CALIDUS RESOURCES LIMITED

ASX ANNOUNCEMENT

ABOUT CALIDUS RESOURCES

Calidus Resources is an ASX listed gold exploration company which controls the Warrawoona Gold Project in the East Pilbara district of the Pilbara Goldfield in Western Australia.

DIRECTORS AND MANAGEMENT

Mr Mark Connelly
NON-EXECUTIVE CHAIRMAN

Mr David Reeves
MANAGING DIRECTOR

Mr Adam Miethke
NON-EXECUTIVE DIRECTOR

Mr Keith Coughlan
NON-EXECUTIVE DIRECTOR

Mr Paul Brennan
CHIEF OPERATING OFFICER

Mr Richard Hill
CHIEF FINANCAL OFFICER

Ms Julia Beckett
COMPANY SECRETARY

calidus.com.au

ASX : CAI

+61 8 6245 2050

info@calidus.com.au

Suite 12, 11 Ventnor Ave
West Perth WA 6005
AUSTRALIA

29 June 2020

CAUTIONARY STATEMENT

As the Pre-Feasibility Study (PFS) for the Company's Warrawoona Gold Project utilises a portion of Inferred Resources, the ASX Listing Rules require a cautionary statement be included in this announcement.

The PFS referred to in this announcement is based upon a JORC Compliant Mineral Resource Estimate referred to in this announcement The Company advises that the Proven and Probable Ore Reserve and Indicated Resources provide 93% of the total milled tonnage and 86% of the total contained gold metal. The remaining tonnage is comprised of Inferred Resources. There is a low level of geology confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production targets reported in this announcement will be realised. The Company confirms that the use of Inferred Resources is not a determining factor of the Project's viability.

The Ore Reserves and Mineral Resource Estimate underpinning the PFS have been prepared by Competent Persons with Competent Persons' Statements attached. The Company has concluded that it has a reasonable basis for providing the forward looking statements included in this announcement. The detailed reasons for this conclusion are outlined throughout this announcement.

Calidus set for gold production of +85,000ozpa at AISC of A$1,251/oz

Updated PFS demonstrates strong cash generation with ~1 year payback and post-tax IRR of 77%; construction planned for early next year

Key Points

- **Updated Pre-Feasibility Study completed on Warrawoona Project in WA's Pilbara**
- **Study confirms Warrawoona will generate strong margins and cashflow which underpins strong financial returns**
- **Project Economics:**
  - **A$2,500/oz (spot gold price A$2,580 on 26 June 2020):**
    - **Pre-Tax Project Cashflow of A$648M, average EBITDA of $97M pa, $NPV_{8\%}$ $423M, IRR 88% and payback of 13 months**
    - **Post-Tax Project Cashflow of A$468M, $NPV_{8\%}$ $303M, IRR 77% and payback of 13 months**
- **Pre-production capital cost of $116M including contingency of $6M and pre-production mining costs of $13M**
- **Average production of 85koz a year over first 6 years with 90kozs in year one**
- **Life of Mine All-In Sustaining Costs (AISC) of $1,251/oz**
- **Total gold production of 623kozs over eight-year life of mine based on current minable inventory**
- **Ore Reserves increase by 24% to 519,000oz, including 502koz at the main Klondyke mining area**
- **Maiden Proven Ore Reserve of 2Mt @ 1.0g/t for 66koz in the Klondyke Open Pit**
- **Underground production deferred until Year 3 and will be de-risked via a diamond drill drive ahead of execution, minimising upfront capital requirements**
- **Resources increased by 20% to 1.5Moz**
- **Measured and Indicated Resources (inclusive of Reserves) total 32.7Mt @ 1.0g/t for 1.05Moz, including 1Moz at the main Klondyke mining area**
- **Early works planned for December Quarter 2020 with targeted start of construction in March quarter 2021 to capitalise on the current high gold price and compelling economics of the Project**
- **Definitive Feasibility Study (DFS) on track for completion in September Quarter**

Calidus Resources (ASX:CAI) is pleased to announce that an updated Pre-Feasibility Study has highlighted the strong cashflow, outstanding financial returns and short payback of its Warrawoona Gold Project in WA's Pilbara.

The updated PFS includes a 24 per cent increase in Reserves to 519,000oz. This underpins forecast production averaging 85,000 ounces a year in the first six years, including 90,000oz in year one, at an average AISC of A$1251/oz.

Based on a gold price of A$2500/oz, the average gold price for the last six months and $70/oz below the current spot price, Warrawoona will generate a post-tax internal rate of return of 77 per cent and have a payback period of just 13 months.

Considering these strong findings and the current gold price, Calidus has committed to accelerating its development timetable, with construction planned to start in the March quarter of next year.

The Definitive Feasibility Study on Warrawoona, is on track for completion in the current quarter.

The Updated PFS reflects several significant changes that are aimed to minimise risk, maximise initial cash generation and ensure a simple and robust operation to maximise value to shareholders.

These changes include the modelling technique used in the Mineral Resource that includes greater inherent dilution than the initial PFS, delaying the underground development until year three to minimise construction capital and allow a single focus on the low risk Klondyke Open Pit and installation of a ball mill to ensure grind size and operational flexibility.

With construction planned to commence in 6 months, the Updated PFS provides a clear, simple, lower capital and lower risk road map to near term gold production for Calidus.

Calidus Managing Director Dave Reeves said: "The Updated pre-feasibility highlights the superb cash generating potential of the Warrawoona Gold Project and reinforces why we are accelerating the development timeline of the Project to take advantage of the current gold price environment.

"Risk minimisation is a fundamental theme of all work at Calidus. As such, we have altered the resource modelling technique to a more conservative method, we have delayed the underground to allow the Company to focus on a single open pit operation initially and we are including a more flexible comminution circuit. The decisions being made ahead of development mean that targets laid out for the operating project have maximum probability of being met or exceeded.

"The only changes anticipated at DFS level are associated with costs and fine tuning of mining schedules. The Company is currently preparing tenders for all major contracts to allow preferred contractor status to be issued as part of the DFS which will lock in process for the proposed development of the mine next year.

"With the recent addition of some very exciting regional exploration prospects and now the confirmation of the cash generating potential of Warrawoona, the Company is poised to enter a period of significant and rewarding growth."

KEY PROJECT METRICS

Table 1 - Key Project Statistics

Production Summary	Units	Updated PFS		
Initial Mine Life	Years	8.0		
Total Ore Mined	oz	16.9Mt @ 1.22g/t for 663koz		
Gold Recovered	oz	623,086		
Processing Rate	Mtpa	Oxide/Transition 2.4Mtpa and Fresh 2.0Mtpa		
Average LOM CIL Metallurgical Recovery	%	94.3%		
Project Development Capital				
Processing Plant	A$M	75		
Non-Processing Infrastructure and Owners Cost	A$M	22		
Contingency	A$M	6		
Project Development Capital	**A$M**	**103**		
Pre-Production Mining Costs	A$M	13		
Total Pre-Production Capital	A$M	116		
Project Economics				
Gold Price	**A$/oz**	**2,200**	**2,500**	**2,800**
Gold Revenue	A$M	1,371	**1,558**	1,745
All-In Sustaining Cost (AISC)[1]	**A$/oz**	**1,241**	**1,251**	**1,260**
Project Cashflow (Pre-tax)	**A$M**	**467**	**648**	**829**
$NPV_{8\%}$ (Pre-tax)	A$M	295	**423**	552
IRR (Pre-tax)	% p.a.	64%	**88%**	112%
Project Cashflow (Post-tax)	**A$M**	**337**	**468**	**598**
$NPV_{8\%}$ (Post-tax)	A$M	209	**303**	398
IRR (Post tax)	% p.a.	54%	**77%**	100%
Payback Period[2]	**Years**	**1.5**	**1.1**	**0.8**

Table 2 – Production Costs

Costs of Production	LOM Unit Cost (A$/t)	LOM Unit Cost (A$/oz)
Open Pit Mining	$18 /t OP Ore	$423 /oz
Underground Mining	$56 /t UG Ore	$228 /oz
Total Mining	$24 /t	$652 /oz
Processing and Maintenance	$15 /t	$413 /oz
Business Services	$2 /t	$49 /oz
Total Cash Cost (C1)	**$41 /t**	**$1,113 /oz**
Royalties	$3 /t	$77 /oz
Sustaining Capital	$2 /t	$60 /oz
Total All-In Sustaining Cost (AISC)	**$46 /t**	**$1,251 /oz**

[1] All-In Sustaining Cost includes mining, processing, site administration, royalty costs and sustaining capital. It does not include exploration, corporate costs and non-sustaining capital.
[2] Payback period is calculated from the month of first gold production.
[3] Calidus is estimated to have carried forward tax losses of $40M at 31 December 2020.
[4] All figures are presented in nominal Australian Dollars unless otherwise specified. Rounding errors may occur.

Table 3 – Gold Price Sensitivity Analysis

Pre-tax	Unit	A$2,000/oz	A$2,250/oz	A$2,500/oz	A$2,750/oz	A$3,000/oz
Project Cashflow	A$M	346	497	**648**	798	949
$NPV_{8\%}$	A$M	209	316	**423**	530	638
IRR	%	48%	68%	**88%**	108%	128%
Post-tax	**Unit**	**A$2,000/oz**	**A$2,250/oz**	**A$2,500/oz**	**A$2,750/oz**	**A$3,000/oz**
Project Cashflow	A$M	252	359	**468**	577	685
$NPV_{8\%}$	A$M	147	225	**303**	382	461
IRR	%	40%	58%	**77%**	96%	116%
Payback Period	Years	2.0	1.4	**1.1**	0.9	0.8

Table 4 - Production Profile

Key Physicals	Units	Total	Pre-Production	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Mining											
Open Pit											
Ore Mined	kt	**14,335**	248	2,913	3,468	3,277	4,090	339	0	0	0
Mine Grade	g/t	**1.0**	1.1	1.1	1.0	1.1	1.0	0.9	0.0	0.0	0.0
Contained Gold	oz	**468,855**	9,050	100,548	106,375	114,397	128,175	10,311	0	0	0
Underground											
Lateral Development	m	**19,210**	0	0	469	2,508	3,586	3,588	4,394	3,569	1,095
Ore Mined	kt	**2,536**	0	0	0	81	372	534	566	577	406
Mine Grade	g/t	**2.4**	0.0	0.0	0.0	1.8	2.1	2.2	2.2	2.6	2.9
Contained Gold	oz	**194,644**	0	0	0	4,605	25,355	38,149	40,489	48,512	37,534
Total Ore Mined	kt	**16,871**	**248**	**2,913**	**3,468**	**3,357**	**4,461**	**873**	**566**	**577**	**406**
Total Mine Grade	g/t	**1.2**	**1.1**	**1.1**	**1.0**	**1.1**	**1.1**	**1.7**	**2.2**	**2.6**	**2.9**
Total Contained Gold	oz	**663,499**	**9,050**	**100,548**	**106,375**	**119,001**	**153,530**	**48,460**	**40,489**	**48,512**	**37,534**
Processing											
Ore Processed	kt	**16,871**	0	2,350	2,354	2,202	2,063	2,000	2,137	2,161	1,605
Processing Grade	g/t	**1.2**	0.0	1.3	1.2	1.3	1.4	1.5	1.2	1.0	1.0
Ounces Recovered	oz	**623,086**	**0**	**90,442**	**82,512**	**85,597**	**86,619**	**89,391**	**76,071**	**63,551**	**48,903**

Table 5 – Mineral Resources (inclusive of Reserves; rounded to nearest 100,000t; 0.01g/t; 1,000oz)

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz
Klondyke Open Pit	**0.3**	**2.3**	**0.98**	**72**	**29**	**0.90**	**844**	**8.3**	**0.81**	**217**	**39.6**	**0.89**	**1,133**
including	*0.5*	*1.6*	*1.21*	*64*	*20.3*	*1.12*	*733*	*5.0*	*1.09*	*176*	*27.0*	*1.12*	*973*
Klondyke UG	**1.5**				**1.0**	**2.87**	**89**	**1.8**	**3.31**	**162**	**2.7**	**2.83**	**250**
including	2.0				0.7	3.36	72	1.2	4.08	130	1.9	3.33	202
Copenhagen	0.5				0.2	5.58	33	0.1	2.65	9	0.3	4.54	42
Coronation	0.5							0.5	2.19	34	0.5	2.19	34
Fieldings Gully	0.5				0.3	1.80	16	0.33	1.87	20	0.6	1.84	36
Total		**2.3**	**0.98**	**72**	**30.4**	**1.00**	**982**	**11.0**	**1.33**	**442**	**43.7**	**1.06**	**1,494**

Table 6 – Ore Reserves (rounded to nearest 1,000t; 0.1g/t; 1,000oz)

Deposit	Cut-Off	Proven			Probable			Total		
	(g/t)	kt	Au (g/t)	koz	kt	Au (g/t)	koz	kt	Au (g/t)	koz
Klondyke Open Pit	0.33 0.36	2,057	1.0	66	10,014	1.0	335	12,071	1.0	401
Klondyke Underground	2.0				1,199	2.4	92	1,199	2.4	92
St George Open Pit	0.36 0.39				244	1.2	9	244	1.2	9
Copenhagen Open Pit	1.88				95	5.5	17	95	5.5	17
Total		**2,057**	**1.0**	**66**	**11,552**	**1.2**	**453**	**13,609**	**1.2**	**519**

WARRAWOONA PROJECT PRE-FEASIBILITY STUDY SUMMARY

1. Introduction

The Warrawoona Project site is located 28km South East of Marble Bar accessed by an all-weather road. Marble Bar is two hours travel by road from Port Hedland, Australia's largest port, and provides ease of access to logistic routes, major suppliers and relevant skills base.

Gold was first discovered in the Marble Bar area in 1896 and was mined for around 15 years.

The Warrawoona tenements have remained idle due to fragmented ownership in the area and have never been subject to modern exploration or mining techniques. Since listing in June 2017 and through a series of transactions Calidus has been able to consolidate the Warrawoona tenements, which is the key to unlocking the value from the shallow outcropping mineralisation which is prevalent throughout the area.

The Warrawoona Project is located on granted mining leases which have been recently renewed for 30 years. A majority of the Warrawoona Project is located on the Warrawoona Mining Common which is excised from the surrounding pastoral lease.

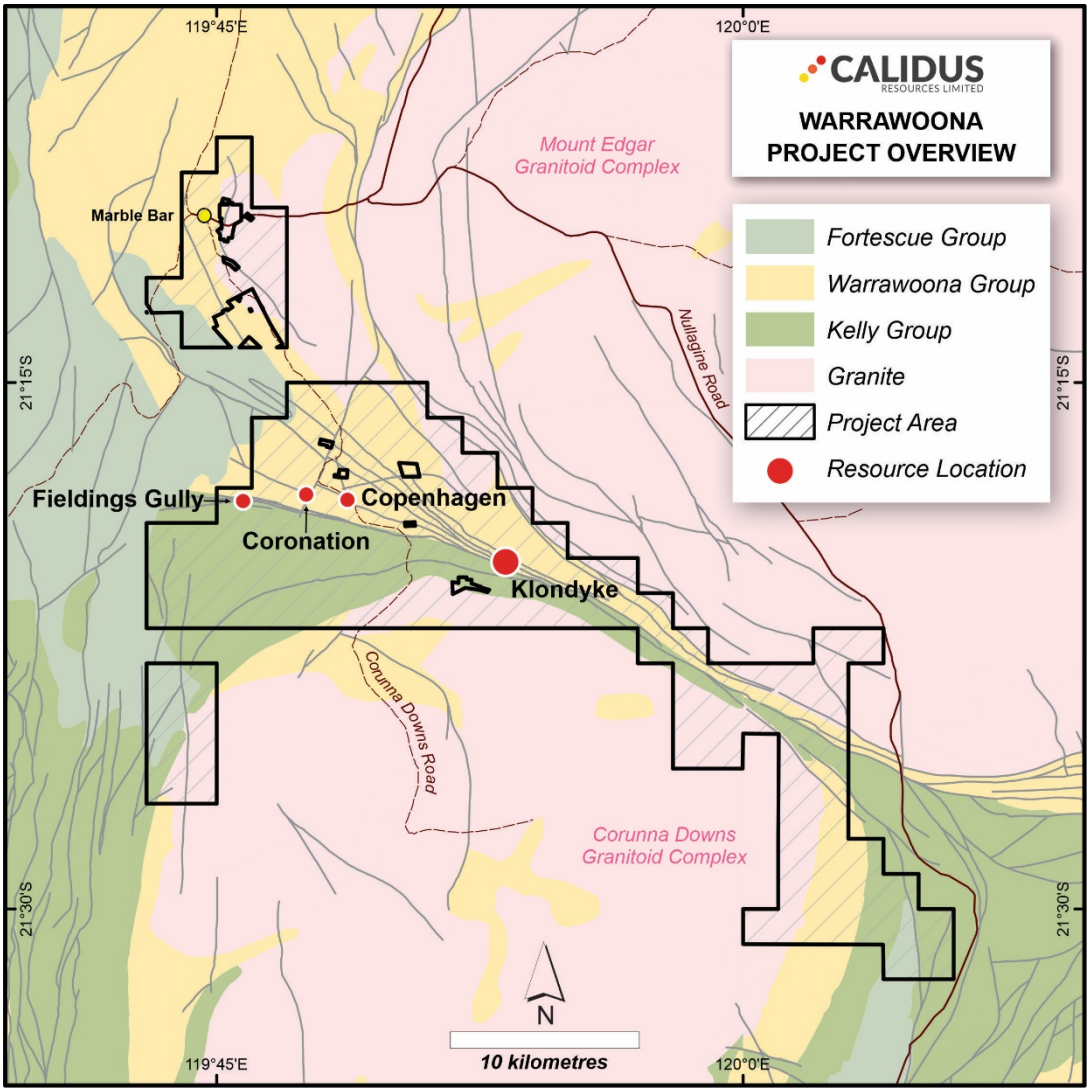

Figure 1: Warrawoona Tenements

2. Study Parameters

The Updated PFS is based on the following key parameters:

- JORC Compliant Mineral Resource and Ore Reserve Statements attached in this announcement;
- Processing Plant constructed under an Engineering, Procurement and Construction (EPC) model;
- 12 month construction phase followed by a 5 year open pit, with underground production commencing year 3 for a total Project life of 9 years;
- Natural gas fired power station is constructed under a Build, Own, Operate (BOO) model;
- Open pit and underground mining being undertaken by mining contractors;
- Non-processing Infrastructure is managed under a Calidus owners team, including construction of the site access road, accommodation village, tails storage facility and aerodrome upgrade; and
- Overall project implementation by a Calidus owners team.

The Project schedule is driven by a 51-week processing plant construction timeline (from award of EPC Contract to commencement of plant commissioning). On award of the EPC Contract (assumes no early works programme), the EPC contractor would mobilise to site after two months. This then affords the owners team a window to complete the access road and have a portion of the accommodation village rooms ready for occupancy. Completion of the remaining works can then be completed in parallel with the processing plant construction over the remaining timeline.

3. Study Team

The Updated PFS was managed by Calidus with specialist consultants as listed below to complete all aspects of the study:

- Principal Consultant and Study Manager – GR Engineering Services Limited (GRES);
- Mineral Resource Estimate – Optiro Consultants, Lynn Widenbar and Associates;
- Environmental, Base Line Studies and Project Permitting – Rapallo, Biologic, Woodman, Sticks and Stones, Total Heritage, Nyamal Heritage, Bat Call, Graeme Campbell and Associates, Mine Earth, Lloyd George Acoustics;
- Geotechnical – Peter O'Bryan and Associates, ATC Williams;
- Tails Storage Facility – ATC Williams;
- Hydrology and Hydrogeology – Groundwater Resource Management;
- Processing Plant – GRES;
- Metallurgy and Testwork – GRES, Metallurgy Management Services, Nagrom, ALS, BV;
- Infrastructure – GRES, Aerodrome Management Services; and
- Mining – Intermine Engineering Consultants, Dionysis Mining and Galt Mining Solutions.

4. Permitting and Approvals

The Warrawoona Gold Project has been recently recommended for approval by the Western Australian Environmental Protection Agency (EPA) (ASX release 25th June 2020 *EPA recommends approval of Warrawoona Gold Project*). The Commonwealth has its own separate approvals process whereby it can undertake its own assessment under the EPBC Act. The Commonwealth has elected to undertake an Accredited Assessment, where they will use the EPA Assessment to use as a base for their decisions thereby streamlining the approvals process.

Additional Western Australian Environmental Approvals which are applicable to all project developments include:

- Mining Proposal and Mine Closure Plan – administered by the Department of Mines, Industry Regulation and Safety (DMIRS);
- Works Approval and Environmental Protection Act Part V Licencing - administered by the Department of Water and Environment Regulation (DWER); and
- Water Licencing administered by the Department of Water and Environment Regulation (DWER).

5. Geology and Mineralisation

The Warrawoona Project is located within the East Pilbara Terrane of the Archean Pilbara Craton in Western Australia. The East Pilbara Terrane is characterised by large, dome-shaped composite granitic complexes wrapped by greenstone belts (Figure 1). The granite-greenstone terrane is unconformably overlain by little-deformed volcanic and sedimentary rocks of the Hamersley Province. The Klondyke deposit is hosted within the Warrawoona Group, a package of high-Mg basalt, komatiite and felsic volcanic units, that outcrops throughout much of the East Pilbara Terrane and is one of the more important hosts to Au mineralisation.

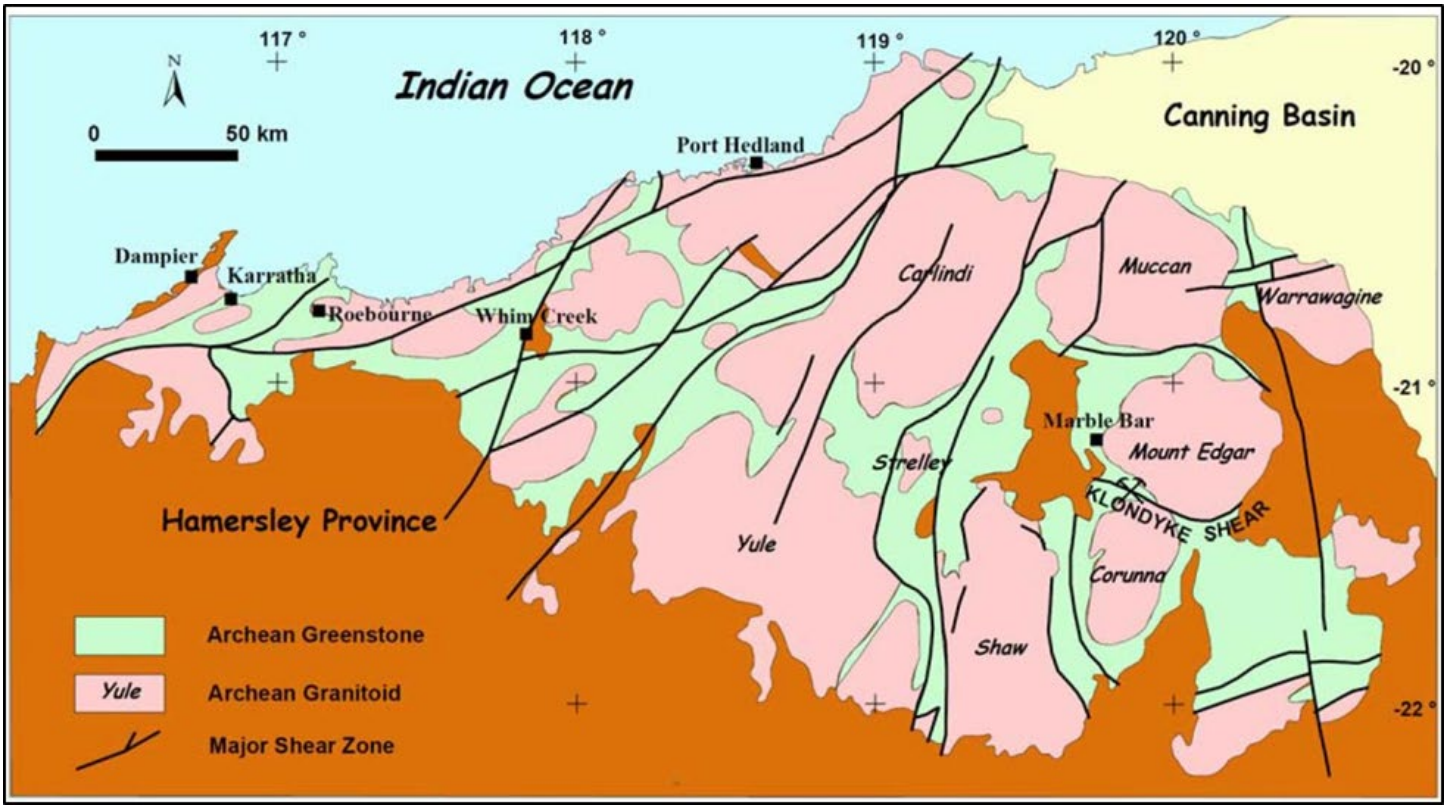

Figure 2: Simplified Regional Geology

The Warrawoona Project mining leases lie within the Warrawoona greenstone belt, a highly tectonised package of rocks sandwiched between the Mount Edgar batholith to the north and the Corunna Downs batholith to the south (Figure 2). Episodic and long-lived diapirism during intrusion of the batholiths has resulted in pervasive deformation throughout the greenstone belt. In the eastern part of the tenement package between the batholiths, the greenstone belt is as narrow as 1.5km wide. To the west, the belt fans out to form a series of narrow, widely spaced mylonite zones with comparatively undeformed rocks between. Gold mineralisation is closely associated with the mylonite zones and with thin chert layers (such as Kopcke's leader at Klondyke) which are interpreted to represent stratigraphic breaks and appear to have acted as a focus for mylonite development, hydrothermal alteration and gold mineralisation.

6. Klondyke Mineralisation

Gold mineralisation at Klondyke is concentrated around the Klondyke shear and is associated with quartz-carbonate-pyrite veins within sericite/fuchsite-carbonate-altered and intensely deformed mafic schists. The shear, and the veins, are sub-vertical or dip very steeply to the south-southwest and strike at about 110°. A 10–50cm-wide black chert band, referred to as Kopcke's leader by the early miners, is exposed within the altered mafic schists. Kopcke's leader is persistent both laterally and at depth and provides a good indication as to the location of mineralisation along strike and down dip. Rock units and quartz-carbonate veins display strong egg-carton boudinage and are marked by a very strong sub-vertical mineral/intersection lineation.

One of the most prominent features of the sections through the ore zone is the profound asymmetry of the alteration, with fuchsite alteration in the footwall (northern side) and sericite alteration in the hangingwall (Figure 3). The alteration asymmetry implies that Kopcke's leader is located at the contact between two different mafic units: a high-Cr (high-Mg) mafic unit below the chert in which fuchsite is developed and a low-Cr mafic unit above the chert in which sericite is developed. This contact marks an erosion surface with subsequent clastic deposition during a hiatus in volcanism (Figure 3). The Kopcke's leader chert unit has a remarkable strike and depth continuity over the resource area, providing a strong marker unit to guide exploration and resource drilling.

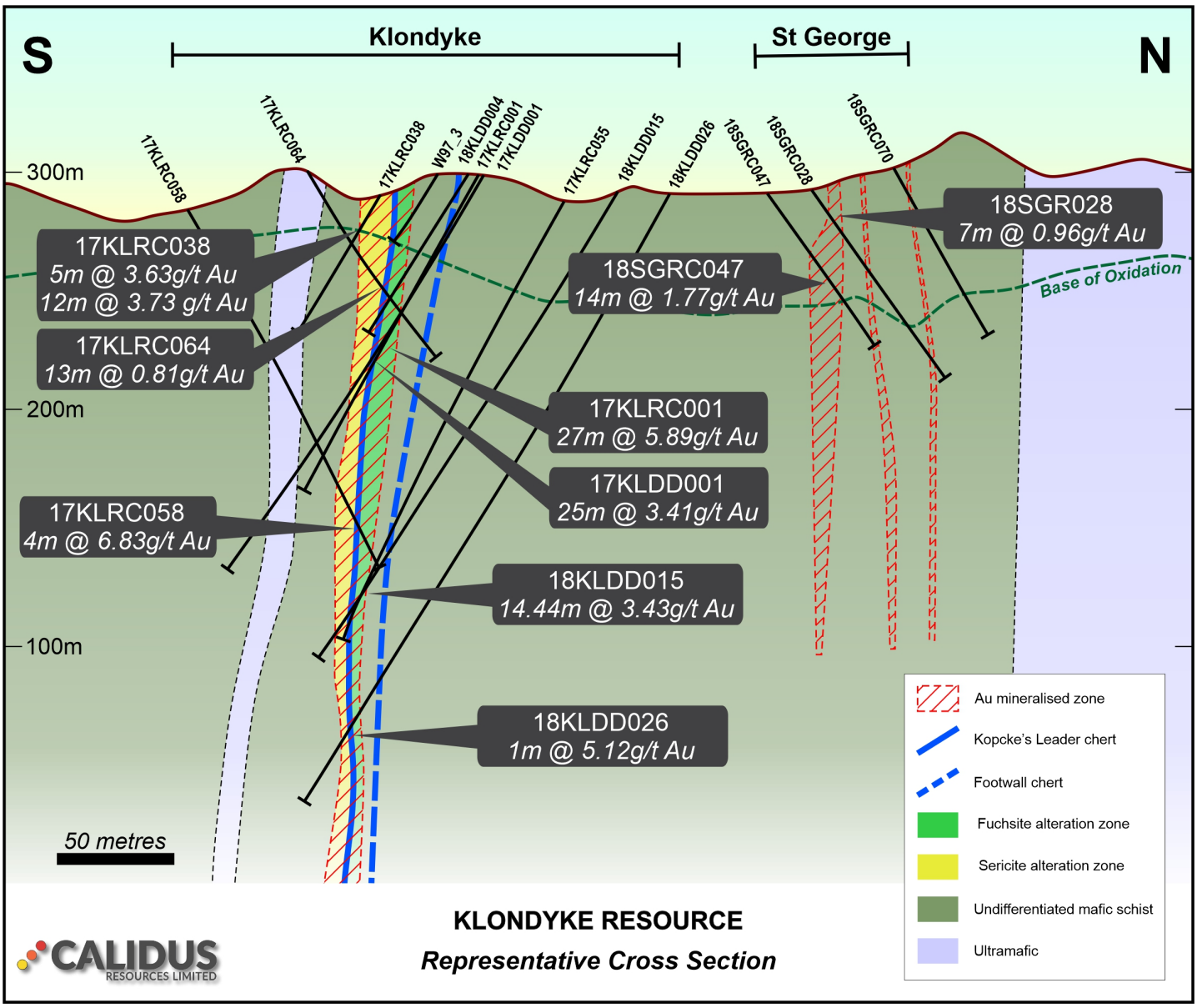

Figure 3: Klondyke Mineralisation

7. Mineral Resource Estimate

Targeting production in 2021, the Warrawoona Project Mineral Resources have received a significant update. The key updates involve the Klondyke Deposit where the updated model includes the addition of 88 close-spaced RC holes to increase confidence in the core of the proposed open pit, defining a maiden Measured Mineral Resource.

For the updated 2020 Open Pit Mineral Resource, an Ordinary Kriged model was developed using a parent cell size of 20m x 10m x 10m (X,Y,Z) versus the 2019 model which used a parent cell of 10m x 2.5m x 2.5m. This change is a result of a Kriging Neighbourhood Analysis (KNA) which looks at drill spacing and number of samples to provide a more robust

estimation. The parent cell size is 32 times larger than that used in the 2019 model and generally results in a smoother grade profile due to the large blocks. This OK model was then subject to post processing Localised Uniform Conditioning (LUC). The LUC used a sub cell of 10m x 2.5m x 2.5m to provide more granularity on localised grades within the parent cell. This has been used as the Selective Mining Unit (SMU) for optimisations and designs and is 250% larger than the previous 2019 model. As a result of the parent cell size and larger SMU unit, significantly more dilution has been introduced into the model but is believed to be more representative of actual ore block sizes for large excavators.

As the underground is a selective mining operation, the smaller sub cell size of 1m x 0.5m by 0.5m (X,Y,Z) as used in the 2019 estimation is considered to be more appropriate and as such has been retained as the method for the updated 2020 underground estimation.

Overall, the total ounces in the Mineral Resource has increased by 250kozs to 1.5Moz, and the confidence in those ounces has significantly improved with the inclusion of a maiden Measured Mineral Resource.

The Mineral Resource has been classified in the Measured, Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including geological continuity, data quality, drill hole spacing, modelling technique, estimation properties including search strategy, number of informing data and average distance of data from blocks.

The total Mineral Resource Estimate is shown in Table 7.

Table 7 - Global Mineral Resource Estimate (Inclusive of Reserves)

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz
Klondyke Open Pit	**0.3**	**2.3**	**0.98**	**72**	**29**	**0.90**	**844**	**8.3**	**0.81**	**217**	**39.6**	**0.89**	**1,133**
including	*0.5*	*1.6*	*1.21*	*64*	*20.3*	*1.12*	*733*	*5.0*	*1.09*	*176*	*27.0*	*1.12*	*973*
Klondyke UG	**1.5**				**1.0**	**2.87**	**89**	**1.8**	**3.31**	**162**	**2.7**	**2.83**	**250**
including	2.0				0.7	3.36	72	1.2	4.08	130	1.9	3.33	202
Copenhagen	0.5				0.2	5.58	33	0.1	2.65	9	0.3	4.54	42
Coronation	0.5							0.5	2.19	34	0.5	2.19	34
Fieldings Gully	0.5				0.3	1.80	16	0.33	1.87	20	0.6	1.84	36
Total		**2.3**	**0.98**	**72**	**30.4**	**1.00**	**982**	**11.0**	**1.33**	**442**	**43.7**	**1.06**	**1,494**

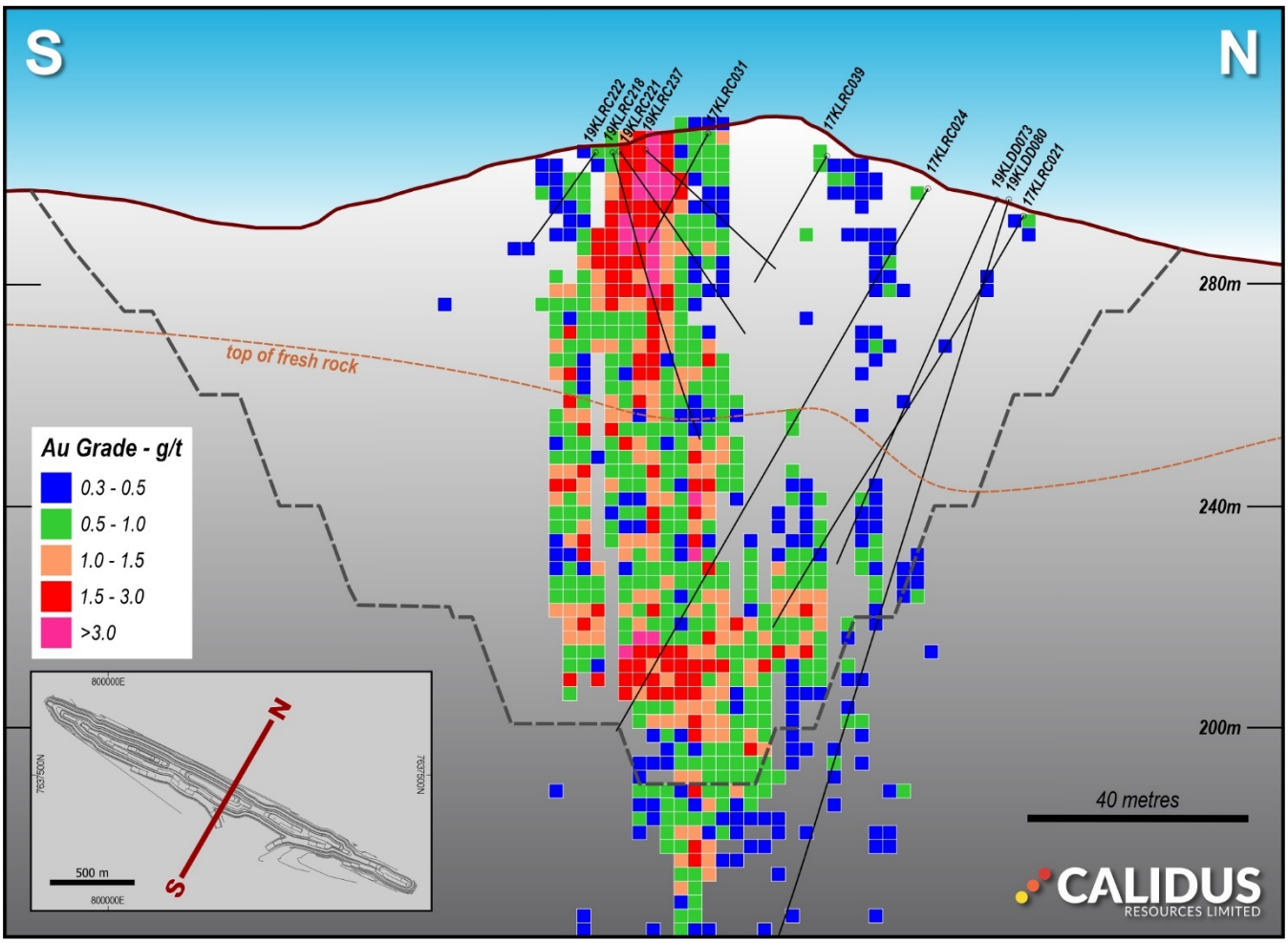

Figure 4: Cross Section through LUC model

8. Geotechnical

Ground conditions influencing wall stability in proposed open pit and underground mining have been assessed to Feasibility Study level of standard by Peter O'Bryan and Associates using current geological interpretations, data obtained from drill core and experience in geotechnical assessment and review in similar geological and geotechnical settings.

Design recommendations for the Klondyke Open Pit (below the first 10m) are 20-25m face heights with angles of 60-70^0 and a berm width of 5-7m. Perimeter blast methods will be used in the formation of final batters.

Design recommendations for the underground are a 25m floor-to-floor level interval, 30m decline standoff, a hydraulic radius of 7m with an in-situ crown pillar between the base of the open pit and the underground. Assessed rock mass conditions and orebody geometry indicate that long hole open stoping or uphole bench stoping are suitable mining methods for the deposit. Stope support will be provided by appropriately located rib and sill pillars and where practical available development waste rock can be used as unconsolidated stope backfill.

9. Hydrology and Hydrogeology

Groundwater Resource Management Pty Ltd (GRM) was appointed to undertake the PFS level groundwater and surface water studies. The groundwater component of the studies has involved field investigations including water exploration bores, data analysis, numerical groundwater flow modelling, and separate post-closure modelling for the Klondyke pit lake.

10. Mine Dewatering

The results of a bore testing programme were used to construct a 3D numerical groundwater flow model to estimate pit dewatering rates and simulate the impacts upon the groundwater environment from mining below the water table. The model simulated dewatering rates based on the mine plans. Results of the modelling indicate that:

- Groundwater inflows to the pit will not occur until nearly 12 months after the start of mining;
- Assuming no ex-pit bore dewatering: peak inflows may range from 15 to 25 l/s during mining, from about Year 3, with possibly higher short duration inflows peaking up to around 30 to 35 l/s;
- During the first three years of mining, pit inflows may be about 15 l/s or less, also assuming no ex-pit dewatering; and
- Groundwater inflows to the Klondyke pit will not likely occur until around 12 months after the start of mining, based on the current mine plans. Therefore, advanced dewatering of the Klondyke pit will be undertaken to augment the process water supply and reduce the projected longer-term pit inflows. The modelling also simulates the propagation of a cone of depression in the groundwater table from the dewatering over the six year life of the mine.

11. Water Supply

Estimated inflows to Klondyke from the groundwater modelling indicate that even with advanced mine dewatering, the project may still have a shortfall in supply of up to around 20 to 30 l/s which will need to be sourced from new water supply bores in the project area. This equates to around eight to ten groundwater production bores potentially being required to meet the water demand, which have been provided for in the capital estimate. Several areas have been identified for these bores and exploration water holes drilled to confirm the availability of water. Further drilling for additional bores and for fully equipping and pump testing several bores is planned for in the September Quarter as part of advancing the DFS.

12. Surface Water Management

There are several relatively minor ephemeral watercourses and drainage lines that cross the Project site on the south side of the Warrawoona Ridge in a roughly northeast to southwest direction. Given that the majority of the proposed mining areas are situated within the Warrawoona Ridge with some 80m relief and in the headwaters of both the Brockman Hay Cutting Creek and Sandy Creek (Figure 5), the catchment areas upstream of the proposed project facilities are very limited and impacts on the hydrological regime downstream are expected to be minimal. Consequently, flood protection and surface water management measures required for the project will be relatively modest.

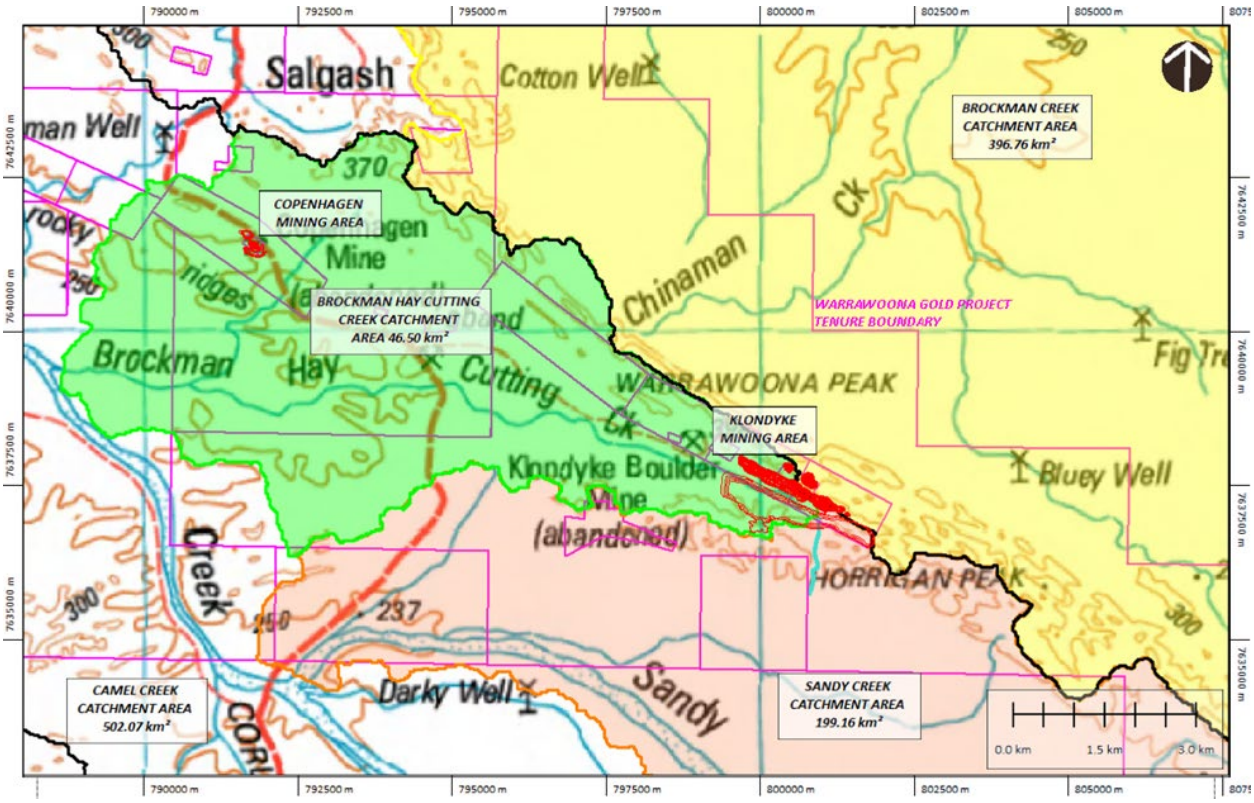

Figure 5: Local Hydrology

Flood protection works will comprise the following:

- Waste dumps strategically placed along the upstream side of all pits where possible;
- Sections of rock armoured flood diversion bunds and drains placed around pit crests. Bunds will be offset sufficiently such that they can also serve as abandonment bunds; and
- Ex-pit roadside drains to direct runoff away from the pits.

It is envisaged that mobile pumps will be used to remove in-pit run off. Run-off from catchment areas upstream of the TSF will report to the reclaim pond (decant) before being returned to the process plant for re-use. The TSF will function as a zero-discharge facility during operations and sufficient freeboard will be provided on the embankment to store runoff from upstream areas. At mine closure an engineered spillway will be constructed on abutment of the TSF embankment. Additional information on the TSF is contained in Section 16.

13. Mine Design

Intermine Engineering Consultants and Dionysis Mining respectively completed the open pit and underground production schedule defining the Ore Reserve. The Ore Reserve was defined in accordance with the JORC Code 2012 supported by Competent Persons' taking responsibility for their areas of expertise.

The PFS was conducted on the JORC 2012 Mineral Resource estimate completed by Optiro and Windenbar and Associates as reported in this release.

Of the total 16.9Mt mined, 85% by tonnes is from the open pit, with the remaining 15% from underground.

Open Pit

The Klondyke deposit will be mined utilising conventional open pit mining methods comprising:

- Clearing, stripping and stockpiling of near surface material in the areas of the pit and proposed waste storage facility;
- Initial pioneering work with a smaller fleet of articulated trucks in pit areas with high topographic relief to establish suitable sized working bench areas for the proposed mine fleet as well as provide material for the TSF embankment construction;
- RC grade control programs to further delineate ore boundaries;
- Drill and blasting of ore and waste on 5 metre bench heights using a combination of 115 and 127mm diameter holes;
- Load and haul using nominally 130t-200t excavators and 100t rigid trucks using 2.5m flitch heights; and
- Haulage of ore to the ROM pad stockpiles to be fed to the crusher.

Pit Optimisation for Klondyke

The LUC resource model has a regularised Selective Mining Unit (SMU) block size of 10m along strike, 2.5m across strike and 2.5m in depth to replicate potential mineable blocks. This regularised model was used for optimisations which were run to delineate potential material to guide final pit design limits.

Pit optimisation used a A$2,200/oz gold price and costs as shown in Table 8.

Table 8 - Optimisation Inputs

Deposit (Pit)	Processing Cost $/t		Met Recovery	Load & Haul $/BCM		Drill and Blast $/BCM		Other $/t				
	Oxide/Trans	Fresh	%	Oxide/Trans	Fresh	Oxide/Trans	Fresh	Grade Control	Mining On Costs	G&A	Closure	Road train haulage
Klondyke Open Pit	$13.34	$15.32	94.8%	$6.83	$7.07	$3.20	$3.20	$ 0.60	$ 3.49	$ 1.56	$ 0.20	$ -
St George Open Pit	$13.34	$15.32	81.0%	$6.53	$8.81	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.20	$ -
Copenhagen	$35.00	$35.00	90.0%	$4.56	$7.50	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.22	$ 3.20
Fieldings Gully	$13.34	$15.32	94.8%	$4.56	$7.50	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.20	$ 4.00

Notes:

1. Metallurgical Recovery through CIL plant is calculated using a fixed tail grade with post solution loss so that lower grade material attracts a lower recovery
2. Klondyke Open Pit carries the full amount of overheads in optimisations so that satellite pits only incur on-costs associated with mine services (eg dewatering), haulage costs and closure costs
3. Copenhagen is treated by a separate small standalone sulphide circuit to produce a concentrate. An additional shipping cost and amount payable on the concentrate is included but not shown in the above table

Additional Open Pit Modifying Factors

With the change to a larger SMU block size as part of the LUC model, an overall dilution of 2.5% and ore loss of 5% has been applied.

Open Pit Design

Pit designs were completed for the central Klondyke and St George lodes in accordance with the geotechnical batter and berm configuration guidelines from Peter O'Bryan and Associates. The final design is shown in Figure 6. The final pit at Klondyke has a strike length of 2.4km and width of 240m.

LOM strip ratio averages 3.6:1 across all pits with Klondyke main pit averaging 3.3:1.

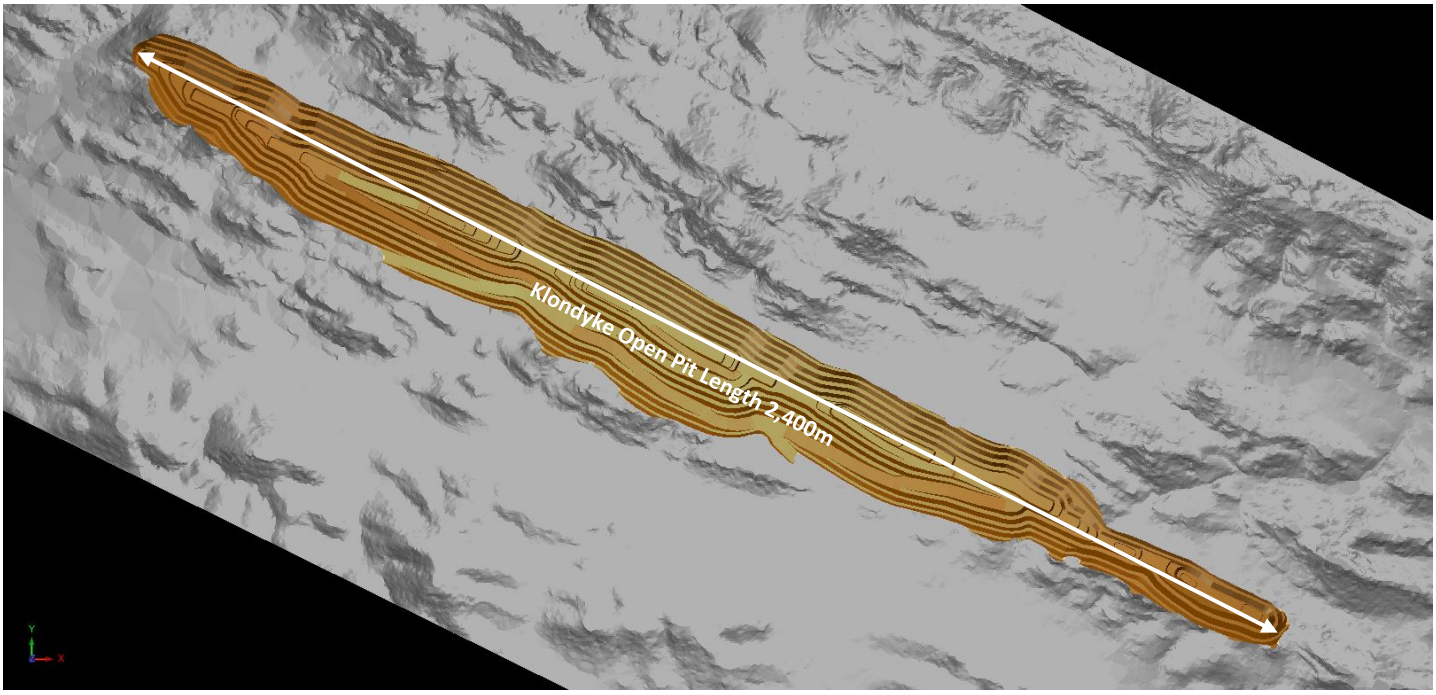

Figure 6: Final 2.4km Klondyke Open Pit

Underground

The underground mine is located beneath the main Klondyke Open Pit and will be accessed via a portal location established in the pit. The decline develops between the Klondyke and St George Shear Zones to allow positioning for diamond drill Grade Control Drilling ahead of production

The Updated PFS allows for an initial decline of 800m and drill drive of 400m to be developed commencing late in year 2 and then a total of 3 months of underground grade control drilling to increase the category of reserves before final underground development re-commences (Figure 7) in year 3. This will target the area directly below the measured resource area of the Klondyke open pit, which represents the current "central core" area of the underground mine and closest to the central Decline position (Figure 8).

A total of 60,000m of underground diamond drilling is incorporated into the underground mining schedule to progressively de-risk the production with tight spaced grade control drilling.

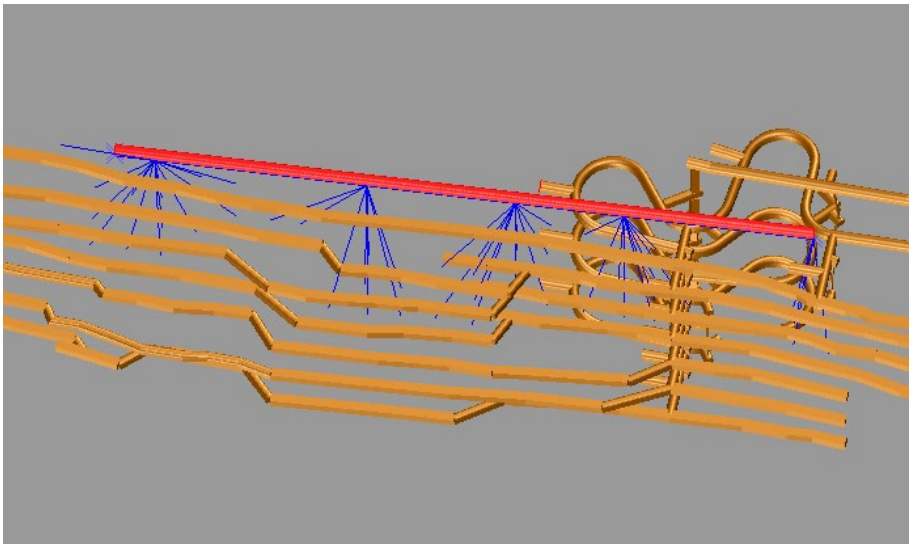

Figure 7: Planned initial diamond drilling (blue) from dedicated diamond drill drive platform (red) above planned extraction levels (brown)

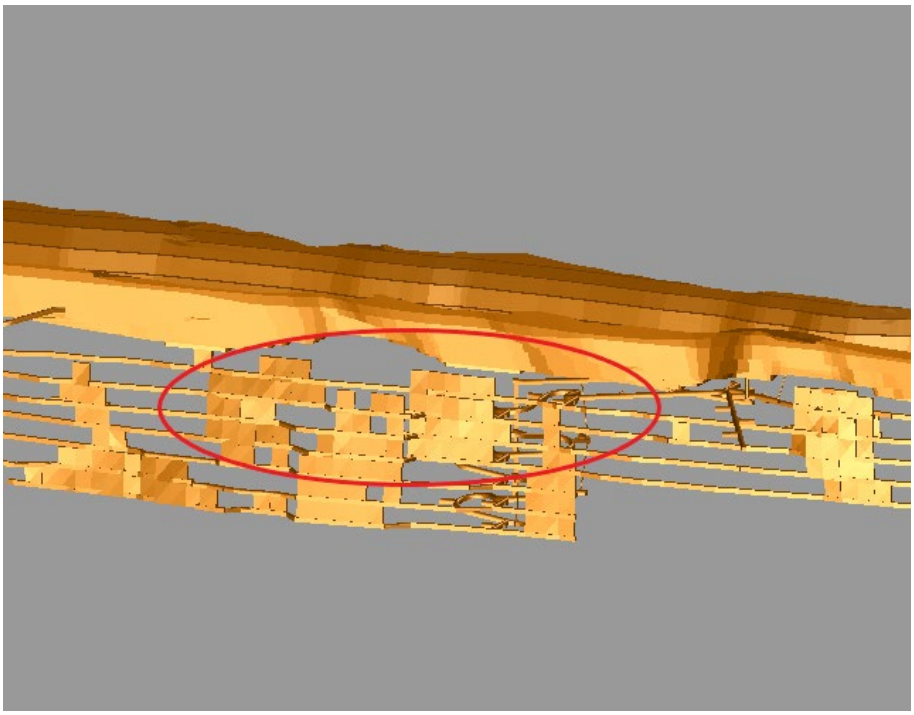

Figure 8: Initial diamond drilling target area below measured resource area of Klondyke Open Pit

The following describes the underground mine design approach:

- The mine is planned to be developed using conventional twin boom jumbos;
- Access is by a 5.5mW x 5.7mH decline, commencing from a portal location established in the Klondyke Open Pit. Consideration has been given to traffic management and dedicated ramps for the surface and underground fleet at the planned pit position when the underground is scheduled to commence; ;
- The planned mining method is uphole benching, retreating to a crosscut access from a centrally positioned decline;
- A floor to floor level interval of 25m with a decline standoff at least 30m from the orebody has been used as recommended by Peter O'Bryan and Associates;
- Second means of egress will be via raise-bored escapeways collared within the open pit. A network of underground escapeway rises will provide a continuous second egress;
- Primary ventilation will be via raise-bores collared within the open pit to the underground. The initial raise from surface is designed at 4.0m diameter;
- Ground support patterns are as per geotechnical guidance from Peter O'Bryan and Associates.

Stopes are designed to a minimum drill width of 2m and are planned to be drilled with 76mm holes. 0.5m dilution in each stope wall is built into the stope shape for a minimum stope width of 3.0m. A general mining recovery factor of 95% is applied to allow for ore losses. Ore drives have dilution included in the design profile allowing for 10% dilution.

Stope stable spans are governed by a maximum hydraulic radius of 7.0 resulting in 45m stable span lengths. Rib pillars are a minimum of 5m strike length and a width / height ratio of 0.8 in wider stopes. The resultant rib pillar based stope recovery is 89%, however a more conservative factor of 80% has been utilised. Rib pillars are planned to be full height. Sill pillars of 5m vertical height are used for stope stability to restrict down dip stope spans to 100 vertical metres (4 levels). Pillar losses are applied in the mining schedule.

Combined Mining Schedule

The final mine schedule comprised:

- Months 1 to 12 are for plant construction;
- Pioneering open pit mining would commence in month 5 and complete in month 14;
- Full open pit mining capacity from month 12 to reach 500,000 BCM per month in month 14;
- A stockpiling strategy is used, whereby the rate of mining exceeds the rate of milling so that higher grade material can be preferentially treated, and lower grade material (less than 0.5g/t) is treated in the back half of the mine life with higher grade material from the underground;
- The underground mine schedule would start supplying ore to the plant in month 43. Steady state underground production is attained in month 55, or 14 months from underground mining commencement; and
- The combined open pit and underground schedule is shown in Figure 9 below.

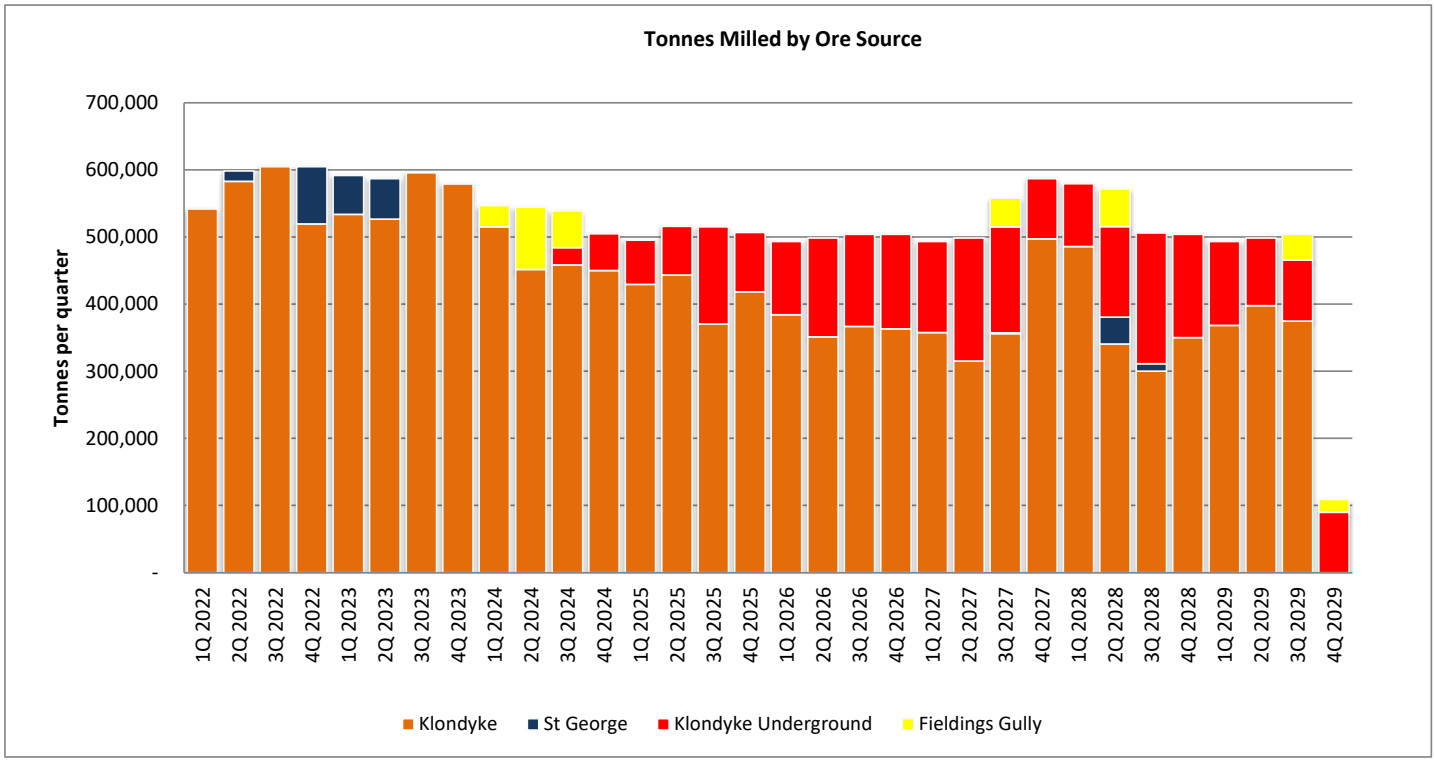

Figure 9: Monthly Plant Feed - Open Pit and Underground

14. Reserve

The Ore Reserve for the Klondyke open pit and underground is shown in Table 9. The table should be read in conjunction with the information required by ASX Listing Rule 5.9.1 and the JORC Section Table 4 contained in this report.

The split of indicated and inferred material for the mine plan is shown in Figure 10. This demonstrate there is not a great reliance of the use of inferred material and inclusions of inferred material is not a determining factor of the project's viability.

Table 9 - Ore Reserves May 2020

Deposit	Cut-Off	Proven			Probable			Total		
	(g/t)	kt	Au (g/t)	koz	kt	Au (g/t)	koz	kt	Au (g/t)	koz
Klondyke Open Pit	0.33 0.36	2,057	1.0	66	10,014	1.0	335	12,071	1.0	401
Klondyke Underground	2.0				1,199	2.4	92	1,199	2.4	92
St George Open Pit	0.36 0.39				244	1.2	9	244	1.2	9
Copenhagen Open Pit	1.88				95	5.5	17	95	5.5	17
Total		**2,057**	**1.0**	**66**	**11,552**	**1.2**	**453**	**13,609**	**1.2**	**519**

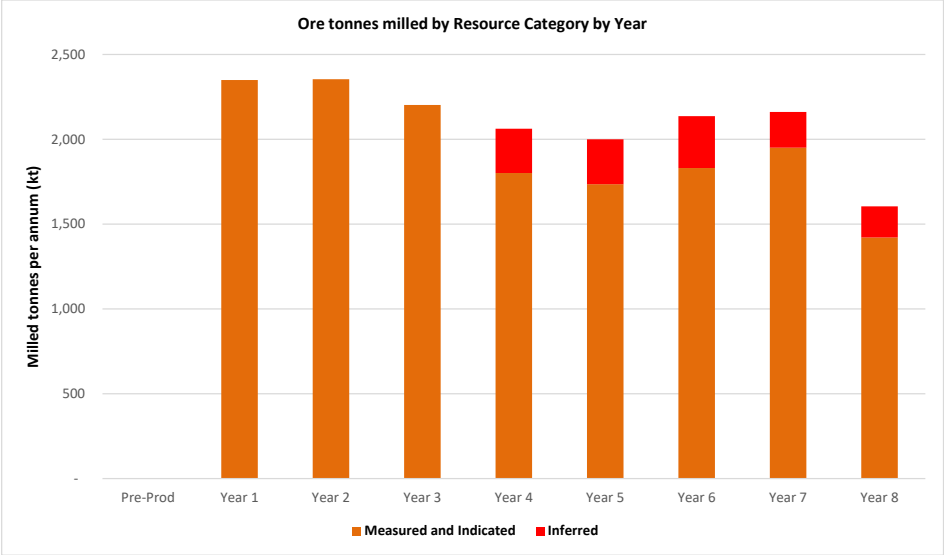

Figure 10: Split of Measured/Indicated; and Inferred Material

15. Metallurgy

A metallurgical testwork program has been conducted on the Klondyke deposit in four campaigns. In 2007 testing was completed at SGS to understand the basic ore properties. In 2018 Nagrom completed testwork under the management of Calidus for the Scoping Study, in 2019 further testwork was completed at Nagrom, ALS and Outotec for the PFS with further testwork in late 2019 and 2020 at Bureau Veritas being undertaken for the DFS under the supervision of GRES.

The metallurgical testwork programme completed has focused on the following:

- Improving the understanding of the comminution properties to allow for the comminution design to be finalised;
- Gravity recoverable gold (GRG) and leaching testwork at different grind sizes to confirm the target grind size and understand any leaching variability in the deposit;
- Leaching and Reagent addition optimisation
- Thickener settling test work; and
- Cyanide detoxification.

All testwork was completed using site water obtained from an active bore at the Project location.

Klondyke Comminution Test Work

The test work data completed over the three ore weathering zones; oxide, transitional and fresh ore, taken at various depths across the entire deposit (Figure 11), which has produced the following characteristics:

- Oxide is friable and soft (1.0 – 3.0 DWi, 5.6 to 8.9 BBWi);
- Transitional has soft/moderate competency and moderate hardness (2.4 to 4.2 DWi ,7.0 to 12.2 BBWi);
- Fresh has moderate competency and moderate hardness (3.4 to 7.2 DWi ,8.0 to 12.6 BBWi).

This testwork combined with extensive density analysis as part of the updated Mineral Resource has highlighted that the transitional zone extends 40m on average from surface. Due to its lower bond work index, this material will be processed at 2.4mtpa which enhances ounce production and reduces unit costs significantly.

The oxide only represents a small portion of the ore and will be blended with transitional.

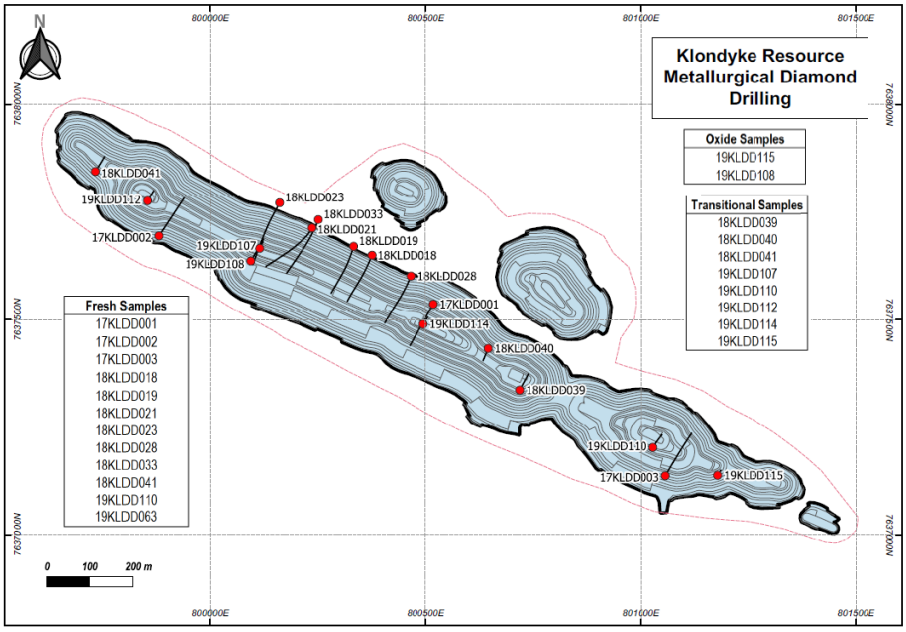

Figure 11: Plan View of the Metallurgical Test hole locations superimposed on the 2019 PFS pit

The Pre-Feasibility Study contemplated a primary crush and single stage SAG circuit (SSAG). A primary crush, SAG mill and ball mill (SAB) has been chosen for the DFS and has been costed in this Updated PFS as this circuit will provide maximum flexibility for future ore sources. There is minimal Capex and Opex difference between the two options over the life of the project, with the SAB a more operationally robust circuit. A three stage crush was discounted as the higher capital cost and soft ore properties of Klondyke eliminates this as viable option.

Klondyke Gold Extraction and Recovery

The 2018 testwork program indicated that 150 microns was the optimal grind size for the ore. To confirm this assessment, the PFS testing was completed in parallel at a P80 of 106 microns and 150 microns, and subsequent 2020 test work for the DFS at 180, 150, 125 and 108 microns. The results showed the fresh ore is not grind sensitive as the gold extraction is relatively constant below a grind size of P80 of 150 microns as shown in Table 10 below:

Table 10 - Leach Extraction Results

Grind Size (p80) micron	Recovery (%)
180	97.2
150	97.7
125	97.8
106	97.8

The gravity test work along with the proposed circuit has been modelled by Consep who have advised a gravity recovery of 33% is expected. Test work demonstrates that a high recovery is achievable, with the ore containing no deleterious elements or displaying preg-robbing characteristics, however further test work as part of the the Feasibility Level is being undertaken to confirm this. A metallurgical recovery for Klondyke is based on a fixed tails grade of 0.04g/t with additional solution losses of 1.2% added. For St George, a metallurgical recovery of 81% has been used based on initial bottle roll tests.

Process Flow Sheet

The simplified plant flowsheet is shown in Figure 12.

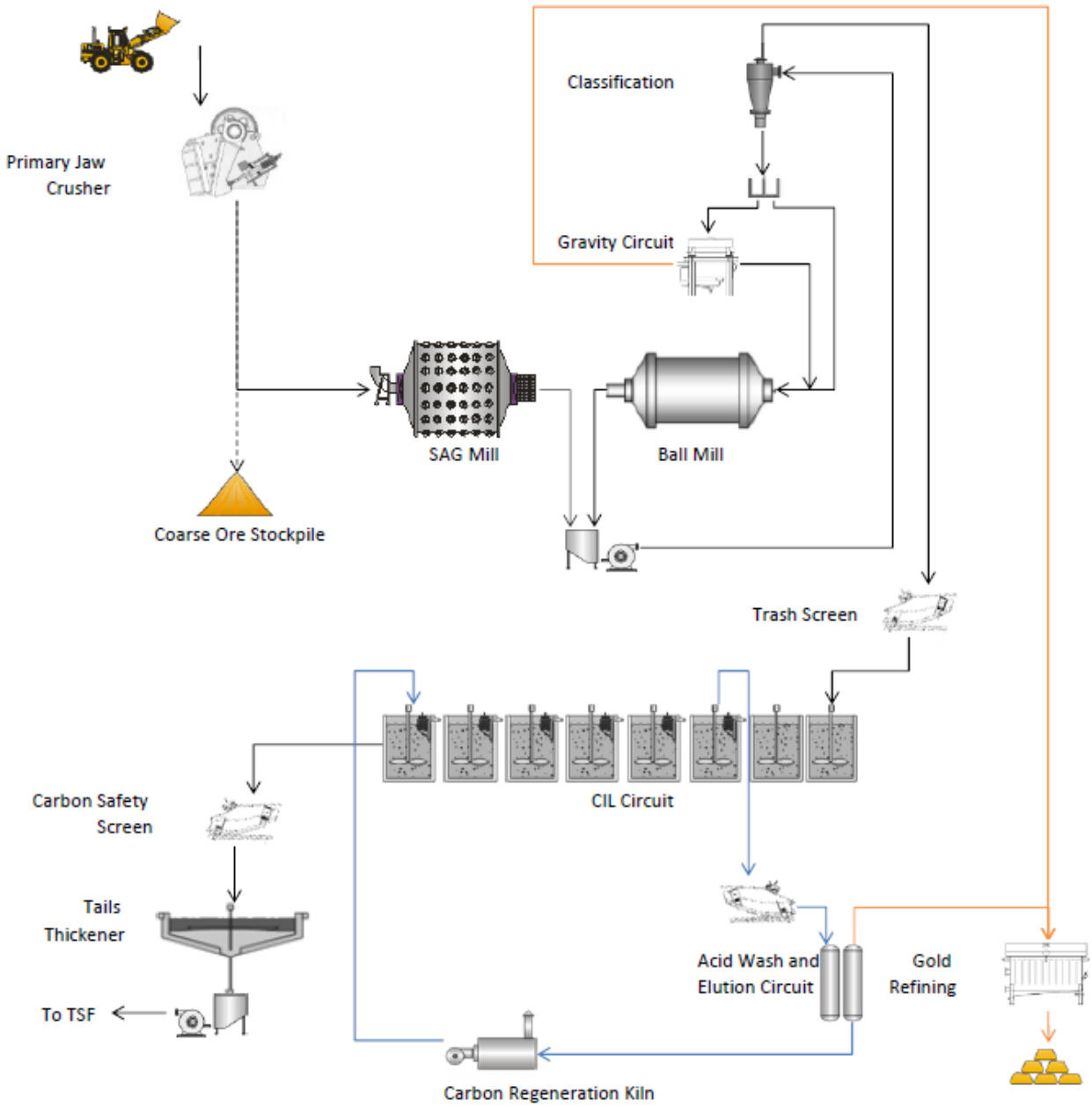

Figure 12: Simplified Process Plant flowsheet

Process Plant

The process plant design has been developed from the outcomes of the metallurgical test work conducted during the Scoping Study and July 2019 PFS. The plant will have a fresh nameplate throughput of 2.0mtpa with a nominal capacity of 275 tonnes per hour (tph). Modelling as part of the DFS has shown that an additional 20% throughput increase is possible when treating the oxide/transitional ore, with throughput increasing to 2.4mtpa and 300tph.

The process flow was developed from the process design criteria prepared by GRES. The plant design is simple and robust and comprises the following elements:

- Single stage crusher;
- Surge bin, reclaim feeder and crushed ore stockpile;
- SAG and ball grinding circuit and classification;

- Gravity recovery;
- Leaching and adsorption; and
- Elution and gold recovery.

Ore will be placed in stockpiles on the ROM pad and will be fed into the primary crusher bin by a front-end loader.

The process plant will comprise the following circuits:

- Crushed product will report to a surge bin and an overflow chute to direct excess ore onto an emergency stockpile via a conveyor;
- A variable speed apron feeder will draw material from the surge bin and feed the milling circuit via a mill feed conveyor;
- Material discharged onto the emergency stockpile can be reclaimed and delivered onto the mill feed conveyor with a front-end loader via an emergency feeder;
- The milling circuit is a SAG and ball mill grinding circuit.
- A gravity recovery circuit on cyclone underflow will consist of a single concentrator and intensive leach reactor for treatment of the gravity concentrate;
- A conventional CIL circuit will consist of two leach tanks and six adsorption tanks
- Metal recovery and refining will consist of an AARL elution circuit, electrowinning cells and smelting; and
- Tails will be thickened to 65% solids with thickener overflow reporting to the process water tank to assist with reagent recovery. Thickened underflow will be transferred to a tailings hopper where it will be combined with Caros Acid for cyanide detoxification and the tails discharged to a valley fill style TSF which is discussed in Section 16.

Figure 13 and Figure 14 provide the plant and administration area general arrangement and process plant general arrangement.

Sulphide Circuit

A small 100ktpa milling and flotation circuit is included in the capital cost estimate in year 2 of operations for initial treatment of the high-grade refractory Copenhagen deposit. The plant will produce an approximate 100g/t Au concentrate that will be shipped to a third party processing plant. Preliminary discussions have been entered with several international parties with indicative pricing for the concentrate received.

The sulphide circuit will be a small standalone, modular and transportable plant consisting of flotation cells, concentrate thickener and filter press. The concentrate would be loaded into “bulka bags” for transporting off site in a sealed sea container. It is expected that material will be feed to the plant via a mobile crushing plant and that the plant will be capable of being operated by a single person.

Tails from the sulphide circuit would report to the main CIL processing plant tails thickener for thickening and cyanide detoxification.

Testwork shows a recovery of 90% Au to concentrate grading 120g/t Au. Indicative offtake terms and shipping costs have been included in the financial model for this concentrate.

Copenhagen ore makes up 0.6% of the total tonnes processed. The plant will be put on care and maintenance after processing this ore and remains available to treat similar orebodies if the need arises.

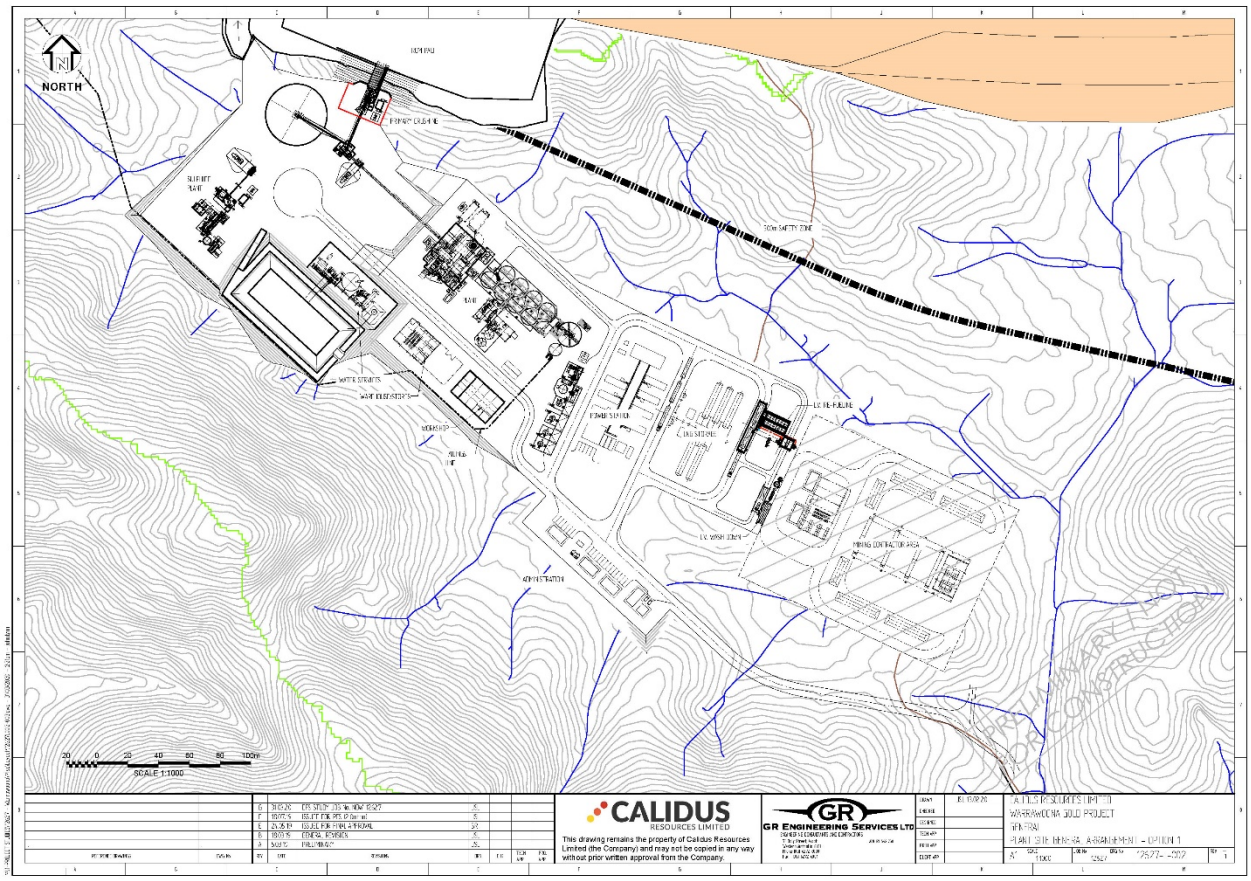

Figure 13: Plant Site General Arrangement

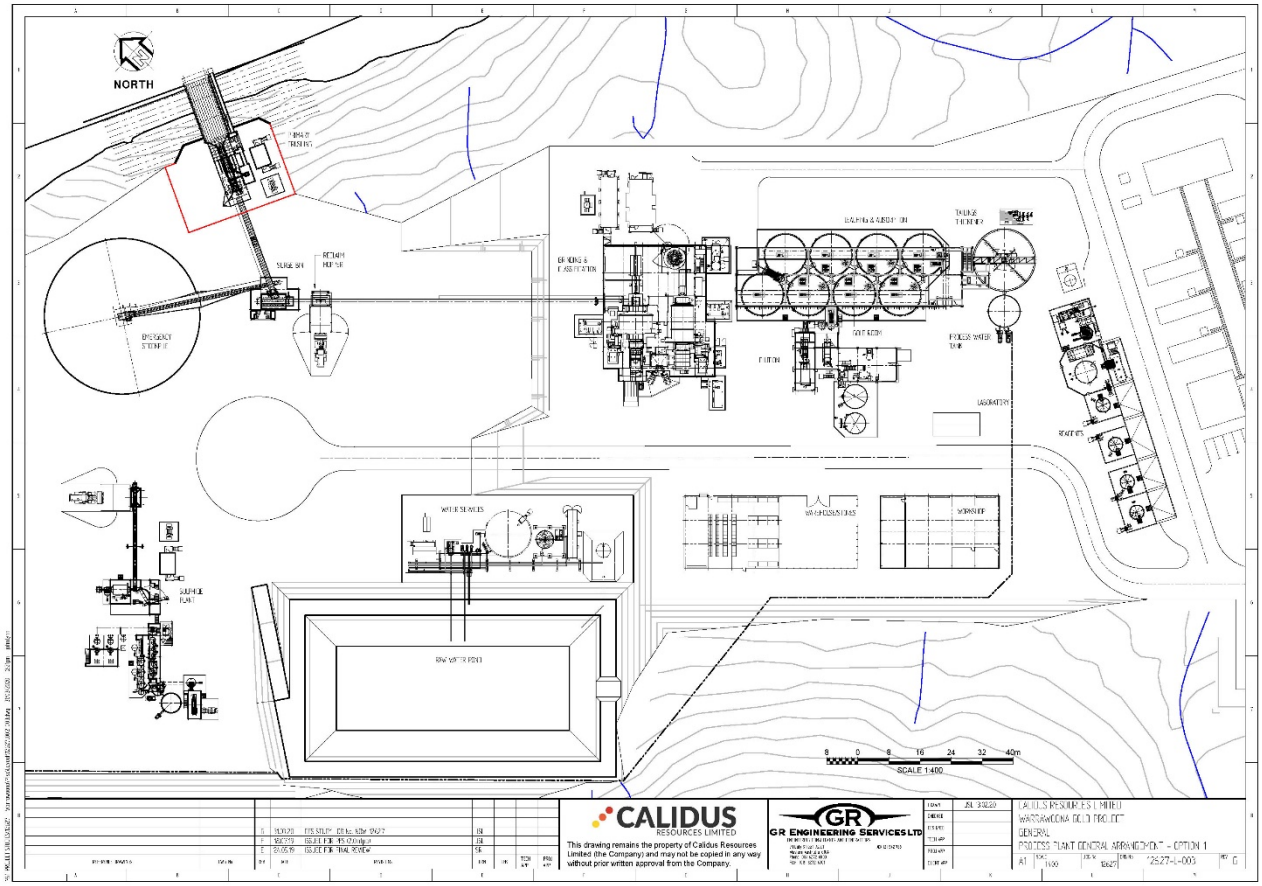

Figure 14: Process Plant General Arrangement

16. Tails Storage Facility

ATC Williams (ATCW) have completed the design of the Tailings Storage Facility (TSF).

The TSF is a valley type facility whereby a cross valley containment embankment approximately 17m high and 250m long will be constructed across a valley downstream of the process plant where a dolerite dyke cross cuts the valley. The tailings impoundment within the valley is approximately 750m wide and 2.3km long with an area of approximately 140ha. Tailings will be discharged down valley from an elevated location approximately 1.5km to the west of the proposed processing plant.

The facility catchment is approximately 5.7km^2 which comprises the tailings storage area, the natural catchment on the valley sides and the western portion of the proposed waste dump area.

Tails geochemical test work indicates that the tails sample has significant acid neutralising capacity resulting in a non-acid forming (NAF) classification.

Bleed water and incidental rainfall runoff from the tailings storage area and contributing external catchment will be pumped back to the process plant to be reused.

The general arrangement of the TSF, plant site, waste dump and Klondyke open pit is shown in Figure 15.

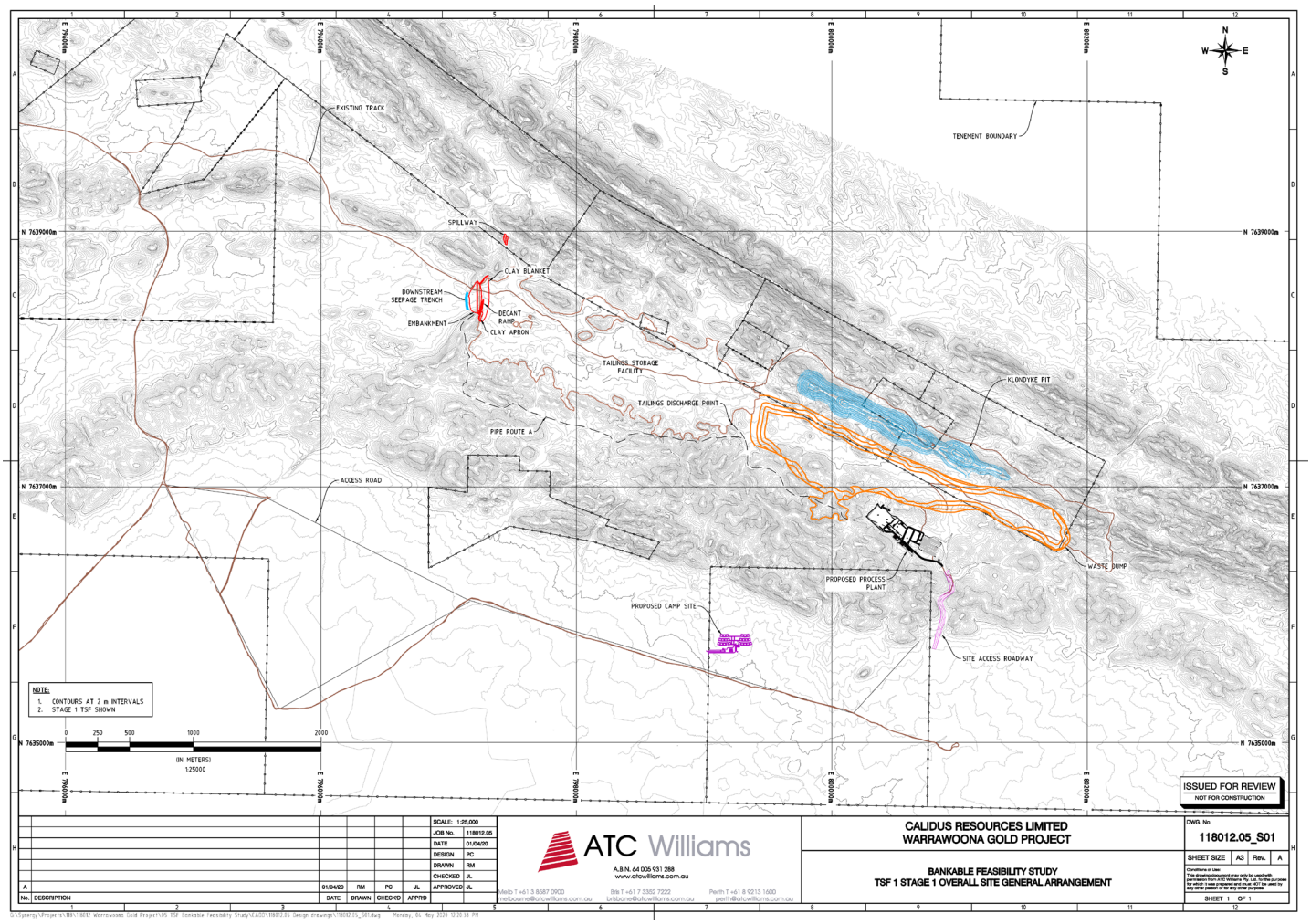

Figure 15: TSF General Arrangement

17. Non-Processing Infrastructure

Non-processing Infrastructure construction will be managed by a Calidus owners team. The overall site footprint is shown in Figure 16.

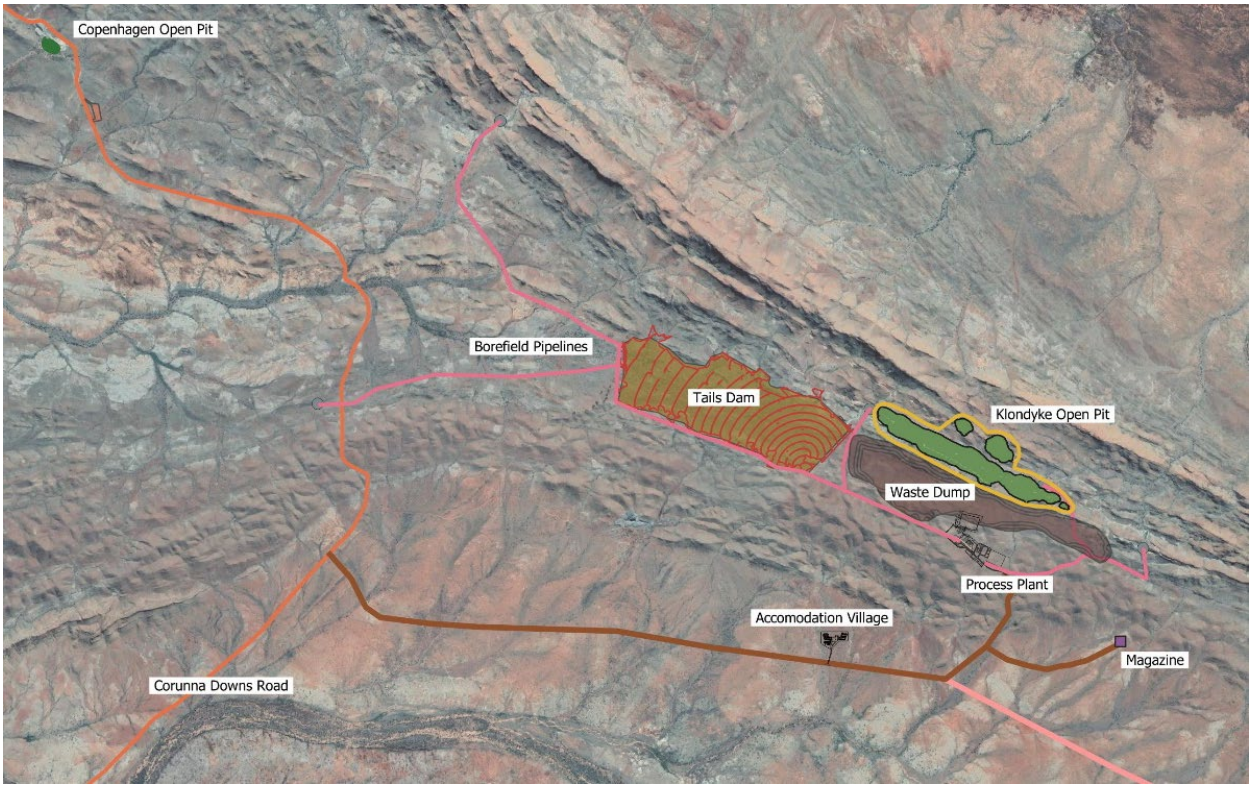

Figure 16: Overall Site Layout

The supporting non-processing infrastructure required for the operation of the Project under the owners project scope will include the following works with the pertinent features discussed below:

- Access road;
- Tailings storage facility (refer Section 16);
- Installation of the previously purchased accommodation village;
- Upgrade of the Marble Bar Aerodrome in a co-funding arrangement with the Shire of East Pilbara;
- Bulk earthworks for the process plant site and infrastructure that includes the internal roads, ponds, village, explosive magazine storage and mine service areas;
- Communications network and IT facilities;
- Transportable buildings including site offices, change rooms, crib rooms and ablutions;
- Steel-framed buildings including workshops, warehouse and reagent store;
- Fuel storage and distribution facility;
- Electrical power generation;
- Power reticulation across the project site;
- Water supply including bores providing water for processing and potable supplies;
- Light vehicles and mobile equipment;
- Potable water treatment; and
- Wastewater treatment.

Site Access Road

A 7km Access Road will be constructed from the public Corunna Downs Road to the project site. The access road will also be used as a service corridor for electrical and water services from the process plant and administration area to the accommodation village.

Aerodrome

An upgrade of the Marble Bar Aerodrome is being contemplated for the Project as part of a syndicated approach between the Shire of East Pilbara and Calidus (ASX release 27th April 2020 *Marble Bar Airport Upgrade*). During the construction phase personnel would travel to site via commercial flights into Port Hedland and bussed to site. The Marble Bar aerodrome upgrade is expected to be completed (including subsequent CASA approval) for commencement of production, at which time Charter aircraft would be utilised to transport personnel.

Accommodation Village

A 240 room accommodation village has been purchased for the project. The accommodation village is to be installed at a site that is located on the southern side of local relief which provides a natural buffer (insulation) from noise and light from the processing plant and mining operations.

Power Station

Electrical power for the mine, processing plant and accommodation village will be provided by a dedicated power station located on the process plant site. This station will consist of natural gas fired reciprocating generator sets with n+1 redundancy. Power will be generated at 11kV and distributed throughout the facilities through substations with respective transformers.

Power will be provided by a contractor under a Build Own Operate (BOO) agreement.

Bulk liquefied natural gas (LNG) fuel will be delivered to site by road tankers. Onsite gas storage and evaporation equipment will be installed adjacent to the power station.

Communications

Site communications will be provided by Telstra through a combination of internet access via a microwave repeater linking the site to the Telstra exchange at Marble Bar and a site based Digital Mobile Radio System ("2-way").

Waste Management

Sewerage production will be treated in a modular wastewater treatment plant located near the accommodation village. A site landfill facility registered under Rural Landfill Regulation will cater for domestic/putrescible waste from the mine site, kitchen, stores and workshop. Maintenance waste including waste oil will be removed from site using a licenced contractor. A bioremediation facility will be created to treat any contaminated soil from potential hydrocarbon spills.

18. Environment and Social

Calidus staff and representative consultants have and will continue to communicate and liaise with various stakeholders, including the Traditional Owners, Regulatory bodies, the Marble Bar community, Pastoral lease holders and the Shire of East Pilbara.

During formal stakeholder meetings, presentations were given to inform respective stakeholders of the likely Project logistics including a timeline for the various construction and operational aspects.

Calidus will seek to provide preferential opportunities for both Traditional Owners and local Marble Bar residents' as part of the mine operations.

19. Project Development Capital Cost Estimate

The Project Development Capital Cost Estimate developed for the Updated PFS combines a scope of works based on an Engineering, Procurement and Construction (EPC) contract execution methodology for the process plant and direct associated infrastructure as well as a non-processing infrastructure scope of works controlled by the Calidus owners team with engineering input by the process plant engineer, or other third parties.

EPC Plant and Infrastructure

The EPC processing plant estimate has been prepared by GRES and includes all the costs associated with management, engineering, procurement, construction and commissioning of the process facility and associated infrastructure as well as first fills of plant reagents, consumables and spare parts.

The estimate is based upon preliminary engineering, quantity take-offs, budget price quotations for major equipment and bulk commodities. Unit rates for concrete and structural steelwork fabrication were based on market enquiries relating to the project and benchmarked to those achieved recently on similar projects undertaken in the Australian minerals processing industry.

The estimate pricing was obtained predominantly during second quarter 2019 (2Q19) and is in Australian dollars (A$). The capital cost has been increased by $5m to take into account exchange rate movements and changes to the milling comminution circuit.

The PFS target estimate accuracy is -15%/+20% as required for a Class 4 estimate to AACE guidelines. Due to the completion of like projects within the last 24 months by GRES and a sound understanding of the project scope requirements the capital cost estimate accuracy achieved for this project is greater than -15%/+20% based on the following:

- Developed engineering quantities from calculations, 3D models and design drawings based on constructed projects;
- Budget quotations obtained for major mechanical equipment and in-house GRES database pricing obtained within the last 24 months for the majority of the balance of mechanical equipment;
- Recent and relevant market rates for bulk commodities;
- Budget quotation for mill VSD with the remainder of the electrical and instrumentation estimate based on in-house database obtained from recent projects;
- Engineering, Procurement and Management estimate was derived from first principles based on the project schedule.

A small Calidus owners team will manage the overall project implementation including the EPC contract and the various infrastructure scopes for the tailings storage facility, access road, aerodrome, earthworks, village, etc to ensure regulatory compliance is met.

On award of the EPC contract (assumes no early works programme), the EPC contractor will mobilise to site after two months. This affords the owners team a window to complete the access road and have a portion of the accommodation village rooms ready for occupancy. Completion of the remaining works can then be completed in parallel with the processing plant construction over the remaining timeline. This programme could be accelerated on grant of early works permits that have been applied for.

Non-Processing Infrastructure and Owners Costs

The non-processing infrastructure scope includes owners costs of management of construction activities, mining contractor establishment, tailings storage facility construction, installation of the accommodation village, aerodrome upgrade, earthworks, roads, power reticulation, communications, administration buildings and other owners scope items (refer Section 17).

Non-processing infrastructure will be managed by the owners team with estimates based on quotes received from third parties and first principle estimates.

Owners costs for the project are inclusive of salaries, messing and accommodation, flights, equipment hire (temporary buildings and power), recruitment, communications and project insurances.

Contingency

A contingency has been developed by GRES for the process plant and associated infrastructure and a separate contingency of 13% has been developed for non-processing infrastructure and owners costs.

Pre-Production Mining Costs

Pre-production mining costs incorporates all costs prior to the commencement of gold production and includes setup costs of operational departments, preparations for operations, open pit establishment and build-up of stockpiles in advance of the commencement of processing operations.

20. Life of Mine Capital Cost Estimate

The capital costs for the Project includes all project development capital, pre-production mining costs (incurred prior to the commencement of gold production), underground mine development and sustaining capital and all other site sustaining capital. The capital costs are summarised in Table 11.

Table 11 - Capital Cost Summary

Capital Costs	Units	Pre-Production	Life of Mine
Processing Plant	A$M	75	77
Non-Processing Infrastructure and Owners Cost	A$M	22	23
Contingency	A$M	6	8
Project Development Capital	**A$M**	**103**	**108**
Pre-Production Mining Costs	A$M	13	13
Sustaining Capital	A$M	0	38
Development Capital	A$M	0	10
Total Capital Summary	**A$M**	**116**	**169**

21. Operating Cost Estimate

Operating costs were estimated for mine operations, processing and business services based upon the updated life of mine plan.

Pricing for the surface and underground mining costs were based on mining contractor budget estimates. Four separate budget estimates were received from reputable WA based mining contractors. Price checks were completed as part of the Updated PFS to ensure the previous estimates were still in line with market rates and refined in some areas.

Labour requirements were determined by GRES, the selected mining contractor and Calidus. Salaries were estimated in line with prevailing industry rates. An allowance of 30% on costs has been added to base salary levels to cover annual leave, sick leave, public holidays, long service leave, superannuation, worker's compensation insurance, payroll tax, and training costs.

Flight and accommodation costs are based on budget estimates received from catering and aviation charter service providers.

Major reagent prices were sourced directly from vendor budget prices. Major consumables and wear material prices were provided by the vendors at time of tendering. Some of the minor items were sourced from the GRES database from recent similar projects.

Maintenance spares for the processing facility have been calculated by multiplying the capital expenditure for supply and install by a standard maintenance factor from the GRES database.

A power model was created to calculate total site power requirements. Power consumption in the plant for the SAG mill came from the predicted power draw from the mill modelling process. The power cost is derived from vendor pricing estimates for a natural gas fired Build Own Operate (BOO) Power Station. A temporary power generation arrangement has been provided for in the first 12 months until the power station is built.

Mobile equipment numbers and types and costs were proposed by GRES and reviewed by Calidus.

The total operating cost by each major centre (mining, processing and business services) is shown in Table 12. Government and third party royalties as well as sustaining capital items for each area has been estimated and included in all-in sustaining costs (AISC).

Table 12 – All-In Sustaining Costs

Costs of Production	LOM Cost (A$M)	LOM Unit Cost (A$/t)	LOM Unit Cost (A$/oz)
Open Pit Mining	$264 M	$18 /t OP Ore	$423 /oz
Underground Mining	$142 M	$56 /t UG Ore	$228 /oz
Total Mining	$406 M	$24 /t	$652 /oz
Processing and Maintenance	$257 M	$15 /t	$413 /oz
Business Services	$30 M	$2 /t	$49 /oz
Total Cash Cost (C1)	**$694 M**	**$41 /t**	**$1,113 /oz**
Royalties	$48 M	$3 /t	$77 /oz
Sustaining Capital	$38 M	$2 /t	$60 /oz
Total All-In Sustaining Cost (AISC)	**$779 M**	**$46 /t**	**$1,251 /oz**

22. Financial Evaluation

Based on the capital and operating cost estimates a financial model has been developed for the purpose of evaluating the economics of the Warrawoona Gold Project. The full model has the capability to assess the capital structure for the development of the Project, including the Project's debt carrying capacity. The financial evaluation for the Updated PFS has been completed on a 100% project basis and is based on a A$2,500/oz study price which is the average price 6 month gold price prior to the date of release. Table 13 shows key economic inputs for the Study.

Table 13 - Key Economic Inputs

Key Economic Inputs	
Gold Price for Optimisations	A$2,200/oz
Plant Construction	12 months
Commencement of Processing	Month 13
Diesel Price	$1.00 per litre
Power Cost	$0.19 per kWh
WA State Government Royalty	2.50%
Overall CIL Metallurgical Recovery	94.3%
Plant Utilisation	91.0%

The following table provides a summary of project cashflows and key metrics:

Table 14 – Project Cashflow and Project Metrics

Production Summary	Units	Updated PFS		
Initial Mine Life	Years	8.0		
Total Ore Mined	oz	16.9Mt @ 1.22g/t for 663koz		
Gold Recovered	oz	623,086		
Processing Rate	Mtpa	Oxide/Transition 2.4Mtpa and Fresh 2.0Mtpa		
Average LOM CIL Metallurgical Recovery	%	94.3%		
Gold Revenue				
Gold Price	**A$/oz**	**2,200**	**2,500**	**2,800**
Gold Revenue	A$M	1,371	**1,558**	1,745
Pre-Production Capital				
Project Development Capital	A$M	103	**103**	103
Pre-Production Mining Costs	A$M	13	**13**	13
Total Pre-Production Capital	A$M	116	**116**	116
Operating Costs				
Open Pit Mining	A$M	264	**264**	264
Underground Mining	A$M	142	**142**	142
Processing and Maintenance	A$M	257	**257**	257
Business Services	A$M	30	**30**	30
Royalties	A$M	42	**48**	54
Sustaining Capital	A$M	38	**38**	38
Development Capital	A$M	15	**15**	15
Project Cashflow (Pre-tax)	**A$M**	**467**	**648**	**829**
$NPV_{8\%}$ (Pre-tax)	A$M	295	**423**	552
IRR (Pre-Tax)	% p.a.	64%	**88%**	112%
Project Cashflow (Post-tax)	**A$M**	**337**	**468**	**598**
$NPV_{8\%}$ (Post-tax)	A$M	209	**303**	398
IRR (Post-Tax)	% p.a.	54%	**77%**	100%
Payback Period	**Years**	**1.5**	**1.1**	**0.8**
Cash Cost (c1)	A$/oz	1,113	**1,113**	1,113
All-In Sustaining Cost (AISC)	**A$/oz**	**1,241**	**1,251**	**1,260**

The project is most sensitive to changes in gold price, operating cost and capital cost. The $NPV_{8\%}$ and IRR sensitivity to gold price are shown in Table 15.

Table 15 - A$ Gold Price Sensitivity

Pre-tax	Unit	A$2,000/oz	A$2,250/oz	A$2,500/oz	A$2,750/oz	A$3,000/oz
Project Cashflow	A$M	346	497	**648**	798	949
$NPV_{8\%}$	A$M	209	316	**423**	530	638
IRR	%	48%	68%	**88%**	108%	128%
Post-tax	**Unit**	**A$2,000/oz**	**A$2,250/oz**	**A$2,500/oz**	**A$2,750/oz**	**A$3,000/oz**
Project Cashflow	A$M	252	359	**468**	577	685
$NPV_{8\%}$	A$M	147	225	**303**	382	461
IRR	%	40%	58%	**77%**	96%	116%
Payback Period	Years	2.0	1.4	**1.1**	0.9	0.8

The sensitivity of Pre-Tax Project $NPV_{8\%}$ to changes in gold price, operating cost and capital cost is shown in Figure 17 using a base gold price of A$2,500/oz.

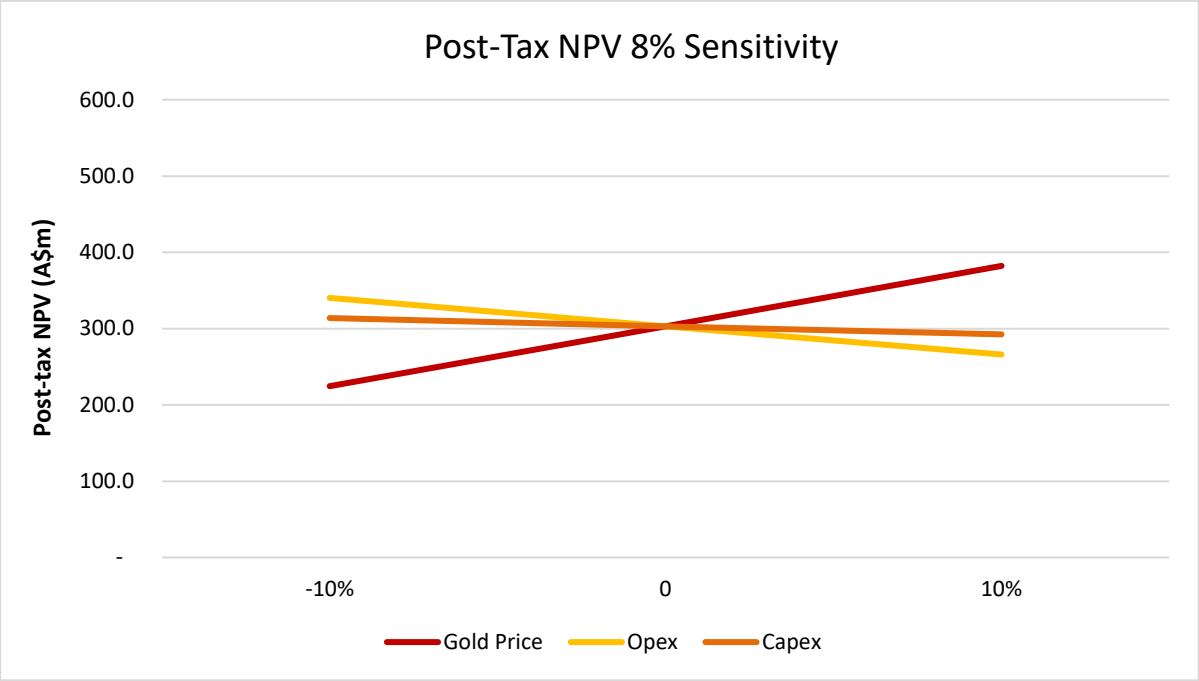

Figure 17: Sensitivity to Revenue, Operating Cost and Capital Cost

23. Funding

As detailed in Table 14, funding in the order of $120M is required to achieve the outcomes indicated by this Updated PFS. The Company's Board and Management have had a successful track record of developing and financing mineral resource development globally. The Company is confident that it will continue to increase the mineral resources at the project through exploration.

The Project's positive technical and economic fundamentals provide a platform for the Company to further advance discussions with traditional debt and equity financiers and forward sales counter parties. Based on discussions with potential financiers to date, the Board is confident the Company will be able to finance the Project through a combination of debt and equity. In addition, the Company's aim will be to avoid dilution to existing shareholders, to the greatest extent possible.

Board and Management have been responsible for the study, financing and/or developmentof several large and diverse mining and exploration projects globally including Zimplats, Afplats, Adamus Resources, Millennium Minerals and Papillon Resources. Based on this experience the Board believes that a traditional debt:equity ratio of 70:30 is potentially achievable for the Project with a portion of the equity financed via mezzanine financing.

The Company is in discussions with third parties regarding funding for the Project. These include major shareholders, PE firms and debt providers.

For the reasons outlined above, the Board believes that there is a reasonable basis to assume that future funding will be available as and when required. However, investors should note that there is no certainty that the Company will be able to raise the amount of funding required to develop the Project when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's shares, or that the Company may pursue other 'value realisation' strategies such as a sale, partial sale, or joint venture of the Project (which could reduce the Company's proportionate ownership of the Project.)

24. Next Steps

Calidus is advancing the DFS to a bankable level of detail in parallel with financing discussions and advancing project approvals through the respective State and Federal agencies (Figure 18).

PERMITTING	TIMING	Q3 2020	Q4 2020	2021
EPA Recommendation	✓			
Ministerial Sign Off	Q3 2020			
Operating Permits	Q4 2020			
DEVELOPMENT STUDIES				
Updated PFS	✓			
Feasibility Study	Q3 2020			
FINANCING				
Appointment of Debt Advisor	Q3 2020			
Indicative Debt Term Sheets	Q3 2020			
Completion of Financing Facility	Q4 2020			
First Drawdown	Q1 2021			
DEVELOPMENT				
Tenders	Q3 2020			
Preferred Contactors	Q3 2020			
Early Works	Q4 2020			
Commence Construction	Q1 2021			
First Gold - 10 months from construction				+ 10 months

Figure 18: High Level Project Timeline

Project Permitting

As per the ASX announcement on the 25th June 2020, the EPA has recommended the approval of the Warrawoona Gold Project for Approval. Final approval is required by the Minister for Environment, and this is expected within the September Quarter.

Other standard project permitting applications being the Works Approval and Mining Proposal are being prepared and will be submitted in the September Quarter. Calidus will continue to update the market on progress with permitting and Calidus anticipates being fully permitted prior to the end of the calendar year 2020

Definitive Feasibility Study

The DFS is well underway. The Resources and Reserves declared in this announcement form the basis for the DFS. The Company is planning to release the DFS late in the September Quarter of 2020.

Major Contracts

Tender packs are being prepared for the major scopes of work such as the EPC plant contract, mining contract, power station BOO contract, village installation contract, air charter services and catering. It is intended to formalise the tender process early in the September Quarter and advance these negotiations to a "Letter of Intent" as part of the DFS which would be subject to project finance and a Final Investment Decision.

UPDATED MINERAL RESOURCE

Targeting production in 2021, the Warrawoona Project Mineral Resources have received a significant update. The key updates involve the Klondyke Deposit where the updated model includes the addition of 88 close-spaced RC holes to increase confidence in the core of the proposed open pit, defining a maiden Measured Mineral Resource.

In addition, the open pit modelling method has been changed to Localised Uniform Conditioning (LUC) from the original Ordinary Kriged (OK) method The LUC used a sub cell of 10m x 2.5m x 2.5m to provide more granularity on localised grades within the parent cell. This has been used as the Selective Mining Unit (SMU) for optimisations and designs and is 250% larger than the previous 2019 model. As a result of the parent cell size and larger SMU unit, significantly more dilution has been introduced into the model but is believed to be more representative of actual ore block sizes for large excavators.

As the underground is a selective mining operation, the smaller sub cell size of 1m x 0.5m by 0.5m (X,Y,Z) as used in the 2019 estimation is considered to be more appropriate and as such has been retained as the method for the updated 2020 underground estimation.

A decrease in the Mineral Resource cut-off grade from 0.5g/t Au to 0.3g/t Au in the Klondyke Open Pit not only represents an increase in contained ounces from the 2019 Mineral Resource of 203koz (22% favourable increase) , but economic material that will be stockpiled for processing later in the life of the project. The total ounces in the Klondyke Mineral Resource at an open pit cut-off grade of 0.5g/t represents a slight increase against the 2019 numbers of 43koz (5% favourable increase).

The Warrawoona Project Mineral Resources are detailed in Table 1, below.

Table 1. Warrawoona Mineral Resources

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz
Klondyke Open Pit	**0.3**	**2.3**	**0.98**	**72**	**29**	**0.90**	**844**	**8.3**	**0.81**	**217**	**39.6**	**0.89**	**1,133**
including	*0.5*	*1.6*	*1.21*	*64*	*20.3*	*1.12*	*733*	*5.0*	*1.09*	*176*	*27.0*	*1.12*	*973*
Klondyke UG	**1.5**				**1.0**	**2.87**	**89**	**1.8**	**3.31**	**162**	**2.7**	**2.83**	**250**
including	2.0				0.7	3.36	72	1.2	4.08	130	1.9	3.33	202
Copenhagen	0.5				0.2	5.58	33	0.1	2.65	9	0.3	4.54	42
Coronation	0.5							0.5	2.19	34	0.5	2.19	34
Fieldings Gully	0.5				0.3	1.80	16	0.33	1.87	20	0.6	1.84	36
Total		**2.3**	**0.98**	**72**	**30.4**	**1.00**	**982**	**11.0**	**1.33**	**442**	**43.7**	**1.06**	**1,494**

KLONDYKE MINERAL RESOURCES

Table 2. Klondyke Mineral Resource Estimate using 0.5g/t Au cut-off above 100mRl and 2g/t Au cut-off below 100mRL

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz
Klondyke Open Pit	0.5	1.6	1.21	64	20.3	1.12	733	5.0	1.09	176	27.0	1.12	973
Klondyke UG	2.0				0.7	3.36	72	1.2	4.08	130	1.91	3.33	202
Total		**1.6**	**1.21**	**63.6**	**21.0**	**1.19**	**805**	**6.2**	**1.67**	**306**	**28.9**	**1.27**	**1,175**

Table Three (below) demonstrates the impact on the overall grade when using a lower cut-off grade of 0.3g/t Au on the shallow mineralisation amenable to a bulk open-pit mining approach. The breakdown of the Klondyke Resource is as follows:

Table 3. Klondyke Mineral Resource Estimate using 0.3g/t Au cut-off above 100mRL and 1.5g/t Au cut-off below 100mRL (0.3g/t Au cut-off)

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz
Klondyke Open Pit	0.3	2.3	0.98	72	29.0	0.9	844	8.3	0.81	217	39.6	0.89	1,133
Klondyke UG	1.5				1.0	2.87	89	1.8	3.31	162	2.74	2.83	250
Total		**2.3**	**0.98**	**72**	**30.0**	**0.97**	**933**	**10.1**	**1.25**	**379**	**42.3**	**1.02**	**1,383**

The important features from the upgraded Klondyke Mineral Resource include:

- Modelling change to a Local Uniform Conditioning model for the open pit that increases block size 250% to better mimic ore block sizes for large excavators.
- Inclusion of 1.6Mt at 1.21g/t Au of Measured Mineral Resource resulting from the 2019 close-spaced drilling campaign.
- Klondyke Resource represents 93% of the total Resource inventory at Warrawoona;
- Extensive metallurgical test work has established that the gold mineralisation is free milling and amenable to gravity and cyanide extraction methods;
- All drilling completed to date to the east of the Klondyke deposit and the down-dip portion of Klondyke vindicates the Company's view that the mineralisation remains open down-dip and along strike in both directions; and
- Infill and extensional drilling are expected to progressively add and upgrade the Inferred component of the Mineral Resource to Indicated category.

Figure 1 illustrates the Klondyke Deposit, Klondyke East and St George Prospects included in this Mineral Resource Estimate. Figure 2 illustrates a long section of the Klondyke Resource with the distribution of drilling that was used to inform the estimate and Mineral Resource classification.

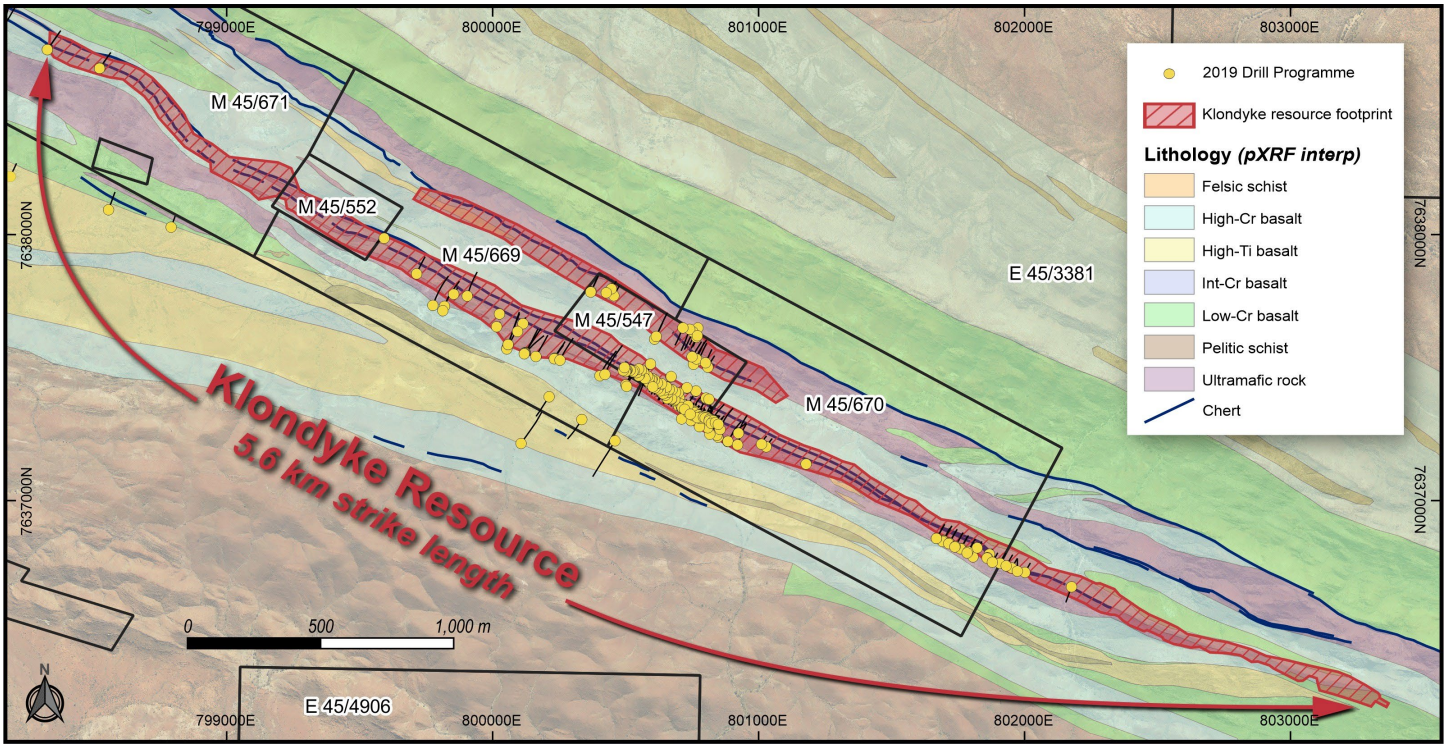

Figure 1. Klondyke May 2020 Resource Extents Plan View

The drilling at Klondyke consists of three main components:

1. Infill RC drilling within the pit design;
2. Close-spaced RC drilling within the pit design to convert Indicated to Measured Resources for an initial year of production and;
3. RC and diamond core drilling to infill proposed underground resources (Klondyke Underground).

A long-section showing Mineral Resource classification outlines and drilling pierce-points in Figure 2, a cross-section view of significant intercepts for the programme are shown in Figure 3.

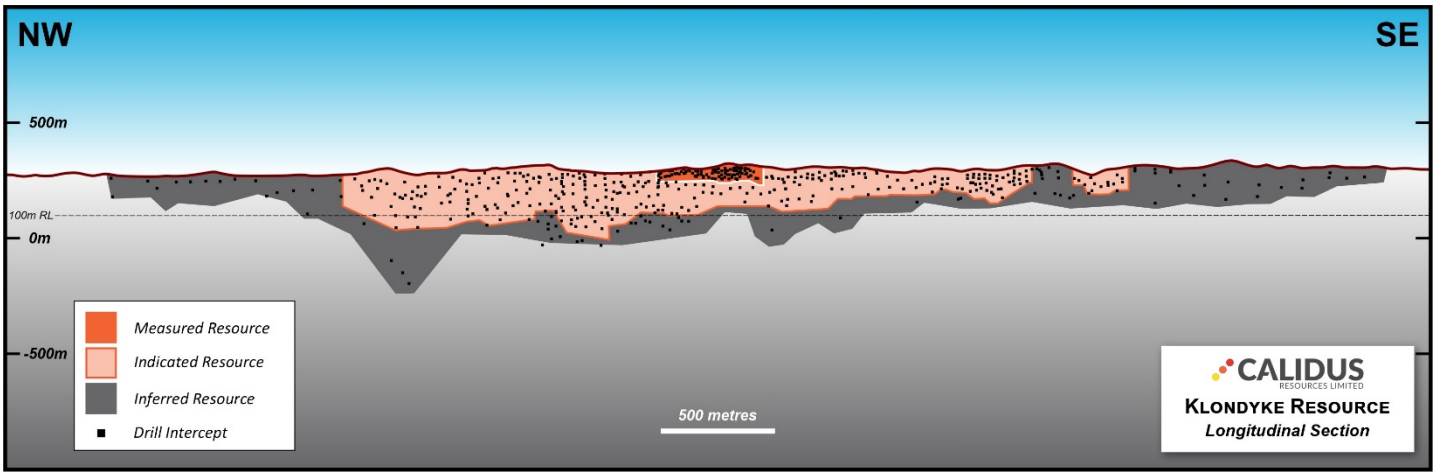

Figure 2. Long section of the Klondyke Deposit Mineral Resource colour-coded for resource classification.

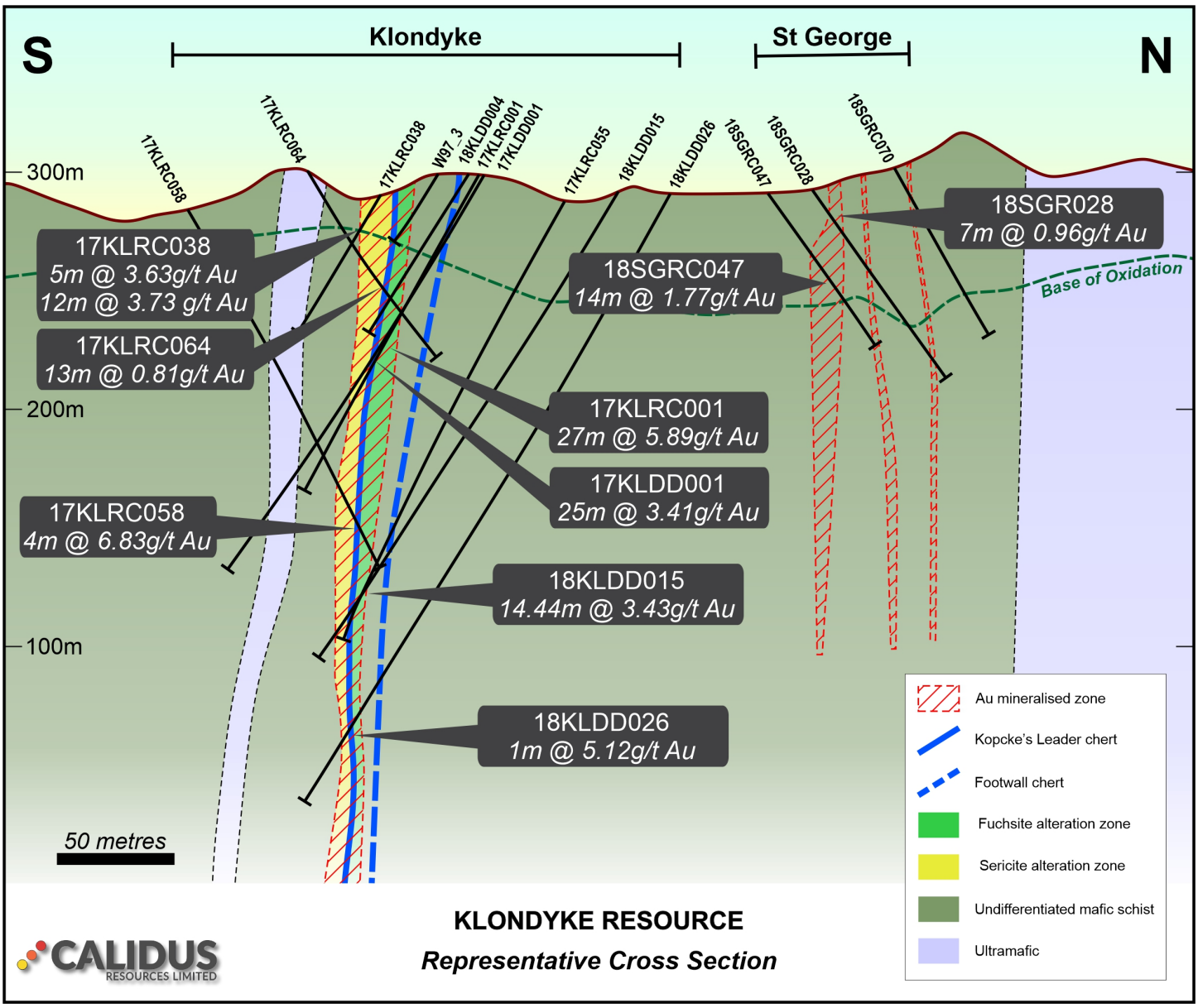

Figure 3. Klondyke – St George representative cross-section showing Klondyke Deeps intercepts of 18KLDD015 and 18KLDD026 centred adjacent to the Kopcke's Leader chert unit.

SATELLITE MINERAL RESOURCES

Additional drilling and remodelling of the Copenhagen Mineral Resource has revised the contained metal to 42,500 ounces at 4.54g/t Au.

No drilling was undertaken at Fieldings Gully during 2019 however, a review of the data and subsequent remodel of the 2019 Mineral Resource model has resulted in an adjustment of the Mineral Resource to 0.6Mt @ 1.84g/t Au for 35,500 ounces.

Coronation Mineral Resource remains unchanged.

The breakdown of the resource for the satellite projects are as follows:

Table 4. Satellite Deposits Mineral Resource Estimates

Deposit	Cut-Off	Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz	Mt	Au (g/t)	KOz
Copenhagen	0.5	0.2	5.58	33	0.1	2.65	9	0.3	4.54	43
Coronation	0.5				0.5	2.19	34	0.5	2.19	34
Fieldings Gully	0.5	0.3	1.80	16	0.33	1.87	20	0.6	1.84	36
Total		**0.44**	**3.26**	**49.1**	**0.9**	**2.13**	**63**	**1.4**	**2.48**	**112**

The important features from this Mineral Resource include:

- 48% increase in Fielding's Gully Mineral Resource from 24,000 to 35,500 ounces and 7% increase in Copenhagen Mineral Resource ounces.
- Remodelling of these satellite projects has increased overall confidence in the reported Mineral Resources.

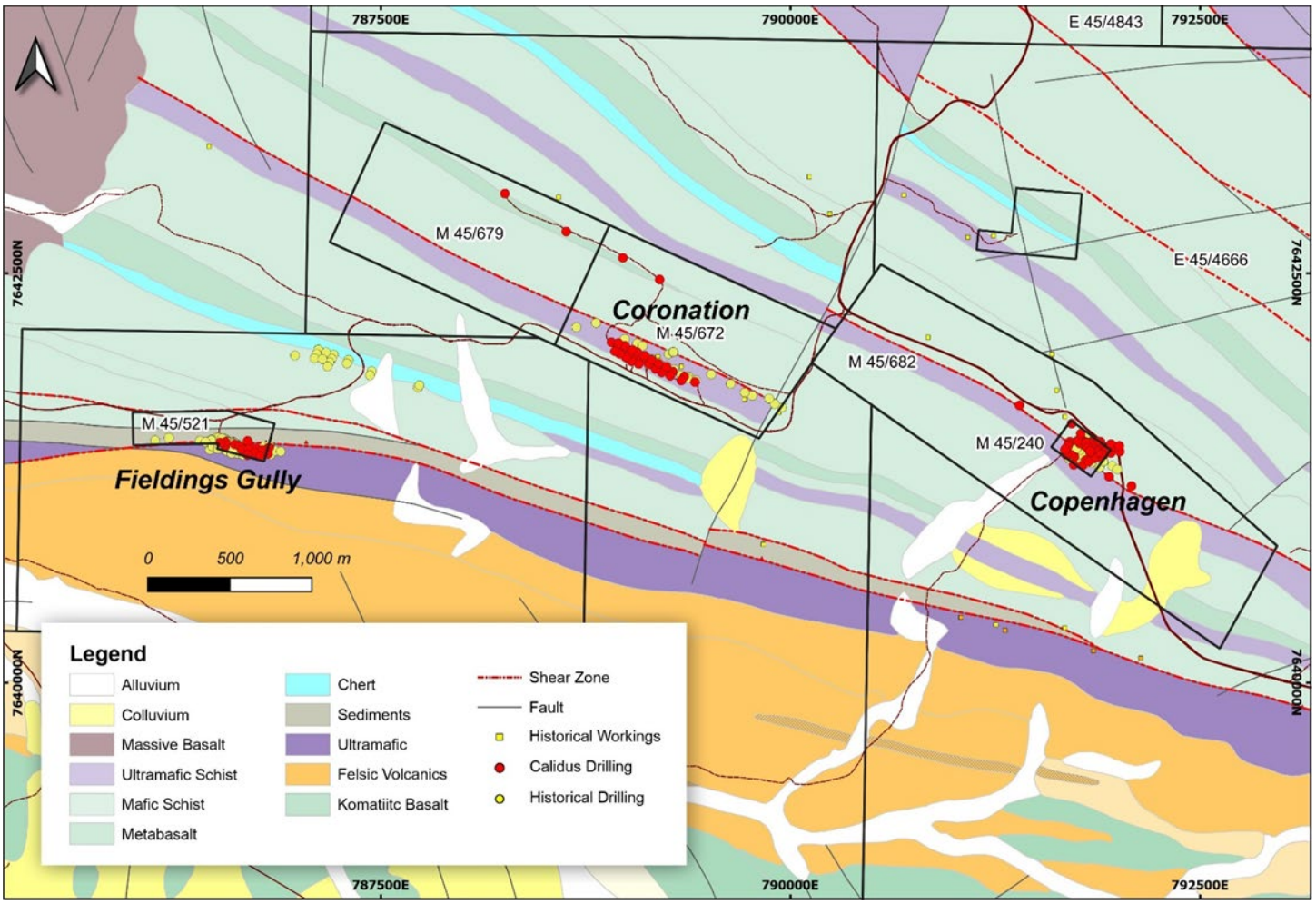

Figure 4. Location and geology of the Copenhagen, Coronation and Fieldings Gully satellite deposits

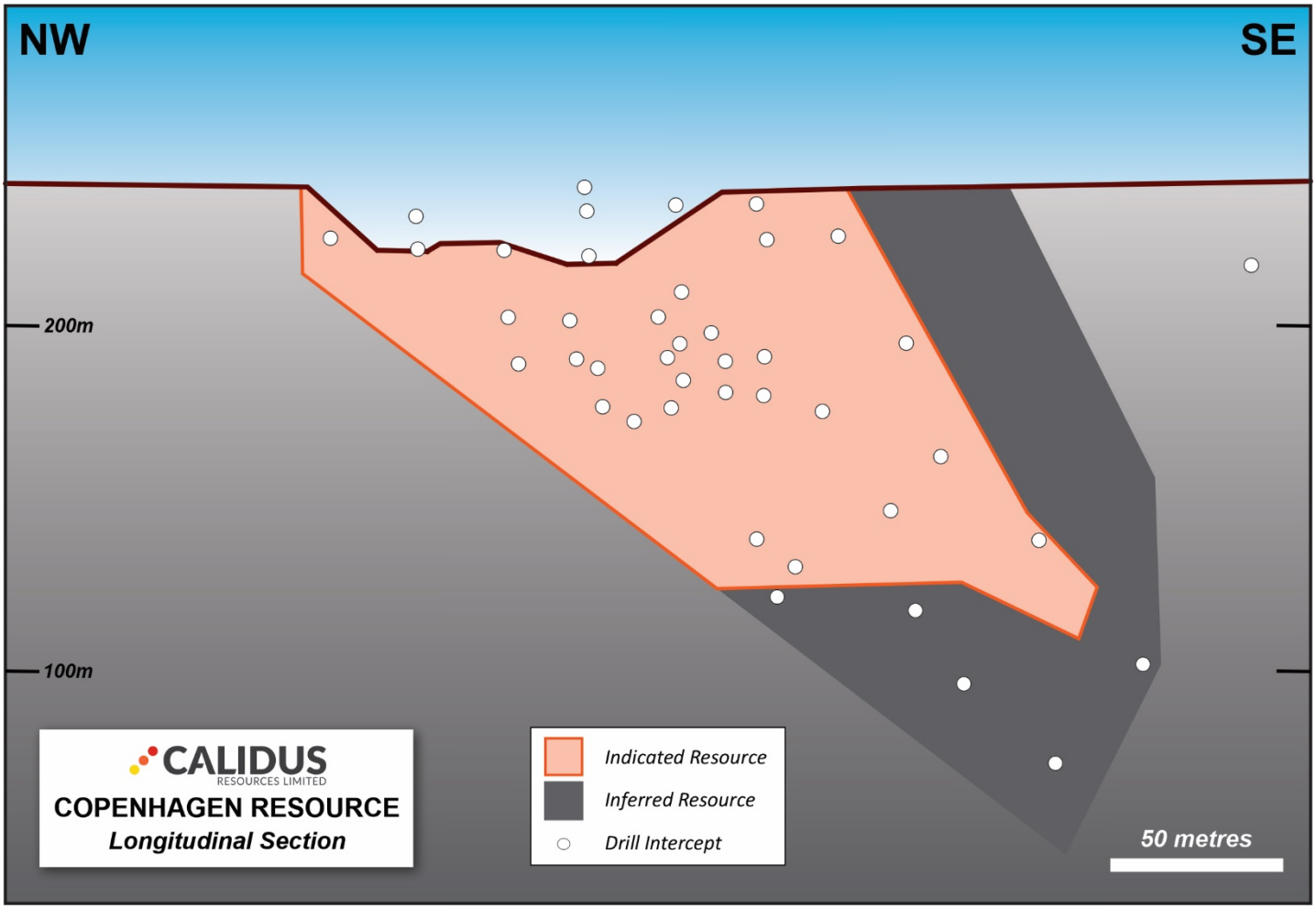

Figure 5. Long section of the Copenhagen Deposit Mineral Resource colour-coded for resource classification

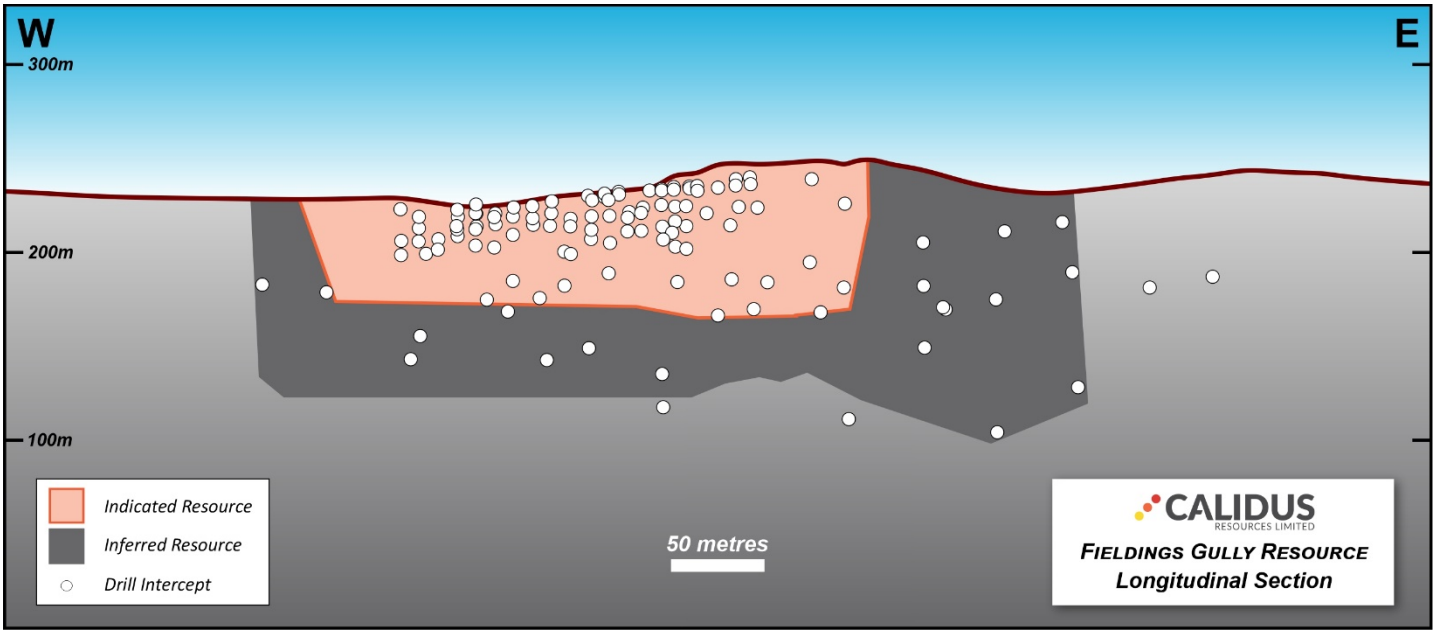

Figure 6. Long section of the Fieldings Gully Deposit Mineral Resource colour-coded for resource classification

TECHNICAL OVERVIEW - INFORMATION REQUIRED BY LISTING RULE 5.8.1

Geology and Mineralisation

Klondyke

The Klondyke Deposit is hosted by the Apex Basalt, with the stratigraphically underlying Duffer Formation located to the north. The contact between the two formations appears to be marked by a thin mylonite zone along the southern edge of the stratigraphically highest metasedimentary schist defining the top of the Duffer Formation.

All of the rocks across the Klondyke Deposit are intensely deformed and altered and, combined with weathering, makes recognition of primary rock types difficult. Nevertheless, mappable lithological units have been identified in the Apex Basalt based on hyperspectral and Minalyzer work by Miller et al. (2018) as part of a CSIRO Kick-start project, collection of pXRF data on drill core and RC chips by Calidus staff, reconnaissance mapping by Calidus staff, and detailed mapping and core logging over part of the resource area by Dr Gerard Tripp.

Rock types were classified according to their Cr:Ti and Zr values from the pXRF, and the approach used is a modified version of a classification system used in the Archean greenstones of the Eastern Goldfields (Walshe et al., 2014). This work at Klondyke shows a series of low-Cr mafic schists, high-Cr mafic schists (komatiitic basalt precursor) and ultramafic schists juxtaposed by a series of east-southest-trending sub-parallel shear zones, including the main Klondyke shear and the St George shear to the north. Several prominent chert units are also present in the succession.

One of the most prominent features of the sections through the ore zone is the profound asymmetry of the alteration, with fuchsite alteration in the footwall (northern side) and sericite alteration in the hangingwall (Figure 3). The alteration asymmetry around Kopcke's leader reflects its location at the contact between two different mafic units: a high-Cr (high-Mg) mafic unit below the chert in which fuchsite is developed and a low-Cr mafic unit above the chert in which sericite is developed. This contact marks an erosion surface with subsequent clastic deposition during a hiatus in volcanism (Figure 3). The Kopcke's leader chert unit has a remarkable strike and depth continuity over the resource area, providing a strong marker unit to guide exploration and resource drilling.

The Klondyke Project area is characterised by a strong, steeply dipping, west-northwest-trending foliation with a down-dip mineral lineation. The intensity of this foliation increases near the high strain zones. In some areas the foliation has strong rodding of quartz indicative of L-tectonites, but most areas show evidence for intense flattening and vertical stretching (L-S tectonites) (Collins et al., 1998). Pressure shadows on pyrites are common and indicate vertical elongations of between 1:5 and 1:8 (Miller et al., 2018). Boudinage linked to vertical stretching of quartz veins parallel to the foliation is common. Scattered tight to isoclinal folds through the Klondyke area have steep to vertical fold axes that are commonly parallel to the stretching lineation. In many areas the foliation transects older fabrics producing a strong intersection lineation. This intersection lineation also varies from vertical to steeply plunging and is parallel to the plunge of the fold axes. In many areas it is hard to differentiate the stretching lineation from the intersection lineation because they are sub-parallel.

Gold mineralisation at Klondyke is concentrated around the Klondyke shear and is associated with quartz-carbonate-pyrite veins within sericite/fuchsite-carbonate-altered and intensely deformed mafic schists. The shear, and the veins, are sub-vertical or dip very steeply to the south-southwest and strike at about 110°. A 10–50cm-wide black chert band, referred to as Kopcke's leader by the early miners, is exposed within the altered mafic schists. Kopcke's leader is persistent both laterally and at depth and provides a good indication as to the location of mineralisation along strike and down dip. Rock units and quartz-carbonate veins display strong egg-carton boudinage and are marked by a very strong sub-vertical mineral/intersection lineation. Davis et al. (1995) recognised two gold events in the Klondyke area: a first event is associated with pyrite and the assays are generally repeatable, and a second event characterised by nuggety gold in late-stage quartz veins. Fractures hosting visible gold may be either nearly perpendicular or oblique to the foliation suggesting a flat-lying to shallow-dipping set and a moderately dipping set of fractures.

One of the most prominent features of the sections through the ore zone is the profound asymmetry of the alteration, with fuchsite alteration in the footwall (northern side) and sericite alteration in the hangingwall (Figure 3). The bulk of

the mineralisation is hosted within the sericite zone. The alteration asymmetry implies that Kopcke's leader is located at the contact between two different mafic units: a high-Cr (high-Mg) mafic unit below the chert in which fuchsite is developed and a low-Cr mafic unit above the chert in which sericite is developed. This interpretation of high- and low-Cr units is supported by extensive pXRF analyses undertaken by Calidus staff. The contact with the chert marks an erosion surface with subsequent clastic deposition during a hiatus in volcanism. The Kopcke's leader chert unit has a remarkable strike and depth continuity over the resource area, providing a strong marker unit to guide exploration and resource drilling.

Copenhagen

Prior to 1940 the Copenhagen deposit had been worked via small-scale excavation and fossicking defining the surface expression of a high-grade lode. RC drilling was undertaken in the 1980s and 1990s mainly by Fortuna Mining and Haoma to develop a resource inventory for open pit mining. Small scale open-pit mining with a vat leach operation was built at the project in the 1980s, ceasing in 1988 having produced some 30Kt of oxidised ore reportedly at a grade of 4.11g/t Au. Drilling information from these explorers has been reviewed and included as part of this Mineral Resource estimate, with the respective confidence in the quality considered in assignment of the Mineral Resource classification applied.

During late 2016, Keras collected a rock-chip sample containing 53g/t Au approximately 400m to the immediate north-west of the historic Copenhagen pit. During the second half of 2017 Calidus Resources completed two HQ diamond core holes for 140m to validate shallow high-grade intercepts from historical drilling, with 17CPDD001 returning 6m @ 7.74g/t Au from 70m and 17CPDD002 4m @ 7.46g/t Au from 56m.

During 2018 Calidus completed 14 RC and 3 diamond resource upgrade drill holes across Copenhagen, representing a total of 2,184m RC and 458.4m of core. In addition to these, two diamond core holes representing 184.18m were drilled to provide material for geotechnical analysis and a further three RC water bores were drilled representing 306m.

In 2019, Calidus drilled two diamond holes, one for geotechnical purposes and one to provide material for metallurgical testwork.

Gold mineralisation at Copenhagen is hosted by a sheared high-Ti metabasalt unit sandwiched between two chert layers. The Copenhagen lode is 10-80m thick, is strongly sheared and carbonate/silica altered. It is folded and believed to plunge shallowly to the east where good prospectivity exists for further resource additions.

At Copenhagen, mapping by Fripp and Buick (reported in Randolph Holdings Pty Ltd, 1986) prior to the start of mining, outlined a sequence of mafic schists striking 125° and dipping sub-vertically. The area of mineralisation, up to 80 m thick, lies between a 100 m-thick chlorite-quartz schist (sheared mafic/basalt) to the north and a 10 m-thick unit of talc carbonate schist to the south. The main unit in the area of mineralisation is a chlorite-quartz schist (likely a basalt pre-cursor), with one chert unit, a lenticular 5 m-thick bed mapped at surface. The mineralised unit and quartz veins are folded and define a hook-shaped structure which plunges to the east/south east at between 30 to 60 degrees, with a maximum of 80 m thickness tapering to 10 m at the eastern lease boundary.

According to Sofoulis (1993), A.A Morrison undertook mapping in the Copenhagen pit, confirmed observations by Fripp and Buick and observed a very strong easterly plunging L-tectonite fabric (33°/104°). The fabric is associated with a strong mineral elongation and is parallel to long axes of boudins in the mafic rock. Strong jointing and quartz extension veins (015°/57°) developed perpendicular to the pervasive stretching lineation were interpreted as a result of pure shear extension.

It is difficult to confirm units in drilling at depth however a talc-carbonate (ultramafic) unit is intersected to the south of the main mineralisation zone and minor discontinuous chert lenses are intersected in the chlorite schist/sheared mafic.

The mineralised units occur within a thick sequence of metabasalt and amphibole-chlorite-quartz mafic schists with a strong mineral lineation plunging at 30-60° to the southeast, commonly parallel to the mineralised fold structure (Sofoulis, 1993). All rock types in the mineralised zone contain horizons up to 5 m thick in which the rocks have undergone pale sericite and sulphidic alteration. Quartz veinlets and pods up to 10 cm wide, and orientated parallel to the dominant cleavage, cut the rock and may make up to 60% of the total volume with up to 10% disseminated fine-grained pyrite and

fine acicular arsenopyrite in the country rock. Acicular arsenopyrite appears to be strongly concentrated in narrow bands parallel to the main shear, whereas pyrite has a much broader distribution.

A more planar fabric is developed down the centre of the pit associated with the main shear juxtaposing the different lithologies; however, evidence for movement direction is equivocal. A second vein set (152°/56°) is associated with the planar fabric and a flatter secondary foliation (180°/33°) is widely developed. A cross-cutting shear (220°/52°), with a reverse sense of movement is exposed in the adit in the northwest corner of the pit, is oblique to the main shear. The cross-cutting shear appears to be developed at the contact between felsic and mafic lithologies and appears to be unmineralised (Sofoulis, 1993). The adit referred to is under water and thus has not been examined to date by Calidus geologists.

Fieldings Gully

The Fieldings Gully prospect is located on an east-trending shear zone called the Fieldings Find Shear. The deposit comprises a sequence of sheared and hydrothermally altered volcanic and sedimentary rocks. The dominant topographical feature in the area is a 30 m-high ironstone ridge, which probably formed as a result of the preferential weathering of sulphide-rich chert and iron carbonate that developed along the contact of felsic sedimentary rocks to the north and highly altered ultramafic rocks to the south of the ridge (Martin, 1985).

The gold mineralisation at Fieldings Gully is interpreted to be hosted within a sedimentary horizon containing quartz lenses concordant with the overall strike of the unit. The sedimentary rocks comprise highly altered pyritic-fuchsitic-quartzite, mica-rich chloritic schist, quartz-carbonate and quartz-feldspar-mica schists. Gold is hosted in folded quartz veins (Martin, 1985). Mineralisation strikes towards approximately 100° and dips steeply south. The estimated strike extent is currently approximately 325 m and the deposit remains open in all directions.

Datasets

The 2019 resource infill and extensional drilling programs at Klondyke and Copenhagen assisted with the definition and further validation of gold mineralisation and followed up from the work completed in 2018. The contemporary drilling and analytical techniques support the continuity of gold mineralisation and significantly de-risk the estimation (and future mining) process. The improved understanding also substantiates the need for future extensional drilling both along strike and at depth at all prospects.

The recent drill data and associated quality controls now comprises approximately 39% of the total Klondyke resource and 12% of the Copenhagen resource data and 25% of the Fieldings Gully resource data. This is reflected in the material classification of the Resource.

All details for both the 2018, 2019, and historical datasets are also discussed thoroughly in the accompanying JORC Complaint Resource Statement and Table 1 for Klondyke, Copenhagen and Fieldings Gully (attached).

Drilling Techniques

Reverse circulation (RC) drilling was chosen to complete the bulk of the infill and extensional resource definition drilling since 2018, with several diamond core holes (DDH) strategically positioned to validate significant or material parts of the resource, provide geotechnical information of for bulk density testwork.

2017 and 2018 RC Drilling was undertaken by Orlando Drilling Pty Ltd utilising an Atlas Copco (E235 Explorac) RC track-mounted drill rig utilising a 5 3/8 ''– 5 5/8" hammer. In August 2018 Egan Drilling mobilised to site utilising a Sandvik DE400 Series Heavy Duty RC track-mounted drill rig. Egan Drilling utilize an onboard 1470/500 compressor unit with an onboard booster rated at 900PSI to ensure samples are kept dry.

Diamond drilling was also conducted by Orlando, using a Coretech (YDX-3L) track-mounted rig. Diamond drill core size was triple tube HQ and core was oriented with a Reflex ACT111 orientation tool. Top Drive drilling contractors mobilised to site on November 1st, 2018 to ensure a 22-hole deep diamond drilling programme underneath an 800m section of the Klondyke orebody was completed by the end of the year. Top Drive also use a Coretech (YDX-3L) track-mounted rig.

During 2019 Topdrive Drillers Australia completed additional diamond holes at the Copenhagen project and cored from surface: one hole was drilled for geotechnical information, the other for metallurgical sampling testwork. These holes were completed by drilling HQ3 size core.

Water issues for RC holes were controlled by utilising an Atlas Copco (360psi/1300cfm) auxiliary air compressor unit with a Hurricane (1000psi/2400cfm) booster. In rare instances where wet drilling could not be avoided, recovery percents were logged and this was accounted for in the quality control measures implemented for the material classification of the resource. Overall more than 98% of samples were found to have 100% recovery.

Reverse Circulation samples collected by the drill hammer were delivered to a Cone Splitter for sub-splitting, which involves splitting the sample using gravity over a static cone. The splitter is balanced vertically allowing sampling of material without bias. RC drill holes were sampled at one metre intervals exclusively and split at the rig to achieve a target 2-5 kilogram sample weight. The performance of splitting was monitored at a rate of 1 in 40 by collecting a field duplicate sample. Precision was also tested at the lab by duplicating the pulp that was prepared by oven drying the sample at 105°C for 8 hours, fine crushing to a nominal topsize of 2mm, riffle splitting any excess of 3kg and pulverising to achieve a grind size of 95% passing 75 micron. Samples duplicated in the field were also duplicated in the laboratory, to further qualify sample error along the sampling chain. Analysis was also repeated. All laboratory repeat data was conducted at a rate of 1 in 20.

The results showed that, as expected (as the particle size and therefore the variability between the repeat samples is reduced), the primary splitting on the rig had a higher sampling variance than that of the pulp samples, which in turn had a higher variance than the assay repeats. The duplicate data precision performed as expected given the coarse gold nature of mineralisation. To highlight any bias between the original and repeat data Q-Q plots were used. The Q-Q plots for the duplicate data showed no conclusive bias.

Diamond drill holes were logged and marked longitudinally for cutting, with consideration given to alteration and veining orientations to ensure representative sampling. DDH holes were cut to ¼ core (Klondyke) and submitted at selected sample intervals chosen by the supervising geologist.

In the Competent Person's opinion, the sampling and sub-sampling was fit for the purpose of resource estimation and was a consideration when applying relevant resource classification.

Sample Analysis Method

The samples for the 2019 drilling programs were assayed using Fire Assay. Fire assay is a total digest and at NAGROM Laboratory is completed using the lead collection method with a 50g charge. The prepared sample is fused in a flux to digest. The melt is cooled to collect the precious metals in a lead button. The lead is removed by cupellation and the precious metal bead is digested in aqua regia. The digest solution is analysed by ICP.

Quality assurance and control for sample analysis included the application of a systematic quality control programme. In addition to the laboratory's own internal use of certified reference material (CRM), Calidus utilised three different grade ranges of Geostats Pty Ltd standards specifically selected to cover the grade range (including the cut-off value) of the mineralisation, as well as being consistent in terms of matrix. These were applied at a rate of 1 in 40 (2019 drill programs) samples. Monitoring by Calidus database management identified several minor instances of variation at the laboratory, but after analysis of all results via an inbuilt database QAQC monitoring system, it was established that although some CRM's performed better than others, no statistically significant bias was detected. Overall, the Geostats CRM pass rate was at 98% (this was higher for the internal laboratory CRM's). LeachWELL analysis showed that the fire assay may under-represent the grade up to approximately 5%, at grades between 0.7g/t -3g/t.

In the competent persons opinion, the laboratory has performed satisfactorily throughout the recent drilling campaign, and that assaying poses minimal risk to the overall confidence levels, and these variances are acceptable for resource classification applied.

Estimation Methodology

Grade estimation using an Ordinary Kriging methodology has been applied to all Resources using Surpac 2020, Micromine

2020 or Datamine Studio RM (version 1.5.47.0) software. High and low-grade wireframes have been generated for Klondyke using Indicator Modelling to subset and constrain the data points. Copenhagen and Fieldings Gully used sectional interpretations honouring drillhole data to create wireframes used in the interpolation. Variography was carried out on the main mineralised zones to define the variogram models for Ordinary Kriging interpolation. Kriging Neighbourhood analysis was used to define parent block size and sub-celling selection was based upon mineralisation wireframe dimensions with the standard selection being ¼ the parent cell dimensions in E, N and Z directions. The model cells for Copenhagen and Klondyke are rotated 30 degrees and 25 degrees around the Z axis respectively to align with the strike of the mineralisation. Fieldings Gully is an unrotated model.

An unfolding (or vertical flattening) methodology has been used in the interpolation of Klondyke, controlled by the detailed mineralisation interpretation carried out by Calidus staff. Copenhagen and Fieldings Gully utilised multiple orientation search ellipses were used for different sections of the mineralisation. Search ellipsoids use multiple passes to ensure blocks are filled in areas where drilling was sparse. The search dimensions are based on Kriging Neighbourhood Analysis and sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation.

Cut-off Grades

A top cut analysis was carried out on the interpreted mineralised zones, using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation. At Klondyke for the open pit, various top cuts were applied for the defined domains: waste, high-grade, low-grade. These were 1.9, 25 and 10 respectively. St George had a 7.5 g/t Au top cut applied. The underground, similarly, had various top cuts applied for individual domains: 30 g/t Au for the main high-grade domain, 25 g/t Au for the hangingwall and footwall domains and 15 g/t Au for St George.

A 20 g/t Au top cut was applied to Fieldings Gully and variable top cuts were also applied at Copenhagen for the individual lodes. There were 30 g/t Au, 20 g/t Au, 10 g/t Au, and 8 g/t Au for lodes 1 through 4 respectively.

Validation of the modelling parameter and process included: visual inspections in section, plan and 3D; swathe plot validation; statistical analysis of model vs composite statistics and a comparison of an ID2 model vs the ordinary kriged model. In the competent persons opinion, all methods of validation produced acceptable results.

To represent the appropriate ore block size for the envisaged excavator and to facilitate a stockpiling strategy based on the deposits grade distribution, localised uniform conditioning (LUC) has been applied to the Ordinary Kriged Open Pit Mineral Resource model for Klondyke. This LUC uses a selective mining unit of 10 mE by 2.5 mN on 2.5 mRL benches. This LUC estimate has been validated against the OK estimates to ensure that no metal has been created or lost, post-processing.

Resource Classification

The Mineral Resources have been classified as Measured (Klondyke only), Indicated and Inferred based on the drill spacing and geological continuity. The Resource classification has been carried out in accordance with the JORC Code (2012). The Resource model classification scheme is based upon drill hole spacing plus block estimation parameters (with the 25m centres are adequate to determine the grade continuity in all directions), including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid. The grade and densities are estimated with sufficient confidence and detail to support evaluation of the economic viability of the deposit. Geological evidence has been derived from adequately detailed and reliable exploration and sampling gathered through appropriate techniques and is sufficient to assume geological and grade continuity between data points.

The resource has been reported at both a 0.5 g/t Au and 0.3g/t cut-off above 100m and a 2.0g/t and 1.5g/t cut-off for below 100m. Final reporting will require an economic analysis of cut-off grades for a specific mining scenario. The results of the Mineral Resource Estimation reflect the views of the Competent Person.

Modifying Factors Considered Metallurgy and Mining

Extensive metallurgical test work has established that the gold mineralisation at Klondyke is free milling and amenable to cyanide extraction methods. High gravity gold recoveries of 60% and high cyanide leach recoveries of 96% have been reported. Initial bottle roll tests show similar responses at Fieldings Gully to Klondyke. Recent testwork has shown that Copenhagen is hosted in an arsenopyrite and as such responds well to flotation that produced a high-grade gold concentrate. Testwork and smelter term enquiries are continuing to finalise the process route for this orebody. Testwork has just commenced at Coronation but shows generally good recoveries, however there is some variability that needs to be further investigated. Initial open pit optimisations have been completed at Klondyke that show such operations could be contemplated to a depth of 200m and as such, a cut-off grade of 0.5g/t has been used as the majority of the resource sits above this depth.

Notes

Miller, J., Lau, I. and Birchall, R., 2018, Geology and mineralisation at the Warrawoona Project near Marble Bar, WA: Report for Calidus Resources Limited (unpublished), 64p.

Walshe, J., Bath, A., Cloutier, J., Hough, R., 2014, High grade gold deposits: processes to prediction, report number 304, MERIWA research project M410, Published by MRIWA ISBN 1920981659.

Collins, W.J., Van Kranendonk, M.J. and Teyssier, C., 1998, Partial convective overturn of Archaean crust in the east Pilbara Craton, Western Australia - driving mechanisms and tectonic implications: Journal of Structural Geology, 20, p. 1405- 1424.

Davis, B.J., Reudavey, I., Cole, A.J. and Weir, D.J., 1995, Annual report on prospecting licences P45/2059, P45/2060, P45/2063, P45/2069 And mining licence M45/552, Klondyke project. CRAE Report No 21130: CRA Exploration Pty Ltd: Geological Survey of Western Australia Statutory Report, A45774 (unpublished).

Randolph Holdings Pty Ltd, 1986, Annual Report on P/823 Copenhagen Gold Mine, Pilbara Mineral Field, Western Australia: Geological Survey of Western Australia Statutory Report, A18737 (unpublished).

Sofoulis, J., 1993, Report on Copenhagen Mine Mining Lease 45/240 Pilbara Goldfield WA, Fortuna NL: Geological Survey of Western Australia Statutory Report, A39758 (unpublished).

Martin, I.D., 1985, Final exploration report for 1985, Fielding's Ridge prospect: P's 45/442-446, 45/812, 45/813: Alcoa of Australia Limited and Ashwood Investments: Geological Survey of Western Australia Statutory Report, A17233 (unpublished).

INFORMATION PROVIDED WITH ACCORDANCE ASX LISTING RULE 5.9.1

In accordance with the ASX Listing Rule 5.9.1, the following summary information is provided that is material to understanding the reported estimates of Ore Reserves.

Material Assumptions

The Ore Reserve statement is based on modifying factors including geotechnical, hydrogeological, hydrological, ecological and cost estimates that describe the development of the Warrawoona Gold Project. Material Assumptions and outcomes derived from the completed Pre-Feasibility Study and applied in the estimation of the Proven and Probable Ore Reserve are outlined below.

The Measured Resource and a portion of Indicated Resource at Klondyke and a portion of the Indicated Resource at Copenhagen have been converted to a Proven and Probable Ore Reserve respectively subject to detailed mine planning and economic evaluation based on modifying factors determined as part of the Updated PFS. The status of the modifying factors are considered sufficient to support the classification of the Proven Reserve when based upon the Measured Resource and Probable Reserve when based upon the Indicated Resource. Approximately 92% of the Measured Resource (2.3Mt @ 0.98g/t for 72koz) has converted to a Proven ore Reserve (66kozs) and 46% of the Indicated Mineral Resource Estimate (30.4Mt @ 1.0g/t for 982koz) has converted to a Probable Ore Reserve (453koz).

The following two tables shows key economic inputs for Klondyke optimisations:

Key Economic Inputs	
Gold Price for optimisations	A$2,200/oz
Plant Construction	12 months
Commencement of Processing	Month 13
Diesel Price	$1.00 per litre
Power Cost	$0.19 per kWh
WA State Government Royalty	2.50%
Overall CIL Metallurgical Recovery	94.3%
Plant Utilisation	91.0%

Deposit (Pit)	Processing Cost $/t		Met Recovery	Load & Haul $/BCM		Drill and Blast $/BCM		Other $/t				
	Oxide/Trans	Fresh	%	Oxide/Trans	Fresh	Oxide/Trans	Fresh	Grade Control	Mining On Costs	G&A	Closure	Road train haulage
Klondyke Open Pit	$13.34	$15.32	94.8%	$6.83	$7.07	$3.20	$3.20	$ 0.60	$ 3.49	$ 1.56	$ 0.20	$ -
St George Open Pit	$13.34	$15.32	81.0%	$6.53	$8.81	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.20	$ -
Copenhagen	$35.00	$35.00	90.0%	$4.56	$7.50	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.22	$ 3.20
Fieldings Gully	$13.34	$15.32	94.8%	$4.56	$7.50	$3.20	$3.20	$ 0.60	$ 0.38	$ -	$ 0.20	$ 4.00

In addition to the above, the following basis of estimate is noted:

- The processing plant construction is based on an Engineering, Procurement and Construction (EPC) model and the cost build up was completed by GRES;
- GRES also determined the operating cost for the processing plant;
- Major reagent prices were sourced directly from vendor budget prices. Major consumables and wear material prices were provided by the vendors at time of tendering. Some of the minor items were sourced from the GRES database from recent similar projects;
- Maintenance spares for the processing facility have been calculated by multiplying the capital expenditure for supply and install by a standard maintenance factor from the GRES database;

- Infrastructure costs were provided by third party vendors;
- Mining costs were supplied by reputable WA based mining contractors;
- Flight and accommodation costs are based on budget estimates received from catering and aviation charter service providers;
- Owners costs was determined by Calidus.

Criteria for Classification

The Mineral Resource Estimate (MRE) used as a basis for the conversion to an Ore Reserve was calculated by the Competent Person and is included in this release. The MRE which forms the basis of the Ore Reserve calculation was determined by the Competent Persons' in accordance with the JORC Code.

The current global MRE for the Warrawoona Gold Project is 43.7Mt @ 1.06g/t for 1.50Moz. Cut-offs applied were 0.3g/t above 100mRL and 1.5g/t below 100mRL.

The Measured Resource was classified as Proven reserve and a portion of the Indicated Mineral Resource was classified as Probable Ore Reserve after consideration of the appropriate modifying factors and the results reflect the Competent Persons' view of the deposit. Only Measured and Indicated tonnes are used in conversion to Ore Reserves.

Mining Method

The Updated PFS contemplates open pit and underground mining as described in Section 13 of this release.

Processing Method

The Updated PFS contemplates open pit and underground mining as described in Section 15 of this release.

Cut-off Grades

For Ore Reserve Estimation cut-off grades for ore have been calculated based on positive cash flow generation. The economic cut off for the various orebodies taking into account all costs and recoveries is as follows:

Klondyke Open Pit – Oxide and Transitional – 0.33g/t

Klondyke Open Pit – Fresh – 0.36g/t

Klondyke Underground – 2.0g/t

St George Open Pit Oxide and Transitional – 0.36g/t

St George Open Pit – Fresh - 0.39g/t

Copenhagen Open Pit – 1.88g/t

Ore Reserve Estimation Methodology

As part of the MRE modelling process a geological block model was developed. The geological model was adapted to produce a mining model which was then optimised using Whittle (open pit) and Deswik (underground) software which uses inputs such as gold price, royalty payments, mining costs, processing and administration costs, metallurgy recovery and geotechnical parameters to generate an initial economic inventory. Detailed mine design and scheduling was then undertaken to generate open pit and underground mining schedules using recommended geotechnical design parameters and other modifying factors.

Material Modifying Factors

Tenure:
The Warrawoona Project is located on granted mining leases which have been recently renewed for 30 years. A majority of the Warrawoona Project is located on the Warrawoona Mining Common which is excised from the surrounding Pastoral lease.

Environmental Permitting and Approvals:
The Warrawoona Gold Project will be subject to State and Federal Government Environmental Assessment Processes. This is administered by the Western Australian Environmental Protection Authority (EPA) and the Australian Government Department of the Environment and Energy (DoEE).

Due to the environmental factors being restricted primarily to Bat Roosts located within historic mine workings (Pilbara Leaf Nose Bats and Ghost Bats which are protected under Commonwealth EPBC Act) Calidus referred the Project to the Western Australian EPA and the DoEE in the September Quarter of 2019. Calidus announced on June 25 2020 the EPA recommendation to proceed with the permitting of the Project.

Additional Western Australian Environmental Approvals will include:

- Mining Proposal and Mine Closure Plan – administered by the Department of Mines Industry Regulation and Safety (DMIRS);
- Works Approval and Environmental Protection Act Part V Licencing - administered by the Department of Water and Environment Regulation (DWER);
- Environmental Protection Act Part V - Native Vegetation Clearing Permit – (should the Project not be formally assessed under part IV, delegated to DMIRS); and
- Water Licencing administered by the Department of Water and Environment Regulation (DWER)

Infrastructure:
The supporting infrastructure required for the operation of the Project will include the following works

- Access road;
- Tailings storage facility (refer item 16);
- Installation of the previously purchased accommodation village;
- Upgrade of the Marble Bar Aerodrome in a co-funding arrangement with the Shire of East Pilbara;
- Bulk earthworks for the process plant site and infrastructure that includes the internal roads, ponds, village, explosive magazine storage and mine service areas;
- Communications network and IT facilities;
- Transportable buildings including site offices, change rooms, crib rooms and ablutions;
- Steel-framed buildings including workshops, warehouse and reagent store;
- Fuel storage and distribution facility;
- Electrical power generation;
- Power reticulation across the project site;
- Water supply including bores providing water for processing and potable supplies;
- Light vehicles and mobile equipment;
- Potable water treatment;
- Wastewater treatment.

Transport:
Transportation of gold dore' to market will be via charter aircraft utilised for transporting company personnel to Perth.

Notes Specific-ASX Announcements

The following announcements were lodged with the ASX, and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Announcement can be found in the following releases. Note that these announcements are not the only announcements released to the ASX but specific to resource reporting on the Warrawoona Gold Project. The Company confirms that it is not aware of any new information or data that materially affects the information on the Project.

- 74% increase in High Grade Warrawoona Resource to 712,000 Ounces at 2.11g/t Gold: 18 December 2017
- Pre-Feasibility Study and Maiden Reserve for Calidus' Warrawoona Project: 17 July 2019

Competent Persons Statements

The information in this announcement that relates to exploration targets and exploration results is based on and fairly represents information compiled by Mr. Steve Sheppard a competent person who is a member of the AusIMM. Mr. Steve Sheppard is employed by Calidus Resources Limited. Steve has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Steve Sheppard consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

The information in this report that relates to Klondyke Underground and Coronation Mineral Resources is based on and fairly represents information compiled or reviewed by Mr. Lynn Widenbar, Principal Consultant of Widenbar and Associates Pty Ltd., who is a Member of the AusIMM and the AIG. Mr. Lynn Widenbar is a full-time employee of Widenbar and Associates Pty Ltd. and has sufficient experience, which is relevant to the style of mineralisation and types of deposit under consideration and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Lynn Widenbar consents to the inclusion of the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to Copenhagen and Fieldings Gully Mineral Resources is based on and fairly represents information compiled or reviewed by Mr. Ben Playford, who is a Member of the AIG. Mr. Ben Playford is a full-time employee of Calidus Resources Limited. and has sufficient experience, which is relevant to the style of mineralisation and types of deposit under consideration and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Ben Playford consents to the inclusion of the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to Klondyke Mineral Resources is based on and fairly represents information compiled or reviewed by Mr. Jani Kalla, Senior Consultant of Optiro Ltd., who is a Member of the AusIMM and the AIG. Mr. Jani Kalla is a full-time employee of Optiro Ltd. and has sufficient experience, which is relevant to the style of mineralisation and types of deposit under consideration and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Jani Kalla consents to the inclusion of the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to the Open Pit Ore Reserves is based on and fairly represents information compiled or reviewed by Mr. Steve O'Grady. Mr O'Grady has confirmed that he has read and understood the requirements of the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is accepting responsibility. Mr O'Grady is a Member of the AusIMM and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Underground Ore Reserves is based on and fairly represents information compiled or reviewed by Mr. Alastair King. Mr King has confirmed that he has read and understood the requirements of the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is accepting responsibility. Mr King is a Member of the AusIMM and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

1.0 Forward Looking Information

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature

of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code 2012 Edition and the ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts based on all information disclosed in this announcement.

For further information please contact:

Dave Reeves
Managing Director

dave@calidus.com.au

Appendix I: JORC Code, 2012 Edition – Table 1 Sections 1 – 4

JORC TABLE 1 DISCLOSURES
WARRAWOONA PROJECT
JORC Code, 2012 Edition – Table 1
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.*	All drilling and sampling were undertaken in an industry standard manner. All recent samples collected by Calidus Resources have been with a diamond drill (DD) rig using HQ diameter core and with a 5 ½ inch reverse circulation (RC) rig. After logging and photographing, drill core was cut in half or quartered, with one half (or quarter) generally sent to the laboratory for assay and the other half retained. RC samples were collected every 1m, with 1/8 of each interval riffle split for sampling, and the remaining 7/8 of each material stored on site. Representative chips from the drilling are also retained in chip trays for reference. RC holes were sampled for their entire length on a nominal 1m basis. The historical RC samples were spilt at the rig and sampled on predominately 1m intervals, however some of the earlier samples from 1986, 1997, 2005 and 2007 were sampled at either 2m or 4m through the waste zone. Diamond core samples had a minimum sample of 0.5m, maximum of 1.5m and a 1m default sample length. Sample weights generally ranged from 2-6kg/m dependent on rock type. An independent laboratory pulverised the entire sample for analysis as described below.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	**KL/COP/FG** Recent RC samples were collected at one metre intervals by a cone splitter mounted to the drill rig cyclone. The cone is balanced vertically to ensure no bias. To ensure representative sampling, diamond cores were marked considering alteration intensity and veining orientations and selectively sampled for mineralisation or to geological contacts. The core was sampled nominally on 1m intervals or to geological contacts.
	Aspects of the determination of mineralisation that are Material to the Public Report.	**KL/COP/FG** RC drill holes were sampled at one metre intervals exclusively and split at the rig to achieve a target 2-5 kilogram sample weight. DDH holes were cut to ¼ or ½ NQ or HQ core and this was submitted at a variety of sample intervals. Samples were dried, crushed, split and pulverised by Nagrom Laboratories in Perth prior to analysis of gold using fire assay 50g charge. Historically most samples were assayed using Fire Assay or Aqua Regia digest, both using an AAS finish.

Criteria	JORC Code explanation	Commentary
		Gross sample weight for RC holes was 25kg, this was split to achieve a nominal 5kg final sample for analysis. The sample size, weight, analytical technique and laboratory are unknown for the historical Fieldings Gully historical holes. Core samples were routinely collected with interpreted mineralised zones of either half NQ or half HQ core selected by a geologist and submitted for Screen Fire Assay by Nagrom Laboratories in Perth, WA
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.).*	**KL/COP/FG** RC Drilling was undertaken by Orlando Drilling Pty Ltd utilising an Atlas Copco (E235 Explorac) RC track-mounted drill rig utilising a 5 3/8 ''– 5 5/8" hammer. In August 2018 Egan Drilling mobilised to site utilising a Sandvik DE400 Series Heavy Duty RC track-mounted drill rig. Egan Drilling utilize an onboard 1470/500 compressor unit with an onboard booster rated at 900PSI to ensure samples are kept dry. Diamond drilling was also conducted by Orlando, using a Coretech (YDX-3L) track-mounted rig. Diamond drill core size was triple tube HQ and core was oriented with a Reflex ACT111 orientation tool. Top Drive drilling contractors mobilised to site on November 1st, 2018 to ensure a 22-hole deep diamond drilling program underneath an 800m section of the Klondyke orebody was completed by the end of the year. Top Drive also use a Coretech (YDX-3L) track-mounted rig.Core was oriented using a Reflex ACT111 orientation tool. The historical dataset drilling includes RC, RAB and DDH. RC drilling employed a diameter of 140mm (5.5"). Drilling was completed using face sampling hammer with hole depths ranging from 39m to 283m. Diamond core sizes drilled are not known, with holes ranging in depth from 128m to 331m. Core is assumed not to have been orientated as no structural information is available.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	**KL/COP/FG** RC and DDH sample recovery was generally very high, except on the rare occasion where water was struck down hole. DDH recoveries are measured during logging and RC are estimated at the drill rig and logged as a percent. Moisture is also recorded. Historically wet samples were captured in polyweave bags allowing the water to drain. This led to the loss of sample from these bags with the average gross sample reducing to approximately 15 kilograms. Gold losses due to the loss of fines were not quantified.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	**KL/COP/FG** RC holes were drilled using a Hurricane 6.7-276-41B Booster to ensure holes were kept dry and to maximise recoveries. CRA Exploration (CRAE) generated bulk samples from composites of drill chips representing both oxide and fresh rock to check for sample representivity. The deposit is high nugget and therefore representative sampling is difficult. Based on old reports, a booster running at 1000psi was also utilised

Criteria	JORC Code explanation	Commentary
		to keep historical holes dry.
	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.	**KL/COP/FG** No recovery issues were identified with the RC drilling. Loss of fines at the cyclone was minimal and is not considered to have had a significant effect on sample recovery. No relationship has been noted between sample recovery and grade. Overall, sample recoveries were very high and did not present a problem.
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*	**KL/COP/ FG** All RC chips were geologically logged using predefined logging codes for colour, weathering, lithology, alteration, etc. RC logging was completed on one-metre intervals at the rig by the geologist. A subsample of washed and sieved RC chips from each metre was collected and stored sequentially in numbered plastic chip trays. Chip trays representing each RC drillhole are stored in the Company's Marble Bar field office. DDH was logged by geological intervals for geological (lithology, alteration, mineralogy, sulphide percentages) and structural information (including detailed geotechnical logging) and oxidation state. Most historical holes were geologically logged. This included structural and weathering information. A very small percent of holes (< 7%) had no logging.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	**KL/COP/ FG** Logging was predominately qualitative in nature, although vein and sulphide percentages were estimated visually. All diamond drill core was photographed after marking up and before cutting. Detailed geotechnical logging was undertaken on selected diamond core holes to provide open pit design parameters and preliminary underground design parameters.
	The total length and percentage of the relevant intersections logged.	**KL/COP/FG** 100% of all recovered intervals were geologically logged by a qualified geologist. Historically >93% of all recovered intervals were geologically logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	**KL/COP/FG** All mineralized intervals of diamond drill core were cut and sampled as half core to provide a larger sample volume with intervals ranging from 0.2m to 1.5m. A minimum of three metres either side of

Criteria	JORC Code explanation	Commentary
		mineralized intervals was also sampled. Sampling intervals were controlled by geological boundaries and determined by a qualified geologist. The half core not submitted for assay was retained in the trays. Historic diamond core, based on available reports, was cut in half longitudinally with half submitted for analysis and the other half retained in core trays.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	**KL/COP/FG** RC samples were collected from the full recovered interval at the drill rig via an onboard cyclone and then split using an onboard rotating cone splitter. All samples were collected dry with a minor number being moist due to ground conditions or associated with rod changes when drilling below water table. The moisture content was logged and digitally captured by the supervising geologist at the time of drilling. Sample size presented for analysis was typically 1 to 3kg. Historically, RC samples were split at the drill rig. The type of splitter employed is unknown; however, it is stated that the split was generated in a single pass.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	**KL/COP/FG** The sample preparation technique employed by NAGROM laboratory includes oven drying at 105°C for 8 hours, fine crushing to a nominal topsize of 2mm, and pulverizing to achieve a grind size of 95% passing 75 micron. Samples in excess of 3 kg were split 50:50 using a riffle splitter so that samples can fit into a LMS pulverizing bowl. Historically, several laboratories were utilized for gold analysis. Most were all reputable, now ISO/IEC 17025 accredited laboratories such as ALS, Analabs and Genalysis, with a batch of samples in 1986 (equating to 3% of historical drilling) being sent to the unknown Minilab Laboratory for processing. The sample preparation for Genalysis was reported as follows: the whole sample was crushed and pulverized to 100% passing 75 micron and subsampled to yield 50 grams for a fire assay. The procedure utilised for the other historical laboratories was not located.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	**KL/COP/FG** Field QAQC procedures include the field insertion of blanks, standards and collection of field duplicates. These were inserted at a rate of 1 in 40 for each to ensure an appropriate rate of QAQC. Historical QAQC included the insertion of field duplicates and standards in addition to laboratory checks. Reports indicate the inclusion of blanks however no results are available for these samples. A database of 417 standards, 179 screen fire assay duplicates, 439 field duplicates and 1570 laboratory repeats make up the historical QAQC database. Most data were for the period 1995 – 2003. QAQC for other datasets could not be located.

Criteria	JORC Code explanation	Commentary
	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.	**KL/COP/FG** Field duplicates from samples drilled to date generally showed a moderate correlation between original and field duplicates reflecting a nuggety component of gold mineralisation at Klondyke. Historical field duplicate data shows poor precision, not unexpected for this type of gold deposit (old reports suggest the occurrence of free gold may be up to as much as 74% occurring as both coarse and fine particles).
	Whether sample sizes are appropriate to the grain size of the material being sampled.	**KL/COP/FG** The sample sizes collected are in line with standard practice but the nuggety nature of the gold suggests that increased sample sizes for assay would be more appropriate. This sample uncertainty is reflected in the Mineral Resource classification assigned.
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.*	**KL/COP/FG** Fire assay is a total digest and is completed using the lead collection method using a 50-gram charge. The prepared sample is fused in a flux to digest. The melt is cooled to collect the precious metals in a lead button. The lead is removed by cupellation and the precious metal bead is digested in aqua regia. The digest solution is analysed by ICP. The lower detection limit of 0.01ppm Au used is considered fit for purpose. **Historic Data Genalysis** - Two different digestion methods were utilized. The first was Aqua Regia. Elements were determined by AAS with the gold detection limit reported as 0.01pm. If gold assayed above 0.4ppm then the sample was re-assayed using fire assay with a 50g charge. Every fourth sample in the sequence was treated with a multi-acid digestion and analysed by OES. **ALS** - The prepared sample (either 25g or 50g charge) was fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6mg of gold-free silver and then cupelled to yield a precious metal bead. The bead was digested in 0.5mL dilute nitric acid in the microwave oven. Concentrated hydrochloric acid (0.5mL) was then added and the bead was further digested in the microwave at a lower power setting. The digested solution was cooled, diluted to a total volume of 10 mL with de-mineralized water, and analysed by atomic absorption spectroscopy against matrix matched standards. **Analabs** - Analabs has been acquired by SGS and as such detailed description of the analysis method recorded in the database (F650) is not readily definable. It is understood, however, that the analysis was a fire assay utilising a 50g charge, with an AAS finish. 65% of historical holes were assayed by fire assay, the remaining 35% were assayed by Aqua Regia. As Aqua Regia is considered a partial leach (it leaves an undigested silicate and alumina residue as well as

Criteria	JORC Code explanation	Commentary
		refractory minerals such as garnet and spinel), it can underestimate the gold content in the sample, particularly if fine gold is trapped in the silicates. A desktop study quantified the underestimation error caused by this analytical method as up to 26%. No laboratory analysis data was located for the Fieldings Gully historical dataset.
	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.	**KL/COP/FG** Work by the CSIRO in the Yilgarn Craton indicated that a diagram of Ti, Cr and Zr effectively distinguished major mafic and ultramafic rock types (Walshe et al., 2014). A modification of this approach, using Cr/Ti ratios, was deemed more suitable for the Warrawoona Project area based on Minalyzer data collected by CSIRO at the Klondyke and Copenhagen gold deposits (Miller et al., 2018). A Vanta M-series pXRF unit was used to help in assigning lithologies during logging of both RC chips and drill core. Samples were analysed in soil mode with beam times set at 15s each. A calibration check on the Vanta pXRF was conducted at the start of each analytical session followed by analysis of a blank sample and a series of standards (NIST or OREAS). If assays for any standards failed to fall within an acceptable range (defined as three standard deviations of the baseline value), the standard was repeated until acceptable values were obtained before moving onto the next batch of unknown samples. Point data were plotted up for the Cr/Ti ratios using the subdivisions for high-Ti mafic, low-Cr mafic, high-Cr mafic, ultramafic and metasedimentary rock established by CSIRO.
	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.	**KL/COP/FG** Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 5% for exploration and resource RC and DD programmes. These are not identifiable to the laboratory. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the inhouse procedures. These were inserted randomly at a rate of 1 in 40 with extra QC checks conducted after the initial analysis on specific samples deemed appropriate by the laboratory. Results of these checks show that sample and assay procedures are acceptable for resource reporting. No bias has been detected, precision was reasonable considering the deposit type and only a 2% failure of CRM's was reported (less for laboratory standards). 500g LeachWELL analysis were conducted on selected previously assayed samples at Klondyke to investigate the effect of utilizing a larger sample size and to assess the efficiency of potential cyanide leach extraction methods. Results of these checks show that sample and assay procedures are acceptable for resource reporting. LeachWELL analysis showed that the fire assay may underrepresent the grade up to approximately 5%, at grades between 0.7g/t -3g/t.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>For the 22-hole Klondyke Underground (KL UG) program the Screen Fire Assay technique was utilized primarily through the interpreted mineralized zones. QAQC samples were routinely inserted at a rate of 1 in 40 and no bias was detected upon inspection of results.

The QAQC data for some of the historical Klondyke holes showed that there was an underestimation bias caused by the aqua regia digest. Results are tabulated below. Precision was difficult to test for laboratory repeats as generally a different method of analysis was used for the repeat sample.

<table>
<tr><th rowspan="2">Standard</th><th>Standard</th><th>Aqua Regia (AR)</th><th>Fire Assay repeat (FA)</th><th>Variance</th><th>Variance</th></tr>
<tr><th>Value (SV)</th><th>Av. grade</th><th>Av. grade</th><th>1- (AR/SV)</th><th>1- (FA/SV)</th></tr>
<tr><td>7C</td><td>2.48</td><td>2.06</td><td>2.36</td><td>17%</td><td>5%</td></tr>
<tr><td>OREAS7Ca</td><td>2.54</td><td>1.89</td><td>2.45</td><td>26%</td><td>4%</td></tr>
<tr><td>OREAS2Ca</td><td>0.599</td><td>0.54</td><td>0.56</td><td>10%</td><td>7%</td></tr>
<tr><td>OREAS6Ca</td><td>1.48</td><td>1.1</td><td>1.46</td><td>26%</td><td>1%</td></tr>
<tr><td>6C</td><td>1.37</td><td>1.19</td><td>1.39</td><td>13%</td><td>-1%</td></tr>
</table>

No QAQC data was located for historical Fieldings Gully holes</td></tr>
<tr><td rowspan="2">Verification of sampling and assaying</td><td>The verification of significant intersections by either independent or alternative company personnel.</td><td>KL/COP/FG

Significant intercepts have been reviewed in the available data by senior geological staff and independent consultants.

Historic significant intercepts have been cross-referenced to earlier reporting. Many of the original assay results are not available for reference.</td></tr>
<tr><td>The use of twinned holes.</td><td>KL/COP/FG

Attempts were made to twin several historical holes during 2018 however due to significant lift and sway in the drilling they cannot be considered true twins.

Hole RC96KL59 was successfully twinned with hole 17KLRC066. Total (noncontiguous) intercepts are: RC96KL59 - 37m @2.10g/t and 17KLRC066 – 42m @ 2.04g/t.

At Fieldings Gully, hole 17FGRC008 was drilled within 3m of historic hole FG024. The significant intercept for the historic hole was 8m @ 3.36g/t from 19m in hole FG024. Hole 17FGRC008 reported 11m @ 1.74g/t from 28m. Hole FG024 also was quite a shallow hole compared to 17FGRC008 and finished in mineralisation.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	**KL/COP/FG** Geological data is logged into Excel spreadsheets on a Toughbook computer at the drill rig for transfer into the drill hole database. DataShed is used as the database storage and management software and incorporates numerous data validation and integrity checks using a series of predefined relationships. All original planned data is retained in DataShed for validation purposes.
	Discuss any adjustment to assay data.	**KL/COP/FG** Adjustments made to the assay data were limited to the replacement of below detection results with a negative value.
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.*	**KL/COP/FG** Drill hole collar positions have been accurately surveyed by registered surveyors utilising DGPS survey equipment to an accuracy of +/- 0.01m. Down holes surveys were conducted by Direct Systems Australia using a north seeking gyroscope. Historically, where records are available drill collar locations were surveyed using a total station in AMG84 Zone 50 coordinates. Collar details were subsequently transformed to MGA94 using published transformation criteria relevant to Zone 50. Down hole surveys were completed using single shot cameras following completion of drilling. Where records are not available the method of collar and down hole surveys are not known. For those holes with survey details recorded, survey accuracy of both collars and down hole is considered acceptable.
	Specification of the grid system used.	**KL/COP/FG** The grid system used for locating the collar positions of drillholes is the Geocentric Datum of Australia (GDA94) Zone 50 (MGA94 projection). Elevations are recorded in Australian Height Datum (AHD). All reported coordinates are referenced to this grid. Topographic control is provided by topographic mapping undertaken by Geoimage Pty Ltd. Historical data has been transformed from AMG84 Zone 50 into MGA94 Zone 50.
	Quality and adequacy of topographic control.	**KL/COP/FG** Topographic control is provided by topographic mapping undertaken by Geoimage. Raw data was as follows: • Recent archive Ortho-Ready Standard Level 2A WorldView-2 (WV2) stereo imagery • 50cm resolution panchromatic, 2m resolution 4-band multispectral • 2 swaths acquired over 100 sqkm, both swaths captured on 12 October 2018

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	**KL/COP/FG** Drilling has been completed on a variable grid drilled orthogonal to the mineralisation. At **Klondyke** this approaches 25mX x 25mY. In 2019, close-spaced drilling over a limited area was completed at a 12.5mX x 12.5mY spacing. At **Copenhagen** the pattern is close to 10mX x 5mY in some near surface areas, moving out to 30m centres and wider in deeper parts of the orebody. At Fieldings Gully the pattern is close to 10mX x 5mY in some near surface areas, moving out to 50m centres and wider in deeper parts of the orebody. Data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures.
	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.	**KL/COP/FG** Data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures. The Klondyke deposit shows reasonable continuity of the main mineralized zones allowing the drillhole intersections to be modelled into coherent, geologically robust wireframes. Reasonable consistency is evident in the thickness of the structure, and the distribution of grade appears to be reasonable along strike and down plunge.
	Whether sample compositing has been applied.	Samples have been composited to 1m. Greater than 97% of the samples had a length of 1m prior to compositing.
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.*	**KL/COP/FG** The gold mineralisation identified to date at Warrawoona consists of a number of interpreted mineralised veins / structures striking approximately 100 to 115° and dipping steeply (70°-90°) to the south. Resource drilling is predominantly conducted at -60 degrees orthogonal to strike and as such drill holes intersect the mineralisation close to perpendicular. As such the orientation of drilling is not likely to introduce a sampling bias.

Criteria	JORC Code explanation	Commentary
	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.	**KL/COP/FG** The orientation of drilling with respect to mineralisation is not expected to introduce any sampling bias.
Sample security	*The measures taken to ensure sample security.*	**KL/COP/FG** The chain of custody is managed by Calidus employees and contractors. RC drilling samples are placed into pre-numbered calico bags directly from the splitter under the supervision of the rig geologist. Diamond core is transported from site by Company personnel to a secure facility in Marble Bar where it is logged and sampled then stored. The rig geologist places the calico bags containing the samples into large plastic sample bags and transports them to the Marble Bar field office where a sample submission form is completed. The details entered onto the sample submission form are the means by which the samples are tracked through the analytical laboratory. Samples await collection for transportation in a locked freight container and are then shipped by an external road freight company to the laboratory in Perth. The laboratory provides the Company with a reconciliation of samples submitted compared to samples received. The security measures for the historical data are unknown.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	**KL/COP/FG** A review of the data against historical reports and information has been undertaken concurrent with the drilling programs by both the Geological Database Manager and the Exploration Manager. Data from this review has been used to validate such things as positions of collars and assay data. Historical data for the Fieldings Gully deposit has not been reviewed.

Section 2 Reporting of Exploration Results

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 historical Warrawoona mining centre is situated in the East Pilbara District of the Pilbara Goldfield of Western Australia, approximately 150km SE of Port Hedland and approximately 25km SE of the town of Marble Bar. Calidus Resources Pty Ltd owns 100% of Keras (Pilbara) Gold Pty Ltd, the registered holder of the tenements.

Criteria	JORC Code explanation	Commentary

CALIDUS RESOURCES & SUBSIDAIRIES TENEMENT SCHEDULE

Tenement ID	Holder	Size (ha)	Renewal	Ownership/ Interest
GRANTED				
E45/3615	Keras (Pilbara) Gold Pty Ltd	3,513.73	22/11/2020	100%
E45/4236	Keras (Pilbara) Gold Pty Ltd	958.25	19/10/2024	100%
E45/4555	Keras (Pilbara) Gold Pty Ltd	1,917.75	1/03/2022	100%
E45/4843	Keras (Pilbara) Gold Pty Ltd	942.15	2/07/2022	100%
E45/4856	Keras (Pilbara) Gold Pty Ltd	2,554.05	20/05/2023	100%
E45/4857	Keras (Pilbara) Gold Pty Ltd	6,704.61	20/05/2023	100%
E45/4905	Keras (Pilbara) Gold Pty Ltd	638.86	29/11/2022	100%
E45/4906	Keras (Pilbara) Gold Pty Ltd	319.46	29/11/2022	100%
E45/5172	Keras (Pilbara) Gold Pty Ltd	4,307.32	30/05/2024	100%
M45/0240	Keras (Pilbara) Gold Pty Ltd	6.07	17/11/2028	100%
M45/0521	Keras (Pilbara) Gold Pty Ltd	18.11	10/03/2034	100%
M45/0547	Keras (Pilbara) Gold Pty Ltd	17.72	2/05/2035	100%
M45/0552	Keras (Pilbara) Gold Pty Ltd	9.71	18/01/2035	100%
M45/0668	Keras (Pilbara) Gold Pty Ltd	242.05	28/12/2037	100%
M45/0669	Keras (Pilbara) Gold Pty Ltd	101.95	28/12/2037	100%
M45/0670	Keras (Pilbara) Gold Pty Ltd	113.10	29/12/2037	100%
M45/0671	Keras (Pilbara) Gold Pty Ltd	118.65	29/11/2037	100%
M45/0672	Keras (Pilbara) Gold Pty Ltd	116.20	1/08/2037	100%
M45/0679	Keras (Pilbara) Gold Pty Ltd	121.30	8/04/2038	100%
M45/0682	Keras (Pilbara) Gold Pty Ltd	235.95	17/04/2038	100%
P45/3065	Keras (Pilbara) Gold Pty Ltd	29.45	29/03/2024	100%
Applications				
P46/1972	Keras (Pilbara) Gold Pty Ltd	194.57	APPLICATION	100%
Joint Venture				
E45/3381	Beatons Creek Gold Pty Ltd	7,965.63	16/03/2021	70%
E45/4666	Beatons Creek Gold Pty Ltd	3,163.98	23/11/2021	70%
E45/4622	Beatons Creek Gold Pty Ltd	4,222.07	4/05/2022	70%
E45/4934	Beatons Creek Gold Pty Ltd	1,596.99	22/01/2023	70%
P45/2781	Beatons Creek Gold Pty Ltd	2.42	10/06/2020	70%

Criteria	JORC Code explanation	Commentary
		All leases were granted before Native Title determination. A search of the Department of Aboriginal Affairs registered Aboriginal sites and heritage places (Western Australia Department of Aboriginal Affairs, 2013) did not identify any sites within or immediately adjacent to the Klondyke tenements.
	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 tenements are in good standing. Two bat species are known to exist in some of the old workings located in or adjacent to the current Klondyke resource area (M45/669). These bats are listed as "Vulnerable" under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC). As such, it is anticipated this will result in the submission of an EPBC referral that will likely require a management plan, which in-turn will require extensive studies and consultation to enable approval.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Warrawoona area is thought to have been discovered as a result of the gold rushes to the Pilbara in the late 1880s. Modern exploration has been undertaken by the Geological Survey of Western Australia (GSWA) followed by a number of explorers in the mid-1980s and then from 1993 to the present day. During this period Aztec Mining, CRA, Lynas and Jupiter all conducted exploration in the Klondyke area. Drilling information from these explorers has been reviewed and included as part of these Mineral Resource estimates, with the respective confidence in the quality considered in assignment of the Mineral Resource classification applied.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Warrawoona Project leases lie within the Warrawoona Group, one of the oldest greenstone belts within the Pilbara Craton. Composed largely of high-Mg basaltic lavas with lesser tholeiite, andesite, sodic dacite, potassic rhyolite, chert and banded iron formation (BIF), all metamorphosed to greenschist facies, the Warrawoona Group is sandwiched between the Mount Edgar batholith to the north and the Corunna Downs batholith to the south. Gold occurs in quartz veins and stringers in the Klondyke, Copenhagen and Fieldings Gully Shears and mineralisation is associated with quartz-carbonate-sericite-pyrite alteration. Quartz veins and stringers are generally approximately parallel to the predominant shear direction. The bulk of the gold mineralisation is hosted in strongly sericitised and sheared mafic units with thin chert bands marking probable stratigraphic breaks. Over some abandoned workings gold mineralisation is associated with copper as indicated by the presence of malachite and other copper carbonates.
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*	All drill holes within the mineralised zones were used to support the Mineral Resource estimate, and a summary of these holes is therefore not included in this report. The details of drill holes material to the exploration results reported in the announcement are included in this announcement, refer Table One.

Criteria	JORC Code explanation	Commentary
	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.*	
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.*	All reported assays have been length weighted. No top-cuts have been applied in the compilation of length weighted grades for reporting of exploration results. For **Klondyke Underground** (KL UG) a nominal lower cut-off grade of 2.0g/t Au is applied, with up to two metres internal dilution. A minimum intercept width of 0.01m is required.
	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.	High grade gold intercepts within broader lower grade intercepts are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents values are used for reporting of exploration results.
Relationship between mineralisation widths and intercept lengths	*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	The gold mineralisation identified to date at the Klondyke, Fieldings Gully and St George prospects consists of a number of interpreted mineralised lodes striking approximately 135^0 and dipping steeply (80°-85°) to the north, Copenhagen has a similar strike but dips less steeply (at 70°) to the north. Resource drilling is predominantly conducted at -60 degrees orthogonal to strike and as such drill holes intersect the mineralisation close to perpendicular.
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.*	Included in 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.*	Reported Calidus RC drill results at all other locations have been calculated using a 0.3g/t Au lower cut-off grade with a minimum intercept width of 2m. A total of up to 2.0 metres of internal waste can be included in the reported intersection.

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.*	No other meaningful data to report
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).*	Calidus Resources Limited will be focusing on the staged resource definition drilling at Klondyke, Copenhagen, Coronations and Fieldings Gully in addition to pit optimisation studies, metallurgical studies, development studies and exploration drilling at priority targets over the next 12 months.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Contained in report

Section 3 Estimation and Reporting of Mineral Resources

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 was provided as a validated Microsoft Access Database and was digitally imported into Surpac 2020, Datamine Studio RM (version 1.5.47.0) and Micromine 2020 software for resource estimation purposes. Validation routines were run to confirm validity of all data. Analytical results have all been electronically merged to avoid any transcription errors.
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 visited site during March of 2020 and inspected the deposit and formed an understanding of the geological and geographical setting of the deposit. Drill core and RC sample chips were inspected at the storage site in Marble Bar and compared with drill logs. Two previous site visits to the Warrawoona Gold Project have been undertaken by Optiro. First by Mr Paul Blackney during April 2018 who inspected the diamond drilling, sampling/logging and drill core and reviewed the project/deposit geology. A second visit by Mr Mark Drabble during August 2018, who reviewed geology, logging, sampling protocols, QAQC systems and drill core, provided assistance with planning infill drilling, and confirmed outcrop and surface exposures and historical mining. The outcome of the site visit was that data has been collected in a manner that supports reporting an MRE in accordance with the guidelines of the JORC Code, and controls on the mineralisation are well-understood. The project location, infrastructure and local environment were appraised as part of JORC's "reasonable prospects" test.
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 confidence in the geological interpretation is good, with the latest infill drilling allowing a detailed understanding. Alternative interpretations would result in similar tonnage and grade estimation techniques. Comparison between successive, independently completed resource estimates show correlation across the defined mineralisation. Any differences are due to additional volume defined and treatment of high-grade samples within the mineralisation with the effect of increased tonnage and slightly decreased grades.

Criteria	JORC Code explanation	Commentary
		Geological boundaries are related to by the spatial distribution of grade within the mineralised structures. **KLON** - For the Klondyke Trend, a contact analysis was used to identify an area adjacent to the Kopcke's Leader, considered to display elevated gold grades by Calidus geological staff, to define a central high-grade core. Surrounding material, within the fuchsite and sericite schists, where used for the definition of a low-grade domain. These high- and low-grade domains were defined using a categorical indicator estimation process. Additional mineralisation domains on the St George Trend were defined using Leapfrog implicit modelling techniques. Low-grade domains are defined for material >=0.2 g/t gold with high-grade defined for material >=0.5 g/t gold. The categorical indicator and implicitly defined mineralisation domains were used to constrain the grade estimation. Dynamic anisotropy (DA) was employed to define local block search ellipsoids for the high-grade and low-grade categorical indicator estimates. A surface generated from the mid-point of the Kopckes Leader chert unit was used to define the search direction of the DA for each block.
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.*	For Klondyke (KL) the lateral dimensions of the resources are shown in the diagrams in the body of this release. The mineralisation has a sub-vertical dip as shown in diagrams in the body of this release, and ranges from 2m to 20m thick. The resource extends over approximately 5.1 km of strike and extends to a vertical depth of over 500 metres. The St George Trend mineralisation has a sub-vertical dip and ranges from approximately 1 m to 10 m thick with an approximate strike of 1.6 km extending to a vertical depth of approximately 200 m. The resource is currently considered open along strike and down dip. The lateral dimensions of the Copenhagen resources are shown in the diagrams in the body of this release. The mineralisation has a moderate to steep dip as shown in diagrams in the body of this release, and ranges from 2m to 10m thick. The resource extends over approximately 210m of strike and extends to a vertical depth of 190m The lateral dimensions of the Fieldings Gully resources are shown in the diagrams in the body of this release. The mineralisation has a steep dip as

Criteria	JORC Code explanation	Commentary
		shown in diagrams in the body of this release, and ranges from 2m to 10m thick. The resource extends over approximately 440m of strike and extends to a vertical depth of 140m
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 characterisation).* *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.*	**KL -** Grade estimation using an Ordinary Kriging methodology has been applied. High and low-grade wireframes have been generated using Categorical Indicator Modelling to subset and constrain the data points used in the interpolation and only individual grades from individual wireframes were used. Localised Uniform Conditioning (LUC) was then applied to the Ordinary Kriged model. **KL UG** – Grade estimation using Ordinary kriging has been applied within low and high-grade domains defined by Indicator modelling of mineralised intervals. These intervals are defined an automated algorithm with a minimum of 3m @ 0.3g/t Au. High grade domains had a minimum composite grade of 1g/t Au **COP -** Grade estimation using an Ordinary Kriging methodology has been applied to Copenhagen. A nominal 0.3 g/t wireframe was interpreted on section and used to subset and constrain the data points used in the interpolation and only individual grades from individual wireframes were used. Variography was carried out on the main mineralisation zone to define the variogram models for Ordinary Kriging interpolation. **FG -** Grade estimation using an Ordinary Kriging methodology has been applied to Fieldings Gully. A nominal 0.3 g/t wireframe was interpreted on section and used to subset and constrain the data points used in the interpolation and only individual grades from individual wireframes were used. Variography was carried out on the main mineralisation zone to define the variogram models for Ordinary Kriging interpolation. Estimations for Copenhagen and Fieldings Gully were carried out in Surpac 2020. Klondyke open pit estimations were carried out in Datamine Studio RM (version 1.5.47.0). Klondyke Underground estimations (below 100mRL) were carried out in Micromine 2020. **KL -** The block models were constructed using a 20m (E) by 10m (N) by 10m (Z) block size, constrained by high and low-grade wireframes, with no sub-celling. The LUC model uses 10m (E) by 2.5 (N) by 2.5 (Z) blocks. **KL UG** – The underground model was constructed with 2.5m (E) by 1.25m (N)

Criteria	JORC Code explanation	Commentary
		by 1.25m (Z) blocks using a unfolding planes generated from a updated interpretation's mineralised zones. No sub-celling of blocks. **COP -** The block models were constructed using a 5m (E) by 2.5m (N) by 2.5m (Z) block size, constrained by the mineralised wireframe, with sub-cells to 0.5m x 0.5m x 0.5m to accurately represent wireframe shapes. **FG -** The block models were constructed using a 20m (E) by 5m (N) by 10m (Z) block size, constrained by the mineralised wireframe, with sub-cells to 5m x 1.25m x 2.5m to accurately represent wireframe shapes. **KL/KL UG -** The model cells are rotated 25 degrees around the Z axis to align with the strike of the mineralisation. **COP -** The model cells are rotated 30 degrees around the Z axis to align with the strike of the mineralisation. **FG** - The model cells are unrotated. **KL -** Block size is generally equal to, or one half of the sample spacing or greater in areas of infill drilling, and typically one half in wider spaced drilling areas. **KL UG** – Due to the narrow nature of the mineralised zone, the block size was reduced to reflect this. **COP -** Block size is generally half to one-quarter the sample spacing or greater in areas of close spaced infill drilling, and typically greater at the extremities and at depth **FG** - Block size is generally half to one-quarter the sample spacing or greater in areas of close spaced infill drilling, and typically greater at the extremities and at depth No deleterious elements have been identified No assumptions regarding recovery of by-products have been made An unfolding (or vertical flattening) methodology has been used in the interpolation of the Klondyke deposit; this obviates the need for varying search ellipses with dip, with all searches being vertical, and oriented along the strike direction of the mineralisation. Copenhagen used different search orientations for each of the mineralised zones and Fielding Gully utilises 2 orientations dependent upon the strike/dip of the mineralisation wireframes.

Criteria	JORC Code explanation	Commentary
		Search ellipsoids use multiple passes to ensure blocks are filled in areas with sparser drilling. Sizes of searches are based on Kriging Neighbourhood Analysis and are covered in detail in the body of the accompanying report. Sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation. Top cut analysis was carried out on the high and low grade mineralised zones, using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation. **KL -** Top cuts used are 25 g/t Au in the high-grade Zone, 10 g/t in the low-grade zones and 7.5 g/t at St George. **KL UG** - 30 g/t Au for the main high-grade domain, 25 g/t Au for the hangingwall and footwall domains and 15 g/t Au for St George. **COP -** A top cut value of 30, 20, 10 and 8 g/t Au is applied for the zones 1 to 4 respectively. **FG** – A top cut value of 20g/t Au has been applied. Validation was carried out in a number of ways, including o Visual inspection section, plan and 3D o Swathe plot validation o Model vs composite statistics o ID2 vs OK model checks All methods of validation produced acceptable results.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The resource has been reported at a 0.5 g/t Au cut-off. Final reporting will require an economic analysis of cut-off grades for a specific mining scenario. Klondyke underground (<100mRL) utilises a 2.0g/t Au cut-off. The cut-off grades are determined from technical and economic assessment of the mineralisation completed by Calidus and assume extraction by a combination of open pit and underground mining.

Criteria	JORC Code explanation	Commentary
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.*	Simple optimisations between $1,800/oz and $3,000/oz show that pits have the ultimate potential to encompass material to the 100mRL at Klondyke. Similar optimisations at Copenhagen and Fieldings Gully also show that the Mineral Resource is amenable to extraction via open pit mining. Mining factors such as dilution and ore loss have been applied.
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.*	No metallurgical assumptions have been built into the resource models. A number of preliminary metallurgical test work programs have been completed on a range of material types at Klondyke with results indicating that mineralisation is amenable to treatment using standard cyanide extraction. No metallurgical studies have been conducted on Fieldings Gully to date. The results from metallurgical test work have been considered for Mineral Resource classification.
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.*	**KL** – Studies have identified some waste zones (approx. 10% of total) that have potential to leach nickel and arsenic. This has been considered in the prospects for eventual economic extraction. **COP/FG** - Acid rock drainage (ARD) analysis has been undertaken and shows to be non-acid generating for both ore and waste Inhouse desktop 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. Proximal to Klondyke, the presence of the two vulnerable bat species on tenement M45/669 will likely result in the submission of an EPBC referral that will require a management plan, which in-turn will require extensive studies and consultation to enable approval. Additional Western Australian environmental approvals will include: Mining Proposal and Mine Closure Plan (DMIRS); Works Approval and Environmental Protection Act Part V Licencing (DWER); Environmental Protection Act Part V - Native Vegetation Clearing Permit (should the Project not be formally assessed under part IV)(DMIRS); and Water Licencing (DWER).
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If*	Bulk density is based on assigned values of average densities of similar

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>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.</td><td>lithological units and alteration types. However, at Klondyke, Two hundred and seventy-three samples were selected from 13 diamond drill holes across the length of the Klondyke resource and ranging from oxide through transitional to fresh material for specific gravity measurements using the Archimedes method, to provide confidence in assumptions made.

The dry bulk density (i.e., SG) has been calculated as the mass of sample in air divided by the difference between the mass of the sample in air and the mass of the sample in water.

The application of bulk density values was based on a series of surfaces (created using drilling data) representing oxide, transitional and fresh boundaries. The following densities were applied to the resource model.
<table>
<tr><th>Oxidation Level</th><th>Klondyke</th><th>Copenhagen</th><th>Fieldings Gully</th></tr>
<tr><td>Oxide</td><td>2.4gm/cm^3</td><td>2.2gm/cm^3</td><td>2.2 gm/cm^3</td></tr>
<tr><td>Transition</td><td>2.7gm/cm^3</td><td>2.5 gm/cm^3</td><td>2.6 gm/cm^3</td></tr>
<tr><td>Fresh</td><td>2.86gm/cm^3</td><td>2.9 gm/cm^3</td><td>2.8 gm/cm^3</td></tr>
</table>

In addition, historical SG work was carried out by CRAE and SGS, using Archimedes principle, determined a specific gravity average of 2.82 for transition materials. The average SG value for primary material was 2.88.</td></tr>
<tr><td>Classification</td><td>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.</td><td>The Mineral Resources have been classified as Measured, Indicated and Inferred based on the drill spacing and geological continuity.

The Resource models use a classification scheme based upon drill hole spacing plus block estimation parameters, including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid.

The results of the Mineral Resource Estimation reflect the views of the Competent Person.

KL - Measured Resources have been defined only within the main Klondyke Trend where it has been tested with the 2019 infill drilling (to approximately 10 m sectional spacing) and has high confidence in the geological interpretation and higher estimation quality.</td></tr>
<tr><td>Audits or reviews</td><td>The results of any audits or reviews of Mineral Resource estimates.</td><td>KL - The resource estimate has been peer reviewed by Optiro staff.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		There have been no reviews or audits of the other resource models as yet.
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 Resources is reflected in the reporting of the Mineral Resource as being in line with the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade, with reference made to resources above a certain cut-off that are intended to assist mining studies. No production data is available for comparisons.

Section 4 – Estimation and Reporting of Ore Reserves

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.*	The Open Pit Ore Reserve is based on Mineral Resource estimate by Optiro Consultants. The Underground Ore Reserve is based on Mineral Resource estimate by Widenbar and Associates.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Mineral Resources are inclusive of Reserves
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The Open Pit Competent Person has not visited site as it is not material to the work completed. The Underground Competent Person has not visited site as it is not material to the work completed The Competent Persons' have also relied on reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
	If no site visits have been undertaken indicate why this is the case.	The Competent Person has not visited site as it is not material to the work completed.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*	A Pre-Feasibility level estimation of costs, modifying factors and parameters resulting in a mine plan that is technically achievable and economic using the determined Ore Reserve.
	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.	Ore Reserves are declared based upon a Pre-Feasibility Study that included mine plans and mine designs that are deemed technically achievable and have been tested for economic viability using input costs, metallurgical recovery and expected long term gold price, after due allowances for royalties.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Open Pit: Cut-off grades applied at Klondyke: • 0.33g/t for oxide and transitional material • 0.36g/t for fresh material Cut-off grades applied at St George:

Criteria	JORC Code explanation	Commentary
		• 0.36g/t for oxide and transitional material • 0.39gt/ for fresh material Cut-off grade applied at Copenhagen: • 1.88g/t for all material types Underground: A stoping cutoff grade of 2.0 g/t has been utilised. All mine areas, levels and individual stopes are cashflow checked to ensure profitability.
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).*	Open Pit: Optimisations have been completed by Intermine Engineering Consultants and have been used to generate detailed staged and final pit designs. Underground: Optimisations have been completed by Dionysis Mining to generate detailed mine design and schedule.
	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.	Open Pit: Conventional open cut mining methods of drill and blast and load and haul utilising 120t excavators and 90t trucks would be employed and are widely used in the gold mining industry and production rates and budget costings have been sourced from reputable mining contractors Underground: The mining method utilised is top down bench stoping on a 25m level spacing with voids left open and insitu rock rib and sill pillars for stability. The chosen mining method is a widely utilised method in similar orebodies. Based on orebody geometry and rockmass conditions the chosen method is appropriate.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Geotechnical parameters to a Feasibility Level of detail were provided by Peter O'Bryan and Associates. The open pit and underground designs conform to these recommendations.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Open Pit: The original resource model was regularised to a minimum block size of 10m along strike, 2.5m across strike and 2.5m. Underground: Based on costs a stope cutoff grade of 2.0g/t was used for stope generation. All individual stopes were cashflow

Criteria	JORC Code explanation	Commentary
		checked to ensure profitability.
	The mining dilution factors used.	Open Pit: an additional 2.5% dilution applied to the regularised model diluted grade. Underground: 10% dilution has been applied in the ore development shapes. 0.5m dilution in each stope wall is built into the stope shape for a minimum stope width of 3.0m.
	The mining recovery factors used.	Open Pit: ore loss of 5% for all areas to reflect potential operating conditions. Underground: Rib pillars are a minimum of 5m strike length and a width / height ratio of 0.8 in wider stopes. The resultant rib pillar based stope recovery is 89%, however a more conservative factor of 87% has been utilised. A general mining recovery factor (exclusive of pillars) of 98% has been applied to stoping for an overall general recovery factor of 85%. A 100% recovery factor has been applied to development.
	Any minimum mining widths used.	Open Pit: The minimum mining width at the base of the pit is 15m and 30m between stages. Underground: Stope minimum drill with is 2.0m resulting in minimum finished stope width (inclusive of dilution) of 3.0m
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Open Pit: The resource model classification comprised Indicated and Inferred. Inferred has been excluded in the optimisation and are not of any influence to the result at the main Klondyke pit area. Underground: Mine plans have been generated and cashflow checked both inclusive and exclusive of inferred resources. The Ore Reserve does not include any Inferred resource and the Ore Reserve is technically and economically viable without the inclusion of the Inferred resource.
	The infrastructure requirements of the selected mining methods.	Mobilisation, establishment and all site and mine infrastructure to support open pit and underground mining has been accounted for in the study.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* *Whether the metallurgical process is well-tested technology or novel in nature.* *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors 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?*	All ore will be processed at a new plant established at the mine site. The plant process is milling ore via a conventional crush-grind-gravity-separation-carbon in leach (CIL) circuit. The processing technology is well established in many gold operations. Recent metallurgical test-work was completed by Nagrom, ALS and BV to determine metallurgical recoveries and throughput rates to a degree of accuracy. No problematic levels of deleterious elements have been detected during test work. There is a grind recovery relationship at St George due to presence of Arsenopyrite. A lower recovery (81%) based on test work and the selected grind size of 150 micron is applied for St George.
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.*	The mining and associated site infrastructure areas affected by disturbance have been covered by baseline environmental and heritage studies with project permitting currently in process. An offset to the proposed mining area and modified blasting practices has been accounted for to reduce disturbance to the existing colony of Protected bat colonies. The waste rock storage area has been designed with suitable storage capacity and water shedding capabilities. The waste rock mass has been tested for acid forming potential. The lithotypes are not acid generating, however neutral draining of NiAS-rich waste rock was identified as having the potential to be leached from the waste rock. A Metalliferous Drainage Procedure has been developed and the material will be segregated from the waste stream and stored in encapsulation cells on the waste dump. The tailings storage facility will be located to the West of the proposed waste rock storage facility. The permitting process is ongoing.

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 site is located 25km south-east by established road to the township of Marble Bar with access to the all-weather road to Port Headland or Newman. There is sufficient land within the lease area for the establishment and operation of the planned activities. The Marble Bar airport can service the mine with an upgrade. Labour would be sourced from Perth on a fly in-fly out basis. Water supply will be available from bore-fields located in proximity to the mine site and from pit dewatering A camp will be established in close proximity to the operation. Power will be provided by on site natural gas and diesel generators
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.* *Allowances made for the content of deleterious elements.* *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* *The source of exchange rates used in the study.* *Derivation of transportation charges.* *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* *The allowances made for royalties payable, both Government and private.*	Capital costs for establishment and construction of the processing plant have been provided by GR Engineering Services Pty Ltd (GRES). Mine capital and operating costs are based on: First principle quotation provided reputable mining contractors using the physical layout and mining schedule results of this study. Allowances have also been included for dewatering, day-works and other ancillary works, and contractor accommodation and flights as determined by Calidus. All costs and revenue are in AUD. Processing operating costs were determined based on: A PFS carried out by independent engineers GRES. Royalties for a 2.5% WA State Government royalty and additional third party royalty related to asset acquisition for gold produced.
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.* *The derivation of assumptions made of metal or commodity price(s),*	Single commodity pricing for gold only The Competent Persons' 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

Criteria	JORC Code explanation	Commentary
	for the principal metals, minerals and co-products.	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 further refined at an independent LBMA certified refiner, and then then sold to the company's various gold sale counterparties.
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.* *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	The Ore Reserve estimate is supported by a financial model that has been prepared from operating cost inputs to a Pre-Feasibility level. The model covers the current life of the Project. All major cost inputs have been sourced from contractors and suppliers. A discount rate of 8% has been applied. The resulting NPV and IRR is positive and sensitivity analysis have been completed for the commodity price as contained in the PFS.
Social	*The status of agreements with key stakeholders and matters leading to social licence to operate.*	The Calidus owners team 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.* *The status of material legal agreements and marketing arrangements.* *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any*	No material naturally occurring risks have been identified for 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.

Criteria	JORC Code explanation	Commentary
	unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.* *Whether the result appropriately reflects the Competent Person's view of the deposit.* *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Classification of the Ore Reserve is based on the Measured and Indicated Mineral Resource classification only. The Measured and Indicated Mineral Resource has been converted to a Proven and Probable Ore Reserve. The result appropriately reflects the Competent Persons' view of the deposit.
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The Ore Reserve estimate has not been independently audited or reviewed.
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 corresponding 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 Persons' are satisfied that a suitable margin exists that the Ore Reserve estimate would remain economically viable with any negative impacts applied to these factors or parameters. There is a degree of uncertainty in the commodity price used however the Competent persons' are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.