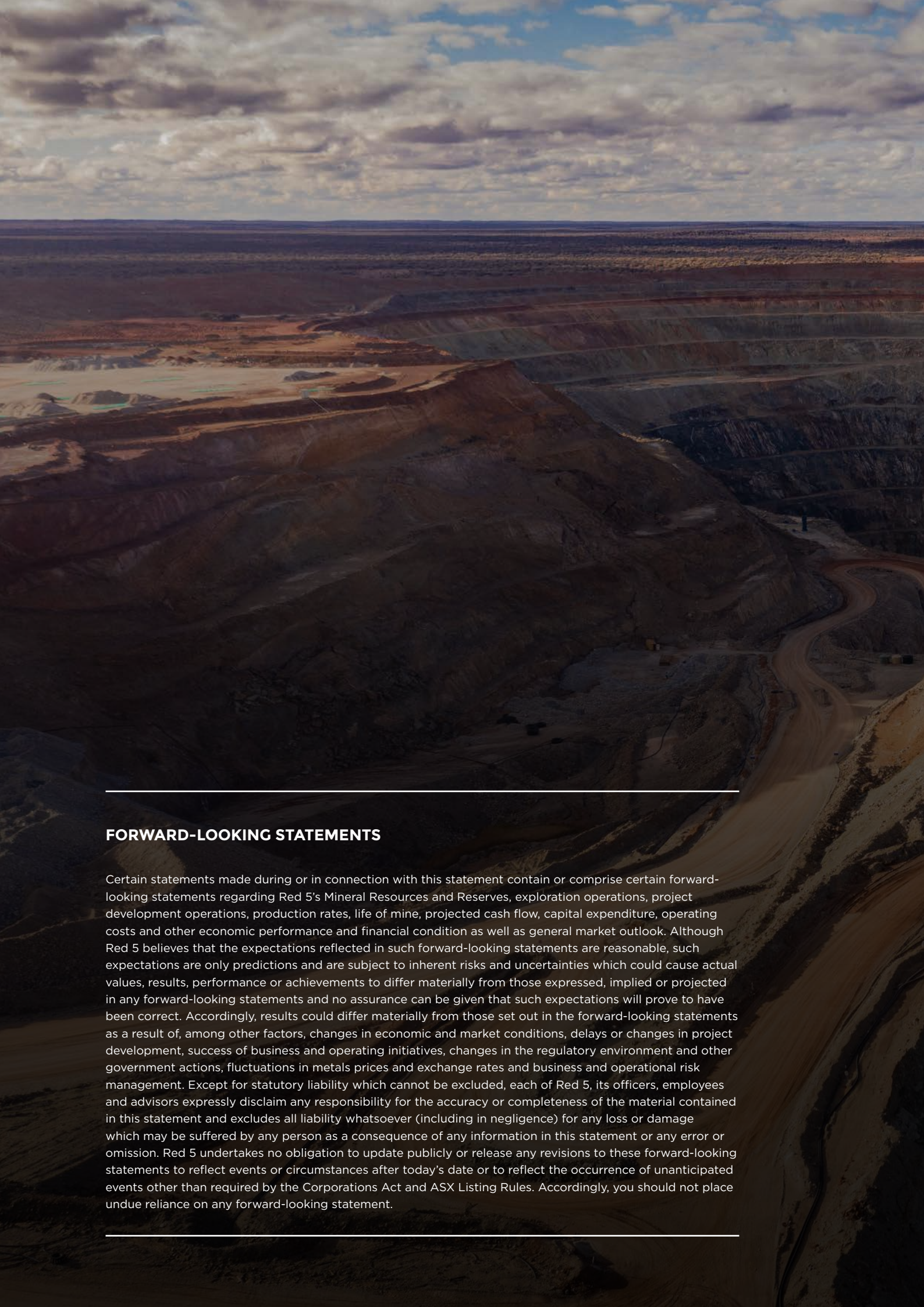




## **KING OF THE HILLS GOLD PROJECT**

**FEASIBILITY STUDY INFORMATION BOOKLET  
SEPTEMBER 2020**





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## FORWARD-LOOKING STATEMENTS

Certain statements made during or in connection with this statement contain or comprise certain forward-looking statements regarding Red 5's Mineral Resources and Reserves, exploration operations, project development operations, production rates, life of mine, projected cash flow, capital expenditure, operating costs and other economic performance and financial condition as well as general market outlook. Although Red 5 believes that the expectations reflected in such forward-looking statements are reasonable, such expectations are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements and no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, delays or changes in project development, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. Except for statutory liability which cannot be excluded, each of Red 5, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this statement and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this statement or any error or omission. Red 5 undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

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## CORPORATE DIRECTORY

### Directors

Kevin Dundo	Non-executive Chairman
Mark Williams	Managing Director
Ian Macpherson	Non-executive Director
Colin Loosemore	Non-executive Director
Steve Tombs	Non-executive Director

### Company Secretary

Frank Campagna

### Senior Management

Brendon Shadlow	General Manager
John Tasovac	Chief Financial Officer
Byron Dumpleton	Chief Geologist
Patrick Duffy	Chief Corporate Development Officer
Cameron Pocknee	Project Development Manager
Warren King	KOTH Project Manager
Chris Witt	Chief Metallurgist

### Registered and Principal Office

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West Perth WA 6005 Australia

**Telephone** +61 8 9322 4455

**Email** [info@red5ltd.com](mailto:info@red5ltd.com)

**Website** [www.red5limited.com](http://www.red5limited.com)

**ASX Code** RED

**Issued Shares** 1,971M<sup>^</sup>

**Share Price** A\$0.30<sup>^</sup>

**4-week ave. daily volume** 6,281k<sup>^</sup>

**Market Cap** A\$591.3M<sup>^</sup>

**Cash** A\$122.3M<sup>\*</sup>

<sup>^</sup> As at 30 September 2020

<sup>\*</sup> As at 30 June 2020

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**Red 5 occupies a relatively unique space  
in the ASX gold sector as an existing  
producer with a large-scale, long-life  
development asset at King of the Hills.**

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# Key Project Features

**Project Life**  
16 years



**Ore Reserve**

64.6Mt @ 1.15g/t Au  
for 2.4Moz of  
contained gold



**Development  
Capital Cost**

**A\$226M**

**Free  
Cashflow\***

A\$2.27B pre-tax  
A\$1.54B post-tax



**Metallurgical  
Recovery**

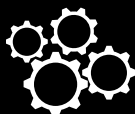
**92.7%**



**Payback  
Period\***

**25 months**

**Production  
Rate**  
4.0Mtpa



**Pre-tax  
NPV 8%\***

**\$1.1Bn**

IRR of 64%

**AISC**

**A\$1,339/oz**  
(Years 1-6)

**A\$1,415/oz**  
(LOM)



**First Gold Pour**  
June Quarter 2022

**Mineral  
Resource**

90.7Mt @ 1.4g/t  
Au for 4.1Moz  
of contained gold

**Top 10**

**Australian  
Gold Deposit by  
Ore Reserve**

\* At A\$2,500/oz gold price

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# Red 5 Limited

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## AUSTRALIAN GOLD'S STANDOUT GROWTH OPPORTUNITY

Red 5 Limited is an Australian gold producer operating in Western Australia's Eastern Goldfields Region, one of the world's most attractive gold districts. Red 5 is currently mining underground at the Darlot and King of the Hills gold mines, with ore from both locations processed centrally at the Darlot Processing Plant.

Red 5's Darlot gold mine has been in continuous production for almost 32 years, and now produces between 90,000 and 100,000 ounces of gold per annum.

At King of the Hills (KOTH), the Company has identified outstanding potential to establish a stand-alone bulk open pit and underground mining and processing operation, with a current Mineral Resource of 4.1 million ounces of gold and Ore Reserve of 2.4 million ounces of gold positioning KOTH as one of the top ten largest Reserve-endowed gold mines in Australia.

Red 5 completed a Final Feasibility Study (FFS) for a standalone bulk mining and processing operation at KOTH in September 2020, confirming the Project's potential to be a significant near-term, high-margin gold development project, with opportunities for future growth. Based on the FFS results, the Project will provide robust financial returns from a long-life, large open pit and underground mining operation, for a relatively modest capital investment given the scale of operations envisaged.

The estimated \$226 million mine development is underpinned by the construction of a 4Mtpa processing plant, fed by the large open pit and underground mine at KOTH and complemented by a series of smaller satellite pits.

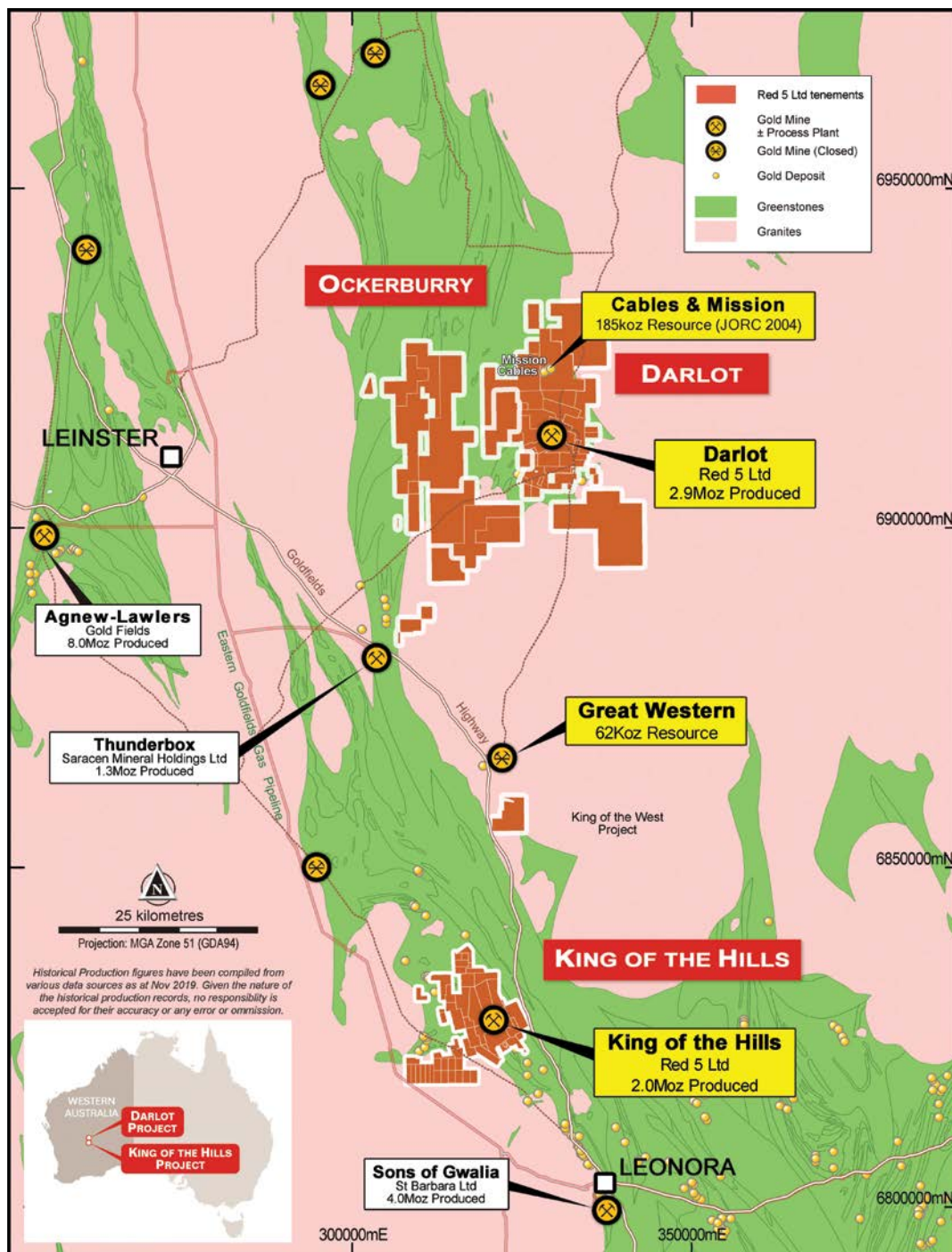
The King of the Hills workforce will total approximately 450 people during construction and 300 during operations, and will deliver strong benefits to the Western Australian economy with estimated taxes of \$375 million and royalties of \$235 million over the initial 16 year mine life.

With gold production at KOTH due to commence in the June Quarter 2022, Red 5's dual independent production hubs will represent a global production profile in excess of 250,000 ounces of gold a year.

Red 5 is also an active gold explorer, with drilling programs planned for FY2021 aimed at establishing two separate, long-life mining and processing hubs in the Eastern Goldfields – one at Darlot and one at King of the Hills.

With these enviable foundations, substantial Resource Base and a premier gold mine in King of the Hills, Red 5 has a clear pathway to emerge as the next significant mid-tier gold producer on the ASX and realise its vision of becoming a successful multi-operational exploration and mining company.





**Figure 1:** Red 5 Project locations

“The development of a long-life ~150kozpa gold mine KOTH will be a transformational event for Red 5. Together with our existing ~100kozpa Darlot Mining Hub, we will soon have two mining hubs within the heart of the Eastern Goldfields of Western Australia, with an aspirational cumulative production that will quickly reposition Red 5 as one of Australia’s next significant mid-tier gold producers.”

**Red 5 Managing Director, Mark Williams**



# Final Feasibility Study Highlights

Red 5 Limited (“Red 5” or “the Company”) (ASX: RED) has completed a positive Final Feasibility Study (FFS) on a stand-alone bulk mining and processing operation at its 100%-owned King of the Hills (KOTH) gold mine, located in the Eastern Goldfields region of Western Australia. Refer ASX announcement dated 15 September 2020 for further information in relation to the relevant production targets and the forecast financial information derived from those production targets.

**The FFS confirms the potential of the KOTH Project to be a significant near-term, high-margin gold development project, with opportunities for future growth. Based on the FFS results, the Project will provide robust financial returns from a long-life, large open pit and underground mining operation, for a relatively modest capital investment given the scale of operations envisaged.**

The KOTH Project LOM Plan will initially comprise a 16-year mining operation starting in 2022 and delivering Life-of-Mine (LOM) production of 2.5M ounces of contained gold. The estimated development capital (“CAPEX”) is \$226 million, with the Project forecast to generate a pre-tax NPV8% of \$1,101 million and pre-tax Internal Rate of Return (IRR) of 64% at an assumed gold price of A\$2,500/oz. Based on these metrics, the Project has a projected capital payback period of 25 months.

The FFS paves the way for a Final Investment Decision (“FID”) by the Red 5 Board in the coming months, which will result in first gold production being achieved from the KOTH bulk mining operation in the June Quarter 2022.





## KOTH FINAL FEASIBILITY STUDY KEY METRICS

Key Project Parameters	Unit	Value
Commercial production start date	mmmm-yyyy	Jun-Qtr 2022
Life of mine	years	16
Open pit ore mined (LOM)	Mt	62.2
Underground ore mined <sup>1</sup> (LOM)	Mt	4.5
Waste (LOM)	Mt	429.8
Stripping ratio	w:o	6.9
Mined grade – open pit (average LOM)	g/t	1.10
Mined grade – underground (average LOM)	g/t	2.55
Gold mined (LOM)	Moz	2.53
Production rate	Mt/a	4.0
Production rate	tpd	11,000
Grind size	μ	150
Gold recovery (average LOM)	%	92.7
Gold recovered (LOM)	Moz	2.35

**Table 1:** Key Project Parameters.

## THE LIFE OF MINE PLAN INVOLVES TWO DISTINCT MINE PRODUCTION PHASES OVER ITS LIFE:

- Years 1-6:** mining of the south and north pits, including underground mining in Years 1-4;
- Years 7-16:** cut-back of the north pit including the historical east-wall slip and processing of low-grade stockpiles.

Life of Mine phases	Measure	Year 1 - 6 <sup>2</sup>	LOM
Average production grade	g/t Au	1.46	1.24
Average production	koz / pa	176	146
Average AISC	A\$ / oz	1,339	1,415

**Table 2:** Key Mine Production Phases.

<sup>1</sup> The Underground ore mined includes 2.4Mt of Inferred Resources (191koz) from the KOTH Underground.

<sup>2</sup> For calculating the Year 1-6 average, Year 1 assumed to commence from FY23 (excludes commissioning and the first 3 months of production ramp-up).



Project Economics at gold price	A\$2,000	A\$2,500
NPV @ 8% (real) Pre-tax (A\$M)	512	1,101
NPV @ 8% (real) Post-tax (A\$M)	314	726
IRR (%) Pre-tax	38.0	64.3
IRR (%) Post-tax	28.8	49.8
AISC (A\$/oz)	1,415	1,435
EBITDA annual average (A\$M)	96	166
EBIT annual average (A\$M)	74	144
Free Cash Flow (Pre-tax) A\$M	1,147	2,273
Free Cash Flow (Post-tax) A\$M	755	1,544
Development Capital (A\$M)	226	226
Capital Sustaining (A\$M)	158	158
Payback post-tax (Months)	39	25
Capital Efficiency (Pre-Tax NPV/Dev Capex)	2.3	4.9
Capital Efficiency (Post-Tax NPV/Dev Capex)	1.4	3.2

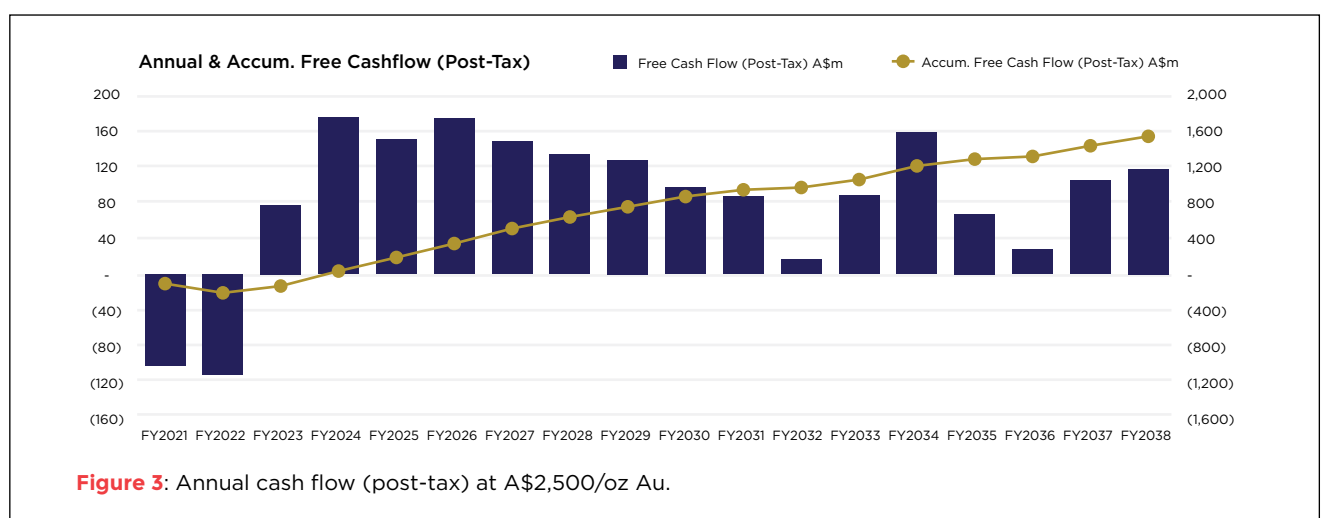
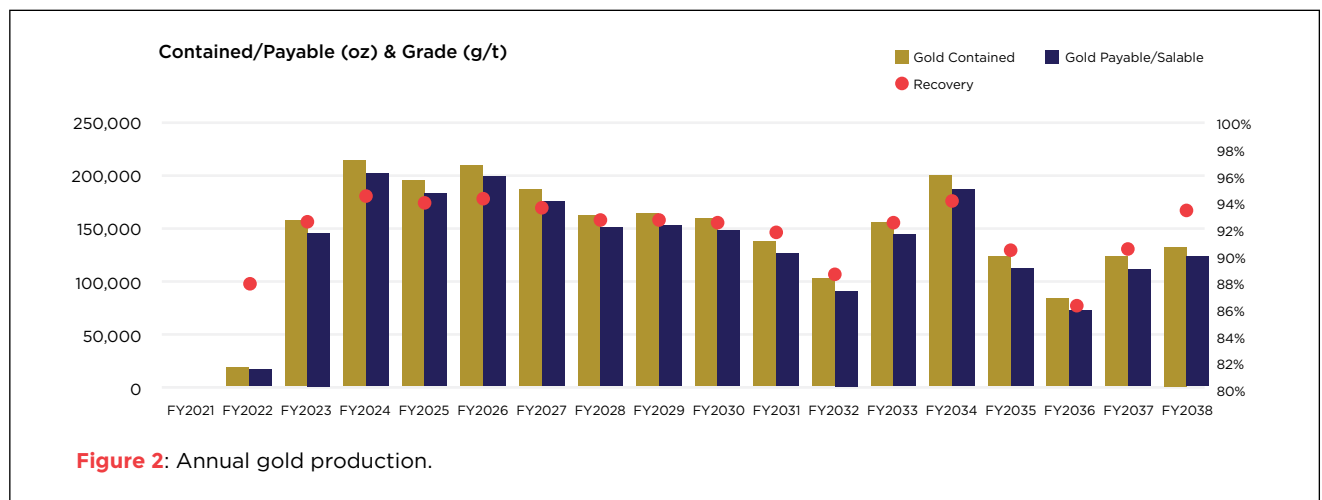
**Table 3:** Project economics.

The results of the FFS demonstrate a robust economic case supporting the KOTH Ore Reserve of 2.38Moz and LOM Plan.

Pre-tax	Measure	\$2,000/oz	\$2,250/oz	\$2,500/oz	\$2,750/oz	\$3,000/oz
Project cashflow	\$M	1,147	1,710	2,273	2,837	3,400
NPV <sup>8%</sup>	\$M	512	806	1,101	1,395	1,689
IRR	%	38.0%	51.6%	64.3%	76.4%	88.0%
<b>Post-tax</b>						
Project cashflow	\$M	755	1,150	1,544	1,938	2,333
NPV <sup>8%</sup>	\$M	314	520	726	932	1,138
IRR	%	28.7%	39.7%	49.8%	59.3%	68.4%
Payback period	Mths	39	29	25	22	20

**Table 4:** Project Metric Price Sensitivity.







# Final Feasibility Study Details

## PROJECT DESCRIPTION

King of the Hills (“KOTH” - previously known as “Tarmoola”) is a historical gold project located ~80km south of Red 5’s Darlot Gold Project and ~28km north of the town of Leonora in the Eastern Goldfields of WA. The Project is located immediately adjacent to the Goldfields Highway.

Prior to Red 5’s acquisition, KOTH delivered historical production for past owners including Mt Edon Gold Mines of 1.6Moz from the open pit (28.4Mt @ 1.8g/t Au – closed in 2004) and has delivered total underground production (including from Red 5) of 0.4Moz (3.0Mt @ 4.0g/t Au).

Following Red 5’s acquisition of the Project in 2017, the Company commenced high-grade, narrow-vein mining with the ore trucked to the Darlot mill for processing.

Subsequent, near-mine exploration identified the potential to re-assess a larger-scale, lower-cost bulk mining operation at KOTH, with the FFS designed to evaluate an integrated bulk open pit and underground mining and processing operation. This FFS demonstrates the ability to achieve optimised cash flows by scheduling production from a bulk open pit and underground mining operation at KOTH, together with production from three open pit satellite deposits at Rainbow, Centauri and Cerebus-Eclipse (shown in Figure 4 below).

Red 5 has produced two production schedules for the FFS: the production schedule supporting the Ore Reserve estimate (2.4Moz), and the production schedule referenced as the KOTH Project LOM Plan (2.5Moz).

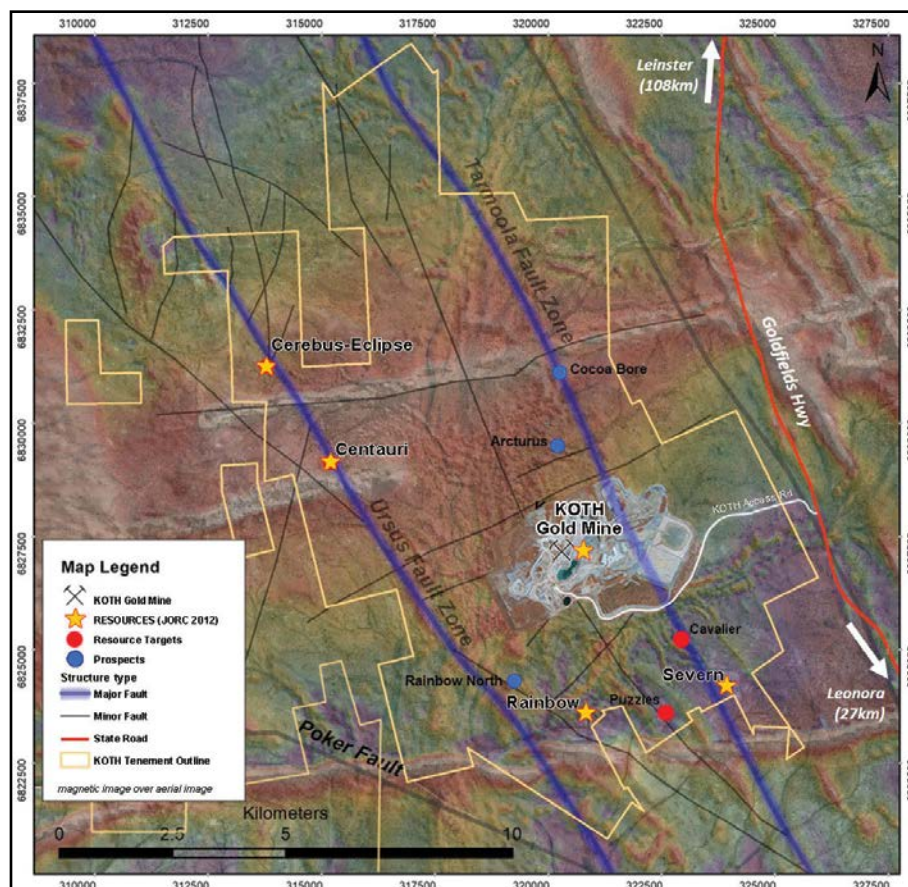


Figure 4: Location of the KOTH near-mine deposits.



The mine design physicals and associated costs for the KOTH open pit, KOTH underground and satellite open pits all feed into individual mine models.

The outputs from each mining model then form part of an integrated mining and processing plan to optimise mining and processing schedules to deliver a minimum throughput of 4Mtpa.



**Figure 5:** Artist's impression of the planned 4Mtpa CIL plant at King of the Hills.



View of southern part of Tarmoola open pit looking south.



## MINERAL RESOURCES

The Mineral Resource Estimate used for the FFS totals 90.7Mt of Indicated (77%) and Inferred (23%) material (JORC Code 2012) at an average grade of 1.4g/t gold for 4.1M ounces of contained gold (see Table 5 below).

Total Open Pit and Underground KOTH Resource as at March 2020					
Classification	Cut-off (g/t)	Mining Method	Tonnes (t)	Gold (g/t)	Contained gold (oz)
Indicated	0.4-1.0	OP+UG	69,800,000	1.3	3,010,000
Inferred	0.4-1.0	OP+UG	20,900,000	1.6	1,060,000
<b>Total</b>	<b>0.4-1.0</b>	<b>OP+UG</b>	<b>90,700,000</b>	<b>1.4</b>	<b>4,070,000</b>
KOTH JORC 2012 All material within A\$2,100 Pit Shell					
Indicated	0.4	OP	65,800,000	1.3	2,720,000
Inferred	0.4	OP	14,600,000	1.4	650,000
<b>Total</b>	<b>0.4</b>	<b>OP</b>	<b>80,400,000</b>	<b>1.3</b>	<b>3,370,000</b>
KOTH JORC 2012 All material outside A\$2,100 Pit Shell					
Indicated	1.0	UG	4,000,000	2.2	290,000
Inferred	1.0	UG	6,300,000	2.0	410,000
<b>Total</b>	<b>1.0</b>	<b>UG</b>	<b>10,300,000</b>	<b>2.1</b>	<b>700,000</b>

**Table 5:** King of the Hills (KOTH) Mineral Resource as at March 2020.

### Notes on KOTH JORC 2012 Mineral Resources outlined in Table 5

1. Mineral Resources are quoted as inclusive of Ore Reserves.
2. A discrepancy in summation may occur due to rounding.
3. For Cut-off (g/t) grade 0.4-1.0 refer to Table 5 for the reported tonnes within and outside the A\$2,100 Pit Shell used for the March 2020 KOTH resource update.
4. The figures take into account cut-off date for inclusion of drilling data, and mining depletion up to 19 February 2020.
5. Cut-off at 0.4g/t determined based on estimated grade cut-off for large scale open pit mining with the pit optimisation shell selected based on a A\$2,100 gold price.
6. Cut-off at 1.0g/t determined based on estimated grade cut-off for large scale underground open stoping at A\$2,100 gold price.
7. The optimised pit utilised both Indicated and Inferred Resource with optimisation runs using the same modifying factors (geotechnical, mining, processing and gold recovery) used for the KOTH Pre-Feasibility Study ("PFS") pit design (refer to ASX announcement dated 1 August 2019).
8. The KOTH resource has been depleted based on underground survey as at 18 February 2020 and air leg stoping at 14 February 2020.
9. Figures quoted include all material types – Oxide, Transitional and Fresh.
10. Independent Audit has been conducted by Dr Spero Carras of Carras Mining Pty Ltd.





An Independent Technical Audit of the KOTH Mineral Resource was undertaken by Carras Mining Pty Ltd. The audit found that the Resource model was a reasonable approach aimed at capturing the geological knowledge of the KOTH deposit, carried out at industry standards, to provide a model for future large-scale bulk mining at relatively low cut-off grades as well as large-scale underground mining.

The KOTH FFS also incorporates satellite pits and existing low-grade stockpiles within the KOTH tenements to complement KOTH ore feed over the life of mine. These include the Rainbow, Centauri and Cerebus-Eclipse satellite deposits. Other satellite deposits, including Severn, represent future opportunities to expand the Project's Ore Reserves and mine life.

Classification	Cut-off (g/t)	Mining Method	Tonnes (t)	Gold (g/t Au)	Contained gold (oz Au)
Indicated	0.6	OP	1,380,000	1.3	57,700
Inferred	0.6	OP	200,000	1.4	9,300
<b>Total</b>	<b>0.6</b>	<b>OP</b>	<b>1,580,000</b>	<b>1.3</b>	<b>67,000</b>

**Table 6:** Rainbow Mineral Resource as at May 2019.

**Notes on Rainbow JORC 2012 Mineral Resources outlined in Table 6**

1. Mineral Resources are quoted as inclusive of Ore Reserves.
2. Discrepancies in summation may occur due to rounding.
3. Resource figures take into account mining depletion.
4. Refer to ASX announcement dated 1 May 2019 "Maiden JORC open pit Resources defined for near-mine regional deposits at King of the Hills" for the JORC 2012, Table 1 sections 1 to 3.

Classification	Cut-off (g/t)	Mining Method	Tonnes (t)	Gold (g/t Au)	Contained gold (oz Au)
Indicated	0.5	OP	1,390,000	1.5	67,900
Inferred	0.5	OP	320,000	1.3	13,400
<b>Total</b>	<b>0.5</b>	<b>OP</b>	<b>1,710,000</b>	<b>1.5</b>	<b>81,300</b>

**Table 7:** Centauri Mineral Resource as at May 2020.

**Notes on Centauri JORC 2012 Mineral Resources outlined in Table 7**

1. Mineral Resources are quoted as inclusive of Ore Reserves.
2. Discrepancies in summation may occur due to rounding.
3. Refer to ASX announcement dated 6 May 2020 for "Additional Resources defined for satellite open pit deposits at King of the Hills" JORC 2012 Table 1, sections 1 to 3.



Classification	Cut-off (g/t)	Mining Method	Tonnes (t)	Gold (g/t Au)	Contained gold (oz Au)
Indicated	0.5	OP	2,160,000	1.3	89,000
Inferred	0.5	OP	650,000	1.1	23,000
<b>Total</b>	<b>0.5</b>	<b>OP</b>	<b>2,810,000</b>	<b>1.2</b>	<b>112,000</b>

**Table 8:** Cerebus-Eclipse Mineral Resource as at May 2020.

**Notes on Cerebus-Eclipse JORC 2012 Mineral Resources outlined in Table 8**

1. Mineral Resources are quoted as inclusive of Ore Reserves.
2. Discrepancy in summation may occur due to rounding.
3. Refer to ASX announcement dated 6 May 2020 for "Additional Resources defined for satellite open pit deposits at King of the Hills" JORC 2012 Table 1, sections 1 to 3.

Stockpile	Domain	Classification	Cut off Au (g/t)	Tonnes (t)	Au (g/t)	Au (oz)
<b>SP1</b>	<b>701</b>	<b>Indicated</b>	<b>0.0</b>	<b>1,450,000</b>	<b>0.6</b>	<b>26,300</b>
<b>SP3_1</b>	<b>703</b>	<b>Indicated</b>	<b>0.0</b>	<b>170,000</b>	<b>0.6</b>	<b>3,300</b>
SP3_2	704	Indicated	0.0	550,000	0.3	4,800
SP4_1	706	Indicated	0.0	200,000	0.3	2,000
SP4_2	707	Indicated	0.0	440,000	0.3	3,500
<b>Total</b>		<b>Indicated</b>	<b>0.0</b>	<b>2,810,000</b>	<b>0.5</b>	<b>39,900</b>

**Table 9:** KOTH Historical Stockpile JORC 2012 Indicated Resource.

**Notes on KOTH Stockpile JORC 2012 Mineral Resources outlined in Table 9**

1. Mineral Resources are quoted as inclusive of Ore Reserves.
2. Discrepancy in summation may occur due to rounding.
3. 1.6 t/m<sup>3</sup> has been assumed for bulk density to determine tonnage.
4. Refer to ASX announcement dated 6 August 2020 for "King of the Hills Final Feasibility Study Progress Update" JORC 2012 Table 1, sections 1 to 3.

## Model Regularisation to SMU Mineral Resource Model

In order to prepare the Mineral Resource Models (MRM) for each of the resources being evaluated for open pit mining, the models were regularised (re-blocked) to suitable block sizes recommended by the open pit mining team to simulate mining dilution based on the expected equipment to be used. The new model is referred to as the SMU (Smallest Mining Unit) mineral resource model. The impact of re-blocking is that the narrow-modelled lodes from the original MRM are diluted out into larger blocks.

During this process, some material that was originally deemed as Inferred or unclassified material in the original MRM can be incorporated into the regularised block and has been reclassified as JORC 2012 Code Indicated Mineral Resource in the SMU mineral resource models. To more accurately present the Mineral Resource categories in the SMU mineral resource model after the regularisation process, the resource estimation team has re-assessed the JORC 2012 Code Mineral Resource classification of the SMU mineral resource model. These SMU Mineral Resource models superseded the original MRM's for the reporting of open cut JORC 2012 Code Reserves.



This metal change in the SMU models as outlined is deemed immaterial by the MRM CP and, in the Competent Person's opinion, there is no material impact to the Resource classification as confidence in this diluting material is relatively high. As such, Red 5 has advised that the Indicated classification in the SMU Mineral Resource Model is appropriately classified as Indicated under the JORC 2012 Code and can be utilised in the Mineral Resource optimisation to guide the selection of pit shells for the pit design and can be reported as Indicated Mineral Resource to determine the Ore Reserve as defined under the JORC 2012 Code.

For underground, no changes to the resource model have been applied as all dilution is incorporated in the mine design.

Refer to Appendix 2, in the company's ASX Announcement dated 15 September 2020, for SMU Mineral Resource figures used for open pit evaluations.

## ORE RESERVES

The Ore Reserve estimates for Open Pits are based on the SMU Mineral Resource models. The underground Ore Reserve estimate is based on the KOTH Mineral Resource model. The Ore Reserve estimations for the FFS take into consideration the mining methods, designs, schedules, cost estimates and modifying factors determined as part of the FFS. The Combined Ore Reserves estimate for the FFS are summarised in Table 10 below. All tonnes are presented as dry metric tonnes (dmt).



Deposit	JORC 2012 Classification	Cut off (g/t)	Mining method	Tonnes (Mt)	Grade (g/t Au)	Contained gold (koz)
KOTH	Probable	0.39	Open Pit	58.5	1.1	2,090
KOTH	Probable	1.60	Underground	2.4	2.3	180
Rainbow	Probable	0.30	Open Pit	1.9	0.9	<b>53</b>
Centauri	Probable	0.31	Open Pit	0.3	1.3	13
Cerebus & Eclipse	Probable	0.32	Open Pit	1.5	1.0	48
<b>Total</b>				<b>64.6</b>	<b>1.2</b>	<b>2,384</b>

**Table 10:** KOTH Ore Reserves as at September 2020.

### Notes on JORC 2012 Ore Reserves as outlined in Table 10

1. The Probable Ore Reserve is based on the Indicated Mineral Resource category of the Mineral Resource estimation block model and SMU Mineral Resource block models. No Inferred Mineral Resource category has been included.
2. The lowest grade of ore added to the process plant feed was 0.39 g/t Au for KOTH Open Pit, 0.2 g/t Au for KOTH Underground development, 1.6 g/t for KOTH Underground production, 0.30 g/t Au for Rainbow, 0.31 g/t Au for Centauri and 0.32 g/t Au for Cerebus and Eclipse.
3. Ore Reserves are estimated based on a gold price of A\$2,000 per ounce.
4. Ore loss and dilution for KOTH Open Pit were reflected in the SMU process.
5. Planned dilution in the Underground reserves is reflected in the mine designs.
6. Metallurgical test work recoveries were applied in accordance with the recovery algorithms developed from the variability test work program conducted during the FFS.
7. Appropriate modifying factors were applied.



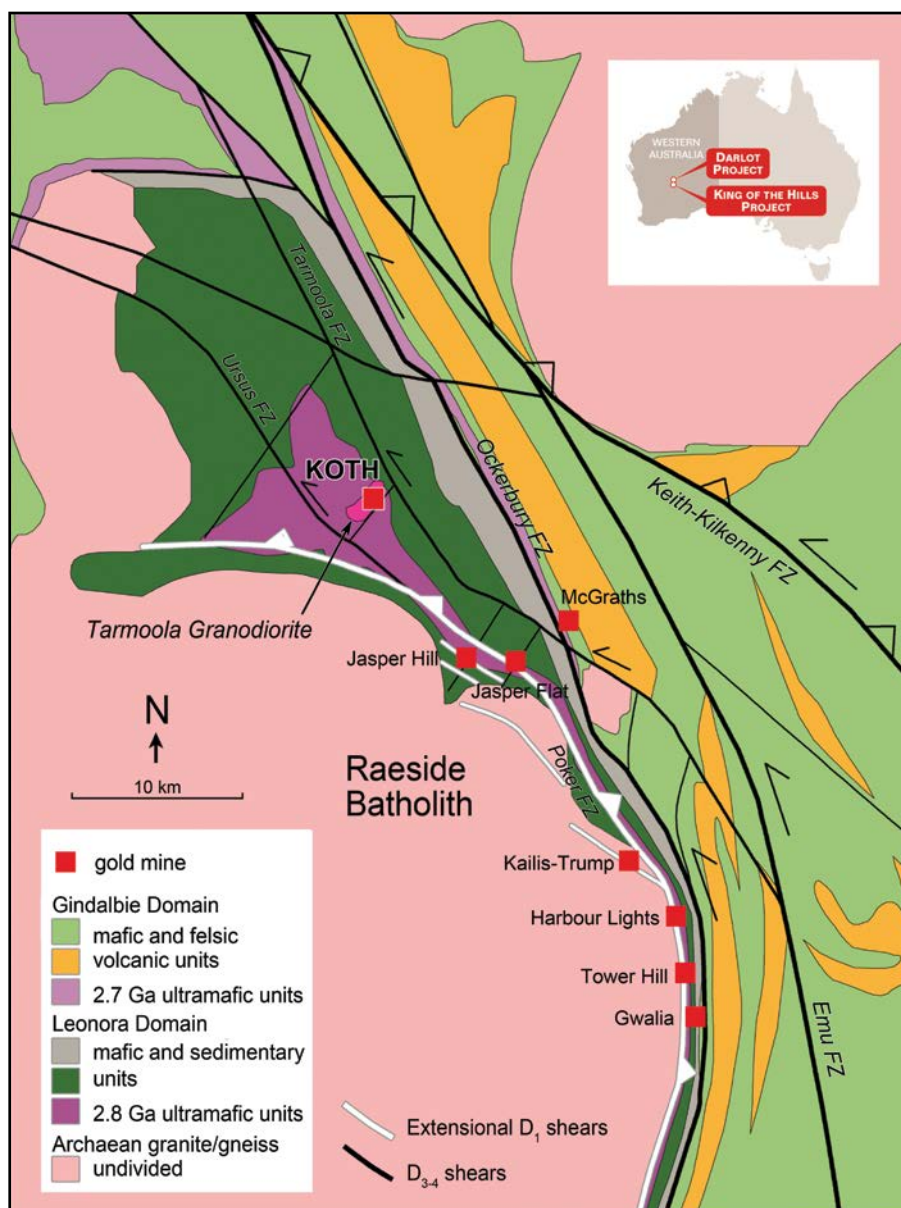
## GEOLOGY

### King of the Hills

The KOTH gold deposit is situated on the eastern contact of an Archaean granodiorite pluton with overlying Archaean supracrustal greenstone rocks of the Leonora Domain.

Various studies have been conducted on identifying the granodiorite body to categorise it based on mineralogical identification (petrographic) and chemical composition. Essentially it appears to be part of the Trondhjemite-Tonalite-Granodiorite (TTG)

series of intrusive rock types. For consistency, the intrusive pluton is being identified and termed as a granodiorite from here on. It is one of the largest granitoid-hosted gold deposits in the Yilgarn Craton with a historical mine production in the order of 2.0Moz of gold as at September 2019, and a current JORC 2012 compliant combined Indicated and Inferred Mineral Resource of 90.7 Mt at an average grade of 1.4 g/t Au for 4.07Moz contained gold.

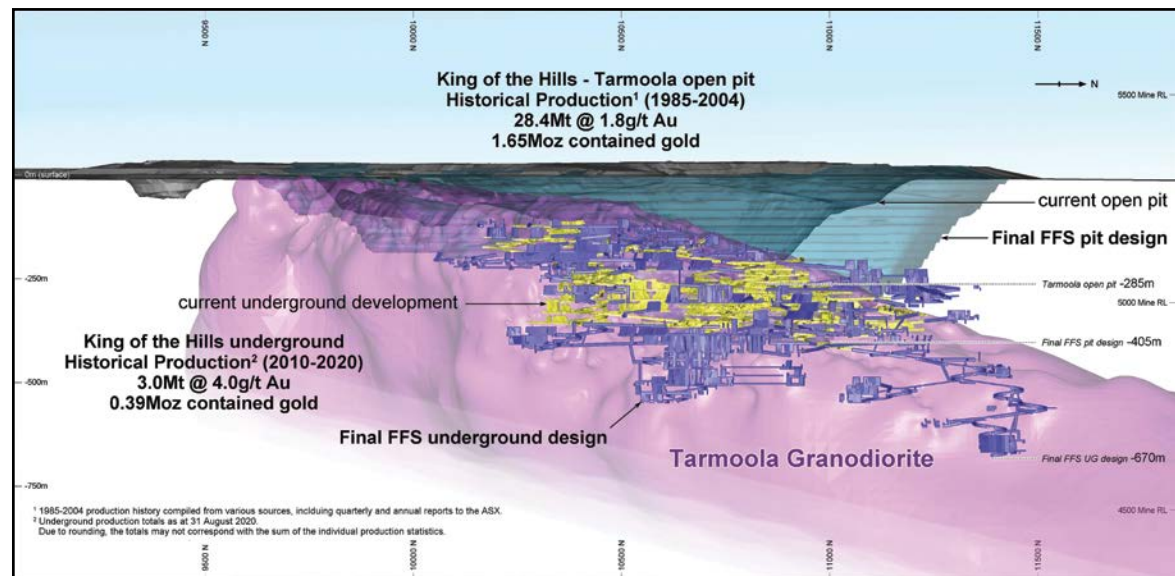


**Figure 6:** Simplified Regional Geology Map of the Leonora Domain (source: Jones, 2014).



The key geological feature of the KOTH deposit is a large felsic granitoid known as the Tarmoola Intrusion, emplaced into the volcano-sedimentary pile prior to mineralisation. The Tarmoola Intrusion is mostly pale-white to pink coloured trondhjemite to granodiorite (biotite-hornblende), in addition to less felsic phases of granodiorite-monzonite (Galahad Pit ramp) and feldspar-phyric porphyry.

The upper margin of the intrusion is roughly parallel to the overlying volcanic stratigraphy and in contact with a unit of deformed ultramafic komatiite and komatiitic basalt. Drilling has defined a steep eastern margin (Figure 7) to the intrusion that may represent the edge of the intrusive body or be the result of buckling and folding during deformation.



**Figure 7:** 3D Visualisation of the Granodiorite at KOTH showing the steeply dipping nature of the Eastern Contact.

## Regional deposits

### Rainbow

The Rainbow deposit is located 3.5km south of the KOTH open pit, proximal to a NW-striking shear that splays off the Ursus Fault Zone.

The deposit consists of a mineralised basalt with a NW-strike and shallow (30°) dip to the northeast. The basalt unit sits between two strongly sheared ultramafic units with lesser units of felsic porphyry intrusive and mafic schist present. Mineralisation occurs in multiple styles including shallow laterite and colluvium, supergene-enriched saprolite and primary mineralised basalt.

The Rainbow open pit was mined by Sons of Gwalia Ltd between March and April 2004, delivering some 314,190 tonnes grading 1.03g/t Au for 10,420oz recovered. Available pit survey data suggests the pit was mined to ~18m below surface.

### Cerebus and Eclipse

The Cerebus and Eclipse deposits are located 8km north-west of the KOTH open pit and lie within the highly prospective Ursus Fault corridor. The two target areas form part of the same mineralised system and are distinguished by different structural controls. The Eclipse mineralisation is hosted along a low angle thrust style fault which intersects the steeper, south-westerly dipping and north-west striking Ursus Fault which hosts the Cerebus mineralisation. The dominant host lithologies comprise mainly basalt, dolerite and felsic porphyry with lesser sediments also noted from the drill data.



## Centaury

The Centaury Gold deposit is located 5km north-west of the KTOH open pit and, like the nearby Cerebus deposit, lies within the NW-trending Ursus structural corridor. The dominant host lithologies comprise mainly basalt, dolerite, and felsic porphyry with lesser sediments also noted from the drill data. The prospect is bound to the north and south by two late east-west striking Proterozoic dykes which form part of the extensive Widgiemooltha dyke swarm which intersects the KOTH tenure.

The Centaury gold lodes dip moderately to the south-west with mineralisation intersected down to a depth of approximately 80m.

Both the Cerebus and Centaury systems remain open at depth, and assay results from deeper parts of the system indicate good potential for continuity of significant gold mineralisation into fresh rock and along strike.

## LIFE OF MINE PLAN - POTENTIAL FOR EARLY LOW-COST EXPANSION

In addition to the Ore Reserve estimates, the LOM Plan includes 2.4Mt of Inferred Resources (191koz) from the KOTH Underground. This represents 4% of the total mine production.

Deposit	Mining method	Tonnes (Mt)	Grade (g/t Au)	Contained gold (koz)
KOTH	Open Pit	55.4	1.2	2,048
KOTH	Underground	4.5	2.6	370
Rainbow	Open Pit	1.9	0.9	53
Centaury	Open Pit	0.3	1.3	13
Cerebus & Eclipse	Open Pit	1.5	1.0	48
<b>Total</b>		<b>63.7</b>	<b>1.2</b>	<b>2,532</b>

**Table 11:** KOTH Life of Mine Plan Summary.



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

The plant will be constructed initially with a crushing and grinding capacity close to 6Mtpa on expected average hardness King of the Hills ore, and would require very modest capital to increase to 6Mtpa.

Ramping up to 6Mtpa in FY24 would increase gold production and cash flow considerably at current spot prices, but in order to maintain production at that level, the large pre-strip to gain access to the North Pit would have to be brought forward.



**MINING**

**KOTH open pit**

The FFS open pit mining operations will deliver ore to a new processing plant to be constructed at KOTH.

The mining method proposed for all deposits is the conventional use of excavators in backhoe configuration as the primary loading fleet, loading rigid off-highway rear dump trucks. This configuration is common to the Goldfields region of Western Australia (WA) and is considered a low-risk solution.

Red 5 produced both the Mineral Resource Models (MRMs) and the regularised Selective Mining Unit (SMU) model. The size of the SMU block was determined by SRK and provided to Red 5 for the regularisation process of the MRM block model. The main reason for Red 5 establishing the SMU model was so that a more reliable JORC 2012 Code Mineral Resource classification model could be presented in the SMU model.

The SMU block sizes selected for the deposits are summarised in Table 14. These SMU block sizes were selected to reflect the likely ore loss and dilution, while presenting the smallest realistic mining block to support the mining methodology, equipment size and the complexity of the orebody.

The MRM for the main KOTH deposit was developed to reflect a more bulk mining operation and has not been ‘designed’ to selectively mine narrower high-grade zones. In the regularisation process to create the SMU Mineral Resource model, a ‘smoother’ grade, bulk open pit mining operation is proposed and forms the basis for the mining method proposed for KOTH.

The satellite deposits are more narrow vein deposits, and smaller SMU blocks are required to appropriately exploit these orebodies. As a result, smaller mining equipment is used at the satellite deposits than at KOTH.

Deposit	SMU size
KOTH	10 mE × 10 mN × 5 mRL
Rainbow	5 mE × 10 mN × 5 mRL
Centauri	5 mE × 5 mN × 5 mRL
Cerebus-Eclipse	5 mE × 5 mN × 5 mRL

**Table 12:** SMU block sizes selected for MRM regularisation.



SRK created the Mining Model for each deposit by applying the required fields and values to support the optimisation, pit design, production scheduling and reporting process to the SMU mineral resource models supplied by Red 5.

The final ultimate pit designs for the KOTH open pit and satellite pits are show below in Figures 8-11.

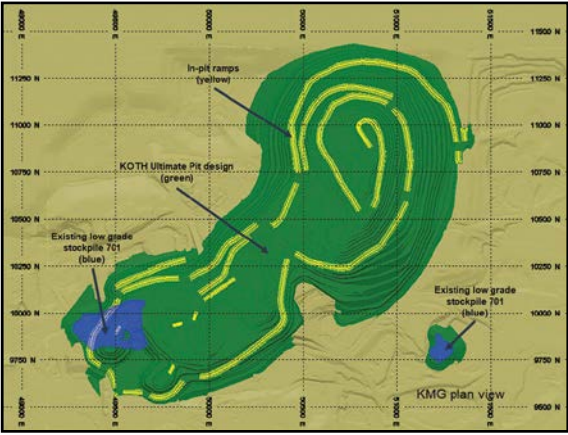


Figure 8: KOTH ultimate pit design.

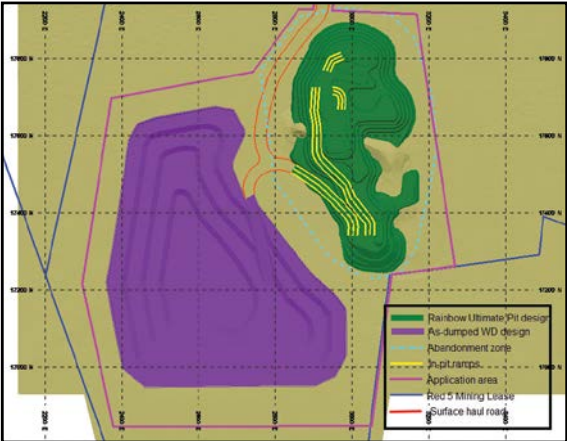


Figure 10: Rainbow ultimate pit design and waste dumps.

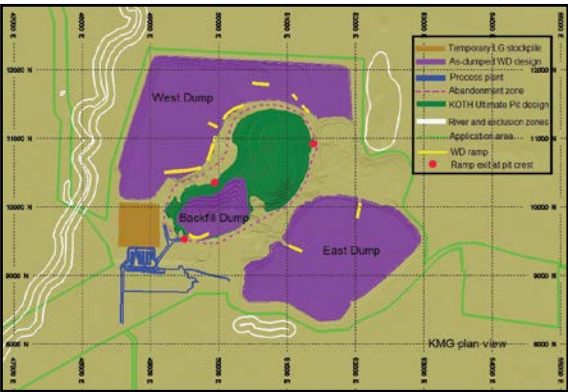


Figure 9: KOTH ultimate pit, waste dump and ROM pad layout.

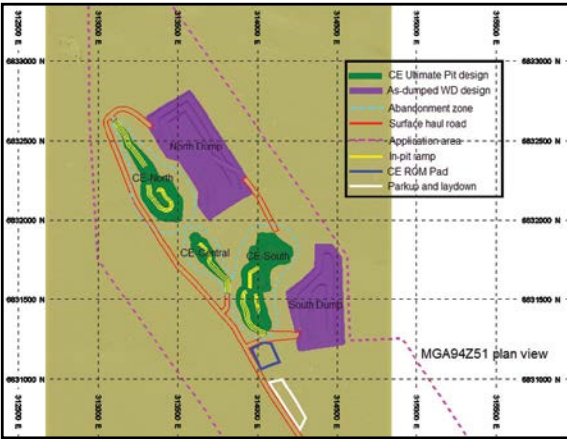


Figure 11: Cerebus-Eclipse ultimate pit design and waste dumps.









## KOTH UNDERGROUND

KOTH is currently an operating underground gold mine, and the KOTH FFS is predicated on the continuation of existing underground mining practices. Mine design parameters are based on current site guidelines, which are well understood and have been successfully implemented.

The proposed primary mining method is long-hole open stoping, with minor amounts of airleg stoping in flat dipping areas of the orebody (<1% of ore tonnes). Stoping will follow a top-down sequence, commencing at the extremities of each level and retreating to the level access. Rib pillars will remain between adjacent stopes to maintain mine stability. The proposed mining methods and sequence are generally a continuation of current operating practices at an increased production rate.

Areas identified for long-hole stoping are categorised as narrow vein or bulk stoping. The narrow vein parameters include a 2.0m minimum stoping width in combination with a 20m level spacing, whereas the bulk stoping parameters include a 3.0m minimum stoping width in combination with a 40m level spacing.

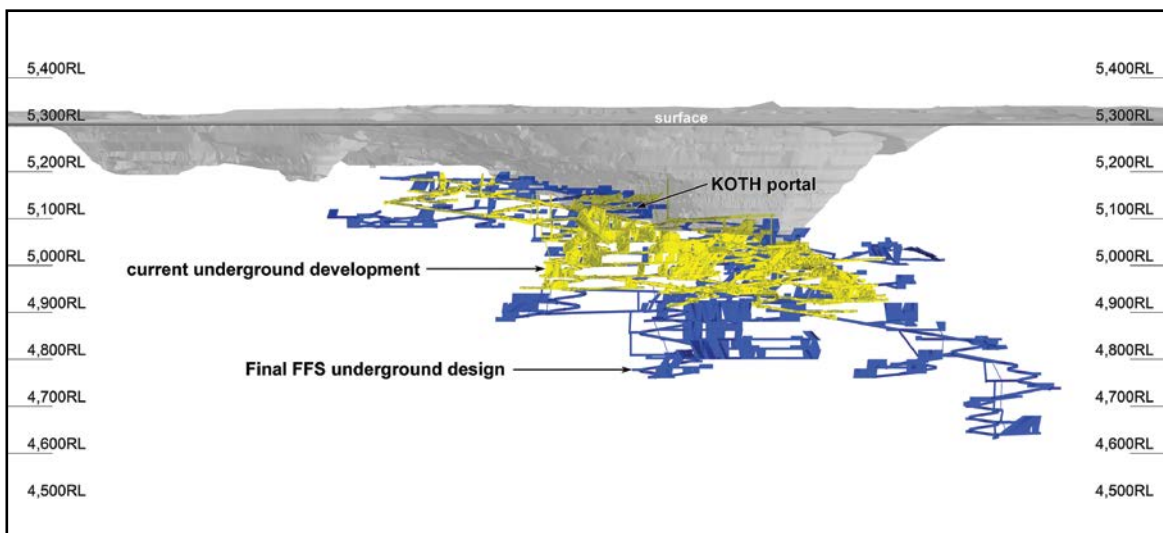
Cut-off grades were estimated for the different mining methods, and stope shapes were generated using MSO software based on a provisional cut-off grade of 1.8 g/t.

A mine development design was created to match the stope optimisations. Modifying factors based on geotechnical evaluation and historical performance were applied to the mine plan and schedule. Mining dilution of 10% and mining recovery ranging between 85% - 95% was applied dependent upon the mining method.

Mine infrastructure requirements have been included in the mine plan, including power, water, emergency preparedness, and ventilation. The latter has been evaluated in simulation software and accounts for life of mine ventilation requirements.

The underground mine is planned to be accessed via the existing portal located in the KOTH open pit.

Because the initial open pit mining occurs in the southern pit, the existing portal and ventilation rise will not be impacted until after year five.



**Figure 12:** Long Section of the KOTH Underground Mine Plan (blue - planned stopes and development, grey - as-builts, gold -existing open pit).

The assumed operating regime at KOTH involves the use of a mining contractor, consistent with current practices. The incumbent mining contractor (Pit N Portal-Emeco) has reviewed the mine plan and schedule and provided a detailed cost estimate for the FFS underground mining costs.

Underground mining may continue beyond FY27 as a result of further in-fill and exploration drilling. Extensional drilling will benefit from the installation of drill platforms as development progresses. The extension of the underground mine life would allow the mine to continue to produce at peak gold production rates and a lower AISC beyond FY27.

## GEOTECHNICAL ANALYSIS

Open pit mining at KOTH was carried out from 1989 to 2004, when large-scale failure on the eastern wall of the North Pit forced the early cessation of surface mining operations. Post-failure, open pit mining was restricted to the South Pit. Future mining will be based predominantly on the western walls of the pits, although minor northern and eastern cuts will assist in achieving increased mining depth.

The KOTH open pit geotechnical assessment for the FFS was undertaken by Peter O'Bryan and Associates. The geological structure is assessed to have been the dominant influence on wall stability at KOTH, with local destabilisation variously assisted by groundwater pressure and/or the presence of weak, poor to very poor-quality rocks. It is important to note that during historical open pit operations that, apart from the major collapse of February 2004, most instability occurred at sub-batter to batter scale, and was able to be managed without excessive impact on, or interruption to, mining operations.

Data gathered from boreholes drilled in the eastern sector after the 2004 eastern wall failure, and from feasibility investigation boreholes, do not indicate a repeat occurrence of the adverse combination of ground conditions that led to the major wall collapse. The shears that were pivotal in triggering the 2004 collapse will likely be exposed in a

new wall; however, the wall configuration and combination of structures that facilitated the collapse will not be repeated. Each structure will be exposed at a different position in the wall and will be within/beneath a shallower slope.

A feasibility-level assessment of ground conditions influencing pit wall stability conditions for resumption and extension of open pit mining at KOTH has been completed. Base case wall design parameters were recommended for ongoing open pit mining evaluation for the KOTH deposit. Best case wall design parameters – considered to represent a reasonable/credible upside – were also provided and are incorporated in the FFS mine designs.

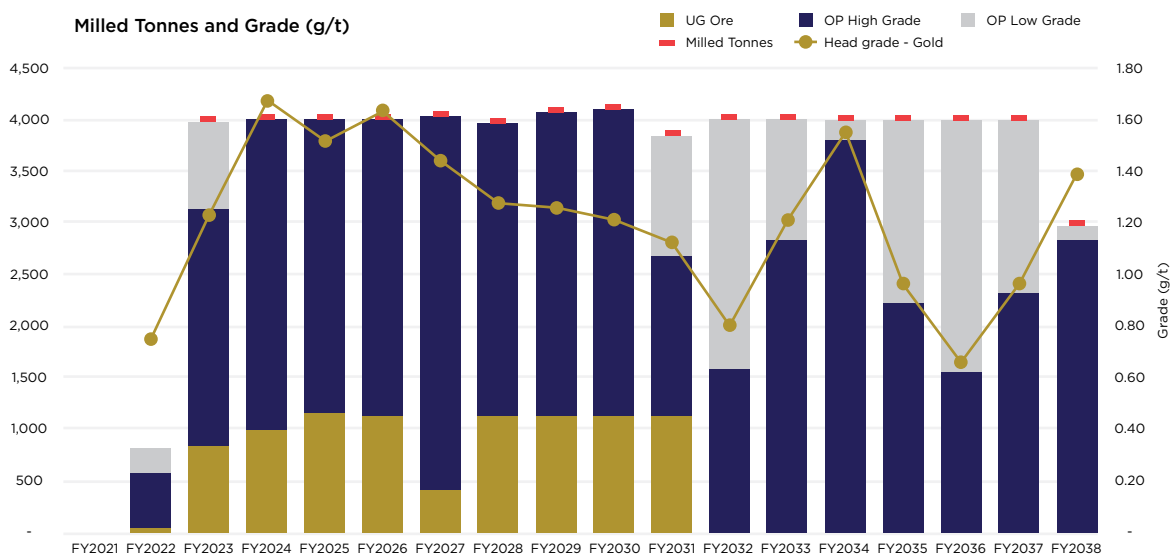
MineGeo Tech Pty Ltd completed an underground geotechnical study. Their analysis indicated that both the granodiorite and ultramafic are high-quality rock masses that can accommodate large voids and which will remain stable. Numerical modelling results indicated that the LOM stopes are unlikely to experience significant stress issues, even when conservative UCS and stress input parameters were used. Areas of high stress are confined to the abutments and small pillars in the already mined stopes. These pillars have generally performed well to date, and therefore similar performance is expected in future mining areas.



**Figure 13:** North Pit with historic eastern wall failure visible (the area is not mined until 2027).



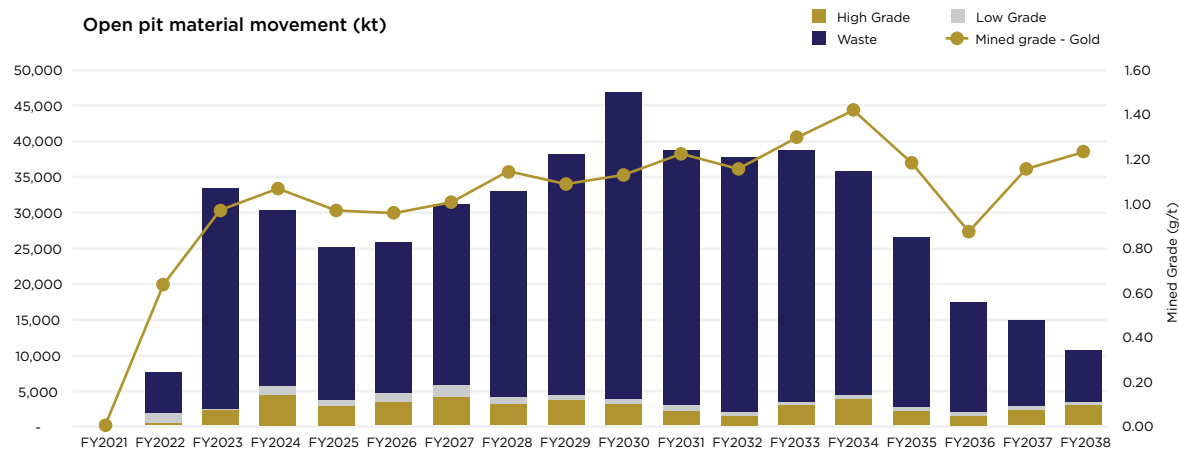
## PROCESSING SCHEDULE



**Figure 14:** Ore milled sources over the Life of Mine Plan.

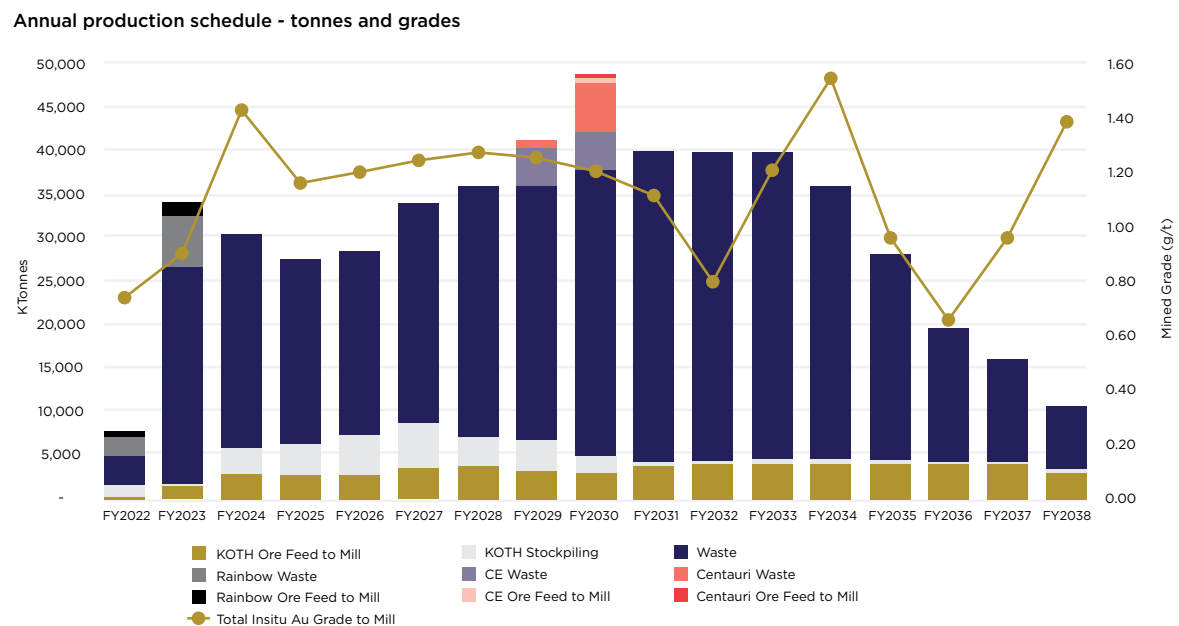
The open pit material includes ore from the main KOTH pit, satellite pits at Rainbow, Centauri and Cerebus-Eclipse and initial existing ore stockpiles. Underground mining is included in the Life of Mine Plan until early FY27, however the Company will likely plan to extend underground mining through further drilling campaigns.

## KOTH OPEN CUT MINING



**Figure 15:** KOTH LOM Plan annual production schedule – total material movement.

The open pit ore supply tonnes and grade to the crusher are shown below.



**Figure 16:** KOTH LOM Plan annual production schedule – tonnes and grade.

The production schedule for all deposits was guided by maximising Project value within Red 5's defined practical and operational constraints. The key strategic considerations included:

- Accessing higher-grade ore feed in the first few years;
- Minimising capitalised pre-stripping costs;
- Minimising capital expenditure (such as delaying construction of haul roads to access the satellite deposits) within the payback period;
- Avoiding negatively impacting the current UG portal and vent raise for the underground LOM;
- Mining the southern half of the KOTH open pit first so it can be used as a short haul backfill destination for the northern cutbacks; and
- Ensuring operability and safety.

**The KOTH open pit starts mining on 1 January 2022 and continues for 16 years, with the last ore fed halfway through 2038. Of the 58 M dmt of KOTH ore fed to the crusher, 26 M dmt is classed as rehandled material.**

In addition to the ore feed from the Rainbow and KOTH pits, there will be ore fed directly from the underground mine operation. There is also planned to be 125 k dmt of stockpiled underground ore on the ROM pad at the start of milling operations. This underground stockpile material will be fed during the ramp-up period, taking advantage of any excess capacity in the actual ramp-up capacity and the ore supplied from the open cut operations.

The production schedule has been presented quarterly for the first three years and then annually for the remaining LOM. The production schedule for the KOTH open pit is presented in Figure 17. The total material movement (TMM) is high in 2032 and 2033 due to the north-west cut-back of the KOTH pit. There is also a higher proportion of low grade (LG) rehandled to the process plant in these periods, as reflected in the lower feed grade.



KOTH annual production schedule

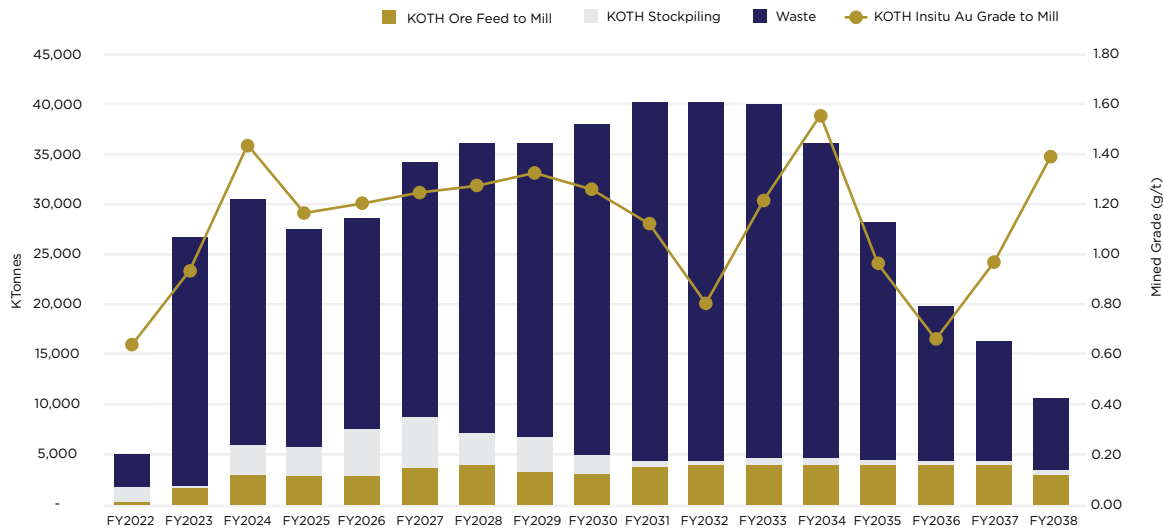


Figure 17: KOTH Open Pit LOM Plan annual production schedule.

There is 1.5Mdm of TMM in the March Quarter 2022, comprising 870 k dmt of waste and 630 k dmt of ore. The waste material is being classed as capitalised pre-strip to access a sustainable source of ore feed at KOTH for subsequent periods. The ore is placed on the ROM pad.

Mining at Rainbow starts in June Quarter 2022 and is completed 15 months later. While waste movement is required to access ore, sustainable ore production occurs within the first quarter of mining, and therefore the waste has not been defined as capitalised pre-strip. It should be noted, however, that the ore will likely only become available in the latter half of that quarter.

There is a contingency for ensuring continuity of ore feed in the initial year of process plant operation with approximately 1.7Mdm of ore on existing surface stockpiles.

**Mining at Cerebus-Eclipse starts in 2029 and continues for 12 months, with Centauri being a continuation of operation for the mining fleet, starting in 2030. The haul road and infrastructure used at Cerebus-Eclipse will be used for the Centauri operation.**

The general progression of the production schedule for KOTH is from south to north, depleting the southern half of the pit in time for the short haul of waste from the northern cut-backs. Depleting the southern half of the KOTH pit also results in the open cut mining

operation avoiding the UG portal and vent raise for the UG operation mine plan. This approach removes the requirement for any capital works required in establishing a new portal, providing access to that portal location (both surface and underground) and establishing supporting underground infrastructure such as a new vent raise.

While the average grade of the southern half of the pit is not as high as in the northern half of the pit, the lower strip ratio in the south compensates for this lower grade and provides earlier access to sustainable ore supply.

Waste from the open pits will be dumped on a 'short haul first' logic. From an immediate cost perspective, this is advantageous; however, this approach will need to be balanced with the levelling of truck numbers over the LOM, so as not to incur additional mobilisation/demobilisation costs for short periods of operation.

The waste dump capacities as designed can contain all waste from the pits. The KOTH external waste dumps do exceed the recommended height limits later in the LOM, which will need to be proactively addressed during the operational period.

Ore is defined as all Indicated Mineral Resource in the SMU Mineral Resource models above the marginal breakeven grade constrained by the pit design or in a designated stockpile. For each deposit, there is a unique marginal breakeven grade determined by the costs applicable to the ore. The variability is in the surface transport cost of ore from the satellite pits to the KOTH ROM pad.

Ore was broken into three categories: high grade (HG), low grade (LG) and low-grade stockpile (LGSP). HG ore is defined by any Indicated mineralisation greater than or equal to 0.5 g/t Au, LG ore between the marginal breakeven and 0.5 g/t Au, and LGSP specifically relates to the two existing stockpiles at KOTH (designation 701 and 703).

The primary mining fleet for the KOTH open pit are 250 t class excavators (in backhoe configuration), paired with 140 t class haul trucks. The mining fleet numbers over the LOM are presented in Table 13.

KOTH	Excavators	Dump trucks
Year -1	2	7
Year 1	3	21
Years 2 - 4	3	21
Year 5	3	21
Years 6 - 8	4	28
Year 9	4	28
Years 10 - 12	4	28
Years 13 - 14	3	21
Years 15 - 16	2	14

**Table 13:** Dig unit and truck numbers for KOTH open pit mining.

The primary mining fleet for the satellite deposits is one 120 t class excavator (in backhoe configuration), paired with five 100 t class haul trucks.

### KOTH Underground

The underground mine design was summarised into individual activities that provided sufficient detail for feasibility study level mine scheduling and reporting. Entech has prepared estimates of productivity which have been validated through comparison to the contractor submission.

The key strategic considerations for underground scheduling were as follows:

- Ensuring a smooth ramp-up to steady ore production;
- Minimising variations in development rates and production to avoid additional project costs due to under-utilisation of the contractor's equipment;
- Maintaining capital development not to be too far ahead of production to enable capital infrastructure to be established 'just in time'; and
- Stope production can only commence once the main return airway and second egress are established.

The key annual physicals from the Production Target design and schedule are provided in Table 14.

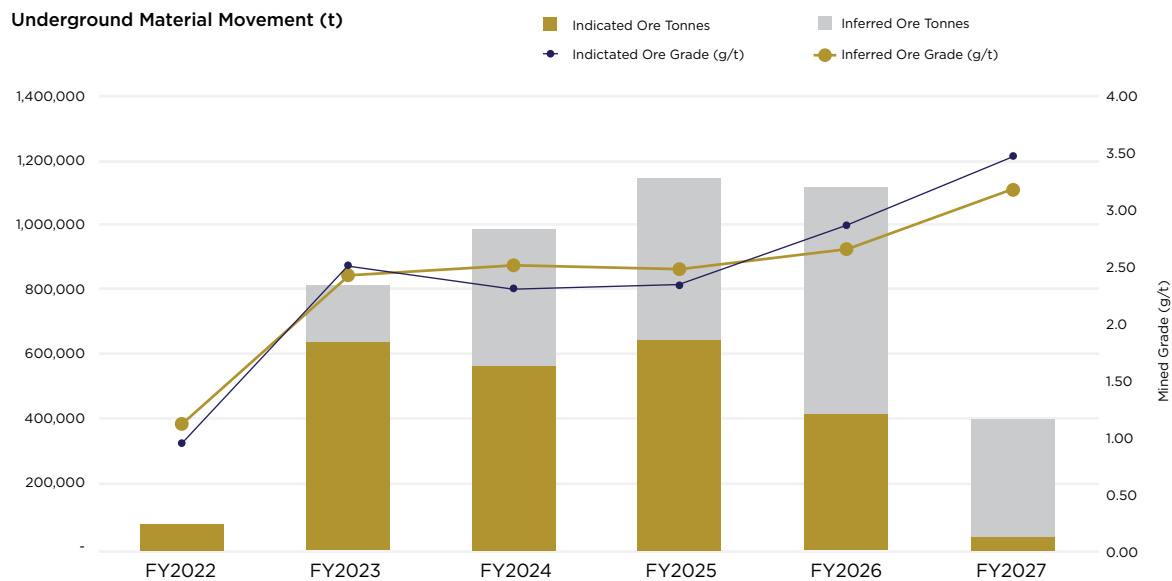
UG Mining		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Capital	m	1,787	2,589	2,457	1,630	324	-	8,787
Operating	m	6,096	6,996	7,071	5,075	1,499	-	26,737
Total Lateral Development	m	7,883	9,585	9,528	6,705	1,823	-	35,523
Vertical Development	m	789	1,190	1,932	1,782	660	-	6,352
Production Drilling	m	63,218	95,364	131,754	149,422	93,133	1,393	534,283
Waste	t	208,194	261,577	301,780	212,012	39,886	-	1,023,448
Ore	t	619,953	967,587	1,129,034	1,115,493	673,595	13,378	4,519,039
Gold Grade	g/t	2.4	2.3	2.5	2.6	3.0	1.9	2.6
Gold	oz	48,452	71,425	91,145	94,100	64,875	808	370,806

**Table 14:** KOTH LOM Plan underground production target annual key physicals.



Equipment		Quantity
Tamrock Twin-Boom Jumbo DD421-60C	# / mth	2
Caterpillar R2900G Loader	# / mth	3
Caterpillar A45G Haul Truck	# / mth	3
Normet Charge-up	# / mth	1
Tamrock DL431-7C Longhole Drill	# / mth	2
Vertical Dev Drill - ITH	# / mth	1
Integrated Tool Carrier L120F	# / mth	2
Grader	# / mth	1
Light Vehicles	# / mth	9
Bus & Stores Truck	# / mth	2

**Table 15:** KOTH LOM Plan underground mining peak mining fleet requirements.



**Figure 18:** KOTH LOM Plan underground mine material movement.

The Company will undertake an advance in-fill drill program to convert the Inferred Material to Indicated/Measured category before it is mined.

## METALLURGY

The KOTH ore was treated successfully through the previous Tarmoola processing plant for approximately ten years through to 2004. The ore is free milling, with no significant deleterious elements observed. It exhibits relatively fast leaching kinetics and very low reagent consumptions. Documented gold recoveries of approximately 94% were achieved near the end of the life of the Tarmoola plant, treating a feed blend of 20% oxide / 80% fresh ore at a grade of approximately 1.20g/t.

The KOTH underground ore, which is a continuation of the open cut mineralisation, is currently being treated at Red 5's Darlot processing plant, which – like the proposed KOTH processing plant – comprises a conventional milling, gravity recovery and carbon-in-leach (CIL) circuit.

A comprehensive metallurgical test work program has been completed by ALS Metallurgy. This work included comminution and leach test work on composite samples taken from three selected drill holes in the expected open pit cut back areas and one bulk composite sample from the current underground mining operation.

The following conclusions can be drawn from the current and previous test work programs:

- The ore is considered free-milling with no significant deleterious elements present. The gold is relatively coarse and can be readily recovered at a grind size of 150µm. Approximately 30% of the gold can be recovered by gravity concentration prior to leaching. The gold recovery in the CIL circuit is generally high with low reagent consumption.
- The comminution parameters show significant variation with soft, low competency oxide transition material, and average to hard grindability and average to hard competency for the ultramafic and granodiorite ore types. The granodiorite ore is the most resistant to impact breakage and also has the lowest grindability. The underground sample has breakage behaviour similar to the granodiorite.
- Leach tests were carried out with and without a gravity recovery step and at a cyanide concentration of 500 ppm. Gravity recovery ranged from 3% for the oxide/transition sample to 63% for the higher-grade underground ore sample. The leach tests gave gold extractions ranging from 89% to 97% for the fresh ores at the target 20-hour leach time, and approximately 98% for the oxide/transition ore.
- A separate metallurgical test work program was conducted on samples from a number of satellite deposits that are expected to produce

oxide and transition ores. The deposits tested included Centauri, Cerebus-Eclipse and Rainbow. The samples were mostly relatively high grade and gave gold leach extractions in the range of 90% - 95% with low cyanide consumptions.

## ORE PROCESSING

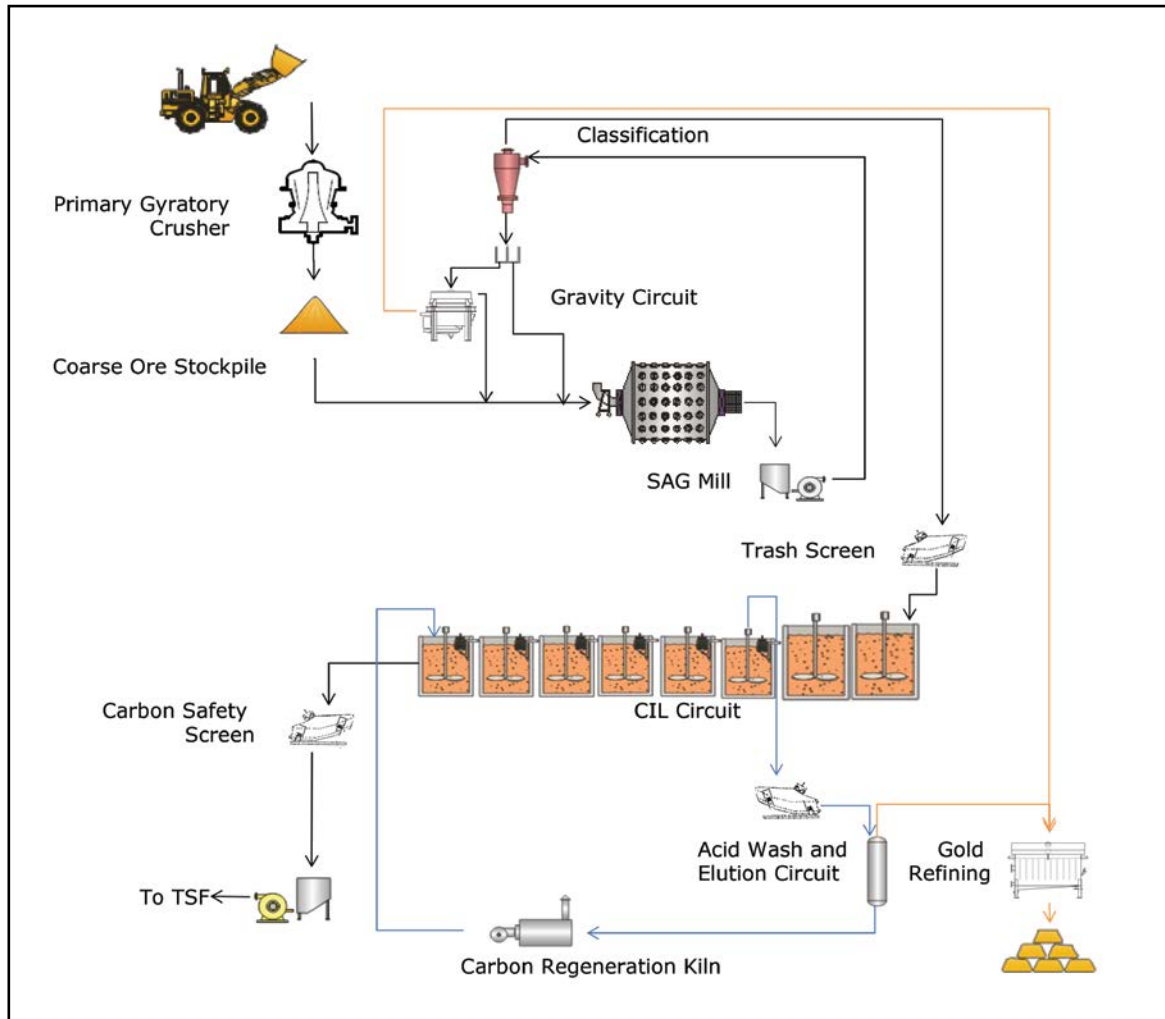
**The KOTH processing facility has essentially been designed to process 4Mtpa of fresh open pit and underground ore. However, allowance has been incorporated into the design for future throughput upgrade to 6Mtpa with limited production interruption and low capital requirements. The primary crushing circuit has been designed for 6Mtpa. The mill selection and the layout of the grinding circuit allow for a future ball mill, with allowance provided for a second gravity recovery line. The design also allows for two additional future leach tanks and a tailings thickener (if required).**

The processing plant will be designed to operate seven days per week at a nominal treatment rate of 500 dry t/h on fresh ore at a grinding circuit utilisation rate averaging 91.3% over the Life of Mine.

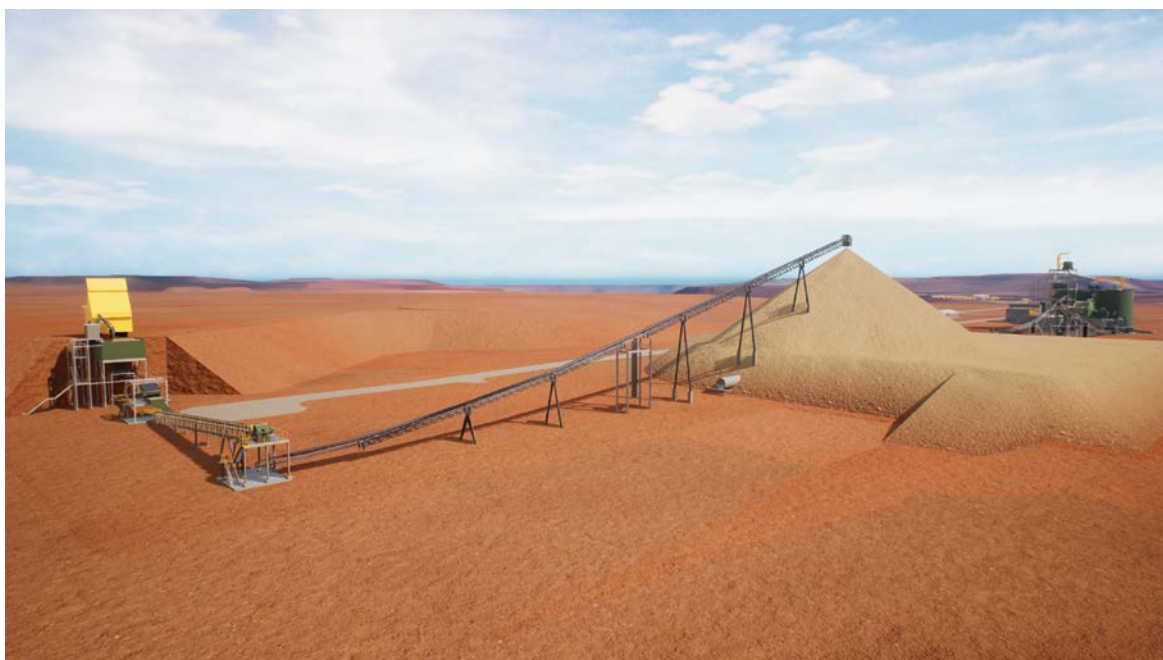
The processing facility unit processes are based on proven technology for gold recovery following a processing route of:

- Primary crushing by a gyratory crusher to product size P80 of 115 mm;
- Grinding in a semi-autogenous grinding mill – to a product size P80 of 150µm;
- Treatment of a portion of the grinding circuit cyclone underflow by centrifugal gravity concentration, followed by batch intensive leaching of the gravity concentrate and electrowinning of the resulting pregnant solution;
- Leaching and adsorption in a hybrid CIL circuit comprising two leach tanks followed by six smaller adsorption tanks;
- Acid washing and elution of the loaded carbon in a single column split AARL elution circuit, and thermal regeneration of the barren carbon prior to its return to the CIL circuit;
- Smelting of cathode sludge from electrowinning to produce a final product of gold doré;
- Transfer of the final tailings to the tailings storage facility with water recovery for recycling back to the process plant.





**Figure 19:** Process Flow Schematic Diagram.



**Figure 20:** Artist impression of planned crusher, CIL plant and infrastructure, KOTH open pit.

### Purchase of Crusher and Mill

Red 5 has placed orders for both the gyratory crusher and mill for the KOTH mine. Both items are unused equipment that meet the specifications of the KOTH processing plant and offer operational advantages both now and in the future.

The crusher is a 42-65 Superior MkII Metso gyratory crusher with capacity of 6Mtpa, purchased from MACA Interquip. The crusher is due to be delivered to site in the September 2021 Quarter.

The mill is a 15MW, dual synchronous motor semi-autonomous grind (SAG) mill with VVVF drive, purchased from MACA Interquip. Delivery to site is expected in the June 2021 Quarter, and the mill will be upgraded for project-specific conditions. The mill has a capacity in excess of 500 tonnes per hour (4Mtpa) at the maximum ore hardness existing at KOTH. As modelled by Orway Consultants, the mill is expected to achieve higher production rates when processing ore at average hardness and/or at a higher power capacity (see Table 16). Further work will be required to study and potentially modify the milling circuit before additional production may be achieved.

Hardest Ore	Design	Mid	High
Mill Power (kW)	9,272	10,859	12,445
Grind Size (P80-µm)	150	150	150
Tonnes Per Hour (tph)	500	586	671
Tonnes Per Annum (Mtpa)	4.0	4.7	5.4
Average Ore	Design	Mid	High
Mill Power (kW)	6,446	9,671	12,445
Grind Size (P80)	150	150	150
Tonnes Per Hour (tph)	500	750	965
Tonnes Per Annum (Mtpa)	4.0	6.0	7.8

**Table 16:** SAG mill forecast throughput modelling performed by Orway Mineral Consultants, based on ore hardness and power variables.

### HYDROGEOLOGY AND HYDROLOGY

Big Dog Hydrogeology prepared an FFS-level hydrogeology study, following on from their PFS study in 2019. The study confirmed that there is sufficient water to supply the proposed 4Mtpa processing facility at KOTH using existing water sources. The total process water demand of 120 l/s can be provided from open pit and underground dewatering (20 l/s), the Tarmoola Borefield (45 l/s), and expansion and operation of Sullivan Creek Borefield (55 l/s).

Water for the first two years of processing will be supplemented from the current and future Rainbow Pit and proposed production bores and existing water in the southern KOTH open pit and Galahad open pit. Future supplies, if required, are forecast from the planned Centauri and Cerebus-Eclipse open pits and from the expansion of the existing bore fields.

A Hydrology study was prepared for the proposed KOTH operations by GHD. Key findings from the 1:100 AEP (Annual Exceedance Probability) and probable maximum rainfall flood mapping are that:

- The Cerebus-Eclipse and Centauri deposits are not impacted by floodwaters;
- The Process Plant will require flood protection of up to 1m;
- The Rainbow pit requires levee protection of up to 0.75m;
- The KOTH open pit and underground mines are not impacted by flood inundation with some minor levee works to the north and south of the open pit required; and,
- The Village Accommodation and associated infrastructure are not exposed to floodwaters.



## TAILINGS STORAGE

Knight Piesold Consultants was engaged by Red 5 to provide a tailings study. The tailings storage facility (TSF) design has been based on the processing of gold ore at a rate of 4Mtpa discharging into Tailings Storage Facility No. 4 (TSF4), TSF5 and TSF6.

In total, Knight Piesold have confirmed the initial capacity of these TSFs to be 64Mt. Options for even further capacity have been identified and would require additional technical evaluation at a later time.



**Figure 21:** Planned locations for Tailings Storage Facilities at KOTH.

## MINE SERVICES AND INFRASTRUCTURE

The site development works and supporting infrastructure will include the following:

- Bulk and detailed earthworks, including drainage, grading, contouring and finishing;
- Water ponds;
- Access roads and tracks, including the existing 7km access road from the Goldfields Highway;
- Power reticulation across the project site;
- Water supply including raw water for processing and potable supplies;
- Plant offices, crib rooms and toilets, including a 1,050m<sup>2</sup> second-hand office already purchased and on-site;
- Steel-framed buildings including plant workshops, warehouse and storage;
- Wastewater treatment;
- 450-bed accommodation village, complete with:
  - Common facilities;
  - Accommodation facilities;
  - Services (water treatment, potable water, power reticulation, sewerage, etc.)



Red 5 purchased a second-hand camp in May 2020, which included 240 rooms (each with ensuite), five laundries and a Wastewater Treatment Plant. These have already been delivered to site, awaiting installation.

The Village design and construction has been awarded to an experienced camp construction contractor, Multiple Trade and Maintenance. Camp construction will begin in the December 2020 Quarter.

The site will be serviced by the existing Leonora Airport (IATA: LNO), located approximately 30km by road from the site. Bus transport will be provided to move the workforce between the village and airstrip at roster change.

Open pit and underground mining will be undertaken by mining contractors, which will be tendered in the December 2020 Quarter.

Power will be supplied by an independent power provider (IPP), which will include:

- Gas lateral from the Eastern Goldfields Pipeline System to site (approximately 12km west of the site);
- ~25MW power station at site.

## ENVIRONMENT, HEALTH, SAFETY AND COMMUNITY

Red 5's existing comprehensive Environment, Health, Safety and Community procedures at its existing Darlot and King of the Hills operations will be adapted and implemented for the new KOTH stand-alone operation.

The KOTH Project is considered to be of benefit to the local community and residents of Leonora, as well as the State of Western Australia as a whole. Potential benefits of the Project include additional local, regional and state-wide employment, increased support of local and regional businesses and community and increased government revenue. The Project is located approximately 30km from the nearest township of Leonora and will have no noise, dust or other environmental impacts on those residents.

There are currently no registered Native Title Claims over the Project area and no registered Aboriginal heritage sites of significance within the proposed disturbance area of the Project.

A proposed haul road will cross Sullivan Creek which is a Registered Site and protected under the Aboriginal Heritage Act 1972. A suitable crossing location was identified and agreed upon by the Aboriginal representatives and Red 5 during the survey. The Section 18 Notice for the proposed haul road crossing was approved on 26 August 2020. A second location along Sullivan Creek was agreed upon in 2006 with Traditional Owners for a proposed gas pipeline crossing to connect the Goldfields Gas Pipeline and KOTH. Red 5 proposes to continue these plans for a gas pipeline and utilise this same location. An agreement was recently reached with Traditional Owners to continue these plans provided the lateral gas pipeline was installed with minimal surface disturbance of Sullivan Creek using horizontal directional drilling.





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# Project Implementation

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Red 5 has commenced an early works program which will continue into the December 2020 Quarter, which includes the following activities:

- Completion of government approvals;
- Completion of surface geotechnical test work and interpretative analysis;
- Completion of topography survey and control survey points;
- Placement of the following contracts:
  - Mining;
  - Engineering, Procurement and Construction (EPC);
  - Power Station;
  - Gas supply and transmission;
  - Communications network;
  - Long lead major equipment items;
- Installation of the accommodation village; and
- Bulk earthworks for the plant infrastructure.

The Project will be developed by an EPC contractor to provide certainty around cost and timing. The EPC Tender has already commenced with a pre-qualified short-list of four bidders. Red 5 will enter into an EPC contract, planned for October 2020, for a lump sum price to undertake the following:

- Detailed engineering for the plant and select non-process infrastructure;
- Procurement, fabrication and delivery to site of all plant, equipment and materials;
- Construction of the facilities;
- Pre-commissioning, dry and wet commissioning of the facilities, where appropriate; and,
- Ore commissioning and ramp-up assistance of the processing plant facilities by the EPC contractor and the Red 5 operations team.

The duration for the EPC component of the Project has been estimated to be 84 weeks from contract award to Practical Completion. First gold is scheduled to be poured in June Qtr 2022.

Red 5 has already established an experienced construction Owner's Team that will be managing the EPC Contractor and other smaller scopes of work. Red 5's Project Manager, Mr Warren King, started in March 2020 and has a proven track record of building several similar projects, both as the Owners Team manager and EPC manager.



THE CRITICAL PATH IS  
THE SPECIFICATION,  
PROCUREMENT,  
MANUFACTURE,  
INSTALLATION AND  
COMMISSIONING OF  
THE SAG MILL.

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# Project Approvals

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The KOTH Project is located within the boundaries of existing mining tenements and utilises much of the previously approved disturbance footprint and landforms of the current KOTH operation.

Except for a proposed gas pipeline corridor to the south, no additional tenement applications are likely to be required for the proposed Project.

The primary agencies involved in environmental approvals and permits for the KOTH Project are:

- Department of Mines, Industry Regulation and Safety (DMIRS);
- Department of Water and Environmental Regulation (DWER).

A number of key environmental approvals applications are in progress with all permits anticipated to be received by December 2020. All permits are in place for Stage 1 early site works, which will begin in the December 2020 Quarter.

The remaining critical permits for full construction to commence are:

1. Works Approval from DWER, expected in the December 2020 Quarter;
2. Mining Proposal from DMIRS, expected in the December 2020 Quarter.

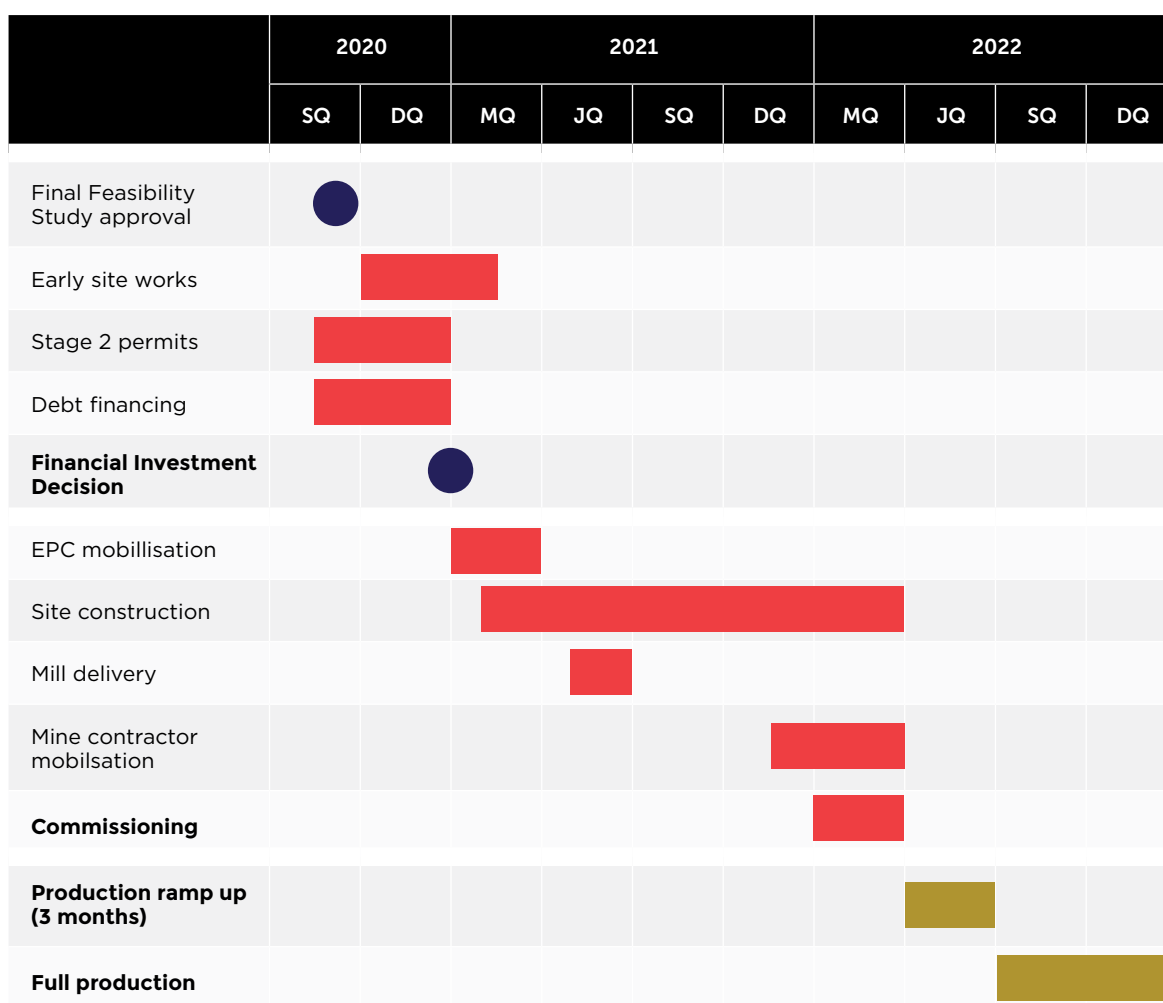
**GIVEN THE SIGNIFICANT OUTCOMES OF THE FFS, RED 5 IS WELL PLACED TO MOVE AHEAD EFFICIENTLY WITH SITE WORKS, FINALISE PERMITTING, AWARD MAJOR TENDERS AND COMPLETE THE PROJECT FINANCING PROCESS.**



# Project Timeline

## Critical path items for the Project currently are:

1. The Final Investment Decision (subject to Project Financing), anticipated in December 2020
2. The delivery, installation and commissioning of the SAG mill.



**Figure 23:** High-level project schedule summary.

**WE ARE TARGETING TO BE IN A POSITION TO MAKE A FINAL INVESTMENT DECISION OVER THE COMING MONTHS BEFORE MOVING TO FULL ON-SITE CONSTRUCTION BY EARLY 2021. THAT WOULD POSITION US FOR FIRST GOLD PRODUCTION BY THE JUNE QUARTER 2022.**

# Capital and Operating Costs

## CAPITAL COSTS

The Project capital cost (mining, processing and infrastructure) estimate developed for the FFS is based upon an EPC approach for the process plant and infrastructure and contract mining for mine development.

Total development capital is \$226 million (real) with contingency and pre-production pre-strip included. A contingency of approximately 9.4% has been calculated for the development capital estimate, applying a statistical analysis methodology using Monte Carlo simulation at a 90% confidence level (P90).

Area	A\$' 000
Process plant and infrastructure	188,054
Owners Costs	12,421
<b>Subtotal</b>	<b>200,475</b>
Contingency	18,892
<b>Sub-Total Development Capital Cost (Real)</b>	<b>219,367</b>
Mining Pre-Strip	6,220
<b>Total Development Capital Cost (Real)</b>	<b>225,586</b>

**Table 17:** Project Capital Cost Estimate Summary.

The sustaining capital estimate over the life of the mine was estimated to be \$157.6 million (real), primarily associated with staged development and closure of the tailings storage facilities.

Area	A\$' 000
Development Capital	219,367
Pre-strip	6,220
<b>Sub-Total Development Capital Cost (Real)</b>	<b>225,586</b>
Tailings Storage Facilities (TSF)	123,759
Sustaining Capex – Processing	12,174
Sustaining Capex – General	21,704
<b>Sub-Total Sustaining Capital Cost (Real)</b>	<b>157,637</b>
<b>Total</b>	<b>383,223</b>

**Table 18:** Total Capital Summary.



## Operating Costs

The operating costs are based on an open pit and underground mining operation producing 4Mtpa of gold ore to feed to the plant. The ore will be treated by crushing, grinding, gravity gold recovery and cyanide leaching in the CIL plant to produce gold doré.

The LOM Plan operating costs are estimated to be \$46.92 per tonne of ore milled.

Cost Centre	Unit Cost (A\$/t)
Mining	33.40
Processing	11.83
Site General and Administration	1.69
<b>Total</b>	<b>46.92</b>

**Table 19:** Operating Cost Estimate Summary.

### Mining

The operating cost estimate for mining is based on a mining services contractor model for both open pit and underground mining. The LOM open pit unit mining cost is \$3.65 per tonne ex-pit movement, and the underground mining cost is \$74.50 per tonne of ore mined.

The operating cost estimate for mining is on average \$33.40 per tonne processed over the LOM Plan.

Mine area	Unit Cost (A\$/t)
KOTH Open Pit	26.20
KOTH UG	4.90
Rainbow	0.50
Cerebus-Eclipse	0.60
Centauri	0.30
<b>Sub-total mining</b>	<b>32.50</b>
Grade control	0.90
Rehandle cost	0.10
Pre-strip offset	(0.10)
<b>Total mining</b>	<b>33.40</b>

**Table 20:** Mining Operating Cost Estimate Summary.

## Processing

The operating cost estimate for the processing plant and supporting infrastructure is based on the provision of all equipment in the plant (noting that the mill and crusher being ordered are unused but not new) and considers costs associated with the existing site conditions and Project location. The operating costs for the processing operation include reagents, consumables, labour, power, maintenance, and processing general costs.

The operating cost estimate for the processing plant and supporting infrastructure is on average \$11.83 per tonne processed over the LOM Plan.

Cost Centre	Unit Cost (A\$/t)
Power	3.41
Maintenance Spare Parts and Materials	1.18
Operating Consumables	3.88
Labour	2.39
Other	0.97
<b>Total</b>	<b>11.83</b>

**Table 21:** Processing Operating Cost Estimate Summary.

### Site General and Administration

Site general and administration (G&A) costs, that relate to the overall site rather than specifically to mining or processing, is on average \$1.69 per tonne processed over the LOM Plan.

## All-in Sustaining Cost (AISC)

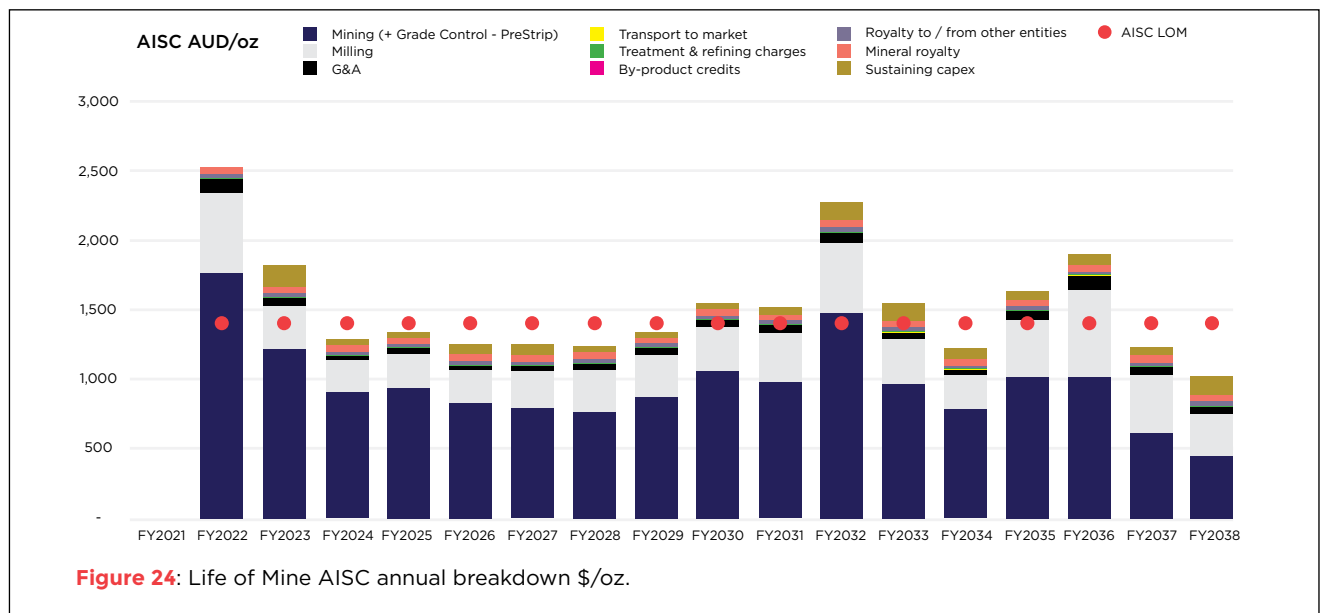
The Project has an average AISC of \$1,415 per ounce of gold over the life of mine (at A\$2,000 gold price), net of silver by-product credits. The AISC for the first phase of the mine (Years 1 - 6), net of silver by-product credits, is \$1,339 per ounce of gold.

The Life of Mine Plan AISC components (Years 1 - 16) are shown in Table 22.

AISC \$/oz (Real)	Years 1 - 6	Life of Mine
Mining	895	907
Milling	273	321
G&A	39	46
Transport to Market	0.4	0.4
Treatment & Refining Charges	0.5	0.5
By-product Credits	(8)	(8)
Royalty to/from Other Entities	30	30
Mineral Royalty	50	50
Sustaining Capex	59	67
<b>All-In-Sustaining Cost</b>	<b>1,339</b>	<b>1,415</b>

**Table 22:** Life of Mine AISC \$/oz.

The annual breakdown of the AISC for the Life of Mine Plan is shown in Figure 24.



**Figure 24:** Life of Mine AISC annual breakdown \$/oz.

The Life of Mine Plan (Years 1 – 16) average C1 cash cost is \$1,268 per ounce of gold, net of silver by-product credits. Total Life of Mine Plan C1 cash cost components are presented in Table 23.

AISC \$/oz (Real)	Life of Mine
Mining	2,129
Milling	755
G&A	108
Refining and Freight	2
By-product Credits	(18)
<b>Total Operating Cash Costs</b>	<b>2,976</b>

**Table 23:** Total Cash Costs.



# Project Financials

## GOLD OUNCES PRODUCED

Gold ounces produced over the KOTH Life of Mine Plan is summarised in Figure 25.

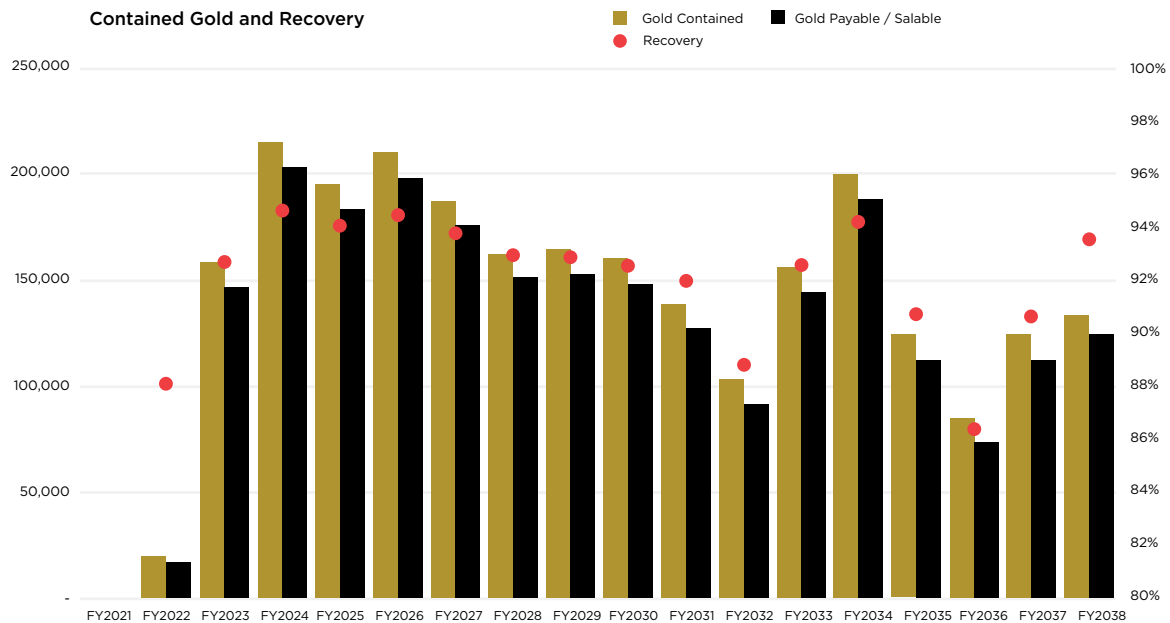


Figure 25: Gold Ounces Produced.

## PROJECT FREE CASH FLOW

Based on the mining production schedule, the after-tax cash flow for the Project was determined after applying long-term price of A\$2,500/oz of gold and A\$15/oz silver. The valuation is expressed on a 100% Project ownership, and full equity financing.

Figure 26 outlines the annual free cash flow from 2021 onwards, with a period of construction followed by operations. The after-tax free cash flow of the Life of Mine Plan is \$1.54 billion (real).

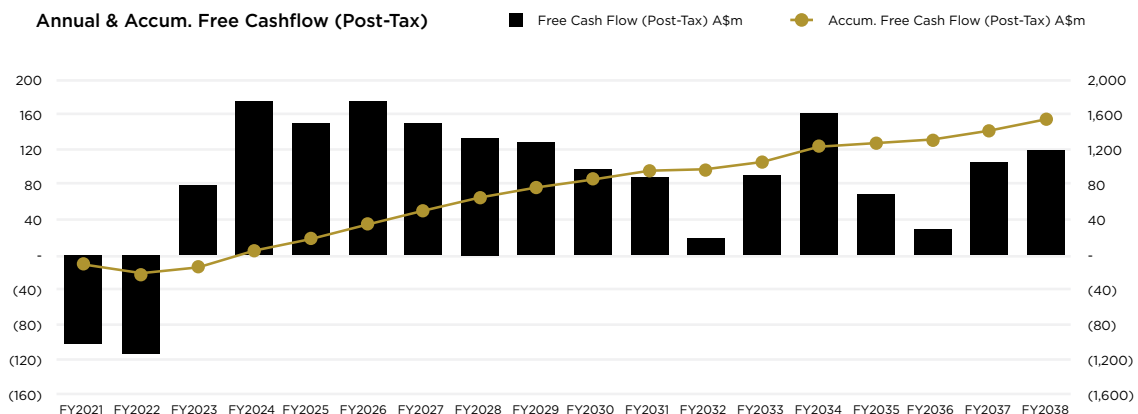


Figure 26: Annual and Accumulative Free Cash Flow (Post-Tax).

Item	Unit	2022	2023	2024	2025	2026	2027	2028	2029	2030
Waste Mined	Mt	5.7	30.8	24.6	21.2	21.0	25.3	28.8	33.7	42.9
<b>Ore Mined – OP</b>	<b>Mt</b>	<b>2.0</b>	<b>2.6</b>	<b>5.8</b>	<b>3.9</b>	<b>4.8</b>	<b>5.9</b>	<b>4.2</b>	<b>4.6</b>	<b>3.9</b>
Mined Grade – OP	g/t	0.6	1.0	1.1	1.0	1.0	1.1	1.2	1.1	1.1
<b>Ore Mined – UG</b>	<b>Mt</b>	<b>0.01</b>	<b>0.8</b>	<b>1.0</b>	<b>1.1</b>	<b>1.1</b>	<b>0.4</b>	-	-	-
Mined Grade – UG	g/t	1.0	2.5	2.4	2.4	2.7	3.2	-	-	-
<i>Indicated</i>	%	100	93	92	89	86	94	100	100	100
<i>Inferred</i>	%	-	7	8	11	14	6	-	-	-
<b>Processed Tonnes</b>	<b>Mt</b>	<b>0.8</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.1</b>	<b>4.1</b>
<b>Processed Grade</b>	<b>g/t</b>	<b>0.8</b>	<b>1.2</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>	<b>1.4</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>
<b>Recovery</b>	<b>%</b>	<b>88%</b>	<b>93%</b>	<b>95%</b>	<b>94%</b>	<b>94%</b>	<b>94%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>
<b>Gold Produced</b>	<b>2,976</b>	<b>17.1</b>	<b>146.3</b>	<b>203.2</b>	<b>183.5</b>	<b>198.4</b>	<b>175.2</b>	<b>151.2</b>	<b>152.5</b>	<b>147.9</b>

Item	Unit	2031	2032	2033	2034	2035	2036	2037	2038	LOM
Waste Mined	Mt	35.6	35.6	35.3	31.2	23.7	15.4	11.9	7.1	429.7
<b>Ore Mined – OP</b>	<b>Mt</b>	<b>3.0</b>	<b>2.0</b>	<b>3.6</b>	<b>4.6</b>	<b>2.8</b>	<b>2.0</b>	<b>2.9</b>	<b>3.6</b>	<b>62.2</b>
Mined Grade – OP	g/t	1.2	1.2	1.3	1.4	1.2	0.9	1.2	1.2	1.1
<b>Ore Mined – UG</b>	<b>Mt</b>	-	-	-	-	-	-	-	-	<b>4.5</b>
Mined Grade – UG	g/t	-	-	-	-	-	-	-	-	2.6
<i>Indicated</i>	%	100	100	100	100	100	100	100	100	96
<i>Inferred</i>	%	-	-	-	-	-	-	-	-	4
<b>Processed Tonnes</b>	<b>Mt</b>	<b>3.8</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>3.0</b>	<b>63.8</b>
<b>Processed Grade</b>	<b>g/t</b>	<b>1.1</b>	<b>0.8</b>	<b>1.2</b>	<b>1.6</b>	<b>1.0</b>	<b>0.7</b>	<b>1.0</b>	<b>1.4</b>	<b>1.2</b>
<b>Recovery</b>	<b>%</b>	<b>92%</b>	<b>89%</b>	<b>93%</b>	<b>94%</b>	<b>91%</b>	<b>86%</b>	<b>91%</b>	<b>94%</b>	<b>93%</b>
<b>Gold Produced</b>	<b>2,976</b>	<b>127.4</b>	<b>91.6</b>	<b>144.4</b>	<b>188.0</b>	<b>112.5</b>	<b>73.4</b>	<b>112.6</b>	<b>124.2</b>	<b>2,350</b>

**Table 24:** KOTH LOM Plan Physicals.





The annual free cash flow is summarised in Table 25.

Item	A\$	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gold price	\$/oz	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
<b>Gross revenue</b>	<b>\$m</b>	<b>-</b>	<b>43</b>	<b>366</b>	<b>509</b>	<b>460</b>	<b>497</b>	<b>439</b>	<b>379</b>	<b>382</b>	<b>370</b>
Royalties	\$m	-	(2)	(15)	(20)	(18)	(20)	(18)	(15)	(15)	(15)
Transport	\$m	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
<b>Net revenue</b>	<b>\$m</b>	<b>-</b>	<b>41</b>	<b>352</b>	<b>488</b>	<b>441</b>	<b>477</b>	<b>421</b>	<b>363</b>	<b>367</b>	<b>355</b>
Mining	\$m	-	(30)	(178)	(184)	(170)	(164)	(138)	(115)	(132)	(156)
Processing	\$m	-	(10)	(47)	(47)	(47)	(47)	(47)	(47)	(48)	(48)
G&A	\$m	-	(1)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
<b>Net operating cash flow</b>	<b>\$m</b>	<b>-</b>	<b>(1)</b>	<b>120</b>	<b>250</b>	<b>217</b>	<b>259</b>	<b>229</b>	<b>195</b>	<b>180</b>	<b>145</b>
Dev't capex	\$m	(101)	(124)	-	-	-	-	-	-	-	-
Sust'g capex	\$m	-	-	(23)	(6)	(6)	(13)	(12)	(6)	(6)	(6)
<b>Net project cash flow</b>	<b>\$m</b>	<b>(101)</b>	<b>(125)</b>	<b>97</b>	<b>245</b>	<b>211</b>	<b>246</b>	<b>217</b>	<b>189</b>	<b>175</b>	<b>139</b>
<b>Operating margin</b>	<b>%</b>	<b>#N/A</b>	<b>#N/A</b>	<b>26%</b>	<b>48%</b>	<b>46%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>46%</b>	<b>38%</b>

Item	A\$	2031	2032	2033	2034	2035	2036	2037	2038	LOM
Gold price	\$/oz	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
<b>Gross revenue</b>	<b>\$m</b>	<b>319</b>	<b>230</b>	<b>362</b>	<b>471</b>	<b>282</b>	<b>184</b>	<b>282</b>	<b>311</b>	<b>5,886</b>
Royalties	\$m	(13)	(9)	(14)	(19)	(11)	(7)	(11)	(12)	(235)
Transport	\$m	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2)
<b>Net revenue</b>	<b>\$m</b>	<b>306</b>	<b>220</b>	<b>347</b>	<b>452</b>	<b>270</b>	<b>177</b>	<b>271</b>	<b>299</b>	<b>5,648</b>
Mining	\$m	(125)	(135)	(140)	(147)	(114)	(74)	(69)	(56)	(2,129)
Processing	\$m	(46)	(47)	(47)	(47)	(47)	(47)	(47)	(38)	(755)
G&A	\$m	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(6)	(108)
<b>Net operating cash flow</b>	<b>\$m</b>	<b>129</b>	<b>32</b>	<b>154</b>	<b>251</b>	<b>102</b>	<b>49</b>	<b>148</b>	<b>198</b>	<b>2,657</b>
Dev't capex	\$m	-	-	-	-	-	-	-	-	(226)
Sust'g capex	\$m	(6)	(12)	(19)	(12)	(6)	(6)	(6)	(16)	(158)
<b>Net project cash flow</b>	<b>\$m</b>	<b>123</b>	<b>20</b>	<b>135</b>	<b>239</b>	<b>97</b>	<b>43</b>	<b>142</b>	<b>182</b>	<b>2,273</b>
<b>Operating margin</b>	<b>%</b>	<b>39%</b>	<b>9%</b>	<b>37%</b>	<b>51%</b>	<b>34%</b>	<b>23%</b>	<b>50%</b>	<b>59%</b>	<b>39%</b>

**Table 25:** KOTH LOM Plan Cash Flows.



## PROJECT ECONOMICS

The pre-tax Net Present Value ("NPV") is \$1,101 million and after-tax NPV is \$726 million, applying a real discount rate of 8%. The Internal Rate of Return ("IRR") pre-tax is 64.3% and post-tax is 49.8% with a post-tax payback period achieved in 25 months at a long-term real metal price of \$2,500/oz gold and \$15/oz silver. All dollars are in A\$ unless otherwise noted.

Production at 11,000 tonnes of ore per day processing rate, assumes the end of construction and the start of commercial

production in the June Quarter 2022. The life of the mine is estimated to run for 16 years at a LOM annual average ASIC of \$1,415/oz gold.

An initial capital investment of \$226 million (real) is projected, including a contingency allowance of 9.4%. The total life of mine capital expenditure (real), including sustaining capital, is estimated at \$384 million. Expenditures to date and those anticipated to 31 December 2020 are treated as sunk costs and are therefore not considered in the valuation.

NPV Components @ 8% Discount	(A\$M's)	Life of Mine
Total Sales Revenue	2,463	3,076
Total Realisation Costs	(1)	(1)
<b>Net Revenue</b>	<b>2,462</b>	<b>3,075</b>
Mining	(1,142)	(1,142)
Processing	(377)	(377)
<b>G&amp;A</b>	<b>(54)</b>	<b>(54)</b>
Govt Royalty	(62)	(77)
3rd Party Royalty	(37)	(46)
<b>Operating cash flow before tax</b>	<b>791</b>	<b>1,380</b>
Income tax	(199)	(375)
<b>Operating cash flow</b>	<b>593</b>	<b>1,005</b>
Working Capital	8	8
Capex	(287)	(287)
<b>Free cash flow (after-tax, ungeared)</b>	<b>314</b>	<b>726</b>

**Table 26:** NPV Components Table.







## PROJECT SENSITIVITIES

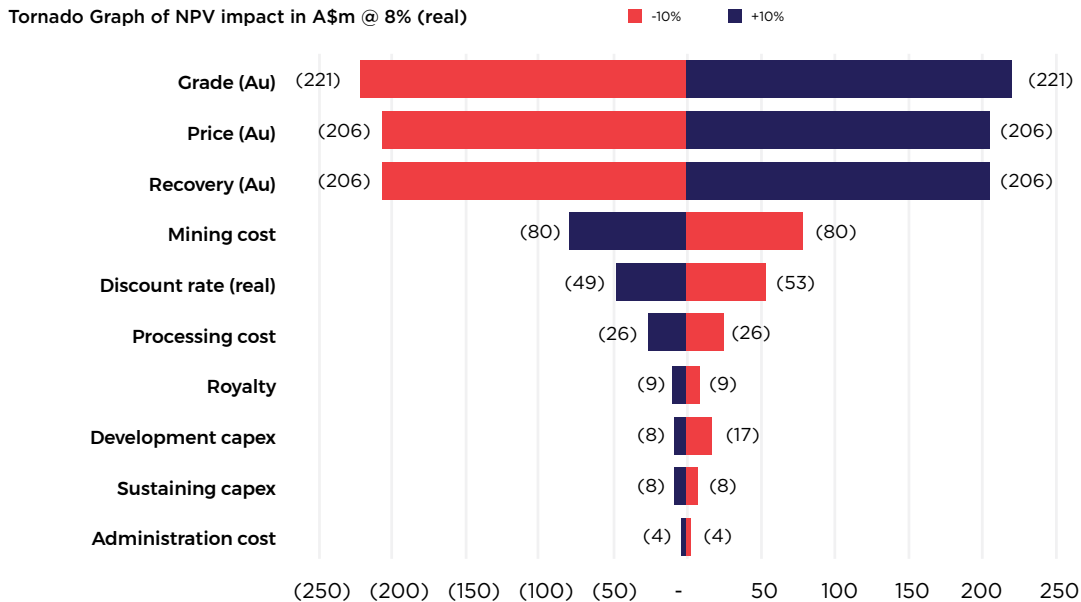
The KOTH Project is most sensitive to movements in the gold price. The Project has been evaluated applying both a conservative

price of A\$2,000/oz, as well as a A\$2,500/oz price reflecting the relatively strong gold price environment in 2020.

Pre-tax	Measure	\$2,000/oz	\$2,250/oz	\$2,500/oz	\$2,750/oz	\$3,000/oz
Project cashflow	\$M	1,147	1,710	2,273	2,837	3,400
NPV <sup>8%</sup>	\$M	512	806	1,101	1,395	1,689
IRR	%	38.0%	51.6%	64.3%	76.4%	88.0%
Post-tax						
Project cashflow	\$M	755	1,150	1,544	1,938	2,333
NPV <sup>8%</sup>	\$M	314	520	726	932	1,138
IRR	%	28.7%	39.7%	49.8%	59.3%	68.4%
Payback period	Mths	39	29	25	22	20

**Table 27:** Project Metric Price Sensitivity.

To examine the impact of changes in base-case assumptions, sensitivity analysis was performed to identify the critical components of the financial model, to determine which variables have a material impact on value to the Project.



**Figure 27:** Tornado Chart – NPV Sensitivity.

In summary, the four main categories are gold grade, gold price, gold recovery and mining costs. An increase of 10% in the gold price will improve NPV8 by \$206 million to \$932 million, whereas a 10% decrease will decrease NPV8 to \$520 million. If development capital costs decrease by 10%, the NPV8 will improve by \$17 million to \$743 million, whereas a 10% increase will decrease the NPV8 to \$718 million. For the after-tax NPV8 base case to breakeven (NPV8 = 0), an average life-of-mine gold price of at least \$1,622/oz (real) is required, i.e. commencing from 2022.



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# Upside Opportunities

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While Red 5 has sought to maximise the value of the KOTH Project during the Final Feasibility Study, a number of opportunities exist to further increase the valuation, including:

- Extending underground mining beyond FY27 as a result of further underground exploration drilling and surface exploration opportunities across the KOTH tenement;
- The potential to increase the overall reserve tonnage and/or grade through drilling and reserve definition and or acquisition;
- Future process plant expansion, with the current design incorporating a 6Mtpa primary crushing circuit and allowance for increased milling, leaching and elution with limited production interruption and low additional capital requirements;
- Capacity in the purchased SAG mill for higher throughput as a result of us purchasing a larger mill than the 4Mtpa requires;
- Tendering of mine services contracts to achieve the most competitively priced mining cost outcome;
- Optimisation of cut-off grades for future detailed mine plans over the life of the mine;
- Reagent price enquiries were obtained from Australian based suppliers. No enquiries were made to international suppliers. Early engagement and discussion by KOTH with reagent suppliers may lead to reductions in reagent unit costs.



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# Key Risks

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An organisational risk review was undertaken by Red 5 to establish the key risks and opportunities to be addressed during the KOTH FFS.

This review was supported by a more detailed risk assessment to identify key processing, safety, financial and environmental risks and to establish potential control measures that would mitigate the identified risks to acceptable levels. The methodology adopted for the assessment considered the raw risk rating prior to any controls being established and then assessed the residual risk, assuming the successful implementation of control measures.

The key risks after implementation of controls include:

- Changes in gold price;
- Major equipment failure;
- Production grade does not match reserve grade;
- Delay in ramp-up;
- Residual cyanide in plant tailings equivalent to >50ppm WAD cyanide;
- Failure of TSF embankment;
- Road safety to/from the site and average speed due to increased truck movement;
- A lightning strike to personnel and equipment;
- Damage to buried services;
- Project financing not achieved.



## COMPETENT PERSON'S STATEMENTS

### Mineral Resources

Mr Byron Dumbleton confirms that he is the Competent Person for the King of the Hills Mineral Resources as reported on 19 March 2020 (ASX:RED King of the Hills Mineral Resource increases to 4.1Moz), the Cerebus-Eclipse and Centauri Mineral Resources as reported on 6 May 2020 (ASX:RED Additional Resources defined for satellite open pit deposits at King of the Hills), and the Rainbow and Severn Mineral Resources as reported on 1 May 2019 (ASX:RED Maiden JORC open pit Resources defined for near-mine regional deposits at King of the Hills), and summarised in this report. These reports are available on Red 5's website ([www.red5limited.com.au](http://www.red5limited.com.au)). Mr Dumbleton also confirms that he is the Competent Person for the SMU (reblock) Mineral Resources for King of the Hills, Rainbow, Centauri and Cerebus-Eclipse developed for Open Pit Evaluations. Mr Dumbleton has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Dumbleton is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in this report and to the activity for which he is accepting responsibility. Mr Dumbleton is a Member of the Australian Institute of Geoscientists (Member No. 1598). Mr Dumbleton is a full-time employee of Red 5. Mr Dumbleton has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

### Independent Auditor

The King of the Hills Resource Model as reported on 19 March 2020 has been independently reviewed and audited by Dr Spero Carras of Carras Mining Pty Ltd. Dr Carras is a Fellow of the Australasian Institute of Mining & Metallurgy (Member No: 107972) and has more than 40 years of experience which is relevant to the style of gold mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as auditor of the Resource as reported. Dr Carras is a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Dr Carras has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

### New data

Red 5 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### Ore Reserves

Mr Carl Murray confirms that he is the Competent Person for the KOTH open pit components of the Ore Reserve estimates (being ore loss and dilution, optimisation, pit design and production scheduling) summarised in this report and Mr Murray has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Murray is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility. Mr Murray is a Fellow of the Australasian Institute of Mining and Metallurgy, No. 225085. Mr Murray is a full-time employee of SRK Consulting Australasia Pty Ltd. Mr Murray has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

Mr Dan Donald confirms that he is the Competent Person for the KOTH Underground component of the Ore Reserve estimates (being mining costs, ore loss and dilution, optimisation, mine design and production scheduling) summarised in this report and Mr Donald has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Donald is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility. Mr Donald is a Fellow of the Australasian Institute of Mining and Metallurgy, No. 210032. Mr Donald is a full-time employee of Entech Pty Ltd. Mr Donald has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

## Geotechnical

Mr Peter O'Bryan confirms that he is the Competent Person for the geotechnical components of the open pit Ore Reserve estimates summarised in this report and Mr O'Bryan has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr O'Bryan is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility. Mr O'Bryan is a Member of the Australasian Institute of Mining and Metallurgy, No. 203335. Mr O'Bryan is a full-time employee of Peter O'Bryan & Associates Pty Ltd. Mr O'Bryan has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

Dr Stephen Webber confirms that he is the Competent Person for the geotechnical components of the KOTH underground Ore Reserve estimates summarised in this report and Dr Webber has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Dr Webber is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility. Dr Webber is a Member of the Australasian Institute of Mining and Metallurgy, No. 207683. Dr Webber is a full-time employee of MineGeo Tech Pty Ltd. Dr Webber has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

## Process Engineering, Design Work and Costing

The information in this announcement that relates to process engineering design work and costing was prepared by GR Engineering Services Limited and was compiled under the guidance of Mr Chris Witt. Mr Witt has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Witt is a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility. Mr Witt is a Member of the Australasian Institute of Mining and Metallurgy, No. 201159. Mr Witt is a full-time employee of Red 5. Mr Witt has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

## Environment, Heritage, Hydrogeology, Hydrology, Economics

Mr Gary Powell confirms that he is the Competent Person for the following support components of the Ore Reserve estimates (being environment, heritage, hydrogeology, hydrology, financials) summarised in this report. Mr Powell has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Powell has relied upon (i) various historical independent environment and heritage consultant survey reports on the former Tarmoola Operations, (ii) the report performed by MBS Environmental on environment and permitting and environmental approvals documentation required to allow commencement of the project, (iii) flora and fauna reports performed by Mattiske Consulting Pty Ltd and Terrestrial Ecosystems, respectively, (iv) ethnographic and archaeological reports performed by Daniel de Gande & Associates Pty Ltd, (v) hydrogeological assessment work performed by Big Dog Hydrogeology Pty Ltd on the process water supply and open pit dewatering requirements, (vi) hydrology assessment work performed by GHD on water management, and (vii) economic evaluation using a gold price of A\$2,000 per ounce for the project completed by Mr John Tasovac, Chief Financial Officer of Red 5 Limited, in the sign-off of the Final Feasibility Study. Mr Powell has sufficient experience that is relevant to the style of mineralisation and type of deposit described in the report and to the activity for which he is accepting responsibility to qualify as a Competent Person as defined in the JORC Code, 2012 Edition. Mr Powell is a Member of the Australasian Institute of Mining and Metallurgy, No. 106563. Mr Powell is a consultant to Red 5 Limited. Mr Powell consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

## Mineral Resource and Ore Reserves

Red 5 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.





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