore Tonnes	kt	**7,497**	446	1,157	2,154	904	780	2,039	18	0
Mined Ore Grade	g/t	**1.8**	1.1	1.3	1.6	1.6	1.9	2.4	3.7	0
Mined Gold Ounces	koz	**428**	16	49	112	45	47	156	2	0
UNDERGROUND MINING	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Lateral Development	m	**36,829**	183	5,999	7,590	8,740	8,406	4,992	918	0
Development Ore Mined	kt	**1,342**	0	148	238	340	360	202	55	0
Development Ore Grade	g/t	**3.4**	0	2.5	2.9	2.9	3.5	5.0	3.5	0
Stope Ore Mined	kt	**3,459**	0	167	355	759	599	760	748	71
Stope Ore Grade	g/t	**4.0**	0	3.2	3.5	3.9	3.6	4.2	4.8	4.6
Mined Ore Tonnes	kt	**4,802**	0	315	592	1,099	959	962	803	71
Mined Ore Grade	g/t	**3.8**	0	2.8	3.3	3.6	3.6	4.3	4.7	4.6
Mined Gold Ounces	koz	**593**	0	29	63	127	110	134	121	10
TOTAL MINING	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Total Mined Ore Tonnes	kt	**12,299**	446	1,471	2,746	2,003	1,739	3,001	821	71
Total Mined Ore Grade	g/t	**2.6**	1.1	1.6	2.0	2.7	2.8	3.0	4.7	4.6
Total Mined Gold Ounces	koz	**1,021**	16	78	175	172	157	290	123	10
PROCESSED TONNES	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
OP Oxide	kt	**2,003**	79	831	465	70	346	213	0	0
OP Transitional	kt	**1,804**	47	506	808	149	66	197	31	0
OP Fresh	kt	**3,236**	0	140	324	433	352	221	669	1,096
Underground	kt	**4,802**	0	315	592	1,099	959	962	803	71
Total Processed	kt	**12,299**	125	1,792	2,190	1,750	1,914	1,857	1,503	1,167
RECOVERED	**UNIT**	**TOTAL**	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**
Recovered Grade	g/t	**2.4**	**1.0**	**1.5**	**2.0**	**2.7**	**2.5**	**2.8**	**3.3**	**2.4**
Recovered Gold	koz	**951**	4	86	138	149	153	170	162	90

[6] Tonne of ore used in unit rate refers to open pit ore tonnes
[7] Tonne of ore used in unit rate refers to underground ore tonnes

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Table 5-15: Bardoc Gold Project Target

PROJECT	INDICATED			INFERRED			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	210	0.8	5	3,750	1.3	161
Zoroastrian OP	350	1.9	21	0	0.7	0	350	1.8	21
Aphrodite OP	2,830	2.3	210	20	3.0	2	2,840	2.3	211
Bulletin OP	520	2.0	34	30	1.2	1	550	2.0	35
Zoroastrian UG	830	3.4	89	550	3.6	63	1,380	3.4	153
Aphrodite UG	2,570	3.7	303	850	5.0	137	3,420	4.0	440
TOTAL	**10,587**	**2.4**	**810**	**1,670**	**3.9**	**209**	**12,300**	**2.6**	**1,021**

Table 5-16: Bardoc Gold Project Ore Reserves

PROJECT	PROBABLE			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	3,540	1.4	160
Zoroastrian OP	350	1.9	20	350	1.9	20
Aphrodite OP	2,830	2.3	210	2,830	2.3	210
Bulletin OP	520	2.0	30	520	2.0	30
Zoroastrian UG	810	3.2	80	810	3.2	80
Aphrodite UG	2,380	3.7	290	2,380	3.7	290
TOTAL	10,430	2.4	790	10,430	2.4	790

6 BACKGROUND

The Bardoc Gold Project is located 35km 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^2) 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.

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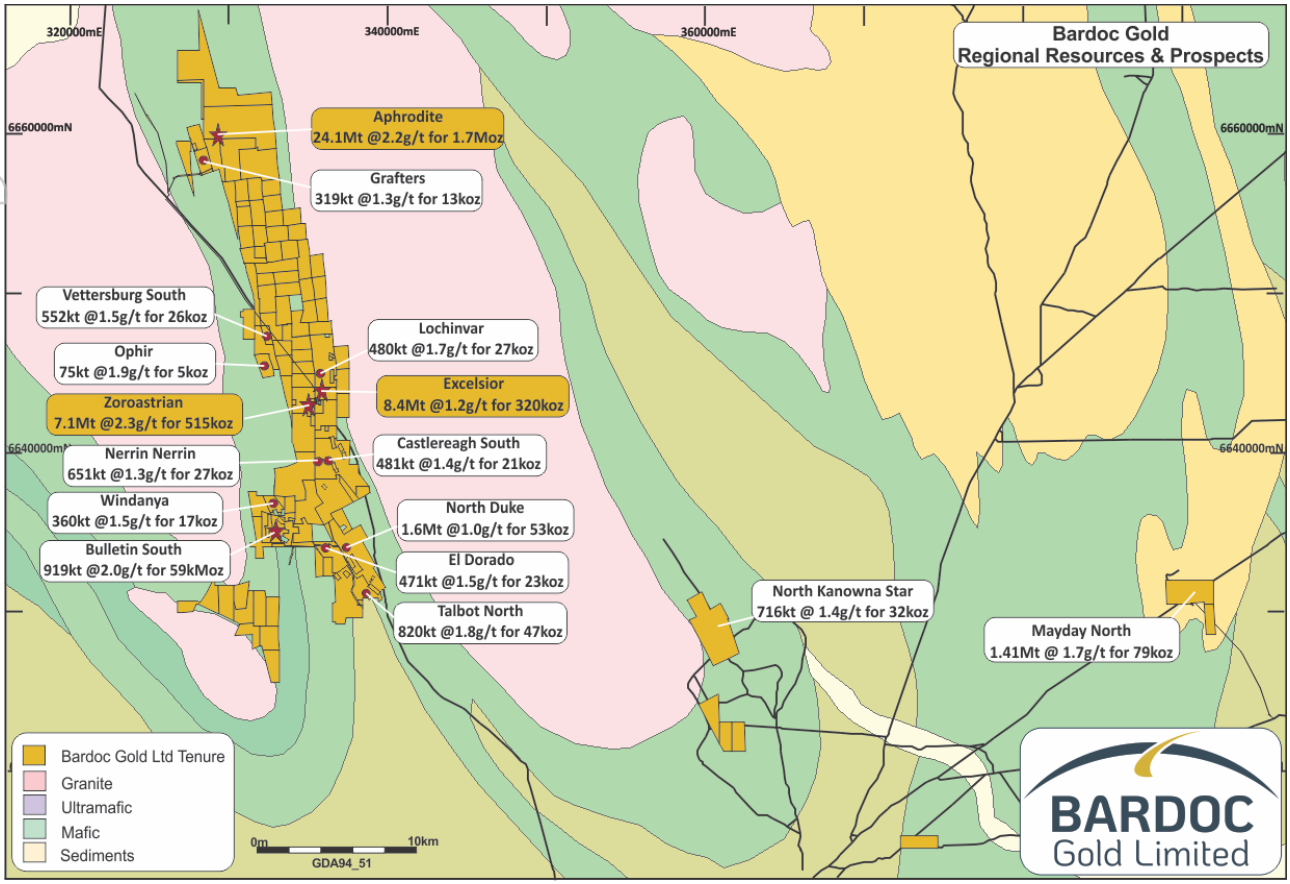


Figure 13.1-1: Tenement and Resource Map

During the period 2017/2018, Bardoc (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 of an area of 49km^2.

In September 2019, Bardoc delivered a substantial increase in the Global Mineral Resource Estimate for the Bardoc Gold Project to over 3 million ounces. The updated project-wide Measured, Indicated and Inferred Mineral Resource, which follows highly successful drilling, exploration and strategic acquisition initiatives during the year, now stands at 49.4Mt at 1.9g/t Au for 3.02Moz of contained gold.

This updated Mineral Resource Estimate (MRE) contains 42.2Mt at 1.5g/t Au for 2.06Moz classified as being potentially mineable by open pit methods and 7.2Mt at 4.1g/t Au for 962koz that may be amenable to underground mining methods (refer ASX Release 30 September 2019 for full details).

Bardoc further expanded its strategic footprint in the North Kalgoorlie district by purchasing the Mayday and North Kanowna Star gold projects in November 2019 from Strategic Projects Mining Pty Ltd (SPM). The Project areas include a combined JORC compliant Indicated and Inferred Mineral Resource totalling 111.6koz. 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.

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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 2.2Mt at 1.6 g/t Au for 113koz of gold were 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 PFS and form 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 following outlines the key project permits and approvals that are to be sought by Bardoc prior to undertaking mining activities:

- **26D Licence** for Water Exploration under the Rights in Water and Irrigation Act 1914, to be approved by the Department of Water and Environmental Regulation;
- **Purpose Clearing Permit** for Land clearing: Railroad Diversion under the Environmental Protection Act 1986, to be approved by the Department of Mines, Industry Regulation and Safety;
- **Purpose Clearing Permit** for Land clearing: Project development under the Environmental Protection Act 1986, to be approved by Department of Mines, Industry Regulation and Safety;
- **Mining Proposal and Mine Closure Plan** for Project development under the Mining Act 1978, to be approved by Department of Mines, Industry Regulation and Safety;
- **5C Licence** for Water extraction Scotia and Pit and underground dewatering under the Rights in Water and Irrigation Act 1914, to be approved by the Department of Water and Environmental Regulation;
- **Works Approval & Operating Licence** for the Processing Plant, Tailings Storage Facility, dewatering, sewerage system and landfill under the Act 1986, to be approved by Department of Water and Environmental Regulation;
- **Dangerous Goods Substance Storage Licence** for bulk fuel facilities, CNG and chemical storage facilities under the Dangerous Goods Safety Regulations 2007, to be approved by the Department of Mines, Industry Regulation and Safety;
- **Security Risk Storage Licence** for Emulsion of ANFO storage facilities under the Dangerous Goods Safety Regulations 2007, to be approved by Department of Mines, Industry Regulation and Safety;
- **Explosives Storage Licence** for explosive storage facilities (magazines) under the Dangerous Goods Safety Regulations 2007, to be approved by Department of Mines, Industry Regulation and Safety;
- **Project Management Plan** for the approval of mining activities under the Mine Safety and Inspection Act, to be approved by Department of Mines, Industry Regulation and Safety;
- **Poisons Licence** for the Storage and use of cyanide under the Poisons Act 1964 and Health (Drugs and Poisons) regulations 1974, to be approved by the Department of Health; and
- **Application to Install a Sewage Treatment Plant** for sewerage systems under the Health Act 1911, to be approved by Department of Health/City of Kalgoorlie Boulder.

The Bardoc Gold Project is located approximately 35km north of Kalgoorlie-Boulder, where it straddles the Goldfields Highway and railway to Leonora. The northernmost tenements are within the Menzies local authority area and the remainder within Kalgoorlie-Boulder local authority area. Engagement of

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government and non-government organisations is of key importance to the Project schedule during the approvals process, and the following Government agencies have been identified for involvement in approval processes for the Project:

- Department of Planning Lands and Heritage (DPLH)
- Department of Mines, Industry Regulation and Safety (DMIRS)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Department of Health (DoH)
- Department of Water and Environmental Regulation (DWER)
- Western Australian Main Roads (MRWA)
- Department of Fire and Emergency Services (DFES)
- Office of Energy
- City of Kalgoorlie-Boulder
- Shire of Menzies
- Kalgoorlie Hospital

9 GEOLOGY AND MINERAL RESOURCE ESTIMATE

Bardoc Gold Ltd has reported global Mineral Resources for the Bardoc Gold Project of 49.4Mt at 1.9g/t Au for 3.02Moz of contained gold.

The Mineral Resource Estimate used for the PFS was reported in September 2019 (refer ASX announcement: Bardoc Gold Resource Hits +3Moz Underpinning Mining Studies and Next Phase of Growth 30 September 2019). The PFS has assumed mining from only four of the 17 Resource areas, allowing for future growth in the mine plan during possible future mining operations.

Importantly, the Company has identified significant potential for ongoing Resource growth at several deposits, in particular Mayday North, which has an Exploration Target[1], in addition to its current 79koz Au Resource, of 1.48Mt – 2.22Mt at a grade range of 2.0-2.4g/t Au for 96,000 – 171,000 ounces.

Exploration Target[1]: The potential quantities and grades are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012). (Full details on the Exploration target are contained in the ASX announcement dated 25th February 2020 – "Further Drilling Success at Mayday North as Wide Gold Hits Confirm Strong Potential for Resource Growth").

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 external expert consultant review (of both Mineral Resource Estimates and geology), as well as having an experienced geological team which has a an extended track record of success in the Kalgoorlie area mining and exploring for gold.

Over the last 12 months, the Company has completed several transactions which have leveraged their geological knowledge with benefits already coming to fruition at Mayday North with the recent announcement of the Exploration Target.

With funds available for exploration and an appetite for discovery, Bardoc Gold is well placed to expand on 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 announcement dated 30 September 2019.

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Table 9-17: Mineral Resource Table

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*	*0.4*	-	-	-	*11,622*	*1.7*	*619*	*6,676*	*1.4*	*298*	*18,288*	*1.6*	*916*	*22/5/18*
Aphrodite	*UG*	*2.0*	-	-	-	*3,458*	*3.9*	*436*	*2,391*	*4.3*	*330*	*5,848*	*4.1*	*765*	
Aphrodite	**TOTAL**		**-**	**-**	**-**	**15,080**	**2.2**	**1,055**	**9,067**	**2.2**	**628**	**24,136**	**2.2**	**1,681**	
Zoroastrian	*OP*	*0.4*	-	-	-	*3,862*	*1.8*	*229*	*1,835*	*1.5*	*89*	*5,698*	*1.7*	*318*	*22/5/18*
Zoroastrian	*UG*	*2.0*	-	-	-	*580*	*4.4*	*82*	*823*	*4.3*	*114*	*1,403*	*4.4*	*197*	
Zoroastrian	**TOTAL**		**-**	**-**	**-**	**4,442**	**2.2**	**311**	**2,658**	**2.4**	**203**	**7,101**	**2.3**	**515**	
Excelsior	**OP**	**0.4**	**-**	**-**	**-**	**6,729**	**1.2**	**266**	**1,749**	**1.0**	**54**	**8,478**	**1.2**	**320**	
Mulwarrie	**OP**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**881**	**2.8**	**79**	**881**	**2.8**	**79**	*13/11/18*
Mayday North	**OP**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**1,410**	**1.7**	**79**	**1,410**	**1.7**	**79**	
Bulletin South	**OP**	**0.4**	**152**	**2.2**	**11**	**546**	**2.1**	**36**	**150**	**2.1**	**10**	**849**	**2.1**	**57**	
Duke North	**OP**	**0.4**	**-**	**-**	**-**	**851**	**1.0**	**28**	**795**	**1.0**	**25**	**1,646**	**1.0**	**53**	
Talbot North	**OP**	**0.4**	**-**	**-**	**-**	**698**	**1.8**	**40**	**123**	**1.8**	**7**	**820**	**1.8**	**47**	
North Kanowna Star	**OP**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**716**	**1.4**	**32**	**716**	**1.4**	**32**	
Lochinvar	**OP**	**0.4**	**-**	**-**	**-**	**423**	**1.8**	**24**	**57**	**1.6**	**3**	**480**	**1.7**	**27**	*19/2/14*
Nerrin Nerrin	**OP**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**651**	**1.3**	**26**	**651**	**1.3**	**26**	
Vettersburg South	**OP**	**0.6**	**-**	**-**	**-**	**-**	**-**	**-**	**552**	**1.5**	**26**	**552**	**1.5**	**26**	*11/12/13*
El Dorado	**OP**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**471**	**1.5**	**23**	**471**	**1.5**	**23**	
South Castlereagh	**OP**	**0.5**	**-**	**-**	**-**	**111**	**1.6**	**6**	**369**	**1.3**	**15**	**481**	**1.4**	**21**	
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**	
Ophir	**OP**	**0.6**	**-**	**-**	**-**	**-**	**-**	**-**	**75**	**1.9**	**5**	**75**	**1.9**	**5**	*11/12/13*
TOTAL RESOURCES			**152**	**2.3**	**11**	**28,880**	**1.9**	**1,766**	**20,403**	**1.9**	**1,247**	**49,426**	**1.9**	**3,022**	

Note: Differences may occur due to rounding.

10 GEOTECHNICAL

Geotechnical studies were completed by Peter Bryan & Associates for the Zoroastrian, Excelsior and Bulletin Projects and by Red Rock Geotechnical for the Aphrodite 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 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:

- Aphrodite Pit are 10-30m face heights with pit wall angles of 55-70°and a berm width of 7-8m. Geotechnical recommendations were established by rock type domains and did not distinguish by wall domain;
- Zoroastrian Pit are 15-20m face heights with pit wall angles of 55-70° and a berm width of 6-10m. 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; and
- Bulletin 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.

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. However, further studies have been recommended to be undertaken on the ability to extend this further for Aphrodite due to larger stope

geometries. 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 PFS, however, would provide an alternate practical means for stope stability.

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.

Average dewatering rates for the open pits have been estimated at between 1.5 L/s in the Bulletin South pit to 10 L/s in the Excelsior, Zoroastrian and Aphrodite pits. Average underground dewatering rates are expected to range from about 1.7 L/s at Zoroastrian to 10 L/s at Aphrodite. Further testing is required to confirm these rates.

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. Given the deep weathering profile, high clay content in the weathered zone, and low permeability in the intact rock, pit wall stability is a potential risk in the deeper pits (in particular Excelsior and Aphrodite). The risk arises when low permeability lithological units resist dewatering, resulting in high hydraulic gradients and pore pressures in the pit wall which could lead to wall instability. Pit depressurisation may be required and will be the subject of further testwork.

12 ORE RESERVES

Bardoc have completed an Ore Reserve Estimate for the Bardoc Gold Project based on the 2019 Mineral Resources (see ASX announcement 30 September 2019).The Ore Reserve estimated is supported by the 2020 PFS and has been completed by independent mining consultants Entech Pty Ltd (Entech) for Open Pit Reserve Estimation and Bardoc for Underground Ore Estimation.

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

The Ore Reserve (Table 12-18) 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 (see Table 3). It should be noted that no Inferred material has been included in the Ore Reserve estimate. Table 12-18 presents a summary of the Probable Ore Reserve based on the mine designs using an A$1,900/oz gold price optimisation. Refer to Appendix Table 1. Section 4, for full details on the Ore Reserve Estimate.

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Table 12-18: Bardoc Ore Reserves

PROJECT	PROBABLE			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	3,540	1.4	160
Zoroastrian OP	350	1.9	20	350	1.9	20
Aphrodite OP	2,830	2.3	210	2,830	2.3	210
Bulletin OP	520	2.0	30	520	2.0	30
Zoroastrian UG	810	3.2	80	810	3.2	80
Aphrodite UG	2,380	3.7	290	2,380	3.7	290
TOTAL	10,430	2.4	790	10,430	2.4	790

13 MINING

13.1 UNDERGROUND

The Bardoc Gold 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 free milling nature of the ore, and the ability to commence mining activities. The Aphrodite Underground extends from the base of the Aphrodite Stage 1 Pit.

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.

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 Pre-Feasibility study 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 2.6 g/t for Zoroastrian and 3.0 g/t for Aphrodite, Table 13-19.

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Table 13-19: Break Even Cut-off Grades

UNIT COST	UNIT	Zoroastrian UG	Aphrodite UG
Gold Price	A$/oz	1,800.00	1,800.00
Metallurgical Recovery	%	93.7%	92.1%
Exchange Rate	($AUD/$USD)	0.69	0.69
Mining Operating Costs	A$/t	114.4	85.1
Processing Operating Costs	A$/t	19.9	42.7
G&A Operating Costs	A$/t	3.8	3.8
Surface Haulage	A$/t	0.0	5.1
Total BCOG Operating Costs	A$/t	138.1	136.7
Royalty	A$/recovered oz	47.5	95.0
Break Even Cut-off Grade	**g/t**	**2.6**	**3.0**

A variable Cut-off Grade of 1.8 g/t for Zoroastrian and 2.2 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 13-20.

Table 13-20: Variable Cut-Off Grades

UNIT COST	UNIT	Zoroastrian UG	Aphrodite UG
Gold Price	A$/oz	1,800.00	1,800.00
Metallurgical Recovery	%	93.7%	92.1%
Exchange Rate	($AUD/$USD)	0.69	0.69
Mining Operating Costs	A$/t	79.8	59.7
Processing Operating Costs	A$/t	13.7	35.8
G&A Operating Costs	A$/t	2.8	2.8
Surface Haulage	A$/t	0.00	5.1
Total VCOG Operating Costs	A$/t	96.3	103.4
State Royalty	A$/recovered oz	47.5	95.00
Variable Cut-off Grade	**g/t**	**1.8**	**2.2**

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 Pre-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 1.38Mt at 3.4g/t Au for 152koz, of which 811kt at 3.2g/t Au for 83koz is designated as Ore Reserves. Bardoc is undertaking an aggressive drilling campaign to upgrade the portion of Inferred material contained within the underground design. Most of the Inferred material is contained within the Southern Zoroastrian Shear lode.

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 13-21.

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Table 13-21: Key Metrics

ECONOMICS	UNIT	ZOROASTRIAN
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimised)	A$/oz	1,800
Metallurgical Recovery	%	93.7%
Recovered Gold	oz	142,900
All-In Sustaining Costs	**A$/oz**	**$1,207/oz**
PHYSICALS	**UNIT**	**ZOROASTRIAN**
Ore Tonnes		
Stope Ore Tonnes (t)	t	973,500
Stope Ore Grade (g/t)	g/t	3.8
Stope Gold Ounces (oz)	oz	117,700
Development Ore Tonnes (t)	t	404,600
Development Ore Grade (g/t)	g/t	2.7
Development Gold Ounces (oz)	oz	34,800
Total Ore Tonnes (t)	**t**	**1,378,200**
Total Ore Grade (g/t)	**g/t**	**3.4**
Total Gold Ounces (oz)	**oz**	**152,600**
Material Movement		
Total Waste Tonnes (t)	t	505,800
Total Ore Tonnes (t)	t	1,378,200
Total Material Movement (t)	**t**	**1,884,000**
Lateral Development		
Total Capital Development (m)	m	4,840
Total Operating Development (m)	m	8,300
Total Lateral Development (m)	**m**	**13,200**
Vertical Development		
Total Capital Vertical Development (m)	m	720
Total Operating Vertical Development (m)	m	0
Total Vertical Development (m)	**m**	**720**

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 13-22 and a layout of the underground mine is provided in Figure 13.3-1.

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Table 13-22: Development Design Criteria

Criteria	Value
LATERAL DEVELOPMENT	
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
VERTICAL DEVELOPMENT	
Escapeways	1.5m Diameter RB
Vent Rise to Surface	4.5m Diameter RB
Sub-Level Vent Rises	4.5m x 4.5m LHR
STOPING	
Minimum Mining Width	2.5m
Level Spacing	20.0m
Stope Strike	25.0m
Minimum Pillar Width	4.0m
Dilution	10%
In situ Stope Recovery	90%
Stope Recovery with Rib Pillars	78%
Stope Recovery with Rib and Sill Pillars	26%

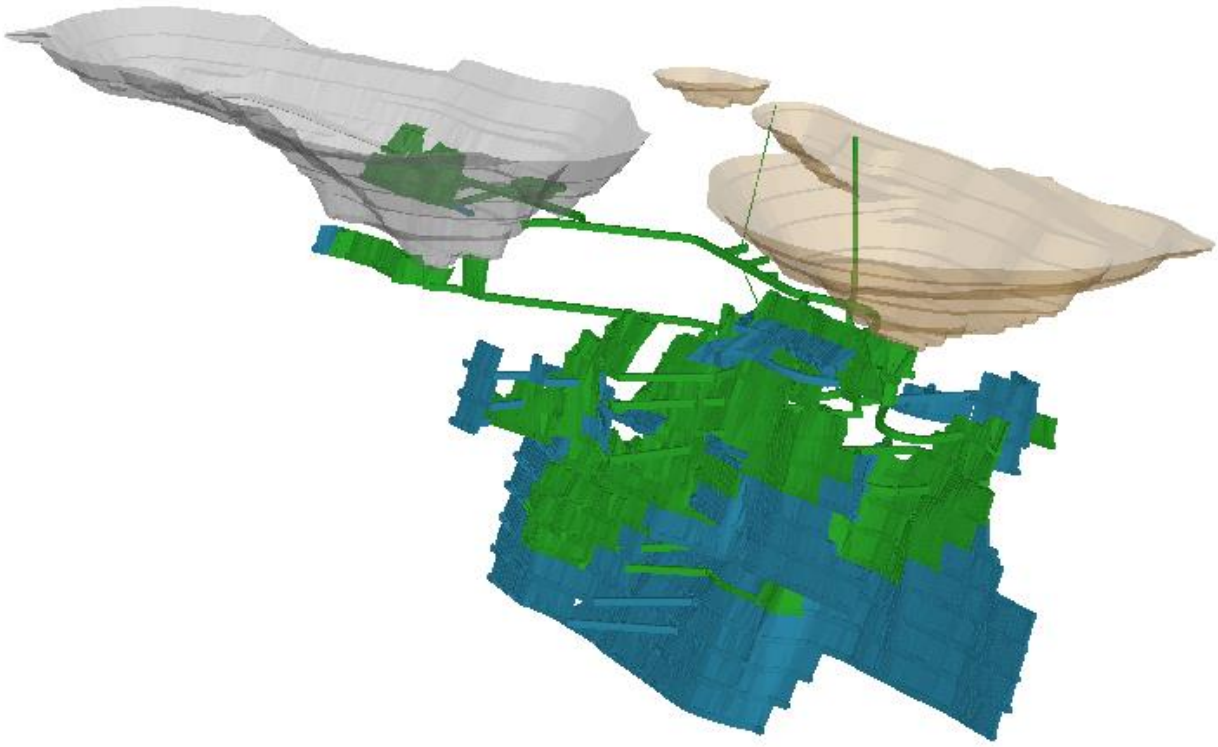


Figure 13.3-1: Zoroastrian Underground Design

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 13.3-2.

The study evaluates Aphrodite Underground to contain a production target of 3.42Mt at 4.0g/t Au for 440koz, including 2.38Mt at 3.7g/t Au for 286koz of Ore Reserves. Bardoc is planning to undertake an aggressive drilling campaign to convert the portion of Inferred material contained within the design. Most of the Inferred material is contained within the Alpha Lode.

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 13-23 below:

Table 13-23: Key Metrics

ECONOMICS	UNIT	APHRODITE
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimisation)	A$/oz	1,800
Metallurgical Recovery	%	92.1%
Recovered Gold	oz	405,400
All-In Sustaining Costs	**A$/oz**	**$1,196/oz**
PHYSICALS	**UNIT**	**APHRODITE**
Ore Tonnes		
Stope Ore Tonnes (t)	t	2,485,600
Stope Ore Grade (g/t)	g/t	4.1
Stope Gold Ounces (oz)	oz	329,900
Development Ore Tonnes (t)	t	937,800
Development Ore Grade (g/t)	g/t	3.6
Development Gold Ounces (oz)	oz	110,000
Total Ore Tonnes (t)	**t**	**3,423,400**
Total Ore Grade (g/t)	**g/t**	**4.0**
Total Gold Ounces (oz)	**oz**	**440,400**
Material Movement		
Total Waste Tonnes (t)	t	688,100
Total Ore Tonnes (t)	t	3,423,400
Total Material Movement (t)	**t**	**4,111,500**
Lateral Development		
Total Capital Development (m)	m	6,940
Total Operating Development (m)	m	16,720
Total Lateral Development (m)	**m**	**23,680**
Vertical Development		
Total Capital Vertical Development (m)	m	770
Total Operating Vertical Development (m)	m	0
Total Vertical Development (m)	**m**	**770**

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.

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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 13-24 and a layout of the underground mine is shown in Figure 13.3-2:

Table 13-24: Design Criteria

Criteria	Value
LATERAL DEVELOPMENT	
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
VERTICAL DEVELOPMENT	
Escapeways	1.5m Diameter RB
Vent Rise to Surface	4.5m Diameter RB
Sub-Level Vent Rises	4.5m x 4.5m LHR
STOPING	
Minimum Mining Width	2.5m
Level Spacing	20.0m
Stope Strike	25.0m
Minimum Pillar Width	4.0m
Dilution	10%
In-situ Stope Recovery	90%
Stope Recovery with Rib Pillars	75%
Stope Recovery with Rib and Sill Pillars	20%

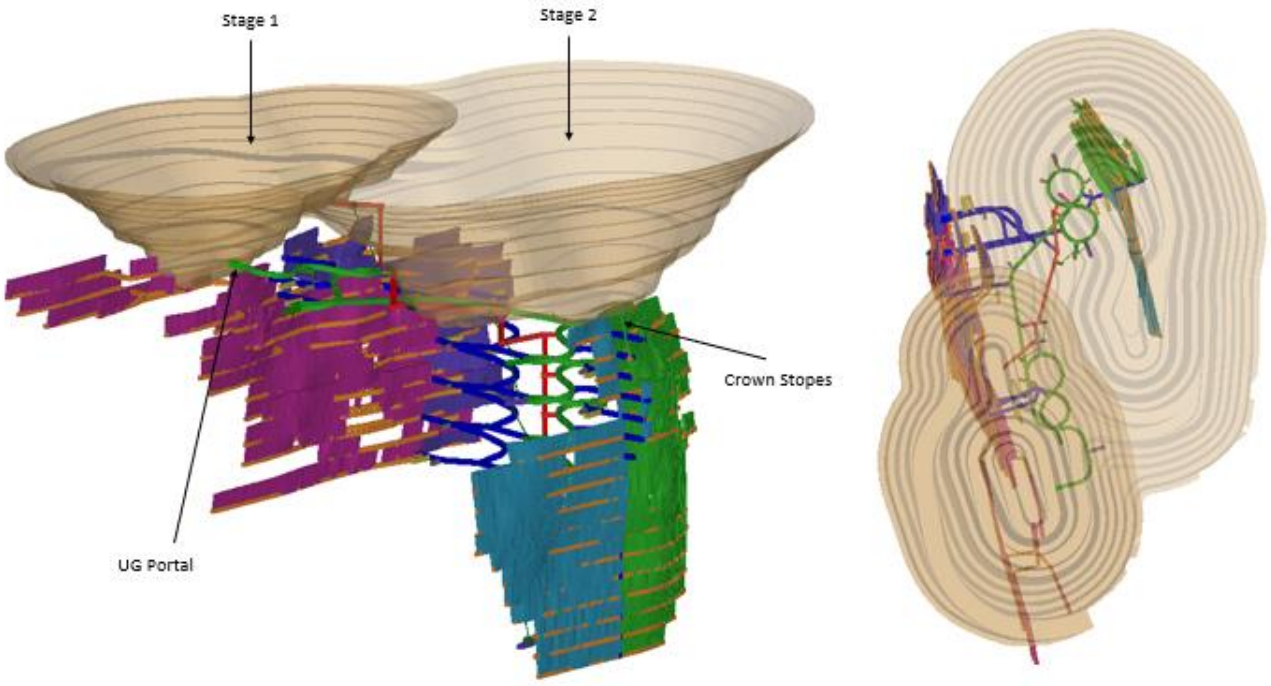


Figure 13.3-2: Aphrodite Underground Mine Layout

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13.4 OPEN PIT MINING

The Bardoc open pits consist of the Excelsior, Zoroastrian, Aphrodite and Bulletin 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.

It is planned that the larger 190-tonne fleet will initially service the waste stripping at the Excelsior open pit alongside the smaller 120-tonne excavator fleet. After a period of 12 months, the 190-tonne excavator fleet will be transported to the Aphrodite open pit for the remainder of its operations and the 120-tonne fleet will continue to service the Excelsior open pit later, moving between the Excelsior and the Zoroastrian open pits before moving on to the Bulletin open pit where it will complete its operations.

The Resource models are regularised to Selective Mining Units (SMU), as shown Table 13-25, to replicate potential mineable blocks. The regularised models are used for the optimisations to delineate material to guide final pit designs.

Table 13-25: Block Model SMU's

PIT	Block Model Selective Mining Unit
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	2.0mZ x 5.0mY x 2.5mZ

Pit optimisations were completed on all the pits at a A$1,800/oz gold price using PFS 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-FF GRADES

Cut-Off Grade (COG) calculations are based on the financial modelling completed for the Pre-Feasibility study and corporate guidance. Table 13-26 details the COG's prepared and used for the open pit deposits.

Table 13-26: Open Pit Cut-off Grades

Material Type	Cut-Off (g/t)
Aphrodite	
Oxide	0.44
Transitional	0.44
Fresh	1.14
Excelsior	
Oxide	0.36
Transitional	0.36
Fresh	0.41
Zoroastrian	
Oxide	0.45
Transitional	0.45
Fresh	0.49
Bulletin	
Oxide	0.45
Transitional	0.45
Fresh	0.49

13.4.2 EXCELSIOR OPEN PIT

The Excelsior Open Pit, located adjacent to the Zoroastrian Pit, is the larger of the two in this area and utilises a dual- lane ramp cresting midway along the western wall and follows the western wall to the north, where it switches back on the western wall to run in an anti-clockwise direction utilising a single-lane ramp from this point to the base of pit.

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 PFS.

The final design for the Excelsior pit has a strike length of 750 m and an overall pit depth of 175 m, mining a production target of 3.8Mt at 1.3 g/t Au for 161koz with an overall strip ratio of 6:1, as shown in Table 13-27. Figure 13.4-1 details the key design parameters and summary of the pit:

Table 13-27: Excelsior Design Parameters and Metrics

ECONOMICS	UNIT	EXCELSIOR
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimisation)	A$/oz	1,800
Metallurgical Recovery (Average)	%	96.9%
Recovered Gold	oz	155,600
All-In Sustaining Costs	**A$/oz**	**$1,045/oz**
PHYSICALS	**UNIT**	**EXCELSIOR**
Total Ore Tonnes	**t**	**3,750,400**
Total Ore Grade	**g/t**	**1.3**
Total Gold Ounces	**oz**	**160,600**
Total Waste Tonnes	t	18,767,300
Strip Ratio	**W:O**	**6.3**
Pit Geometry		
Strike Length	m	750
Depth	m	175
DESIGN PARAMETERS	**UNIT**	**EXCELSIOR**
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%[8]
Mining Ore Loss	%	3.0%

[8] *Dilution has been built into geological model*

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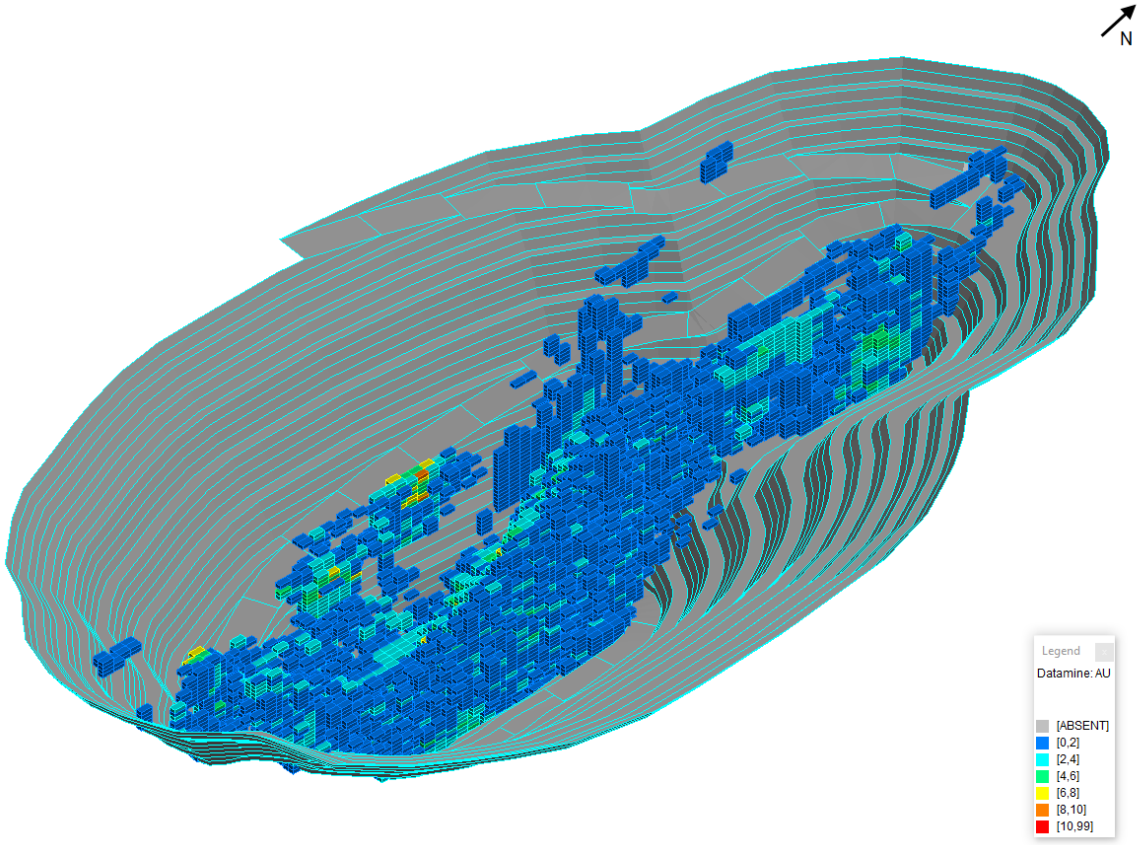


Figure 13.4-1: Excelsior Pit Design

13.4.3 ZOROASTRIAN OPEN PIT

The Zoroastrian 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 Pit has a strike length of 590 m and an overall pit depth of 95 m, mining a production target of 0.4Mt @ 1.8 g/t for 21koz with an overall strip ratio of 14:1, as shown in Figure 13.4-2. Table 13-28 details the key design parameters and summary of the pit.

The Zoroastrian Open Pit design allows for a dual-lane access ramp, cresting to the north on the eastern wall, following the southern wall in a clockwise direction, until which time it is narrowed to a single-lane ramp access that continues to the base of pit. A splay to the north is mined closer to surface before the open pit draws down on the orebody.

Table 13-28: Zoroastrian Design Parameters and Metrics

ECONOMICS	UNIT	ZOROASTRIAN
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimisation)	A$/oz	1,800
Metallurgical Recovery (Average)	%	95.5%
Recovered Gold	oz	20,000
All-In Sustaining Costs	**A$/oz**	**$1,291/oz**
PHYSICALS	**UNIT**	**ZOROASTRIAN**
Total Ore Tonnes	**t**	**353,100**
Total Ore Grade	**g/t**	**1.8**
Total Gold Ounces	**oz**	**21,000**
Total Waste Tonnes	t	4,512,000
Strip Ratio	**W:O**	**14.0**

Pit Geometry		
Strike Length	m	590
Depth	m	95
DESIGN PARAMETERS	**UNIT**	**ZOROASTRIAN**
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%[9]
Mining Ore Loss	%	3.0%

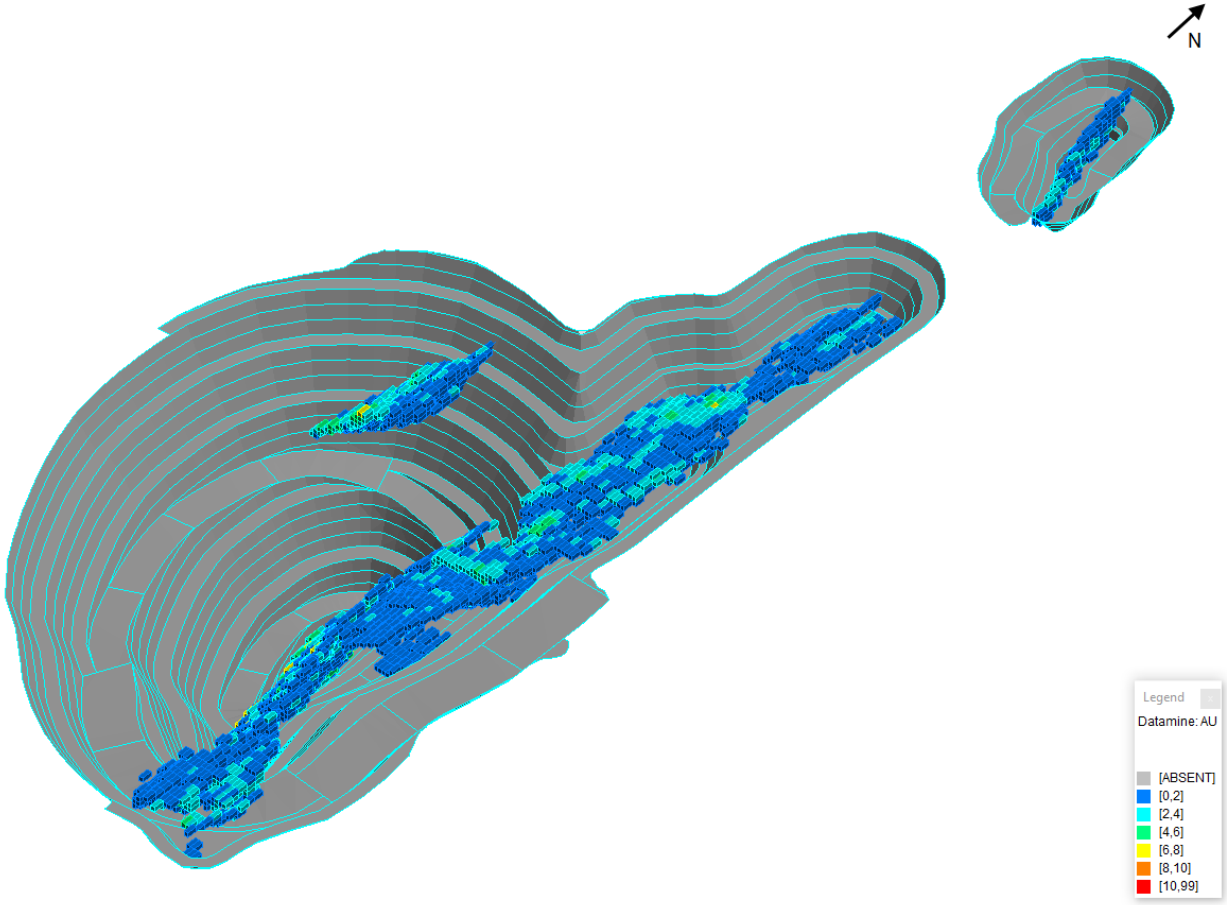


Figure 13.4-2: Zoroastrian Pit Design

13.4.4 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 final design for the Aphrodite Open Pit has a strike length of 780 m and an overall pit depth of 190 m, mining a production target of 2.8Mt @ 2.3 g/t for 211koz with an overall strip ratio of 15:1, as shown Figure 13.4-3. Table 13-29 details the key design parameters and summary of the pit.

[9] *Dilution has been built into geological model*

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Table 13-29: Aphrodite Design Parameters and Metrics

ECONOMICS	UNIT	APHRODITE
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimisation)	A$/oz	1,800
Metallurgical Recovery (Average)	%	91.6%
Recovered Gold	oz	193,300
All-In Sustaining Costs	A$/oz	$1,418/oz
PHYSICALS	**UNIT**	**APHRODITE**
Total Ore Tonnes	**t**	**2,842,600**
Total Ore Grade	**g/t**	**2.3**
Total Gold Ounces	**oz**	**211,100**
Total Waste Tonnes	t	36,969,600
Strip Ratio	**W:O**	**15.0**
Pit Geometry		
Strike Length	m	780
Depth	m	190
DESIGN PARAMETERS	**UNIT**	**APHRODITE**
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%[10]
Mining Ore Loss	%	3.0%

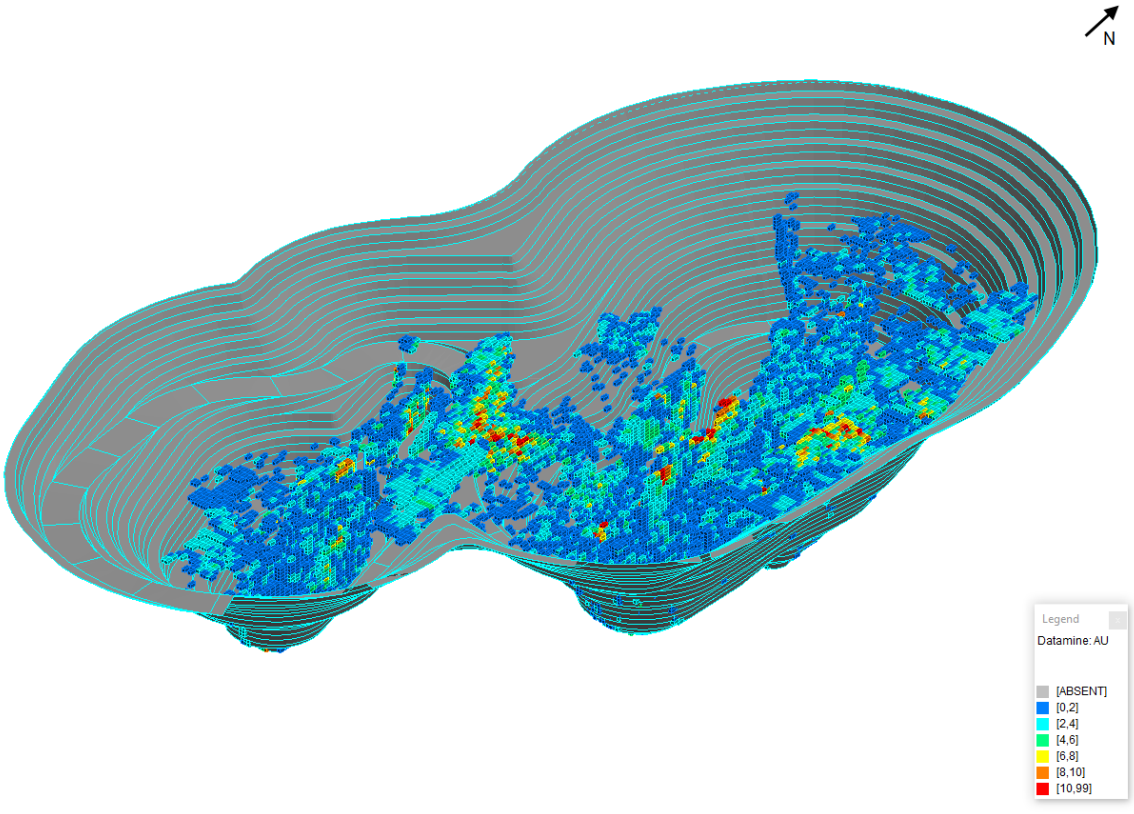


Figure 13.4-3: Aphrodite Pit Design

[10] *Dilution has been built into geological model*

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13.4.5 BULLETIN OPEN PIT

The Bulletin Open Pit is a cut-back of an existing open pit and mines the or body to current depth. The dual-lane access ramp crests in the north of the open pit and travels along the eastern wall in a clockwise direction, reducing in width to a single lane access 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 Open Pit has a strike length of 450 m and an overall pit depth of 125 m, mining a production target of 0.6Mt at 2.0g/t Au for 35koz with an overall strip ratio of 16:1, as shown in Figure 13.4-4. Table 13-30 details the key design parameters and summary of the pit.

Table 13-30: Bulletin Design Parameters and Metrics

ECONOMICS	UNIT	BULLETIN
Parameters		
Gold Price (Financial Evaluation)	A$/oz	2,100
Gold Price (Optimised)	A$/oz	1,800
Metallurgical Recovery (Average)	%	96.7%
Recovered Gold	oz	33,900
All-In Sustaining Costs	**A$/oz**	**$1,211/oz**
PHYSICALS	**UNIT**	**BULLETIN**
Total Ore Tonnes	**t**	**550,900**
Total Ore Grade	**g/t**	**2.0**
Total Gold Ounces	**oz**	**35,100**
Total Waste Tonnes	t	7,850,900
Strip Ratio	**W:O**	**16.2**
Pit Geometry		
Strike Length	m	450
Depth	m	125
DESIGN PARAMETERS	**UNIT**	**BULLETIN**
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)		2.0mZ x 5.0mY x 2.5mZ
Mining Dilution	%	0.0%[11]
Mining Ore Loss	%	3.0%

[11] *Dilution has been built into geological model*

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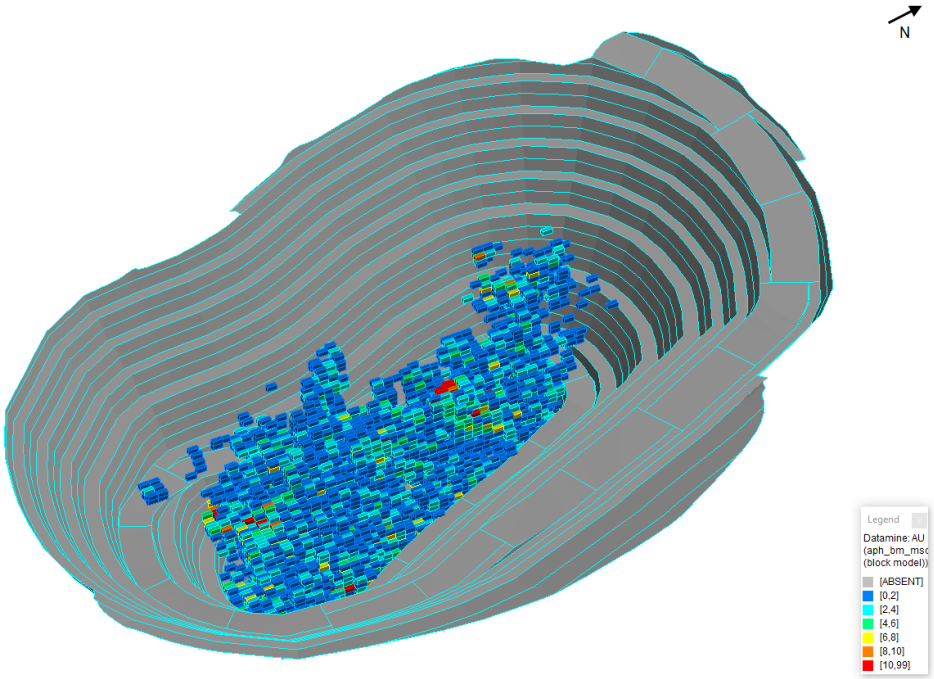


Figure 13.4-4: Bulletin Pit Design

13.5 MINE SCHEDULING

The resulting mine schedule for the four open pit operations and two underground operations is shown in Table 13-31, and Table 13-32. The mine schedule considers the initial mining of free-milling material from the Excelsior Open Pit and Zoroastrian Underground, before the refractory material from Aphrodite which commences in Year 3. This schedule shows an average 1.75Mt of ore mined each year, with a peak of 3.00Mt mined in year 6, when the Aphrodite Stage 2 Pit is in ore while the Bulletin and Aphrodite Undergrounds are in operation. Additional satellite pits not discussed within this PFS are available to be included to improve on the existing schedules.

Table 13-31: Bardoc Project Mining Schedule

Item	Unit	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	LOM
Open Pit	**kt**	***446***	***1,157***	***2,154***	***904***	***780***	***2,039***	***18***	***-***	***7,497***
	g/t Au	***1.1***	***1.3***	***1.6***	***1.6***	***1.9***	***2.4***	***3.7***	***-***	***1.8***
Aphrodite	kt	-	-	522	35	775	1,493	18	-	2,843
	g/t Au	-	-	2.3	1.6	1.9	2.5	3.7	-	2.3
Zoroastrian	kt	-	-	209	144	-	-	-	-	353
	g/t Au	-	-	1.6	2.2	-	-	-	-	1.8
Excelsior	kt	446	1,157	1,422	726	-	-	-	-	3,750
	g/t Au	1.1	1.3	1.4	1.4	-	-	-	-	1.3
Bulletin South	kt	-	-	-	-	5	546	-	-	551
	g/t Au	-	-	-	-	0.9	2	-	-	2
Underground	**kt**	***-***	***315***	***592***	***1,099***	***959***	***962***	***803***	***71***	***4,802***
	g/t Au	***-***	***2.8***	***3.3***	***3.6***	***3.6***	***4.3***	***4.7***	***4.6***	***3.8***
Aphrodite	kt	-	-	29	599	959	962	803	71	3,423
	g/t Au	-	-	3	3.3	3.6	4.3	4.7	4.6	4
Zoroastrian	kt	-	315	563	500	-	-	-	-	1,378
	g/t Au	-	2.8	3.3	4	-	-	-	-	3.4
Total	**kt**	**446**	**1,471**	**2,746**	**2,003**	**1,739**	**3,001**	**821**	**71**	**12,299**
	g/t Au	**1.1**	**1.6**	**2**	**2.7**	**2.8**	**3**	**4.7**	**4.6**	**2.6**

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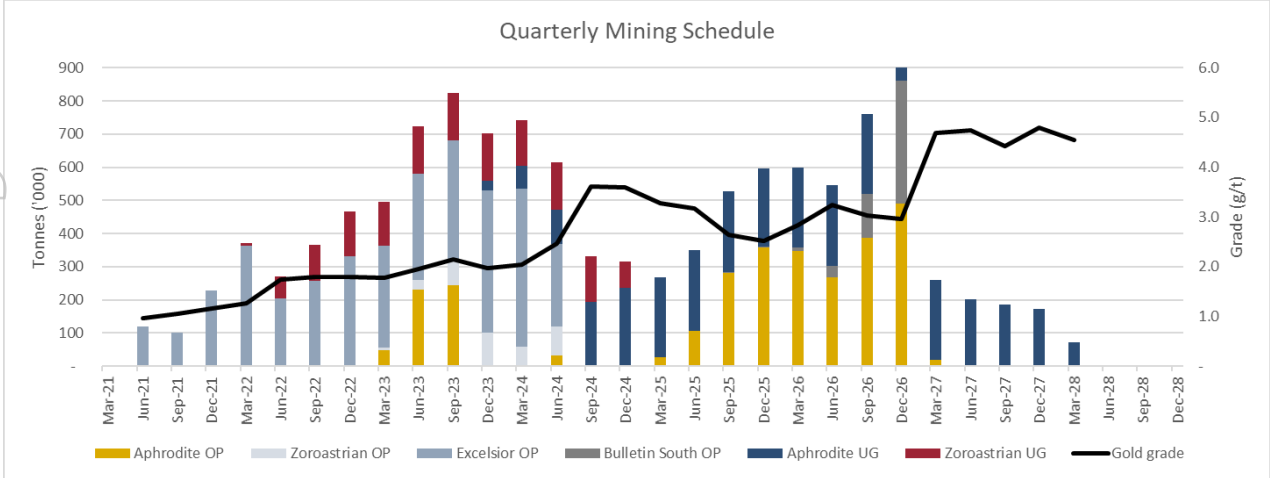


Figure 13.5-1: Bardoc Gold Project Mining Schedule (Quarterly) by Project

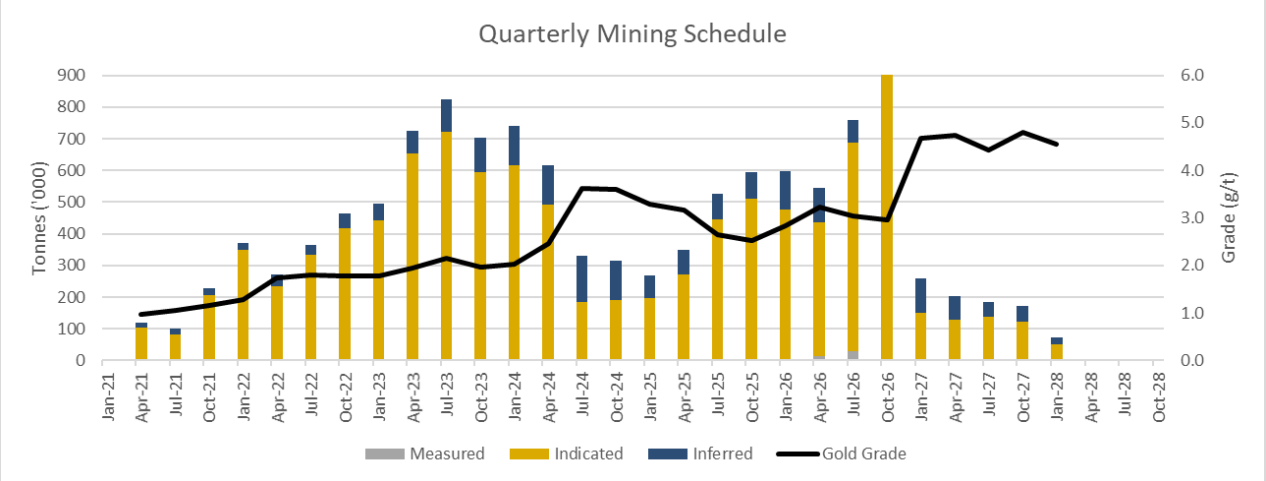


Figure 13.5-2: Bardoc Gold Project Mining Schedule (Quarterly) by Material Classification

Table 13-32: Bardoc Project Processing Schedule

Item	Unit	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	LOM
Open Pit	**kt**	***125***	***1,477***	***1,597***	***652***	***955***	***895***	***700***	***1,096***	***7,497***
	g/t Au	***1***	***1.3***	***1.6***	***1.6***	***1.8***	***1.7***	***2.4***	***2.4***	***1.8***
	% Recovery	***97%***	***97%***	***95%***	***95%***	***92%***	***93%***	***93%***	***93%***	***97%***
Aphrodite	kt	-	-	353	101	644	529	460	755	2,843
	g/t Au	-	-	2.3	2.2	2	1.9	2.7	2.7	2.3
	% Recovery			92%	92%	91%	91%	92%	92%	92%
Zoroastrian	kt	-	-	189	88	33	10	12	20	353
	g/t Au	-	-	1.6	1.9	2.4	2.4	2.4	2.4	1.8
	% Recovery			97%	96%	94%	94%	94%	94%	96%
Excelsior	kt	125	1,477	1,055	462	274	84	103	169	3,750
	g/t Au	1	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3
	% Recovery	97%	97%	97%	96%	96%	96%	96%	96%	97%
Bulletin South	kt	-	-	-	-	3	272	124	152	551
	g/t Au	-	-	-	-	0.9	1.6	2.2	2.4	2
	% Recovery					97%	98%	96%	96%	97%
Underground	**kt**	***0***	***315***	***592***	***1,099***	***959***	***962***	***803***	***71***	***4,802***
	g/t Au	***-***	***2.8***	***3.3***	***3.6***	***3.6***	***4.3***	***4.7***	***4.6***	***3.8***
	% Recovery		94%	94%	93%	92%	92%	92%	92%	***92%***
Aphrodite	kt	-	-	29	599	959	962	803	71	3,423
	g/t Au	-	-	3	3.3	3.6	4.3	4.7	4.6	4
	% Recovery			92%	92%	92%	92%	92%	92%	92%

Zoroastrian	kt	-	315	563	500	-	-	-	-	1,378
	g/t Au	-	2.8	3.3	4	-	-	-	-	3.4
	% Recovery	-	28.7	59.9	64	-	-	-	-	152.6
Total	**kt**	***125***	***1,792***	***2,190***	***1,750***	***1,914***	***1,857***	***1,503***	***1,167***	***12,299***
	g/t Au	***1.0***	***1.6***	***2.1***	***2.8***	***2.7***	***3.1***	***3.6***	***2.6***	***2.6***
	% Recovery	***97%***	***96%***	***95%***	***93%***	***92%***	***92%***	***92%***	***93%***	***93%***

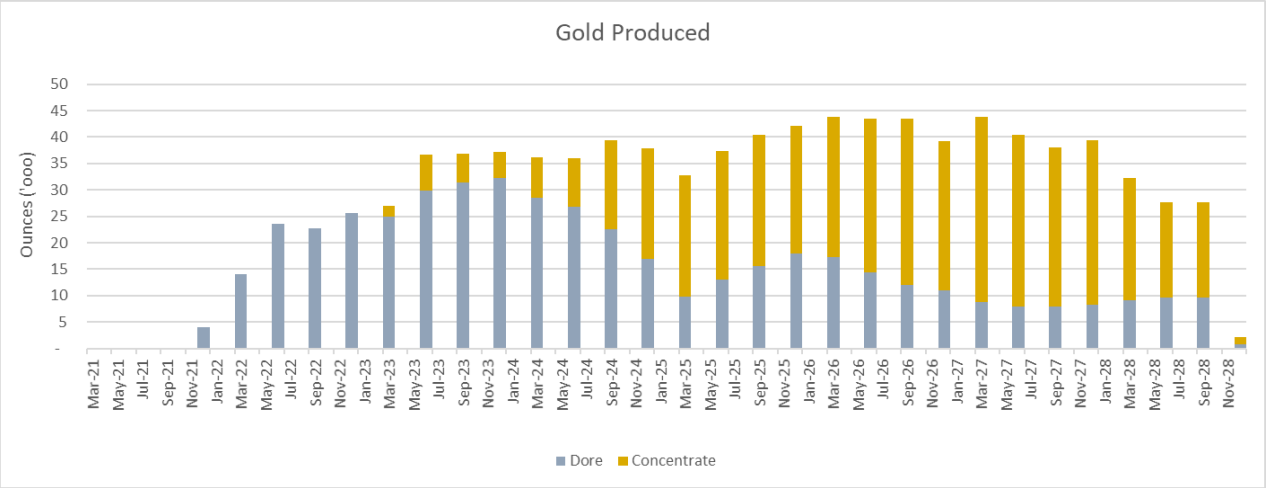


Figure 13.5-3: Gold Produced (Dore & Concentrate)

14 METALLURGY

In July 2018, the Company engaged Strategic Metallurgy to undertake metallurgical studies and testwork for the Bardoc Gold Project to a PFS standard. The works are intended to build on the current metallurgical body of knowledge, provide information for detailed process design and to facilitate selection of a "take forward" base case for mineral processing.

The works involved the following packages:

- Historical data review and gap analysis;
- Comminution testing to support process design;
- Flotation and tailings characterization; and
- Investigation of oxidation and CIL process conditions.

Testwork aims to improve the understanding of the metallurgical response, assist in flowsheet development and optimise precious metal recovery.

Each deposit has been tested at various points in time, however Aphrodite has been the focus of the process development program during the 2018 Feasibility Studies.

Historical testwork and operational results for Excelsior, Bulletin and Zoroastrian have demonstrated ore with free-milling characteristics. Aphrodite oxide and Alpha transitional material also demonstrate free-milling characteristics. Recovery from these ores has exceeded 90%.

Aphrodite Phi Transitional and Primary lodes are fine grained and intimately associated with pyrite and arsenopyrite and are therefore refractory. Initial PFS testwork investigated oxidative leaching processes available for the ore type, with Bardoc choosing to progress with a concentrate sale process.

Most of the test work was undertaken using Perth water, and further testwork will be completed in the DFS to further test the results using water from the Scotia Borefield.

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14.1 COMMINUTION

The results of the current and historical comminution results presented in the table below represents the 80th percentile design point. The ore is typical of greenstone belt ores and is moderately hard with softer oxidized/transitional zones.

Table 14-33: Comminution Testwork

Composite	Units	80th Percentile
UCS	MPa	75.1
CWi	kWh/t	8.02
BRWi	kWh/t	17.9
BBWi	kWh/t	16.1
Ai	kg/kWh	0.13
		20th Percentile
SMC (A x b)		35.4

14.2 CIL PROCESSING

Ore from the Excelsior, Zoroastrian and Bulletin deposits all exhibit typical free-milling responses to cyanidation with good gold recoveries. From Aphrodite, all the oxide and Alpha transitional material demonstrated free-milling recoveries. Recoveries were established based on the following criteria:

- Excelsior Oxide and Transition ores: fixed tail grade of 0.036g/t Au;
- Excelsior Primary ore: fixed tail grade of 0.06g/t Au;
- Zoroastrian Oxide and Transition ores: fixed tail grade of 0.05g/t Au (based on testwork averages on 14 samples taken during toll milling campaigns at Paddington);
- Zoroastrian Primary fixed tail grade of 0.31g/t Au applied to the ore component of the diluted mine blend, with the ore component of the blend having an undulated head grade of 4.91g/t Au;
- For open cut Zoroastrian Primary with a LOM feed grade of 2.32g/t Au this represents a diluted blend containing 42.8% ore, and a corresponding tail grade of 0.147g/t Au;
- For underground Zoroastrian Primary with a LOM feed grade of 3.44g/t this represents a diluted blend containing 70% ore (BDC), and a corresponding tail grade of 0.217g/t Au;
- Bulletin Oxide fixed tail grade of 0.04g/t Au (average of Excelsior and Zoroastrian Oxide);
- Bulletin Transition fixed tail grade of 0.04g/t Au (average of Excelsior and Zoroastrian Transition);
- Bulletin Fresh fixed tail grade of 0.103g/t Au (average of Excelsior and Zoroastrian Primary); and
- Aphrodite Free Miling Oxide and Free Milling Transition weighted 93% 0.175g/t Au and 7% 0.377g/t Au (grades resulting from Strategic Metallurgy calculations and weighted by proportion of Alpha North and Centroid gold units).

Table 14-34: Free Milling Recoveries

Ore Source	Mined Au Grade (g/t)	Au Recovery (%)
Excelsior Oxide	1.36	97.4
Excelsior Transition	1.40	97.5
Excelsior Primary	1.43	95.8
Zoroastrian Oxide	1.43	96.5
Zoroastrian Transition	1.87	97.3
Zoroastrian Primary	2.32	93.7
Zoroastrian Underground Primary	3.69	93.7
Bulletin Oxide	1.65	97.4
Bulletin Transition	1.82	97.7
Bulletin Fresh	2.55	95.9
Aphrodite Free Milling Oxide Open Cut	2.08	90.9
Aphrodite Free Milling Transition Open Cut	1.78	89.4

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14.3 FLOTATION

A number of flotation tests have been conducted on Aphrodite material. The tests have covered spatial variability samples as well as the respective lithologies at different locations. At this stage, no flotation test work has been conducted on Zoroastrian or Excelsior ore types.

All tests were typically conducted in Perth tap water at a primary grind size of P80 75µm. Testing typically focused on the production of a sulfide/ gold concentrate, with a particular emphasis on achieving gold recovery for the purpose of evaluating refractory ore processing techniques, however additional test work was completed to focus on a marketable concentrate.

The flowsheet utilises conventional flotation techniques using potassium amyl xanthate (PAX) and copper sulfate to activate and float iron sulfides. A precious metal specific di-alkyl-di-thiophosphinate promoter (3418A) was used in some cases to improve recovery of gold from transitional samples.

Testwork programs were averaged to provide a grade recovery relationship reflecting the calculated head grade of 3.35g/t Au, as shown in Table 14-35:

Table 14-35: Extrapolated LOM Grade Flotation Data

PRODUCT	Weight	Gold		Arsenic		Sulfur	
	%	g/t	%dist	%	%dist	%	%dist
Cleaner Conc 1	1.89	101.47	54.40	1.90	35.92	37.60	71.78
Cleaner Conc 1 to 2	3.24	85.31	78.41	1.99	64.45	28.45	93.12
Cleaner Conc 1 to 3	4.44	68.71	86.58	1.77	78.82	21.30	95.57
Cleaner Conc 1 to 4	5.83	54.04	89.39	1.44	83.77	16.37	96.42
Ro Conc 1 to 5	8.53	38.60	93.43	1.07	91.57	11.36	97.91

Bardoc are in discussion with potential offtake partners who have expressed interest in the concentrate product. Confidential indicative concentrate sales terms have been provided as part of these discussions 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 pre-feasibility.

The concentrate recovery was optimised on the concentrate sales terms, as shown in Figure 14.3-1, which resulted in an overall recovery of 92.1% at a 3.5% mass recovery.

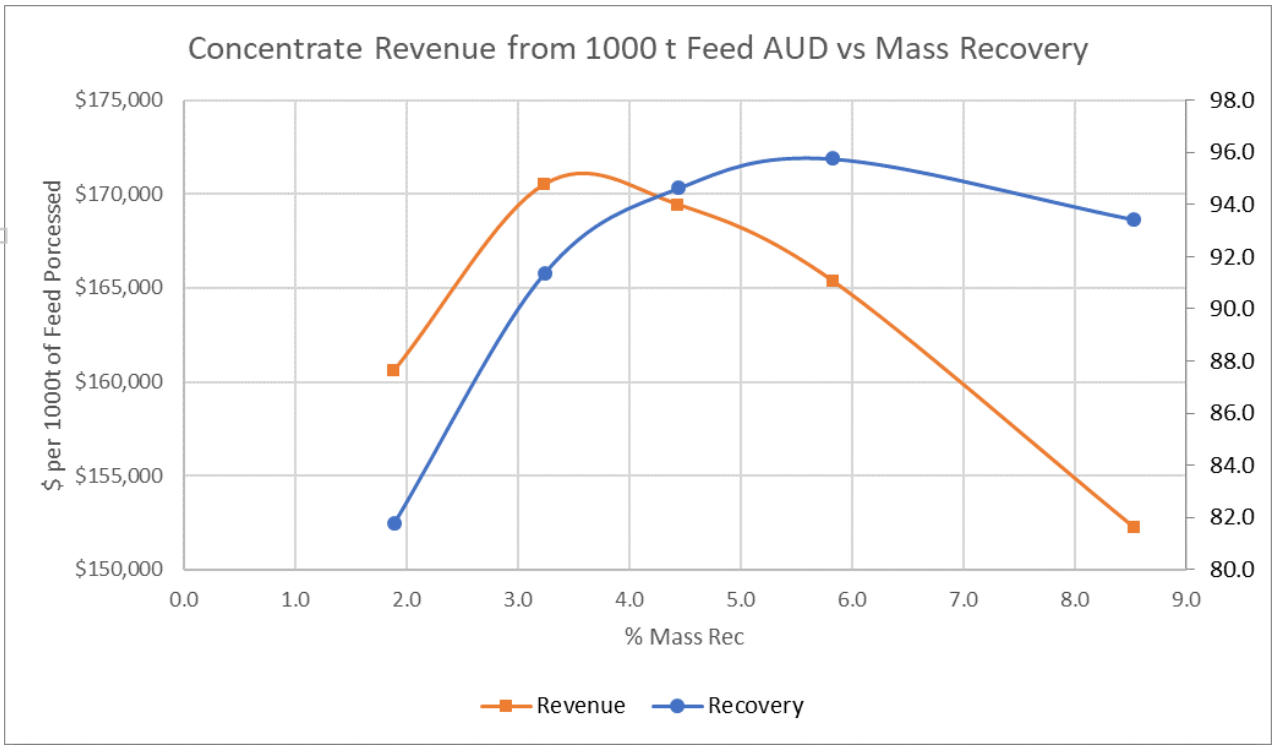


Figure 14.3-1: Concentrate Revenue and Recovery at LOM Grade 3.35 g/t

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15 PROCESS PLANT

The Bardoc Processing Plant is designed to treat both free-milling and refractory ore. The plant will be designed in two stages. Stage 1 will consist of CIL processing, while Stage 2 is an upgrade to the flotation circuit to feed the Aphrodite refractory material to be mined in month 26.

Concentrate generated from the flotation circuit will be sold into a concentrate sale agreement.

The Bardoc Stage 1 Processing Plant has been designed to treat free-milling ore from multiple sources. The plant design is based on a targeted throughput of 1.5Mtpa. The throughput rate, based on 8,000 operating hrs per annum (91.3% availability), is 187.5t/h.

The circuit comprises of:

- Primary Jaw crushing capable of operating at a nominal rate of 214t/h with a 20% surge allowance increasing this to 257t/h. The crusher product size is targeted at 80% passing 125mm to provide suitable lump size for autogenous grinding;
- A SAG Mill which is a 6.7m diameter by 2.85m long high aspect SAG Mill powered by a 2,500kW variable speed motor achieving a consistent grind of P80 of 75um;
- A Ball Mill which is a 5.0m diameter by 7.3m long ball mill driven by a 3,300kW variable speed motor. A 12mm aperture polyurethane trommel screen will remove oversize and deposit it into the scats bunker;
- A pebble crusher which is a HP200 crusher (or similar) fitted with a 132kW motor and operated with a closed sized setting of 13mm Classification with cyclones and gravity separation which discharges into the SAG mill feed conveyor;
- CIL comprising of six simultaneous leach and adsorption tanks. The total circuit residence time will be 24 hours comprised of 6 x 1,200m3 tanks (live volume). Each tank will have height of 13.3m and a diameter of 11.2m including (1m freeboard). Intensive gravity leaching and electrowinning recovery of gravity gold; and
- 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.

Stage 2 will require the addition of the following circuits:

- Flotation and Concentrate Thickening;
- 2-Stream Courier on Stream Analyser;
- CIL Feed thickener;
- Cyanide destruction of recycled process water streams;
- Flotation reagent and service upgrades;
- The CIL and Elution circuits will be operated as required dependent on the flotation tails grade and cyanide recoverable gold; and
- Operation of the gravity leach solution may be warranted as any bullion recovered by this means will have a faster and higher payability than if the gold reports to the flotation concentrate.

The Process Plant general arrangement and process flow sheet is shown in Figure 14.3-2 and Figure 14.3-3.

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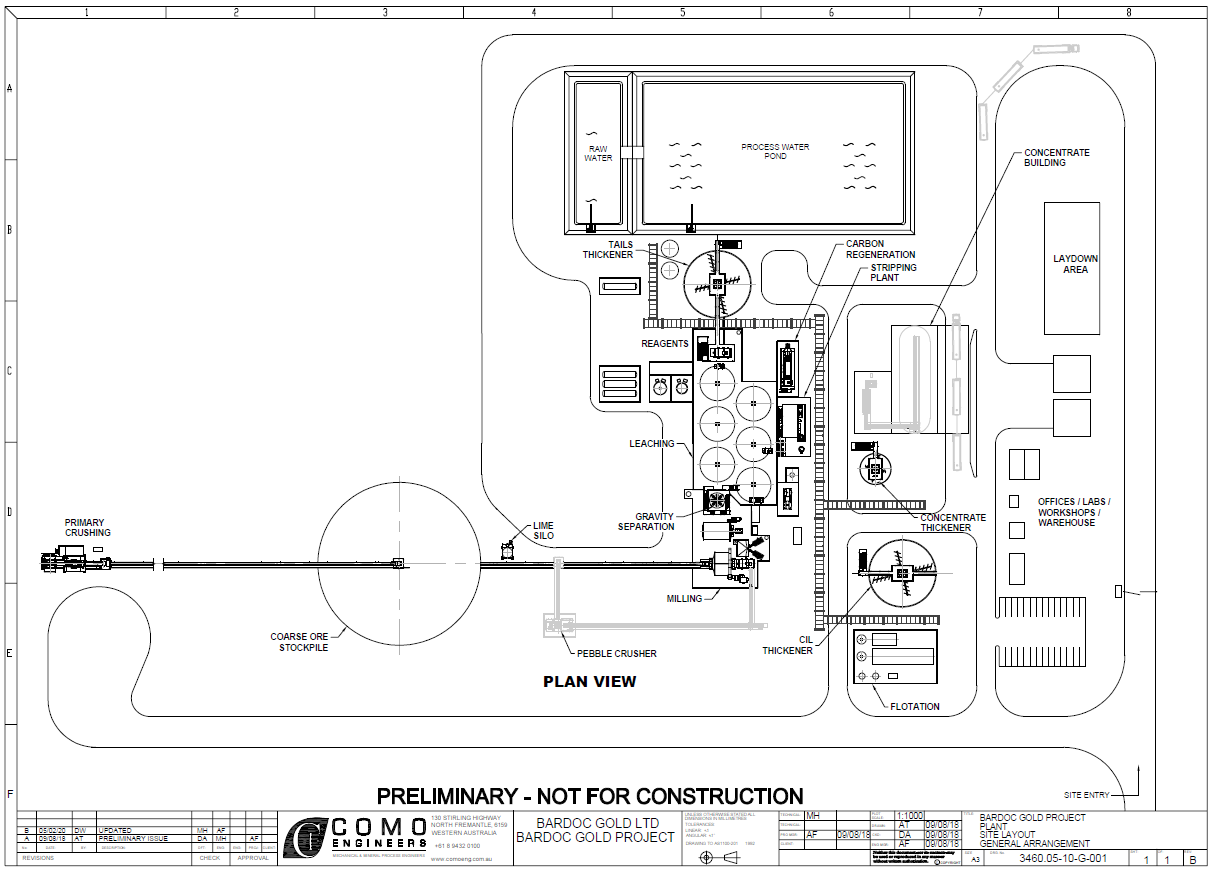


Figure 14.3-2: Process Plant General Arrangement

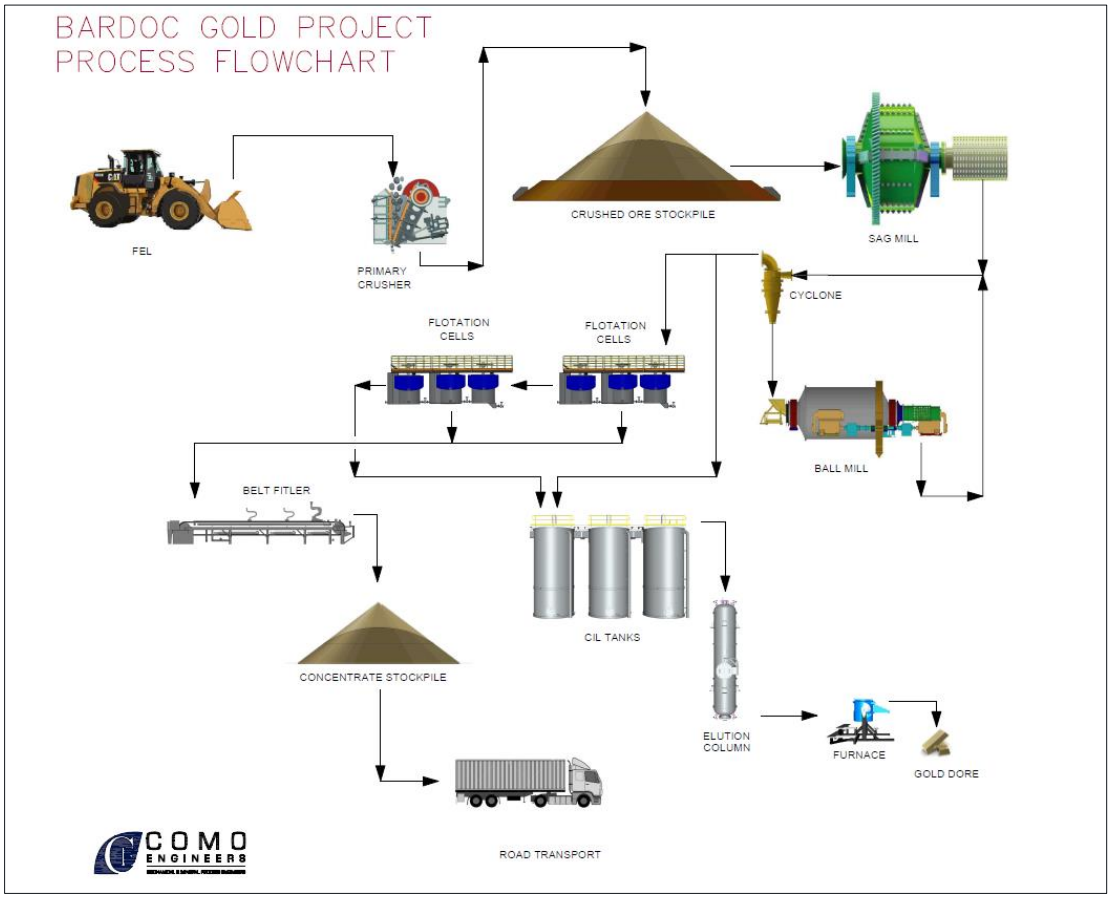


Figure 14.3-3: Process Flow Sheet

16 TAILINGS STORAGE FACILITY

The Bardoc Tailings Storage Facility (TSF) was designed by Knight Piésold in accordance with the Department of Mines, Industry Regulation and Safety (DMIRS) guideline on "The safe design and operating standards for tailings storage" and The Australian National Committee on Large Dams (ANCOLD) guideline on "Tailings dams planning, design, construction, operation and closure", to have a capacity of 13Mt of non-reactive dry tails over 11 years and 0.5Mt of reactive dry tails over 7 years. This provides an additional 1.5Mt capacity on current Life of Mine.

The TSF is designed to integrate into the existing de-commissioned TSF on the west side of Goldfields Highway and adjacent, to the west of the proposed process Plant Site, comprising three adjacent paddock storages, designated as Cell 1, Cell 2 and Cell 3 with a combined catchment area of 54ha:

- TSF Cell 1 – Integrated into the existing TSF (decommissioned) with an expanded footprint to the west to form a paddock cell with decant against the east embankment (divider embankment of Cell 2).
- TSF Cell 2 – Integrated into the existing TSF (decommissioned) with an expanded footprint to the north to form a paddock cell with decant against the west embankment (divider embankment of Cell 1). The south portion of Cell 2 footprint occupies the area of the existing decommissioned TSF in the north. The initial Cell 2 basin footprint in the north is at ground elevation, approximately 10m lower to the existing decommissioned TSF tailings surface.
- TSF Cell 3 – On top of the existing TSF (decommissioned) footprint in the south (remaining footprint) to form a paddock cell with a central decant.

The three cells will be operated as separate cells for two tailings streams as follows:

- Non-reactive tailings: 13.04Mt total over 8 years with an annual throughput in the range of 0.54Mtpa to 1.5Mtpa; and
- Reactive tailings: 0.47Mt in total over 7 years with a throughput in the range of 0.05Mtpa to 0.1Mtpa (production commencing in Year 3).

The reactive tailings stream is approximately 3.5% of the total tailings production and, at this stage, the two tailings streams have been considered independently, based on expected geochemical characteristics and TSF lining requirements.

The TSF design incorporates a lined basin area (compacted soil liner for non-reactive tailings of Cell 1 and Cell 2 and composite liner for reactive tailings of Cell 3), full basin underdrainage system (to reduce seepage) and upstream toe drain (to lower the phreatic surface in the embankment). The upstream toe drains and underdrainage system drain by gravity to a collection tower/sump located at the upstream toe of each embankment. Supernatant water will be decanted from the facility via a decant tower located within the central part of the basin. Solution recovered from the underdrainage and decant systems will be pumped back to the plant for re-use in the process circuit. No emergency spillway is required due to excess pond storage capacity.

Tailings, at 55% solids and density of 1.28-1.59t/m^3, will be discharged into the facility by sub-aerial deposition methods, via spigots spaced at regular intervals. The active tailings beach will be regularly rotated around the facility so as to maximise tailings density and evaporation of water. Deposition will occur from the external embankments of Cell 1 and Cell 2, and perimeter for Cell 3, pushing the pond towards a central decant.

Due to elevation difference of Cell 2 basin in the north (lower) and south (top of the existing decommissioned TSF), two deposition phases are planned for Cell 2 as follows:

- Phase 1 – Initial tailings deposition is to fill the void formed from construction of the embankment integrating into the existing decommissioned TSF. Cell 2 will be operated as void storage until Stage 4, when tailings level reaches the existing decommissioned TSF level. Subsequently the north basin

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footprint (void) will merge with the south basin footprint to form Cell 2. The completion of the void deposition enables Phase 2.

- Phase 2 – Tailings deposition will occur from the external embankments of the facility, similar to Cell 1 to push the supernatant pond towards the decant tower.

Seepage, stability, deformation and water balance analysis and a dam break assessment were performed as part of the development of the design. An allowance of temporary storage 0.5m has been designed to meet the 1: 100-year rainfall event.

The general layout of the TSF is shown in Figure 14.3-4.

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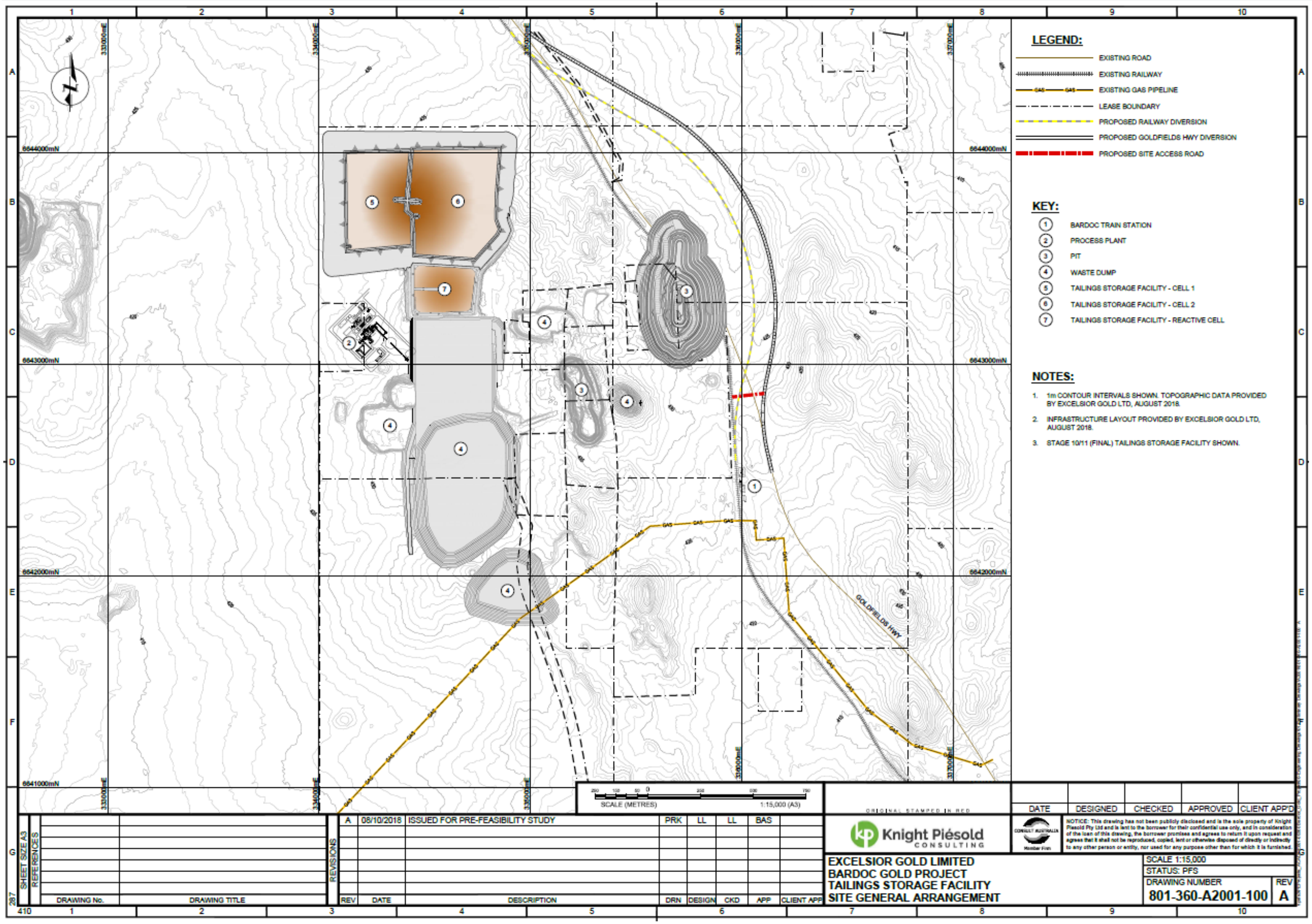


Figure 14.3-4: ***Tailings Storage Facility General Arrangement - Note location of Processing Facility not determined at time of assessment***

17 INFRASTRUCTURE & SERVICES

Excelsior, Zoroastrian and Bulletin 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 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 and Underground Mining Offices
- Changerooms and ablutions
- First aid facility
- Open Pit Workshop
- Underground Workshop
- Fuel Bay
- Washdown Pad
- Communications
- Explosives Magazine
- Water Tanks
- 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
- Underground Ventilation Primary Ventilation Fans

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Due to the relatively short life of mine at Bulletin (14 months) and the proximity of the pits to the Excelsior and Zoroastrian operation (8km), some facilities will be managed from the Excelsior mining centre.

The following outlines the infrastructure to be established at Bulletin:

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

Proposed infrastructure layouts for each of the sites are shown in Figure 14.3-5 to Figure 14.3-7.

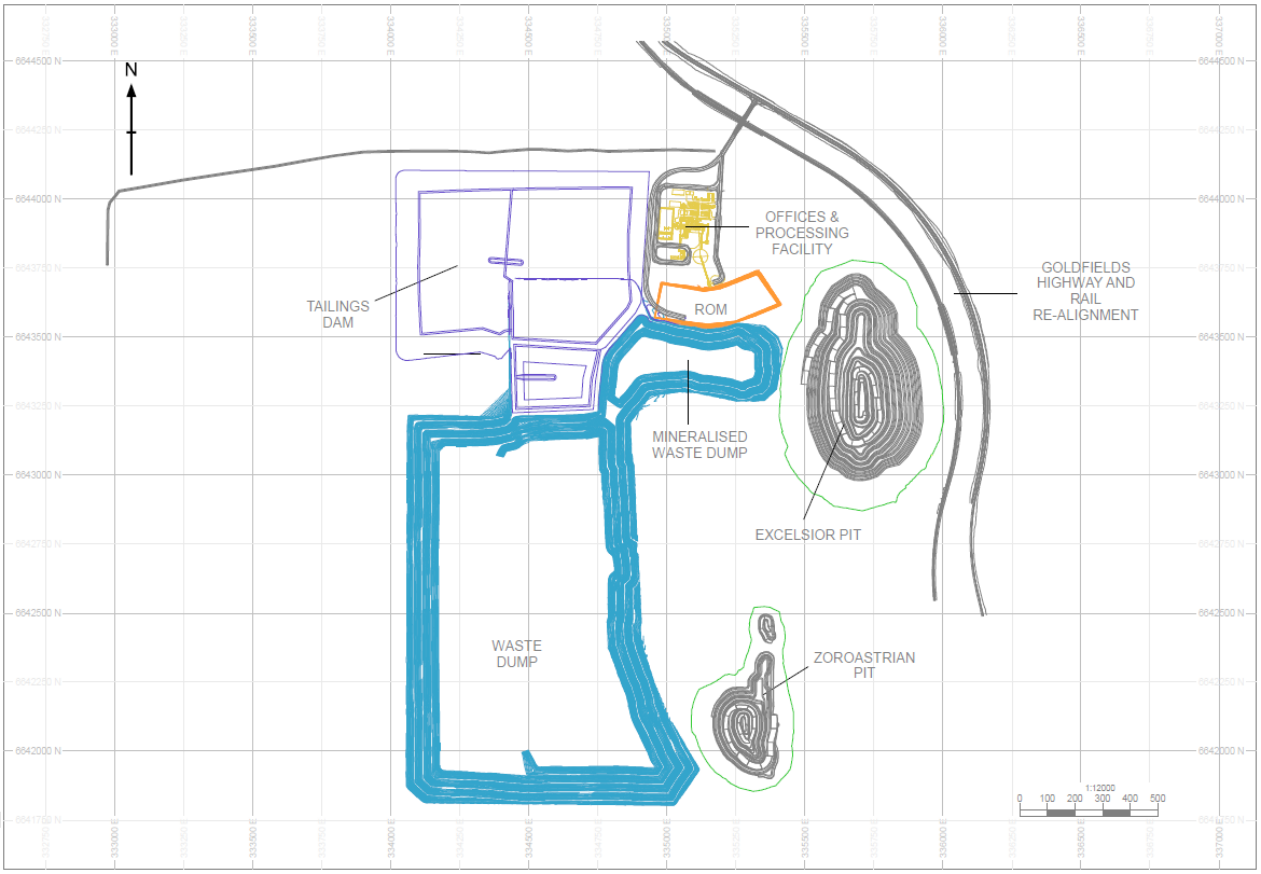


Figure 14.3-5: Excelsior and Zoroastrian Site Layout

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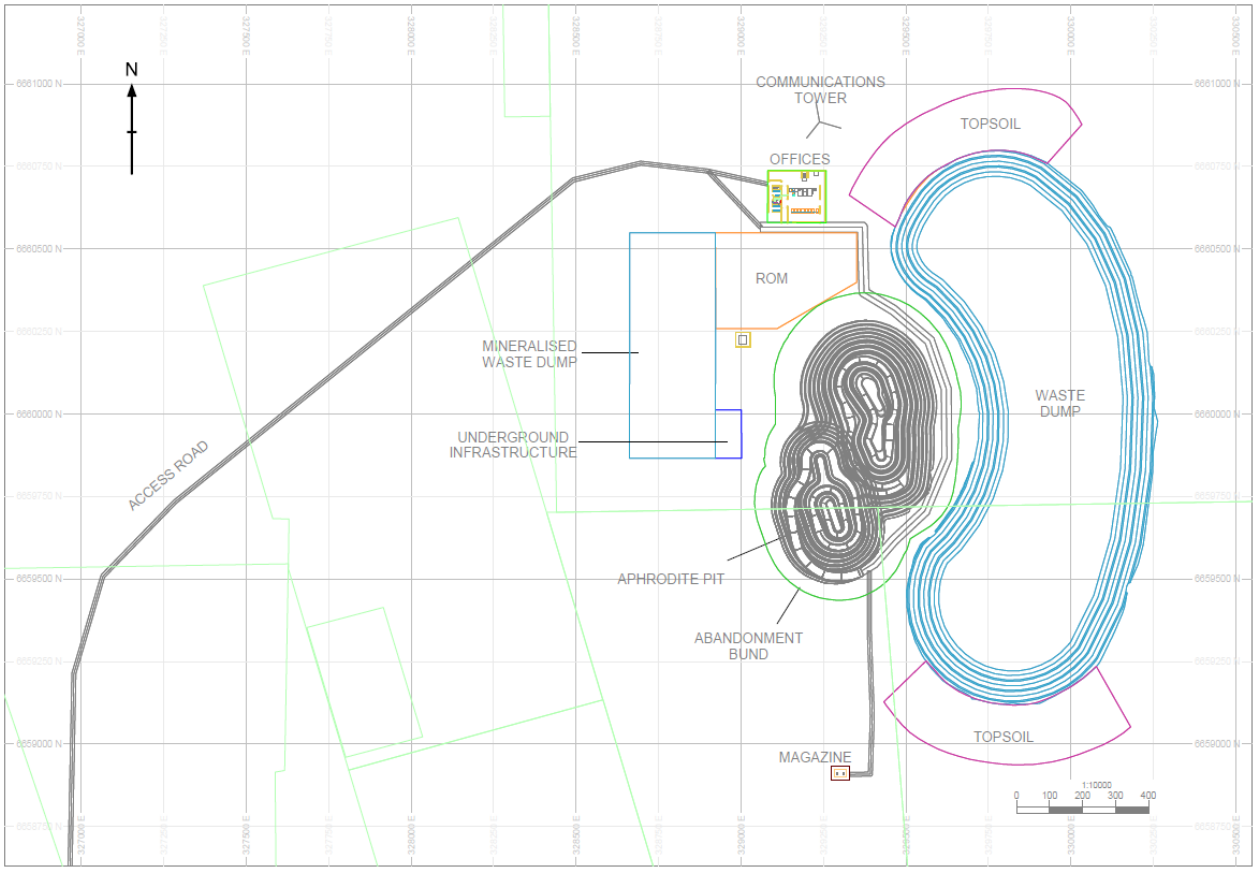


Figure 14.3-6: Aphrodite Site Layout

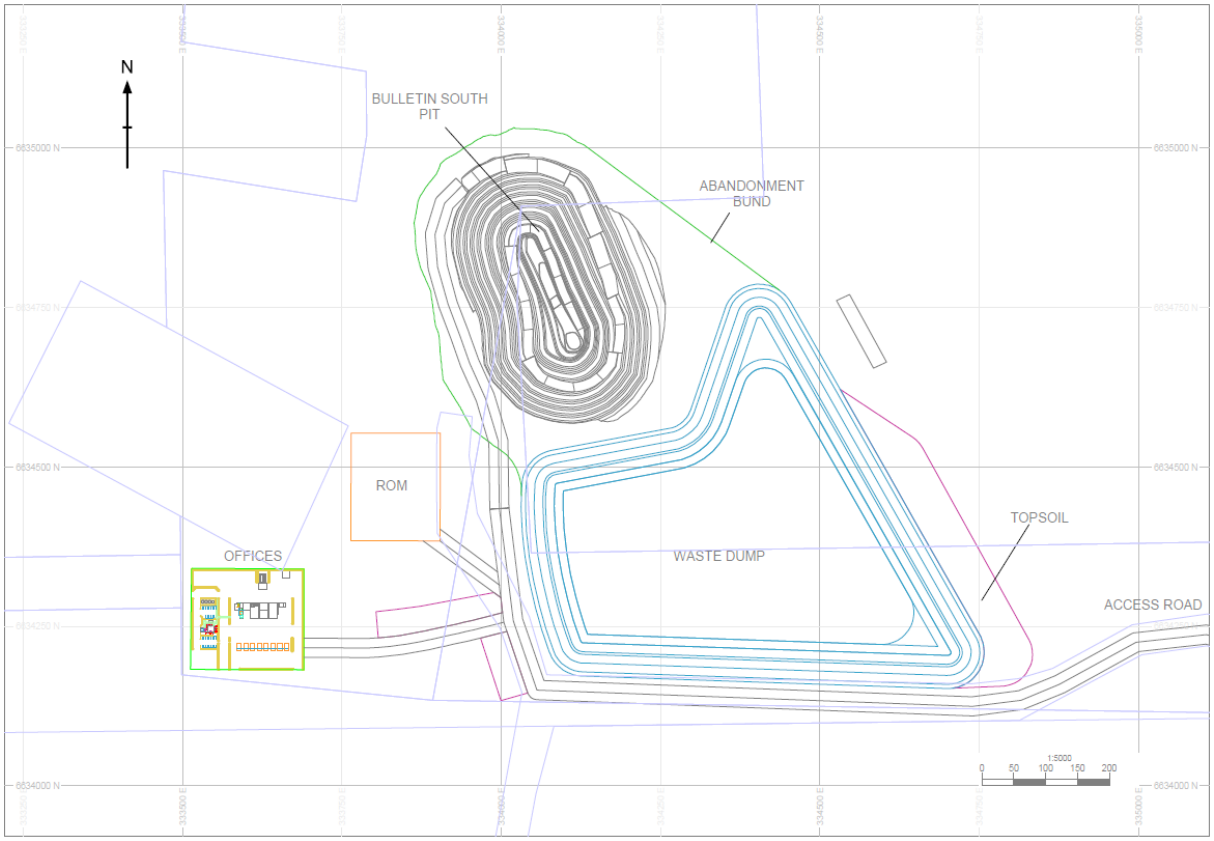


Figure 14.3-7: Bulletin Site Layout

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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. The intersection of the access road with the highway will be designed in accordance with Austroads Guide to Road Design, applying the relevant MRWA supplements. It will include provision for appropriate turn paths for light vehicle and road trains to service the operations.

Haulage from Aphrodite to the Processing Facility located at the Excelsior hub is proposed to be along the Goldfields Highway, and provision is required for this. The DFS will investigate the provision of a separate private haul road from the Aphrodite Project, crossing the Goldfields highway, to service larger capacity road trains to transport the Aphrodite ore.

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 3-4km section of the road and rail, as designed by SMEC, to accommodate the mining of the pit, as shown in Figure 17.1-1**Error! Reference source not found.Error! Reference source not found.**.

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 study.

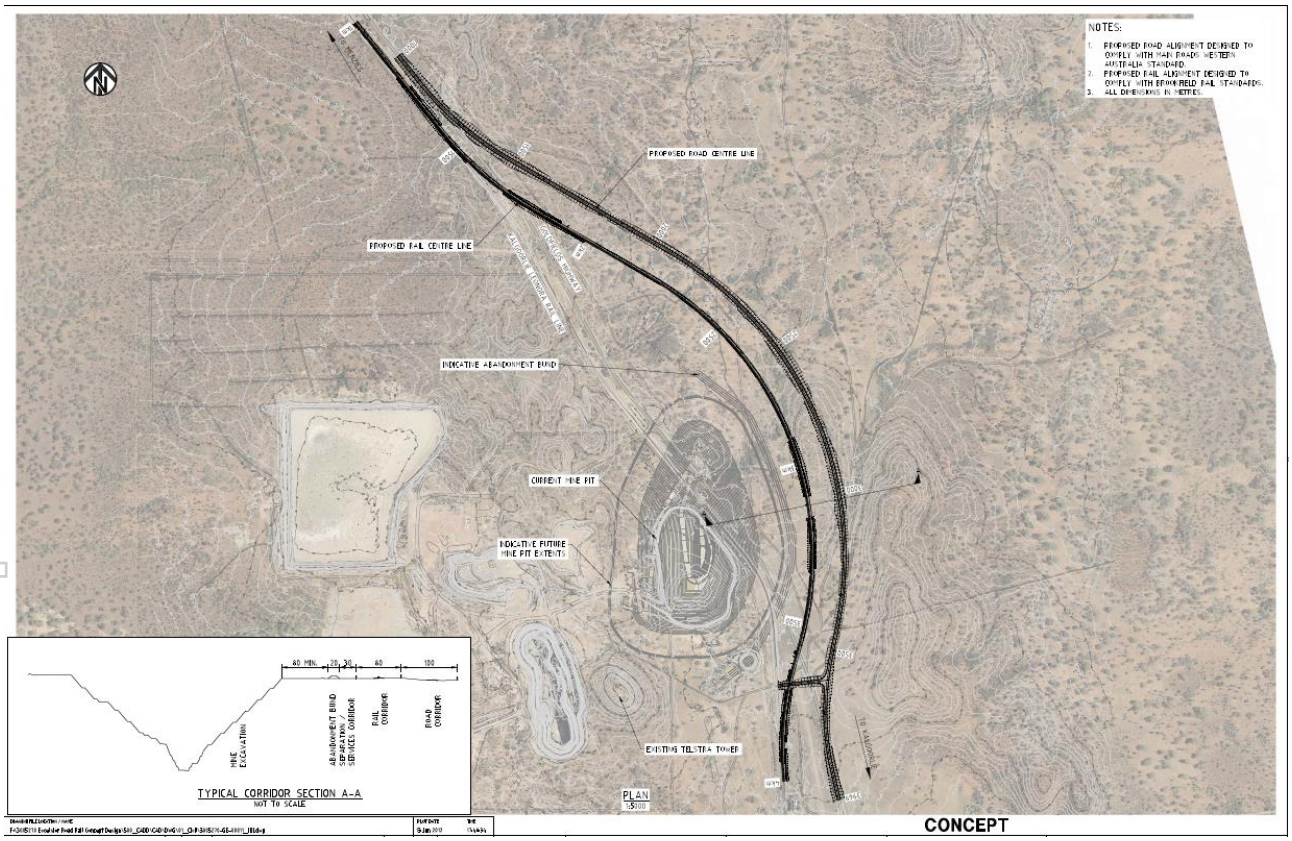


Figure 17.1-1: Preliminary concept re-alignment

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 Compressed Natural Gas (CNG) solution. This will yield an operating cost of 19.5c/kWh. This will utilise a gas power station with a CNG daughter station on site. The CNG is delivered by truck from Kwinana. There is a 7-day operating reserve in the daughter station. A 6-year contract exists with this option.

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. During underground mining operations, two 1,250kVa diesel gensets operated under a BOO arrangement will be installed, which has an n+1 provision for redundancy. The 1,250kVa gensets will be positioned above the Stage 1 pit with power delivered from 11KV cable to a 2.0MVa surface substation which will power the underground operations.

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 a standard relocatable workshop 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 Bulletin open pits and one for the Aphrodite open pit. The Excelsior workshop facility will be located for use at both the Excelsior and Zoroastrian Open pits and is proposed to be relocated to Bulletin as required.

The workshops will consist of:

- Main Workshop:
- 4 x 40’ sea containers with domed roof
- Maintenance workshop pad 12m x 12m
- Service Pad 12m x 12m
- 150kVa Genset

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- Air compressor
- Waste oil tanks
- Laydown area and tyre yard
- Drill Workshop
- 2 x 20’ sea containers and domed roof
- 1 x office building for drill and blast contractor
- Jacking Pad 12 x12m

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
- Laydown yard
- Go Line

The underground workshops will be located adjacent to the open pit workshops, to provide centralised facilities such as power, compressor, waste oil storage and bunding facilities however will remain separate from each other from use.

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

Telecommunications for Excelsior will be established by microwave via towers from Kalgoorlie and will be powered off the plant power supply.

Technology selected for this Project include:

- Plant and Mine Telephony;
- Site LAN Infrastructure;
- Microwave and Telemetry Linking;
- Server Virtual Environment; and
- Network Storage.

A communications tower will be installed at Aphrodite which will link directly to the Excelsior communications tower to provide telephone and internet services to the operation.

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18 WASTE ROCK MANAGEMENT

Characterization of representative waste rock samples from the Bulletin South, Excelsior and Zoroastrian deposits indicated that most waste components have low sulfide levels, negative net acid producing potential (NAPP) and are classified Non-Acid Forming (NAF).

Traces of fibrous material have been identified in fresh and weathered ultramafics in one drill core within the proposed southern extension to Excelsior pit. Fibrous materials have not been identified within Bulletin or Zoroastrian deposits.

Characterization of representative waste rock samples at Aphrodite indicated that there is Potentially Acid Forming (PAF) material in the Alpha and Phi Black Flag fresh rock as well as the transitional and oxide materials.

Volumes of PAF material are to be confirmed with subsequent testing; however, they 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.

19 WATER SUPPLY & MANAGEMENT

Groundwater Resource Management Pty Ltd completed a Pre-feasibility level study on the Bardoc Project. The study identified that the existing Scotia Borefield, which will require remediation prior to use, will provide the majority of raw process water to the processing plant. Comprising of seven bores, installed between 1985 and 1991 the bore yields range from 100 to 800 kL/day (1.1 to 9.2 L/s) and the salinity is highly variable, ranging from 55,000 to 110,000 mg/L TDS. The combined capacity of the borefield is 2,450 kL/day (28.4 L/s).

Additional water supply options for the Project have been identified and include two existing pit lakes (Botswana Locker and Jackorite pits), expansion of the Scotia Borefield and potential fractured rock targets near the Aphrodite pit.

20 ENVIRONMENT

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

Landform patterns comprise extensive sand plain, sub-parallel greenstone belts and breakaways often with extensive lower pediments which give way to level to very gently inclined sheet flood plains. Relief is subdued. There are no major river systems.

An assessment of risks to the Project identified 31 risk issues associated with environment and community, of which three were rated extreme requiring detailed action planning to avert major disruption to the Project:

- Failure to identify and manage legal and other compliance requirements;
- Poor company culture with respect to Health Safety Environment and Community; and
- Interference to the lifestyle values of nearby residents.

The nearest noise-sensitive public premise is Bardoc Station, homestead Lot 240, Goldfields Highway, Kanowna, situated 800m east of the Zoroastrian Pit. A compensation agreement with the owner of Bardoc includes 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 bunding to minimize the impacts of mining activities at the homestead.

The Project falls mainly within the Mt Vetters pastoral lease and the Company has entered into compensation agreements with the Mt Vetters Pastoral Lessee recognising the impacts of potential operations on pastoral operations.

A Native Title claim covering all Project tenements was registered on 3/08/2017 by Majorie May Strickland and Anne Joyce Nudding (Mudawongga; WC2017/001). Tenement applications since the registration date are subject to consideration under Native Title conditions.

While there are six registered archaeological sites on Company tenements, none are located on areas proposed for development.

There are no world heritage sites, places of national heritage significance, RAMSAR wetlands, 'Environmentally Sensitive Areas", or conservation areas within the Project area. The Emu land system is a Priority 3 Ecological Community (PEC). This occurs as a drainage system westerly from tenements associated with Aphrodite towards Lake Owen and includes Cane Grass Swamp. Preventive management of hydrocarbon spills and other contaminants at Aphrodite operations is required to ensure no discharge through drainage systems towards Cane Grass Swamp.

Several nationally threatened fauna species (including migratory species), as listed under EPBC Act, may occur including Mallee Fowl (Leipoa ocellata). There are active Mallee Fowl nests on Company tenements within 4km of Excelsior and referral under the EPBC Act will be required if nests are found on areas marked for disturbance.

The Project is in a region that supports a high diversity of terrestrial invertebrate species from Short Range Endemic (SRE) groups (spiders, particularly trapdoors; land snails, scorpions; pseudoscorpions; slaters; millipedes; and centipedes).

Four listed terrestrial invertebrate species occur in the subregion and may occur at the Project:

- Arid Bronze Azure Butterfly Ogyris subterrestris petrina (Critically Endangered);
- Inland Hairstreak Butterfly Jalmenus aridus (Priority 1);
- Trapdoor spider Kwonkan moriartii (Priority 2); and
- Trapdoor spider Idiosoma castellum (Priority 4).

No Threatened Flora taxa, listed under the Wildlife Conservation Act 1950, have been recorded within Project tenements.

Surface soils, which vary in depth from 10 to 40cm, are predominantly sandy loams to sandy clay loams with up to 60% fine to coarse gravel inclusions. All surface soils at Bardoc are non-dispersive, non-saline and suitable for rehabilitation.

The risk of environmental impact to the groundwater system and Groundwater Dependent Ecosystems 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.

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.

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21 CAPITAL COSTS

The total capital cost for the Project including the processing plant, site infrastructure and mining capital expenses are estimated at A$353.8M, including a A$24.5M contingency for processing plant and site infrastructure establishment, Table 21-36.

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$142.4M 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$10.7M.

Table 21-36: Pre-Productions vs Post-Production Capital Costs

Item	Amount (A$M)
Pre-Production Capital	**142.4**
Process Plant – Stage 1	73.3
Site Access / Infrastructure (Non – Processing)	15.9
OP Mining	53.2
UG Mining	0.0
Post-Production	**211.4**
Process Plant – Stage 2	22.6
OP Mining	67.3
UG Mining	95.0
Sustaining	20.6
Closure	5.9
Total Capex	**353.8**

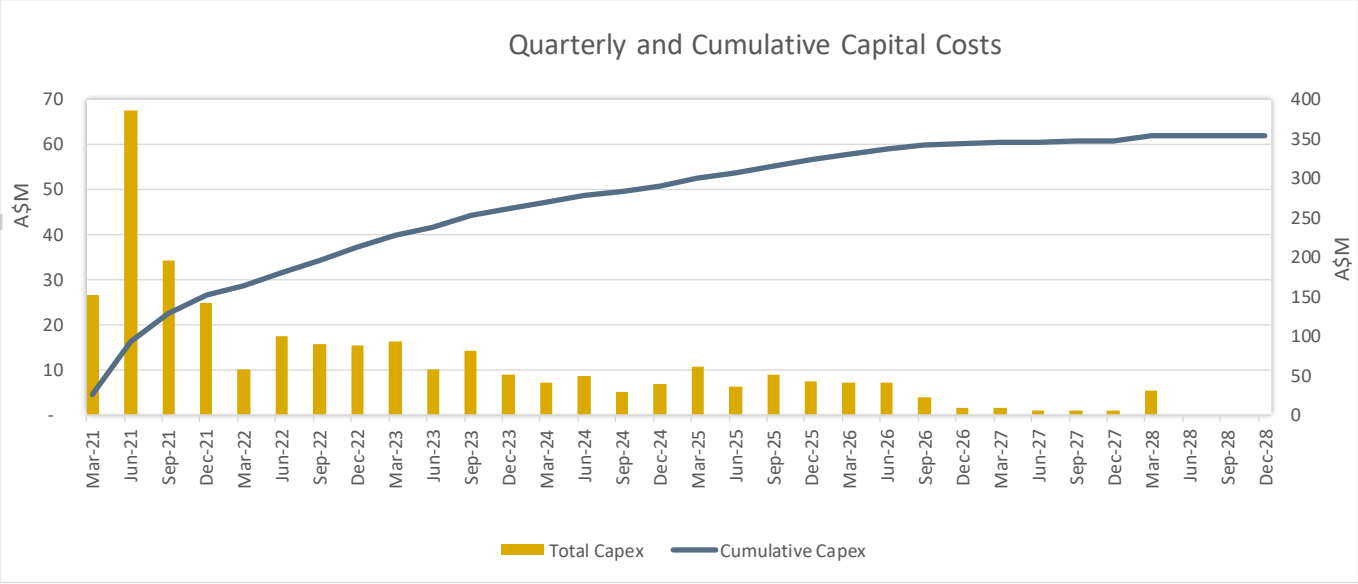


Figure 17.2-1: Quarterly and Cumulative Capital Costs

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22 OPERATING COSTS

The key operating cost estimates have been prepared by Entech mining, Como Engineering and the Bardoc Gold Project team. Mining costs, prepared by Entech, 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$1,220/oz. The operating costs are summarised in Table 22-37.

Table 22-37: LOM Operating Cost per tonne and per ounce of Ore Processed

Item	A$M	A$/t	A$/oz
OP Mining	201.1	16.4	211.4
UG Mining	309.5	25.2	325.3
Surface Haulage	29.3	2.4	30.8
Processing	343.6	27.9	361.2
G&A	47.4	3.9	49.8
C1 Cash Costs	**930.8**	**75.7**	**978.5**
Royalties	77.1	6.3	81.1
Sustaining Capex	152.9	12.4	160.7
AISC	**1,160.8**	**94.4**	**1,220.3**

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 22-38 includes transport, port handling, and container costs associated with shipping the concentrate.

Table 22-38: Concentrate Charges

Item	Unit	Amount
Total Concentrate Charges	**A$/t con**	**537.2**
Total Concentrate Charge	A$/t ore	18.8
Processing Cost & Float Tails CIL	A$/t ore	23.9
Total Cost	A$/t ore	**42.7**

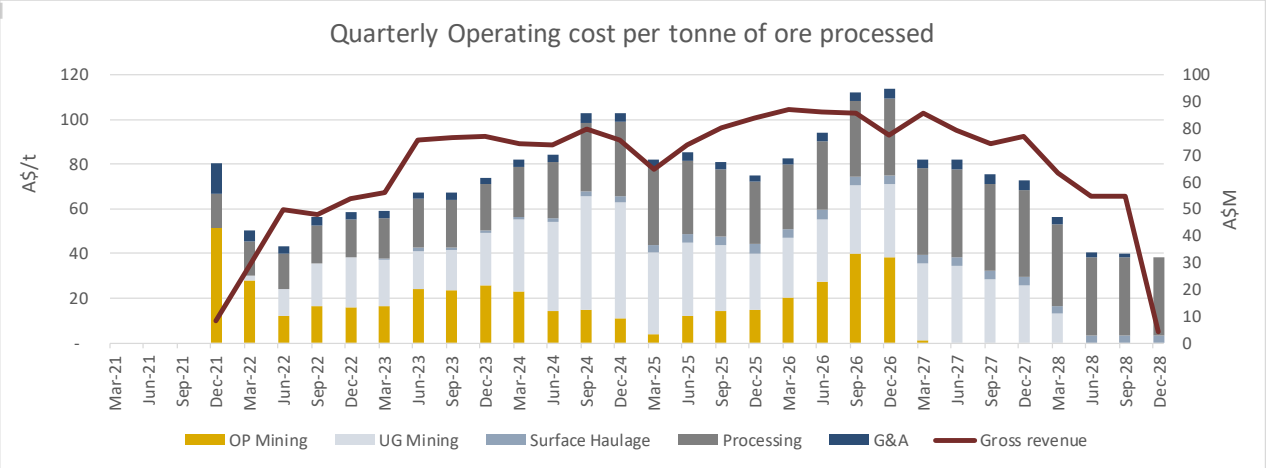


Figure 17.2-2: Quarterly Operating Cost per tonne of ore processed

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23 ECONOMIC EVALUATION AND SENSITIVITY

The financial assessment is based on a base case using a A$2,100/oz gold price (US $1,449/oz and a USD:AUD exchange rate of 0.69) which is 20% (+A$400) below current market spot price.

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 PFS, a discounted cashflow analysis was undertaken to generate a Net Present Value of the Project. At a gold price of A$2,100/oz and using an 8% discount rate the Project generates a Pre-Tax NPV of $332 million, an IRR of 32% and a payback period of 2.7 years from the start of production.

The Project financial returns and ratios shown in Table 23-39 below show that the Project is financially robust, generating positive post-tax NPV, high IRRs, strong revenue and payback periods (post-tax).

Table 23-39: LOM Financial Returns Summary

Mining	Unit	Value
Life of Mine (LOM)	Years	7.8
Mined Ore Tonnes	kt	12,299
% Indicated	%	83.4%
% Inferred	%	12.5%
% Unclassified	%	4.1%
Nominal Throughput	Mtpa	1.8
Processed Tonnes	kt	12,299
Avg Gold grade	g/t	2.6
Contained Gold	oz	1,021
Avg Gold Recovery	%	93%
Recovered Gold - Dore	oz	476
Recovered Gold - Concentrate	oz	475
Economic Assumptions	**Unit**	**Value**
Gold Price	A$/oz	2,100
Exchange Rate	A$:US$	0.69
Discount rate	%	8%
Cash Flow	**Unit**	**Value**
Gross Revenue	A$M	1,912
Royalties	A$M	77
Opex - Mining	A$M	511
Opex – Processing & Haulage	A$M	373
General & Administration costs	A$M	47
Pre-Production Capex	A$M	142
Process Plant & Infrastructure	A$M	89
Mining	A$M	53
Post-Production Capex	A$M	211
Process Plant Stage 2	A$M	23
Sustaining & Closure Capex	A$M	26
Capitalised Mining Costs	A$M	162
Net Cash Flow (Pre-Tax)	**A$M**	**551**
Corporate Tax	A$M	125
Net Cash Flow (Post-Tax)	**A$M**	**426**
C1 Cash Cost Per Tonne	A$/t	76
C1 Cash Cost per Ounce	A$/oz	978
AISC	A$/oz	1,220

Value Metrics	Unit	Value
Pre-Tax NPV_8[12]	A$'000	332
Pre-Tax IRR	%	32%
Pre-Tax Payback Period[13]	Years	2.7
Post-Tax NPV_8[14]	A$'000	252
Post-Tax IRR	%	27%
Post-Tax Payback Period[15]	Years	2.7

The quarterly and cumulative post-tax cashflow of the Project is shown in Figure 17.2-3. The Project is expected to generate A$426 million of free cash over the LOM.

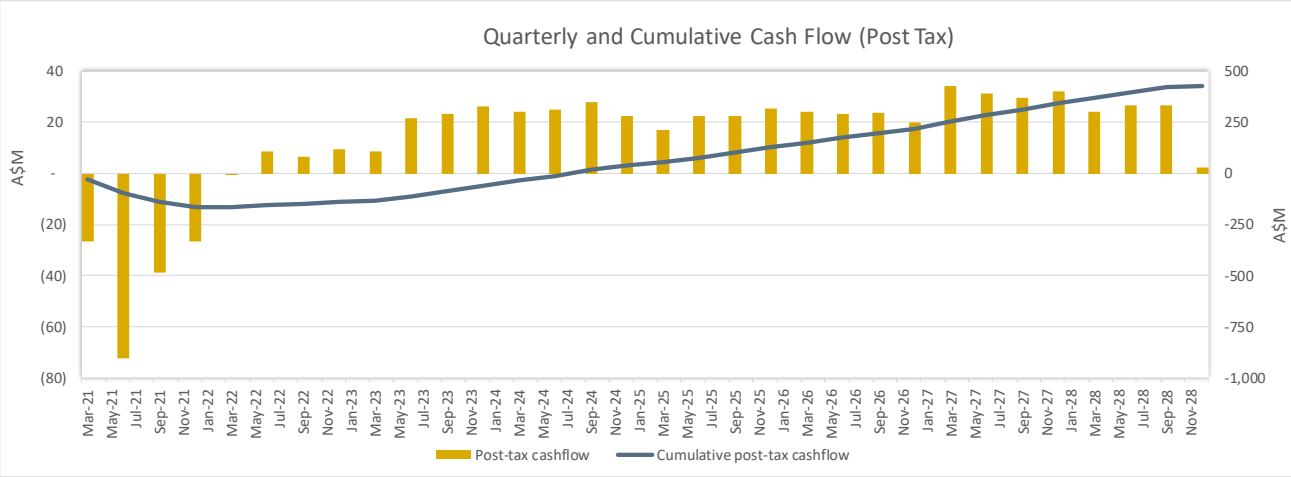


Figure 17.2-3: Quarterly post-tax cash flow

Figure 17.2-4 demonstrates how robust the Bardoc Gold Project is at a A$2,100/oz.

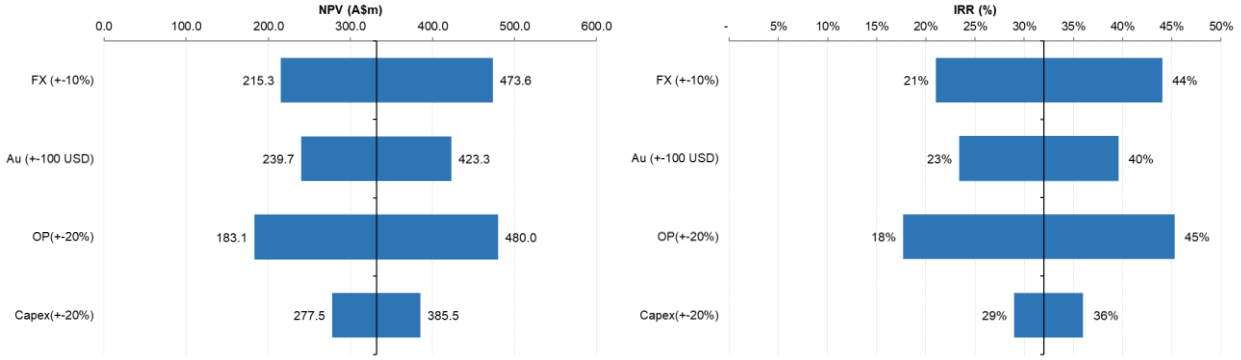


Figure 17.2-4: Key NPV and IRR sensitivities

Table 23-40 illustrates the NPV metrics for the Project under a range of Gold Price and exchange rate scenarios. Its 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.

[12] NPV calculated as at start of construction, Jan 2021.
[13] Calculated from the date of first production.
[14] [14] NPV calculated as at start of construction, Jan 2021.
[15] Calculated from the date of first production.

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Table 23-40: Variable Price and Exchange Rate Scenario Analysis

NPV Post-Tax		Gold Price (US$/oz)					
		$1,300	$1,400	$1,500	$1,600	$1,700	$1,800
A$:US$ Exchange Rate	0.6	277	353	428	503	577	652
	0.65	204	275	345	414	483	552
	0.7	142	207	273	337	402	466
	0.75	87	149	210	271	331	391
	0.8	33	97	155	212	269	326
	0.85	-20	47	106	160	214	267

24 PROJECT FINANCE

Project financing for the development of the Project has not yet been secured, which is typical for a PFS-stage project. However, Bardoc will initiate discussions with a number of financiers, and will advance these discussions through the Feasibility Stage (FS) over the coming months.

Potential funding instruments include the following:

- Equity;
- Senior-secured project debt finance;
- Secured corporate bond;
- Prepaid off-take agreements and other forms of off-taker financing; and/or
- Secondary secured (mezzanine) debt.

The Company has engaged BurnVoir Corporate Finance Ltd as its financial advisor for the development of the Project. BurnVoir is exploring and assessing these various avenues for funding on behalf of the Company.

Overall, the Company's Board considers that, based on the positive PFS, 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 $426M of free cash (post tax) 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_8 of A$252m, a robust IRR of 27.4% (above typical returns sought by investors of circa 20%) and pay-back period of 2.7 years;
- Total cash drawdown of A$165m which includes the A$142.4m pre-production capital and working capital;
- The Project is located in Tier-1 gold mining jurisdiction, approximately 55km north of Kalgoorlie and covering 250km^2 of land;
- The Project has multiple Resources with three cornerstone deposits (Aphrodite, Zoroastrian and Excelsior) and numerous smaller deposits which provide the potential for satellite operations and Resource growth;
- A large and growing Resource Base with approximately 3Moz comprising Measured (0.01Moz), Indicated (1.8Moz) and Inferred (1.2Moz) with significant Brownfield and Greenfield exploration potential;
- Bardoc has been able to raise over A$27 million last year to fund 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

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- 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 2019) of A$3.7 million, a further A$13.0 million invested in short-term investments, and no debt. Additional expenditure would be required to progress the Project to the completion of the FS, which will form the basis of the FID. The Company believes, on the same basis as noted above, that additional capital can be raised to complete this task if required.

25 RISKS & OPPORTUNITIES

Key risks identified during the 2020 PFS 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;
- Securing concentrate sale offtake; and
- Not achieving mining production rates, gold grade in orebody, recovery and dilution assumptions and metallurgical recovery rates.

Key opportunities identified during the 2020 PFS include, but are not limited to:

- Inclusion of other Bardoc Project Resources not currently investigated or included as part of this 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;
- Exploration success specifically at the newly acquired Mayday and North Kanowna Star deposits;
- Commencing production early and utilising toll treatment options in the goldfields; and
- Improved concentrate sales agreements.

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.

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Approved for release by:

ROBERT RYAN
Chief Executive Officer

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Competent Person's Statement – Exploration Results/Target

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.

Exploration Target[1]: *The potential quantities and grades are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve. Full details on the Exploration target are contained in the ASX announcement dated 25th February 2020 – "Further Drilling Success at Mayday North as Wide Gold Hits Confirm Strong Potential for Resource Growth".*

Competent Person's Statements – Mineral Resources

The Company confirms it is not aware of any new information or data that materially affects the information included in the 30 September 2019 Bardoc Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 30 September 2019.

Competent Person's Statements – Ore Reserves – Open Pit

The information in this report relating to Ore Reserves is based on information compiled by Craig Mann of Entech 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. Mann is employed by Entech Pty Ltd. Mr Mann consents to the inclusion in the document of the information in the form and context in which it appears.

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 study manager 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.

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APPENDIX 1

JORC Code, 2012 Edition – Table 1 report - Aphrodite

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	**Historic** • The Aphrodite Gold drill sample data has been collected by various exploration companies between 1992 and 2018 Drilling programs included Rotary Air Blast (RAB), and Reverse Circulation (RC) Diamond (DD) drilling techniques. All RC sampling to industry standard using rig mounted cone or riffle splitters to collect +2.5kg sample for assay be certified laboratories. Core samples generally half core, sawn and sampled at 1m intervals. Some sampling to intervals of geological interest. **Spitfire** • About 80% reverse circulation chips and 20% half or quarter core. • Chips over 1m rotary or riffle split on site to ~3kg and core was sawn on 1m intervals. • Continuous sampling below unmineralised overburden layer. • Chips crushed to 3mm then 2.5kg pulverized, core crushed and pulverized entirely. • Standard 50g fire assay (84%), AR digest on unknown (16%). **Bardoc Gold** • Reverse circulation drilling used to obtain sample every 1m. 4m composite sampling in upper unmineralised portions of holes. Samples of approx. 3kg were pulverized to produce a 50g charge for fire assay • Half core (mostly NQ, occasional HQ) samples of 1m length or less in areas of geological interest. Samples crushed, pulverized and 50g charge extracted for fire assay
Drilling techniques	• *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).*	**Historic** • RC drilling 5.5" diameter. Diamond core predominantly NQ diameter, minor HQ diameter. **Spitfire** • Reverse circulation (80%) and HQ or NQ core (20%) • Aircore and rotary air blast holes excluded from resource estimation. **Bardoc Gold** • Reverse circulation drilling (146mm diameter) using face sampling hammer and HQ and NQ diamond drilling. Rock Roll used to drill through upper, un-mineralised transported sediments prior to casing off with HQ
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	**Historic** • Chip recovery not documented for historic drilling. • Core recoveries recorded • **Spitfire** • All core measured in tray for recovery. • Generally high core recovery recorded. • RC chip recovery in recent drilling recorded by weight but not recorded in most historic drilling (prior to 2010). • No observed relationship between recovery and grade. **Bardoc Gold** • Diamond core recovery was measured for each run and calculated as a percentage of the drilled interval, in fresh rock, the core recovery was excellent at 100% • Size of RC sample piles monitored during drilling. Sample weight recorded by laboratory.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	**Historic** • RC and Core logging completed to a level that supports Mineral Resource Estimation. • Logging both qualitative and quantitative • All core and RC chips logged • **Spitfire** • All core and chip intervals geologically logged. • Logging includes lithologies, alteration, mineralization, colour, oxidation, regolith, moisture, and percentage sulphide and veining. • Purpose drilled core holes for metallurgical and geotechnical data collection.

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Criteria	JORC Code explanation	Commentary
		• **Bardoc Gold** • All core and chip intervals geologically logged. • Logging includes lithologies, alteration, mineralization, colour, oxidation, regolith, moisture, and percentage sulphide and veining. • Core is orientated to facilitate structural measurements.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**Historic** • Core was half sawn for original sampling and quarter sawn if duplicates were taken. • Sampling by riffle splitting or cone splitting directly off RC rig cyclone • Where composite samples were taken the individual riffle split samples were spear sampled to form the composite. • Wet samples (rare) were spear sampled • Sampling techniques are appropriate for the nature of the deposit • RC field duplicate and core samples were analysed with original samples and precision results were adequate. • **Spitfire** • Core was half or quarter sawn depending on program. • Chips were rotary or riffle split depending on drill program. • Duplicate field samples taken from RC chips every 1 in 20 for recent drilling and well recorded. Duplicate sampling of sawn quarter core. • Duplicate analysis precision considered good. • Sample sizes are generally considered adequate for the material being sampled • **Bardoc Gold** • Core was half sawn using Almonte core saw by BDC field staff. • Chips were split using a cone splitter. Sample sizes are subjectively monitored and generally considered adequate for the material being sampled. • For RC and diamond cores standards and blanks are inserted into the sample stream to ensure sample quality and assess analysed samples for significant variance to primary results, contamination and repeatability. • Sample size is appropriate for grain size of material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	**Historic** • Nearly all RC and DD assays by 40g or 50g fire assay which is a total technique. • Blind field duplicates submitted as well as reference standards although documentation not always well preserved in historic programs due to ownership changes. • Limited programs of Interlab checks undertaken and not always well recorded. **Spitfire** • All samples assayed by Fire Assay with ICP finish for Au, and Peroxide Fusion Digest with ICP finish for As, S & Cu. Gold fire assay considered a total technique. • Majority of samples prepared and assayed by industry standard techniques for gold deposits using well established and certified laboratory services. • Recent checking of fire assays by bulk Leachwell and screen fire methods to guard against the possible presence of coarse free gold grains and to investigate refractory character of mineralization. • Blind field duplicates submitted as well as reference standards and blanks. • Interlab checks undertaken since 2010 **Bardoc Gold** • All samples assayed by Fire Assay with AAS finish for Au. Gold fire assay considered a total technique. • Certified reference material standards, 1 in 20 samples. • Blanks: Unmineralised material is inserted at regular intervals, as part of the CRM rotation and to check contamination during sample preparation. • Random pulp duplicates are taken on average 1 in every 10 samples by the lab (Lab Checks)
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Intersections of core have been observed by independent consultants, Model Earth Pty. Ltd. And numerous company personnel. • No specific twin hole program has been undertaken but there are numerous opportunistic twin holes that show reasonable grade correlation given the nature of the mineralization. • No adjustments have been made to assay data.

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Criteria	JORC Code explanation	Commentary
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**Historic** • Collar locations generally surveyed but techniques sometimes not recorded. • Core holes surveyed by north seeking gyro at regular intervals • RC holes downhole surveyed by gyro, electronic mutlishot or reflex single shot. • One program RC drilling suffered from instrumental errors on dip measurements. Holes were generally short (<120m) and surrounding holes did not exhibit significant dip deviation. • All drilling utilized AMG84, Zone 51 grid system • **Spitfire** • Downhole surveys by gyro, multi shot or single shot, generally on nominal 30m intervals. • Collars located by RTK DGPS by independent surveyor • Grid system based on AMG84 Zone 51 • Surface topography wireframe constructed from LIDAR survey. • Some historic hole collars set at nominal elevations and required minor adjustment to the topo surface. Any errors in this process are considered small and are not critical to the resource estimation. • **Bardoc Gold** • Downhole surveys by north seeking gyro every 6m for Diamond holes, single shot (magnetic) for RC every 30m. • Collars located by RTK DGPS by independent surveyor • Grid system changed to MGA94 Zone 51 • Surface topography wireframe constructed from LIDAR survey.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.*	• Data spacing is highly variable, particularly in deeper parts and lateral extremes of the mineralization where it may be sparse. • Well drilled areas are at a nominal 20m x 20m drill spacing, less well drilled areas are at 40m x 40m spacing. Grade and geological continuity can be established at his drill spacing. At wider drill spacing, geological continuity is well established and grade continuity less well so. • Continuity is appropriate for Mineral Resource Estimation and confidence is reflected in choice of classification
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Broad mineralizing structures are well recognized and sub-vertical to steep dipping. Mineralised sub-structures appear to be mostly parallel to broader zones. • Drill holes are generally oriented to be as perpendicular as possible to these structures, that is east or west orientation and inclined at approximately 60 degrees. • Some holes are oriented on north-south sections where an additional mineralised cross structure has been postulated.
Sample security	• *The measures taken to ensure sample security.*	**Historic** • Sample security procedures for historic operators unknown. **Spitfire** • Samples hand delivered in sealed bags to the sample preparation facility in Kalgoorlie and Perth. The laboratory then checks the physically received samples against a generated sample submission list and reports back any discrepancies. **Bardoc Gold** Samples hand delivered in sealed bags to the sample preparation facility in Kalgoorlie and Perth. The laboratory then checks the physically received samples against a generated sample submission list and reports back any discrepancies
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques for drilling by Aphrodite Gold (2010 to 2013) were reviewed by Tetratech Pty. Ltd in 2013. Procedures were to industry standard. • Internal audits of sampling techniques as well as data handling and validation was regularly conducted by Geologists as part of continuous improvement and review of procedures.

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• Aphrodite Gold is now a wholly owned subsidiary of Bardoc Gold Ltd. and has 100% ownership of 5 mining leases, 1 exploration licence and 2 prospecting licences that cover the project area. All are granted with the mining leases nearest expiry year being 2028. • There are no known environmental or heritage encumbrances in the immediate vicinity of the deposit which might impact on its exploitation.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Project has had many owners over more than 20 years and has been reviewed multiple times. Historic documents are not always available. • Drilling, geological, sampling and assay protocols and methods were to industry standard and adequate for inclusion in Mineral Resource Estimation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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.

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		• No exploration results are being reported in this release so there are no specific drill holes to report.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration drill data has been reported in this release, therefore there is no information regarding data aggregation. • Metal equivalents are not used
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Mineralisation at Aphrodite is interpreted to be hosted by shear zone and linking structures within the BTZ which trends about NNW. • Typically, the angular difference between the drillholes and mineralisation is about 35º, given the sub-vertical nature of the mineralised bodies. • Downhole exploration results are not reported in this release.
Diagrams	• *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.*	• See the body of the report for diagrams.
Balanced reporting	• *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.*	• The previous and current drilling was reported Spitfire Materials Limited (SPI) and Bardoc Gold (BDC). Individual drill hole results are not reported in this release.

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Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• *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.*	• 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. • Fresh rock samples are refractory in nature and in order to maximize gold recoveries, alternative processing methods to standard CIL/CIP are being investigated. • Arsenic and Sulphur are present in quantities that will require additional consideration of tailings disposal options.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Bardoc Gold is to continue with mine planning studies, including extensive metallurgical test work.

Section 3 Estimation and Reporting of Mineral Resources – Aphrodite Open Pit

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Various historic databases have been combined with recent drilling data (since 2010) to form a unified database held in a Datashed SQL database. Some metadata is missing for historic drilling programs.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Mr Ross Whittle-Herbert visited the site on two occasions during 2018 to view diamond drilling, core processing, geological logging and sampling procedures. All work was completed to industry standards.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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 • The use of historical drilling provides a level of uncertainty as the company cannot validate the collar location and downhole survey data. • The previous estimation (2017) was by recovered fraction modelling into very loosely interpreted wireframes. For this estimation it was considered appropriate to model the shears, given the recent increase in structural understanding. • The lithology units have been modelled using drilling data and consist of a north-south striking, sub-vertical sequence of sediments, volcaniclastics 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. • Structural continuity of the shear systems is extensive. The grade continuity within the shears is less continuous.
Dimensions	• *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.*	• Mineralisation within the 2 major shears extends 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.
Estimation and modelling techniques	• *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.*	• SPI 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. The wireframes for the open pit model were interpreted to a 0.3g/t cut-off grade. • 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

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	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		of 0.7m was chosen and any residual composites were averaged with the previous sample.
		• Given the sometimes relatively wide drill spacing, it was decided to undertake grade estimation for the open pit model using the non-linear Localised Uniform Conditioning ("LUC") method. This method is suited to estimating grades into SMU scale blocks from widely spaced data. The LUC method is not suited to an underground mining scenario as it implies a selectivity which is unlikely to be achieved by the anticipated underground mining method.
		• The following criteria were considered when choosing gold grade top cuts:
		  ▪ The coherence and stability of the upper tail of the gold grade distribution;
		  ▪ Visual inspection of the spatial location of outlier values;
		• The statistics show that in most cases there is only a small reduction in mean grade and variability following top cutting.
		• The LUC estimates were implemented using the Minestis™ software package before being transferred into a Micromine™ block model. Supervisor™ software used for geostatistics, variography and block model validation.
		• No consideration has been made to by-products.
		• Deleterious elements have not been estimated in this model but have been in the past.
		• The estimation panel size (for both the LUC and OK models) was 10mE x 20mE x 5mRL. For the LUC model 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 open pit 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, EXG has used the LUC method, which is suited to estimating the grade distribution of smaller blocks using wide spaced data.
		• Interpolation parameters – the search ellipse was aligned to the mineralised trend of each domain and oriented the same as the modelled rotations defined from the variography. A minimum of 8 samples and a maximum of 20 samples were used with a maximum of 6 samples per borehole. Three search passes were carried out, with the first having a maximum distance varying between 100 and 120m, depending on mineralised lode and defined by kriging neighbourhood analysis. For each successive run search distances increased and minimum samples decreased. Classification was used to mitigate risk associated with less well estimated blocks.
		• Validation was completed
		  ○ visually, comparing block estimated grades to local drilling and;
		  ○ Using swath plots on a N-S, E-W and depth and
		  ○ Comparing estimated grades to composite grades on a domain by domain basis.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were based on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The selection of mineralised domains has used geological factors such a logged alteration, quartz and sulphides in conjunction with a ~0.3g/t Au cut off which represents the full extents of mineralised shear in all modelled domains. • The open pit-able MRE has been reported from the LUC model above a 0.4g/t Au cut-off and above an RL which represents 215m below surface.
Mining factors or assumptions	• *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.*	• This LUC 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.

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Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The Aphrodite deposit has never been mined. However SPI has conducted metallurgical test work on all ore types. The refractory nature of the fresh (and some transitional) ores has prompted investigations into pressure oxidation (POX) and Albion ore processing methods for these ores. The preferred processing method at this stage is to use the Albion method and recoveries and operating costs will be based on this. Work to date indicates recoveries of up to 93% are achievable with the Albion process.
Environmental factors or assumptions	• *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.*	• At this time no issues are anticipated with waste and process residue handling that would be outside the regular operating conditions for mines of this type in the Eastern Goldfields.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Dry bulk density estimates have been made for mineralisation according to position within the oxidation profile and mineralised domain. • 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. • Where deemed appropriate, waxing of cores has been undertaken prior to measurement by water displacement.

Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*
	• *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).*
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*
		• The geological model and continuity of the mineralisation is currently reasonably well understood The LUC MRE's are 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.
		  ○ Indicated – Areas with drill spacing up to approximately ~40mE x 40mN and with reasonable confidence in the geological interpretation.
		  ○ Inferred – Areas with drill spacing up to ~80mE x 80mN.
		• There is a reasonable 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.
		• The Mineral Resource estimate appropriately reflects the view of the Competent Person

Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The current resource estimate is not independently reviewed at this stage.

Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the 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*
		• 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.
		• A number of measures were incorporated in the MRE's to provide confidence in the estimate:
		  ○ The estimates used top-cuts to restrict the influence of high grade samples without having a detrimental effect on metal content.
		  ○ Restricted search parameters
		  ○ Adoption of the LUC estimation method provides an estimate of tonnages and grades at the SMU scale which can be achieved during open cut mining.
		• The LUC block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.

	should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Aphrodite is previously unmined, there are no production records with which to compare this estimate to.

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Section 3 Estimation and Reporting of Mineral Resources – Aphrodite Underground

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Various historic databases have been combined with recent drilling data (since 2010) to form a unified database held in a Datashed SQL database. Some metadata is missing for historic drilling programs.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Mr Ross Whittle-Herbert visited the site on several occasions to view diamond drilling, core processing, geological logging and sampling procedures. All work was completed to industry standards.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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. • The use of historical drilling provides a level of uncertainty as the company cannot validate the collar location and downhole survey data. • The lithology units have been modelled using drilling data and consist of a north-south striking, sub-vertical sequence of sediments, volcaniclastics 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. • Structural continuity of the shear systems is extensive. The grade continuity within the shears is less continuous.
Dimensions	• *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.*	• Mineralisation within the 2 major shears extends 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.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	• 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 vein modelling tools. • 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. • An estimation completed in 2018 and an ID2 estimate, using the same composites and search parameters were used as comparisons to the current resource. • Estimation was completed using Ordinary Kriging using Micromine software • Variograms were generated using composited drill data in Snowden Supervisor v8 software. • Search ellipse dimensions and orientation reflect the parameters derived from the variography analysis and the Kriging Neighbourhood Analysis. • Sulphur and Arsenic were estimated with ID2 method using Micromine software • The following criteria were considered when choosing gold grade top cuts:

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	• *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• The coherence and stability of the upper tail of the gold grade distribution; • Visual inspection of the spatial location of outlier values; • The statistics show that in most cases there is only a small reduction in mean grade and variability following top cutting. • No consideration has been made to by-products. • The estimation panel size used was 10mE x 20mE x 5mRL. • Interpolation parameters – the search ellipse was aligned to the mineralised trend of each domain and oriented the same as the modelled rotations defined from the variography. A minimum of 8 samples and a maximum of 20 samples were used with a maximum of 6 samples per borehole. Four search passes were carried out, with the first having a maximum distance varying between 70m and 90m, depending on mineralised lode and defined by kriging neighbourhood analysis. For each successive run search distances increased and minimum samples decreased. Classification was used to mitigate risk associated with less well estimated blocks. • Validation was completed o visually, comparing block estimated grades to local drilling and; o Using swath plots on a N-S, E-W and depth and o Comparing estimated grades to composite grades on a domain by domain basis.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were based on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a ~1g/t Au cut off which represents the mineralised shear in all modelled domains. • The underground MRE has been reported above 2.5g/t Au cut-off and below 190m RL which represents 200m below surface
Mining factors or assumptions	• *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.*	• No minimum width is applied to the resource. Minimum widths are assessed and applied during the reserve process. • It is assumed that planned dilution is factored into the process at the mine planning stage
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The Aphrodite deposit has never been mined. However BDC has conducted metallurgical test work on all ore types. The refractory nature of the fresh (and some transitional) ores has prompted investigations into pressure oxidation (POX) and Albion ore processing methods for these ores. The preferred processing method at this stage is to use the Albion method and recoveries and operating costs will be based on this.
Environmental factors or assumptions	• *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.*	• At this time no issues are anticipated with waste and process residue handling that would be outside the regular operating conditions for mines of this type in the Eastern Goldfields.

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Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Dry bulk density estimates have been made for mineralisation according to position within the oxidation profile and mineralised domain. • 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. • Where deemed appropriate, waxing of cores has been undertaken prior to measurement by water displacement.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• 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. ○ Indicated – Areas with drill spacing up to approximately ~40mE x 40mN and with reasonable confidence in the geological interpretation. ○ Inferred – Areas with drill spacing up to ~80mE x 80mN. • 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. • The Mineral Resource estimate appropriately reflects the view of the Competent Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The current resource estimate is not independently reviewed at this stage.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• 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. • A number of measures were incorporated in the MRE to provide confidence in the estimate: ○ The estimate has used top-cuts to restrict the influence of high grade samples without having a detrimental effect on metal content. ○ Restricted search parameters • The block model estimate is a global estimate of tonnage and grade. • Aphrodite is previously unmined, there are no production records with which to compare this estimate to.

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
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	Bardoc Gold Mineral Resource as reported in September 2019 (refer ASX announcement Bardoc Gold Resource Hits +3Moz Underpinning Mining Studies and Next Phase of Growth 30 September 2019).
	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.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	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.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been*	A Pre-Feasibility Study carried out by Bardoc and independent consultants Entech provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.

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Criteria	JORC Code explanation	Commentary
	carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Pre-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$1,800 / oz (US$1,242/oz) was assumed for the Cut Off Grade calculations. The underground COG of 2.2 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. The open pit COG of 0.44 g/t Au and 1.14 g/t was applied to define ore and waste for non-refractory and refectory ore types respectively.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	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 underground ore reserve is planned to be mined using conventional underground mining methods. The mining will consist of Longhole open Stoping (LHOS) on 20m level spacing with voids remaining open and in-situ 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. 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. All material was 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.	Underground designs are based on geotechnical parameters provided by independent consultants Red Rock Geotechnical. Stoping was designed within the recommended HR parameters of: - Alpha Lode <400m depth HW/FW HR=14 ;Backs HR=7 - Alpha Lode >400m depth HW/FW HR=14; Backs HR=5.5 - Phi Lode <400m depth HW/FW HR=14 ;Backs HR=9 - Phi Lode >400m depth HW/FW HR=14; Backs HR=7 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. 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. Pit slopes have been designed based on geotechnical analysis by independent consultants Red Rock Geotechnical. 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.	A 10% waste (i.e. zero grade) dilution factor was applied to underground stoping and mine development. 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 2.5 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.	In-situ stope recovery was assumed at 90%; Stope recovery where rib pillars are required was 75%; Stope recovery on levels were sill pillars are left was 20%. It was assumed all development is fully recovered. Open pit ore had a 97% mining recovery applied.
	Any minimum mining widths used.	A minimum mining width of 2.5m was applied to underground stopes and

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Criteria	JORC Code explanation	Commentary
		open pit SMU.
	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 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).
	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 Pre-Feasibility Study.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	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. 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. Aphrodite underground is 100% refractory material. Aphrodite open pit contains 37% free milling and 63% refractory material The Pre-Feasibility included construction of a CIL Processing Facility with floatation 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.
	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.
	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?*	To complete an assessment on processing options for Aphrodite a series of metallurgical tests were completed. In any series of metallurgical tests, the representativity of the testwork is determined by the closeness of the sample tested to that of the plant feed in the overall life of mine (LOM) plan. The Aphrodite samples in particular, have been chosen based on the expected mine plan at the grades indicated and accounting for a degree of dilution above and below the mining front. Variability has been assessed based on both the spatial variation of the ore body as well as lithological variations. The spatial variations are broken down into the following: - Alpha Centroid; - Alpha North; - Phi Centroid; and, - Phi South. Additional testwork campaigns were completed to ascertain a marketable concentrate. Based on concentrate payablities and penalties a concentrate recovery was generated based on the optimal cleaner concentrate. The resulting recovery for the material types at Aphrodite, based on the Pre-Feasibility level study are: - Aphrodite Free Milling Oxide Open Cut – 90.9% - Aphrodite Free Milling Transition Open Cut – 89.4% - Aphrodite Refractory Transition – 92.1% - Aphrodite Refractory Primary – 92.1% No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.
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.*	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. Characterization of representative waste rock samples at Aphrodite indicated that there is Potentially Acid Forming (PAF) material in the Alpha and Phi Black Flag fresh rock as well as the transitional and oxide 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. Studies have been conducted to understand the potential footprint of infrastructure; waste dumps, final dump heights and shape, tailing dams, and their impact on regional drainage or environment.

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Criteria	JORC Code explanation	Commentary
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.*	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. 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 natural gas and diesel generators. Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.*	Capital costs for the project have been provided by several external studies completed for the project including: - Como Engineering – Processing Plant - Knight Piesold – Tailings Dam - SMEC – Road & Rail Re-alignment - Groundwater Resource Management – Water Supply - Entech & Bardoc – Surface Mining infrastructure - OSD Asset Services – Gas Pipeline relocation - Capital costs are based on vendor supplied quotations and / or the consultancies cost database. - Capital costs include: - Processing Plant; - Tailings Dam; Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure, - Power Supply; - Road & Rail re-alignment; - Road Access; - Site Clearing; - Water Supply; Capital infrastructure costs include contingency.
	The methodology used to estimate operating costs.	The key operating cost estimates have been prepared by Entech mining, Como Engineering and the Bardoc Project team. Mining costs, prepared by Entech, 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. 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.
	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 0.69 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 are in discussion with potential offtake partners who have expressed interest in the concentrate product. Concentrate sale terms have been assumed based on indicative terms provided by the potential partners from typical concentrate material composition from the Pre-Feasibility level testwork completed. Transportation, treatment and refining costs have been estimated based on the indicative concentrate sales terms for supply of concentrate to the Port of Esperance in half height containers
	The allowances made for royalties payable, both Government and private.	Aphrodite incurs a 2.5% state royalty and a 2.5% Franco Nevada Royalty.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Pre-feasibility study. Treatment charges and penalties are based on indicative terms provided by potential offtake partners who have expressed interest in the concentrate product through discussions with Bardoc.
	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$1,900 / oz (US$1,311/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

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Criteria	JORC Code explanation	Commentary
		the time of the completion of the Ore Reserve work.
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *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 Dore from the mine is to be sold to the Perth mint. Concentrate from the mine is to be sold to a potential concentrate offtake partner. At this stage, no agreement has been accepted and Bardoc are continuing discussions with several offtake partners who have expressed interest in the concentrate product. No customer and competitor analysis have been completed at the PFS level regarding concentrate sale. Price is formulated from indicative concentrate sale terms received from potential offtake partners
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	The initial Ore Reserve estimate is based on a Pre-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 initial 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$1,900/oz is sensitive to reasonable unfavourable changes to these drivers.
Social	*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.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.*	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	Compensation deeds are in place for Mt Vetters pastoralist and the Bardoc Homestead. These have been included in the cost but are not material to the plan. Bardoc is required to enter into an offtake agreement for the sale of concentrate as part of the reserves. Bardoc have been in discussions with potential offtake partners interested in the concentrate product. Due to the interest received Bardoc expect no delays related to the completion of a concentrate sale agreement for production.
	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.
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.*	The classification of the initial 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
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore reserve estimates have been reviewed by Entech and Bardoc Gold. No further external audits have been completed.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence*	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 25% 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.

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Criteria	JORC Code explanation	Commentary
	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 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.

JORC, 2012 Edition – Tables - Zoroastrian

Section 1 Sampling techniques and data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• 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. • 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. • Complete details are un-available for historic drilling. • Generally, BDC RC recovered chip samples were collected and passed through a cone splitter. • Limited numbers of field duplicates and screen fire assays have been undertaken to support sample representivity. • EXG DD core has been sampled by submission of cut half core. • 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 of 50g charge. Approximately 200g of pulp material is returned to EXG for storage and potential assay at a later date. • 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.
Drilling techniques	• *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).*	• 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. • 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). • 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.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed*	• 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 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

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	• *Measures taken to maximise sample recovery and ensure representative nature of the samples* • *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.*	received by the laboratory are weighed with the data collected and stored in the database. • 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. • EXG 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. • 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. • 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.
Logging	• *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.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All EXG and BDC RC samples are geologically logged directly into hand-held Geobank devices. • 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 • All EXG and BDC DC is photographed both wet and dry after logging but before cutting. • 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.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • 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. • 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. • The EXG and BDC DC samples are oven dried, jaw crushed to nominal <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. • 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. • 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 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. • For DC, no core duplicates (i.e. half core) have been collected or submitted. • 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.
Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• 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

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laboratory tests	• *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.* • *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.*	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. • 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 HNO3) before measurement of the gold content by an AA machine. • 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. • 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• 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. • 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 number of RC holes have also been drilled that confirmed results obtained from historical drill holes. • 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. • No adjustments or calibrations were made to any assay data used in this report.
Location of data points	• *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* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• 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. • 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. • All drill holes and resource estimation use the MGA94, Zone 51 grid system. • 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.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.*	• 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 and with Grade control to 7.5 x 5m (N x E) spacing. • 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. • The majority of RC holes were sampled at 1m, but when this isn't the case, sample compositing to 4m has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• 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. • 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 • No drilling orientation and sampling bias has been recognized at this time.
Sample security	• *The measures taken to ensure sample security.*	• 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

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		physically received samples against an EXG generated sample submission list and reports back any discrepancies • 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
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• An internal review of sampling techniques and procedures was completed in March 2013. No external or third-party audits or reviews have been completed.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• 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. • 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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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. • 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. • 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. • 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. • 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
Drill hole Information	• *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:*	• See Table 4 of this announcement • No results from previous un-reported exploration are the subject of this announcement.

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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	○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	• 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 • 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. • Hole length is the distance from the surface to the end of the hole, as measured along the drill trace.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No high-grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay. • 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. • No metal equivalent reporting is used or applied.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• 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. • 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. • 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.
Diagrams	• *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.*	• Plan and cross-sectional views are contained within this announcement.
Balanced reporting	• *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.*	• All results >= 0.5g/t Au 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.
Other substantive exploration data	• *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.*	• No other exploration data is considered meaningful and material to this announcement.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• 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. • No additional information can be made available at this time as it is conceptual in nature and commercially sensitive.

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Section 3 Estimation and Reporting of Mineral Resources – Zoroastrian Open Pit

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• 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. • 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.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• 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.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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. • 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. • 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. • 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. • The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a ~0.3g/t (open pit) Au cut off which represents the mineralised shear in all modelled domains
Dimensions	• *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.*	• 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.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance*	• 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). • 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. • 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

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	(e.g. sulphur for acid mine drainage characterization). • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	the non-linear Localised Uniform Conditioning ("LUC") method. The following criteria were considered when choosing gold grade top cuts: • The coherence and stability of the upper tail of the gold grade distribution; • Visual inspection of the spatial location of outlier values; • 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 • No consideration has been made to by-products. • 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 • 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.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were based on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The open pit Mineral Resource has been reported above a 0.4g/t Au cut-off above 240mRL (200m depth).
Mining factors or assumptions	• *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.*	• 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.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• 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.
Environmental factors or assumptions	• *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*	• There are no environmental issues concerning the extraction or disposal of waste or tailing material.

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	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.	
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• 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. • 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. • 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. • 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.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• 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. • The MRE is classified into measured, indicated and inferred to reflect the confidence in the estimate of different areas of the MRE. • 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. • The Mineral Resource estimate appropriately reflects the view of the Competent Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• A review of the 2018 LUC estimated MRE has been undertaken by Cube Consulting PTY LTD.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the 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*	• 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. • The significant amount of production (>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 Measured, Indicated or Inferred where appropriate. • The LUC block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size. • 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.

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	evaluation. Documentation should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

Section 3 Estimation and Reporting of Mineral Resources – Zoroastrian Underground

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• 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. • 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.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• 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.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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. • 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. • 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. • 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. • The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a 1g/t cut-off for the underground model. The 1g/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 1g/t cut-off, although grades can be more diffuse, transitioning to background values over a longer distance.
Dimensions	• *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.*	• 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.
Estimation and modelling techniques	• *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*	• BDC 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

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	extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		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).
		• 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.
		• The underground resource model was estimated by Ordinary Kriging (OK) using Micromine software.
		The following criteria were considered when choosing gold grade top cuts:
		  • The coherence and stability of the upper tail of the gold grade distribution;
		  • Visual inspection of the spatial location of outlier values;
		• 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.
		No consideration has been made to by-products.
		• The resource model was validated by comparison of composite grades to estimated grades on a domain basis, swath plots and visual checks.
		The underground model used a block size of 4mE x 15mN x 8mRL, considered appropriate for the drill hole spacing and probable mining method
		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.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were based on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The underground Mineral Resource has been reported above a 2.5g/t Au cut-off below 240mRL, which is 200m below surface.
Mining factors or assumptions	• *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.*	• A cut-off of 2.5g/t 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.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• 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.
Environmental factors or assumptions	• *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*	• There are no environmental issues concerning the extraction or disposal of waste or tailing material.

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	reported with an explanation of the environmental assumptions made.	
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• 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. • 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 number of oxidised and transitional dolerite core results. The average depth of these determinations is 104m downhole. • 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. • 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^3 and ore density of 2.97kg/m^3. A fresh ore density of 2.9 was adopted in the resource model. Oxide and Transitional ore densities used were 2.0 kg/m^3 and 2.5 kg/m^3 respectively • 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.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• 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. • The MRE is classified into measured, indicated and inferred to reflect the confidence in the estimate of different areas of the MRE. • 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. • The Mineral Resource estimate appropriately reflects the view of the Competent Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The Ordinary Kriged underground MRE has not been reviewed.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• 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. • The significant amount of production (>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. • The Kriged MRE statement relates to global estimates of tonnages and grade. • 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.

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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
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	Bardoc Gold Mineral Resource as reported in September 2019 (refer ASX announcement Bardoc Gold Resource Hits +3Moz Underpinning Mining Studies and Next Phase of Growth 30 September 2019).
	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
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	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.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	A Pre-Feasibility Study carried out by Bardoc and independent consultants Entech provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Pre-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$1,800 / oz (US$1,242/oz) was assumed for the Cut Off Grade calculations. 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. The open pit COG of 0.45 g/t Au for oxide and transitional material and 0.49 g/t Au for fresh material were applied to define ore and waste for free milling ore types.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	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 underground ore reserve is planned to be mined using conventional underground mining methods. The mining will consist of Longhole open Stoping (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. 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. All material was 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.	Underground designs are based on geotechnical parameters provided by independent consultants Peter O'Bryan and Associates. 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. 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. Pit slopes have been designed based on geotechnical analysis by independent consultants Peter O'Bryan and Associates (POA).

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Criteria	JORC Code explanation	Commentary
		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.	A 10% waste (i.e. zero grade) dilution factor was applied to underground stoping and mine development. 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.	Insitu stope recovery as assumed at 90%; Stope recovery where rib pillars are required was 78%; Stope recovery, on levels where sill pillars are left was 26%. It is assumed all development is fully recovered. Open pit ore had a 97% mining recovery applied.
	Any minimum mining widths used.	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.
	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 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).
	The infrastructure requirements of the selected mining methods.	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 Pre-Feasibility Study.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	Carbon-In-Leach (CIL) Processing based on free milling nature of orebody based on metallurgical testwork The Pre-Feasibility included construction of a CIL Processing Facility with floatation 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 direct tipped to the processing ROM by the mining contractor.
	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.	Zoroastrian recovery factors are based on a combination of seven historical testwork samples in oxide, transitional and fresh material and the historical processing performance of the Zoroastrian pit through eighteen toll treatment campaigns. A fixed tail grade based on this testwork has been used to derive recovery factors. Recovery factors for Zoroastrian based on the Pre-Feasibility Study level work are: - Zoroastrian Oxide – 96.5% - Zoroastrian Transitional – 97.3% - Zoroastrian Primary – 93.7% - Zoroastrian Underground Primary – 93.7%
	Any assumptions or allowances made for deleterious elements.	No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.
	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.	Zoroastrian ore has historically been processed through toll treatment campaigns in the goldfields, with an average recovery rate of 96.5% and median recovery of 97%.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	The ore reserve has been estimated based on appropriate mineralogy to meet specifications from the Pre-Feasibility level testwork.
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.*	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. Characterization of representative waste rock samples from Bulletin South, Excelsior, and Zoroastrian indicated most waste components have low

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		sulphide levels, negative net acid producing potential (NAPP) 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 on regional drainage or environment.
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.*	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. 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 natural gas and diesel generators. Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.*	Capital costs for the project have been provided by several external studies completed for the project including: - Como Engineering – Processing Plant - Knight Piesold – Tailings Dam - SMEC – Road & Rail Re-alignment - Groundwater Resource Management – Water Supply - Entech & Bardoc – Surface Mining infrastructure - OSD Asset Services – Gas Pipeline relocation Capital costs are based on vendor supplied quotations and / or the consultancies cost database. Capital costs include: - Processing Plant; - Tailings Dam; - Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure; - Power Supply; - Road & Rail re-alignment; - Road Access; - Site Clearing; and, - Water Supply; Capital infrastructure costs include contingency.
	The methodology used to estimate operating costs.	The key operating cost estimates have been prepared by Entech mining, Como Engineering and the Bardoc Project team. Mining costs, prepared by Entech, 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. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.
	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 0.69 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.	Zoroastrian incurs a 2.5% state royalty. No private royalties are incurred on the Zoroastrian tenements.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Pre-feasibility study.
	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$1,900 / oz (US$1,311/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.

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Criteria	JORC Code explanation	Commentary
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *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 doré from the mine is to be sold to the Perth mint. There is a transparent quoted market for the sale of gold. No industrial minerals have been considered.
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	The initial Ore Reserve estimate is based on a Pre-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 initial 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$1,900/oz is sensitive to reasonable unfavourable changes to these drivers.
Social	*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.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.*	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	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.
	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.
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.*	The classification of the initial 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
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore reserve estimates have been reviewed by Entech and Bardoc Gold. No further external audits have been completed.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 25% 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.

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Criteria	JORC Code explanation	Commentary
	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 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.

JORC code, 2012 Edition – tables - Excelsior

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary

Sampling techniques	• *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.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*
	• *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.*
		• The drilling database consists of historic (pre 2009) and EXG drilling data. The historic data consists of drilling by:
		  ○ Hill Minerals – 75 RC Holes
		  ○ Aberfoyle - 157 RC Holes, 6 DD holes
		  ○ Halcyon – 5 RC holes , 2 DD Holes
		• 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.
		• 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)
		• 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.
		• Generally, EXG RC recovered chip samples were collected and passed through a cone splitter.
		• Limited numbers of field duplicates and screen fire assays have been undertaken to support simple representivity.
		• EXG DD core has been sampled by submission of cut half core.
		• All EXG 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 EXG for storage and potential assay at a later date. The EXG 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 50g charge. Approximately 200g of pulp material is returned to EXG for storage and potential assay at a later date.

Drilling techniques	• *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).*	• Hill Minerals – Reverse Circulation blade, or roller with minor hammer. Drill diameter unknown. • 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 • Halcyon – Drilling techniques unknown • For (post 2009) EXG drilling, the RC drilling system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is

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		NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter). • 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.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed* • *Measures taken to maximise sample recovery and ensure representative nature of the samples* • *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.*	• Hill Minerals – sample recovery unknown. • 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. • 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 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. • 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. • EXG 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. • 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. • 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.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Hill Minerals – All holes geologically logged. • Aberfoyle – RC holes geologically logged, noting lithology, colour, weathering, alteration, veining and mineralisation (sulphides) • Halcyon – RC holes geologically logged, noting lithology, colour, weathering, alteration, veining and mineralisation (sulphides) • All EXG RC samples are geologically logged directly into hand-held Geobank devices. • 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 • All EXG DC is photographed both wet and dry after logging but before cutting. • 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.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ*	• Hill Minerals – RC samples split using rotary cone splitter. • 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. • Halcyon – Sub sampling techniques unknown • 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 with an on-site diamond core saw.

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	material collected, including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 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. • 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. • The EXG DC samples are oven dried, jaw crushed to nominal <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. • 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. • 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 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. • For DC, no core duplicates (i.e. half core) have been collected or submitted. • 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.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• Hill Minerals – Aqua Regia (partial) analysis by Genalysis Laboratory. Technique considered appropriate for the style of mineralisation. • 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. • Halcyon – Fire Assay (Total) by ALS Laboratory. QAQC procedures unknown. • 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. 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 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. • 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. • 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The competent person has inspected selected drill core and RC chips on site to verify the correlation of mineralized zones between assay results and lithology/alteration/mineralization. • Holes were not specifically designed to twin pre-existing holes. • 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.

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		• No adjustments or calibrations were made to any assay data used in this report.
Location of data points	• *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* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• 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 < 60m in length. • 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. • Halcyon – Drill Collars surveyed by Datum Surveys using DGPS. AGD84_51 Grid system. Holes downhole gyro surveyed every 10m. • EXG - 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. • 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. • All drill holes and resource estimation use the MGA94, Zone 51 grid system. • 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.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.*	• 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. • This report is for the reporting of the Mineral Resource Estimate. The drill spacing, spatial distribution and grade continuity 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. • Sample compositing to 2m and 1m was applied to the resource estimation only.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The majority of drilling is to MGA grid east which is coincident with Local Grid 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. • No drilling orientation and sampling bias has been recognized at this time.
Sample security	• *The measures taken to ensure sample security.*	• Hill Minerals – Sample security protocols unknown. • Aberfoyle – Sample security protocols unknown. • Halcyon – Sample security protocols unknown. • EXG - RC samples are delivered directly from the field to the Kalgoorlie laboratory by EXG personnel, the laboratory then checks the physically received samples against an EXG generated sample submission list and reports back any discrepancies. • Drill core is transported daily directly from the drill site to EXG's secure core processing facility by EXG personnel with no detours. The core is then placed on racks within a secure shed and processed until it requires cutting. Core is then 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. The core is then prepared for assay in Kalgoorlie to the pulverizing stage whereupon the laboratory transports it using a contractor directly to their Perth based assay facility.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• An internal review of sampling techniques and procedures was completed in March 2013. No external or third-party audits or reviews have been completed.

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Section 2 Reporting of Exploration Results

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

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Mineral tenement and land tenure status</td><td>• 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.
• 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.</td><td>• 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.
<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>
• 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.</td></tr>
<tr><td>Exploration done by other parties</td><td>• Acknowledgment and appraisal of exploration by other parties.</td><td>• Exploration by other parties has been reviewed and is used as a guide to EXG'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.</td></tr>
<tr><td>Geology</td><td>• Deposit type, geological setting and style of mineralisation.</td><td>• 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 porphyries.
• 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.
• 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
• Two major styles of mineralisation are evident:
Schist hosted mineralisation
The majority of gold mineralisation at Excelsior is hosted by schist within the 10,000E Shear. A steep sided trough in oxidation associated with intense shearing and alteration is a feature of this zone. Petrological descriptions note a fabric resembling a sheared veinlet stockwork, with quartz and quartz-carbonate veins rotated into alignment with foliation. Logging of both percussion chips and diamond core indicates little obvious vein quartz, although conformable quartz lenses occasionally give the rock a felsic appearance. Alteration within the schists is broadly very similar to that in more obvious vein stock worked material i.e. quartz-magnesian carbonate (dolomite?) + fuchsite + sulphides. Fuchsite is much more common in the schists and appears indicative of shearing. Gold is intimately associated with sulphides, most commonly pyrite and arsenopyrite. Sulphide grains are of several apparent ages, varying in texture from irregular spongy masses to large (up to 5mm) euhedral grains. Gold occurs predominantly either on grain boundaries, or in cracks in pyrite and arsenopyrite. Other gold has been described within quartz and calcite veins, and as lamellae interlayered with chlorite. Grain sizes of gold vary from submicron size to greater than 1mm, with most in the range 10-50 microns. In the sulphide zone, gold grain shapes are commonly octahedral, whilst in the oxide zone ovoids and composite grains in limonite are common, often with spongy or colloform textures and orange colouration typical of supergene gold.</td></tr>
</table>

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		Quartz vein "Stockwork" style Much of the mineralisation at Excelsior is obviously quartz vein related. Exposures in open stopes and pits in the southern part of the deposit, and along the eastern and western shear contacts show abundant vein quartz, either as sheeted sets or ladder vein networks. Historical mining was concentrated on major strike parallel (conformable) quartz veins. Underground mapping by Aberfoyle showed common stock working, particularly within doleritic or felsic intrusive rocks, around the major stoped veins. Mineralisation consists of quartz (carbonate) veinlets (1mm to > 1 metre), generally crudely conformable with foliation (although cross-cutting vein sets have been observed) surrounded by narrow bleached carbonate-sericite (fuchsite) alteration haloes with prominent sulphides (or iron-oxide pseudomorphs where oxidised). The sulphide assemblage appears to vary with host rock composition, but pyrite and arsenopyrite dominate. There is a positive correlation between logged quartz content and gold assay data in reverse circulation drill samples, although the presence of several generations of veining, some unmineralised, makes direct correlation tenuous. Selective sampling at surface and underground, and core logging shows low grade gold values (0.2 to 0.5g/t) and 'weak alteration away from quartz veins, and most gold either within veins, or associated with carbonate-sulphide adjacent to veins.

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		• No exploration is being reported in this release therefore there are no specific drill holes to report.

Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No exploration drill data has been reported in this release, therefore there is no information regarding data aggregation. • Metal equivalents are not used
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• Mineralised lodes are sub-vertical and N-S striking. Most drilling is oriented to the east, dipping -60°. • Any intercepts reported are down hole lengths
Diagrams	• *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.*	• See diagrams in the body of this announcement
Balanced reporting	• *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.*	• No exploration data has been reported in this release. Prior drilling by EXG has been reported to the ASX.

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Other substantive exploration data	• *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.*	• Pit mapping was used to identify and locate mineralised structures. • Drill core observed • Metallurgical and Geotechnical test work completed
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Application of metallurgical, geotechnical and cost parameters to establish an ore reserve for Excelsior deposit.

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	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Digital data from historic drilling is compared to hard copy reports to verify data integrity. • 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. • 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.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• 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.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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. • 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. • 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. • 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.
Dimensions	• *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.*	• Mineralisation extends 800m north/south, 100m east/west and 240m in elevation.
Estimation and modelling techniques	• *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*	• EXG has used 3DM wireframes to constrain the mineralised shear zones. All other lodes have been interpreted on a sectional basis using the available exploration drilling data on variable spacing. • Raw assay samples were uniquely coded to the mineralisation domain they fall within. A numerical code representing the domain number was assigned to each sample interval in a “Domain” field. On the basis of the generally broad nature of mineralisation, proposed mining on 2.5m

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	a description of computer software and parameters used.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		flitches, and high-grade variability, a 2m down hole composite was selected for this estimation. For narrower lodes a 1m composite was chosen. Composites were coded with the wireframe code they fall within. A minimum composite length of 0.75x composite length was adopted so that for a 2m composite the minimum composite length is 1.5m. Residual composites were discarded and not used in the estimation.
		• 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.
		• The following criteria were considered when choosing gold grade top cuts:
		  ◦ The coherence and stability of the upper tail of the gold grade distribution;
		  ◦ Visual inspection of the spatial location of outlier values;
		• The statistics show that in most cases there is only a small reduction in mean grade and variability following top cutting.
		• The LUC estimates were implemented using the Minestis® software package before being transferred into a Micromine™ block model. Supervisor software was used for geostatistics, variography and block model validation.
		• No consideration has been made to by-products.
		• 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.
		• Interpolation parameters – the search ellipse was aligned to the mineralised trend of each domain and oriented the same as the modelled rotations defined from the variography. A minimum of 8 samples and a maximum of 32 samples were used with a maximum of 4 samples per borehole. Two search passes were carried out, with the first having a maximum distance of 80m and the second up to 320m. Classification was used to reduce confidence in less well estimated blocks.
		• Validation was completed
		  ◦ visually, comparing block estimated grades to local drilling and;
		  ◦ Using swath plots on a N-S, E-W and depth and
		  ◦ Comparing estimated grades to composite grades on a domain by domain basis.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were based on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a ~0.3g/t Au cut off which represents the mineralised shear in all modelled domains. • The MRE has been reported above a 0.6g/t Au cut-off above an optimised pit shell at $2700

Mining factors or assumptions	• *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.*	• 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
		• The sensitivity of the Mineral Resource to variations in gold price was assessed by using the Micromine Pit Optimiser software to conduct various optimisations and/or sensitivity analysis at a wide range of gold prices. The optimisations assumed the following inputs:
		  ◦ Conventional open pit mining practises with cost assumptions established from recent open pit mining by EXG at the nearby Zoroastrian deposit;
		  ◦ Carbon-in-Pulp processing at a rate of 1.0Mtpa with costs from recent (April 2018) estimates from Mintrex PTY. LTD;
		  ◦ Metallurgical recovery of 92% (Fresh) and 94% (Oxide/Transition) based on EXG testwork;

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		○ Dilution of 0% as the LUC model is considered diluted ○ Ore loss of 5%; ○ Generalised pit wall slopes of 32° to 42° for oxide, and 39° to 46° in transition and 42° to 49° in fresh rock, and; ○ WA Government royalty of 2.5%.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• 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.
Environmental factors or assumptions	• *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.*	• The currently mined open pit is filled with tailings which will be mined and encapsulated in the waste landform to minimise environmental disturbance.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• 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). • On balance EXG 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. EXG have used assumed bulk density values for ore and waste based on the interpreted weathering surfaces.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• 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. ○ Indicated – Areas with drill spacing up to approximately 30mE x 30mN and with reasonable confidence in the geological interpretation. ○ Inferred – Areas with drill spacing in excess of 30mE x 30mN. • 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. • The Mineral Resource estimate appropriately reflects the view of the Competent Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• A review of the April 2017 MRE has been undertaken by Cube Consulting PTY LTD.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate,*	• 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. • A number of measures were incorporated in the MRE to provide confidence in the estimate: ○ A conservative domain interpretation that limits volume and therefore tonnages in areas of sparse drilling ○ The estimate has used top cuts to restrict the influence of high grade samples without having a detrimental effect on metal content.

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	a qualitative discussion of the factors that 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	○ Restricted search parameters ○ Adoption of the LUC estimation method provides an estimate of tonnages and grades at the SMU scale which can be achieved during mining • The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size. • Although previously mined, there are no coherent production records available with which to compare this estimate to.

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
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	Bardoc Gold Mineral Resource as reported in September 2019 (refer ASX announcement Bardoc Gold Resource Hits +3Moz Underpinning Mining Studies and Next Phase of Growth 30 September 2019).
	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
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	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.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	A Pre-Feasibility Study carried out by Bardoc and independent consultants Entech provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Pre-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$1,800 / oz (US$1,242/oz) was assumed for the Cut Off Grade calculations. The open pit COG of 0.36 g/t Au for oxide and transitional ore and 0.41 g/t for fresh ore were applied to define ore and waste.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	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. All material was 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 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 (e.g. 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. Open pit grade control will be carried out using RC drilling in the pit floor. These activities have been costed based on a recent

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Criteria	JORC Code explanation	Commentary
		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.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	Carbon-In-Leach (CIL) Processing will be adopted for all ore types. The Excelsior open pit contains 31% oxide, 35% transitional and 34% fresh ore material. The Pre-Feasibility included construction of a CIL Processing Facility with floatation 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 direct tipped to the processing ROM by the mining contractor.
	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?*	Excelsior recovery factors are based on historical testwork samples in oxide, transitional and fresh material. A fixed tail grade based on this testwork has been used to derive recovery factors. Recovery factors for Excelsior based on the Pre-Feasibility Study level work are: - Excelsior Oxide Open Cut – 97.4% - Excelsior Transition Open Cut – 97.5% - Excelsior Fresh Open Cut – 95.8% No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.
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.*	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. Characterization of representative waste rock samples from Bulletin South, Excelsior, and Zoroastrian indicated most waste components have low sulphide levels, negative net acid producing potential (NAPP) 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 on regional drainage or environment.

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Criteria	JORC Code explanation	Commentary
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.*	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. 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 natural gas and diesel generators. Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.*	Capital costs for the project have been provided by several external studies completed for the project including: - Como Engineering – Processing Plant - Knight Piesold – Tailings Dam - SMEC – Road & Rail Re-alignment - Groundwater Resource Management – Water Supply - Entech & Bardoc – Surface Mining infrastructure - OSD Asset Services – Gas Pipeline relocation - Capital costs are based on vendor supplied quotations and / or the consultancies cost database. - Capital costs include: - Processing Plant; - Tailings Dam; Mining Infrastructure – Workshops, fuel bays, washdown bays, offices, magazines, dewatering infrastructure, power infrastructure, - Power Supply; - Road & Rail re-alignment; - Road Access; - Site Clearing; - Water Supply; Capital infrastructure costs include contingency.
	The methodology used to estimate operating costs.	The key operating cost estimates have been prepared by Entech mining, Como Engineering and the Bardoc Project team. Mining costs, prepared by Entech, 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. The processing costs, prepared by Como Engineers, were derived using the design criteria, equipment list, vendor quotations and historical data from Como Engineers' database.
	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 0.69 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.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Pre-feasibility study.
	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

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Criteria	JORC Code explanation	Commentary
		and by peer company comparison. A gold price of A$1,900 / oz (US$1,311/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
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *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 doré from the mine is to be sold to the Perth mint. There is a transparent quoted market for the sale of gold. No industrial minerals have been considered.
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	The initial Ore Reserve estimate is based on a Pre-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 initial 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$1,900/oz is sensitive to reasonable unfavourable changes to these drivers.
Social	*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.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.*	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	Compensation deeds are in place for Mt Vetters 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.
	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.
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.*	The classification of the initial 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

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Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore reserve estimates have been reviewed by Entech and Bardoc Gold. No further external audits have been completed.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 25% 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.

JORC Code, 2012 Edition – Table 1 – BULLETIN SOUTH

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• 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. • 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. • Complete details are un-available for historic drilling. • 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. • 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. • 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. • 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.
Drilling techniques	• *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*	• 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

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	diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	1996 and 1998 (using a Schramm660 RC rig drilling 5.5" holes) and by Halycon during 2003 and 2004. • 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). • 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.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed* • *Measures taken to maximise sample recovery and ensure representative nature of the samples* • *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.*	• 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 • 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 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. • 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. • EXG 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. • 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. • 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.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All EXG RC samples are geologically logged directly into hand-held Geobank devices. • 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 • All EXG DC is photographed both wet and dry after logging but before cutting. • 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.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• 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. • 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. • 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.

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	• *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The EXG DC samples are oven dried, jaw crushed to nominal <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. • 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. • 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 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. • The results of this field duplicate process are within acceptable limits, indicating that the RC sample results are repeatable. • For DC, no core duplicates (i.e. half core) have been collected or submitted. • 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.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• 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. • 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 HNO3) before measurement of the gold content by an AA machine. • 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. • 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No independent verification of significant intersections has been undertaken. • A number of RC holes have been drilled throughout the deposit to twin historical 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. Both historical and new diamond drilling has been drilled to confirm geological interpretation and results obtained from RC drill holes. • 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. • No adjustments or calibrations were made to any assay data used in this report.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and*	• 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.

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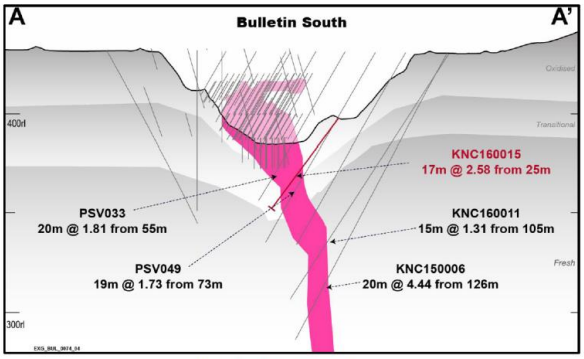
	other locations used in Mineral Resource estimation • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• EXG routinely contracted down hole surveys during the programmes of exploration drilling for each RC and DC drill hole completed using either digital electronic multi-shot tool or north seeking gyro, both of which are maintained by Contractors to manufacturer specifications. • All drill holes and resource estimation use the MGA94, Zone 51 grid system. • 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.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.*	• 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 • 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. • The majority of holes were sampled at 1m, but when this isn't the case, sample compositing to 1m has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• 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. • No drilling orientation and sampling bias has been recognized at this time.
Sample security	• *The measures taken to ensure sample security.*	• 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
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• An internal review of sampling techniques and procedures was completed in March 2014. No external or third-party audits or reviews have been completed.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• 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. • 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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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. • Whilst structure and primary gold mineralisation can be traced to the surface, depletion has occurred in the top 10-20m • 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.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results*	• The table below summarise the recent exploration results carried out on Bulletin South during 2016.

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	including a tabulation of the following information for all Material drill holes: ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	<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> • No results from previous unreported exploration are the subject of this announcement
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No high-grade cuts have been applied to assay results. RC assay results are distance weighted using 1m for each assay. • 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. • No metal equivalent reporting is used or applied.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• 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.  Figure 2 Bulletin South Cross Section • 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.
Diagrams	• *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.*	• Refer to EXG ASX announcement on Operation Update dated 22 December 2016
Balanced reporting	• *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.*	• Refer to EXG ASX announcement on Operation Update dated 22 December 2016
Other substantive exploration data	• *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*	• No other exploration data is considered meaningful and material to this announcement

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	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• 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. • Further future drilling areas are not highlighter as they are not yet planned.

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	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• 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. • 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.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• 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.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• 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. • 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. • 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. • 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.
Dimensions	• *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.*	• 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.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• 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. • A low grade "waste" domain was also modelled around the main mineralisation domain to the extents of the available drill data. • 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. • It was evident that the estimation domains contained a limited number of outlier gold values, necessitating the use of gold grade top cuts to

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	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		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.
		• The following criteria were considered when choosing gold grade top cuts:
		  ○ The coherence and stability of the upper tail of the gold grade distribution;
		  ○ Visual inspection of the spatial location of outlier values;
		  ○ Sensitivity tests to gauge the effect of various top cuts on mean gold grade;
		• 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. The LUC estimates were implemented using the Isatis® software package before being transferred into a Surpac™ block model.
		• No consideration has been made of by-products.
		• 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 only the exploration drill data 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 (ie. both exploration and GC drill data).
		• Inverse Distance Squared (ID^2) 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^2 and LUC grades.
		• The LUC model was also validated by comparison of the block estimates to the informing composite data:
		  ○ Global mean undeclustered and declustered composite grades were compared to the block estimates. Agreement was good.
		  ○ 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.
		  ○ Visual 3D comparison of raw assay grades to LUC block estimates revealed good spatial correspondence.
		• 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.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The selection of mineralised domains has used geological factors such a logged quartz and sulphides in conjunction with a 0.2 to 0.3g/t Au cut off which represents the mineralised shear modelled domains. • 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.

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Mining factors or assumptions	• *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.*	• 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.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• 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.
Environmental factors or assumptions	• *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.*	• There are no existing environmental issues concerning the extraction or disposal of waste or tailing material known to Cube.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• There are limited sources of relevant experimental bulk density data consisting of 14 determinations from 2015 EXG DD. • These determinations are all on competent rock both within the mineralised porphyry and surrounding waste mafic rocks. • 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.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• 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. • 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. • 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.

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		• 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. • 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. • 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. • The Mineral Resource estimate appropriately reflects the view of the Competent Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No independent audits or reviews have been undertaken on the Dec 2016 MRE
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• 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. • 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. • The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size.

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
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	Bardoc Gold Mineral Resource as reported in September 2019 (refer ASX announcement Bardoc Gold Resource Hits +3Moz Underpinning Mining Studies and Next Phase of Growth 30 September 2019).
	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.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	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.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	A Pre-Feasibility Study carried out by Bardoc and independent consultants Entech provided the basis for costs, modifying factors and parameters resulting in an Ore Reserve mine plan that is technically achievable and economically viable.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Pre-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$1,800 / oz (US$1,242/oz) was assumed for the Cut Off Grade calculations. The open pit COG of 0.45 g/t Au for oxide and transitional material and 0.49 g/for fresh material were applied to define ore and waste.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	Mineral Resource material was converted to Ore Reserves after completing an optimisation process, detailed mine design, schedule and associated financial assessment.

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Criteria	JORC Code explanation	Commentary
	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. All material was 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. 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, crib room, 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 Pre-Feasibility Study.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	Carbon-In-Leach (CIL) Processing based on free milling nature of orebody based on metallurgical testwork The Bulletin open pit contains 14% oxide, 41% transitional and 45% fresh ore material. The Pre-Feasibility included construction of a CIL Processing Facility with floatation circuit to be located at the Excelsior / Zoroastrian complex. Ore will be transported to the mill ROM by surface road trains.
	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?*	Bulletin recovery factors are based on historical testwork samples in oxide, transitional and fresh material. A fixed tail grade based on this testwork has been used to derive recovery factors. The resulting recovery for the material types at Bulletin, based on the Pre-Feasibility level study are: - Bulletin Oxide Open Cut – 97.4% - Bulletin Transition Open Cut – 97.7% - Bulletin Fresh Open Cut – 95.9% No deleterious elements were identified from the mineralogical/metallurgical assessments that impact on process selection.
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.*	Historical base line environmental assessments have been completed with no known impacts on the mining and processing operation for Bulletin. 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. Characterization of representative waste rock samples from Bulletin South, Excelsior, and Zoroastrian indicated most waste components have low sulphide levels, negative net acid producing potential (NAPP) 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 on regional drainage or environment.

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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.*	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. 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 natural gas and diesel generators. Water will be sourced from the nearby Scotia Borefield and through pit dewatering of the nearby Botswana Locker and Jackorite pits.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.*	Capital costs for the mining infrastructure have been generated by Entech and Bardoc including: • Workshops, • fuel bays, • washdown bays, • offices, • magazines, • communications • dewatering infrastructure, • power infrastructure, • ROM Pads, • Waste Dumps, and, • Access Roads. Capital infrastructure costs include contingency.
	The methodology used to estimate operating costs.	The key operating cost estimates have been prepared by Entech mining, Como Engineering and the Bardoc Project team. Mining costs, prepared by Entech, 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. 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.
	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 0.69 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. No private royalties are incurred on the Zoroastrian tenements.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	Production and recovery for revenue calculations are based on detailed mine schedules, mining factors and cost estimates established as part of the Pre-feasibility study.
	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$1,900 / oz (US$1,311/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.
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *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 doré from the mine is to be sold to the Perth mint. There is a transparent quoted market for the sale of gold. No industrial minerals have been considered.
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and*	The initial Ore Reserve estimate is based on a Pre-Feasibility level of accuracy with inputs from open pits, underground mines, processing,

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	confidence of these economic inputs including estimated inflation, discount rate, etc.	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 initial 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$1,900/oz is sensitive to reasonable unfavourable changes to these drivers.
Social	*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.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks.*	No material naturally occurring risks have been identified for the project
	The status of material legal agreements and marketing arrangements.	Compensation deeds are in place for Mt Vetters 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.
	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.
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.*	The classification of the initial 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
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore reserve estimates have been reviewed by Entech and Bardoc Gold. No further external audits have been completed.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The mine designs, schedule and financial model for the Ore Reserve have been completed to a Pre-Feasibility standard with a better than +/- 25% 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.