

29 March 2019

## Increased production at lower unit costs resulting from underground bulk mining at King of the Hills

*Red 5 is seizing the opportunity to exploit bulk stopes, adjacent to existing mine development, under the current Truck-to-Darlot model, while the stand-alone process plant opportunity is being evaluated*

- King of the Hills (KOTH) is advancing towards a higher overall ore production profile of ~50kt per month, compared with ~35kt per month in the December 2018 quarter, following the successful commencement of bulk underground mining.
- This is expected to comprise 30-35kt per month from the newly planned bulk stopes, supplemented by production of 15-20kt per month from high-grade narrow vein stopes and ore development.
- The start of bulk underground mining follows the success of the Lemonwood trial bulk stope (31,778t at mined grade of 3.35g/t Au) last year and the recently completed W4975 single-blast stope (19,989t at mined grade of 4.5g/t Au). The bulk stopes included in the new mine plan were not included in the KOTH Ore Reserve of 0.71Mt at 3.9g/t Au for 88koz of gold reported on 2 August 2018.
- Capital and operating cost reductions are expected, due to the proximity of the currently planned bulk stopes to existing mine workings.
- With KOTH production targeting 600ktpa, initiatives are being evaluated to assess the benefits of whether to incrementally increase plant capacity at the Darlot processing plant (currently 1Mtpa with 600ktpa coming from Darlot) or focus on maximizing grade recoveries, subject to cost/benefit analysis.

Red 5 Limited ("Red 5" or "the Company") (ASX: RED) advises that bulk underground mining has commenced at its King of the Hills (KOTH) gold mine, located in the Eastern Goldfields region of Western Australia. Bulk mining is expected to deliver an increase in ore production together with improved operational efficiencies and lower operating costs over the next 12-15 months.

The new selective bulk mining stopes are expected to underpin ore production from KOTH under Red 5's current Truck-to-Darlot business model for at least the balance of FY19 and FY20, ensuring a strong production outlook for the mine while the Company completes the current strategic review of a potential broader bulk mining opportunity.

This follows the success of the Lemonwood trial bulk stope which was mined last year, delivering 31,778t at an average mined grade of 3.35g/t Au, and the recently completed W4975 bulk stope (19,989t at 4.5g/t Au mined). Both stopes experienced minimal dilution resulting from stable, competent ground conditions.

**Red 5 Limited**

ABN 73 068 647 610

ASX: **RED**

Shares on issue: **1,243M**

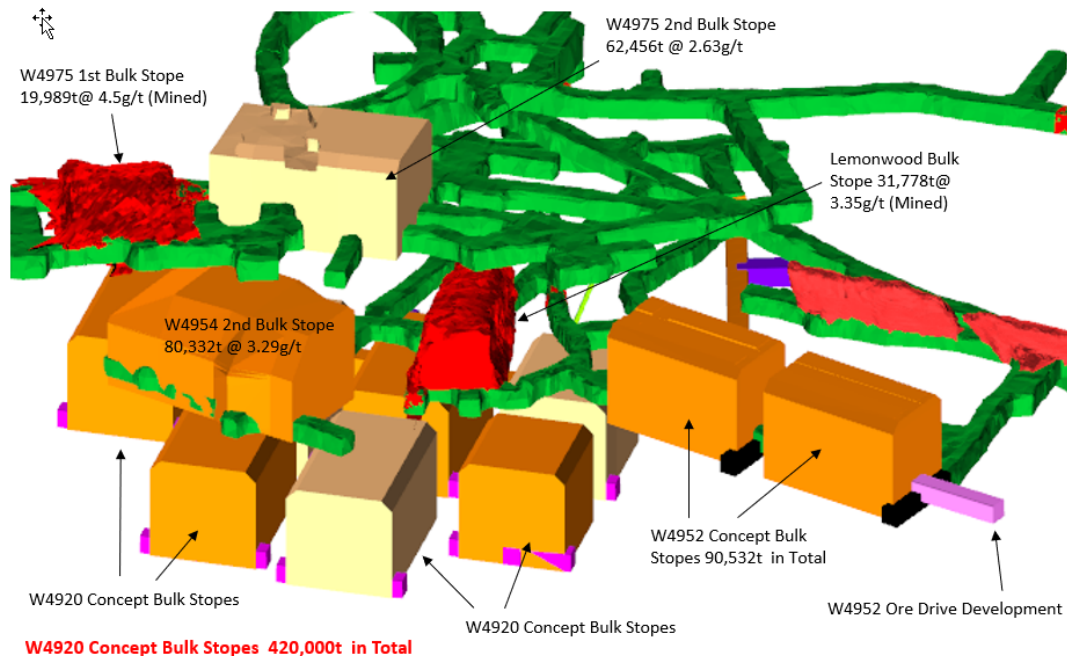
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Figure 1 below highlights how compact and close to existing mine development and infrastructure the planned and conceptual stoping opportunities are in the Lemonwood area. This specific area is located just 250m along the granodiorite/ultramafic contact, 100m across the contact and extends over 80 vertical metres.

The proximity to existing mine roadways has allowed the Company to reduce the number of development crews operating in this area in February 2019 from two to one, effectively halving development expenditure.

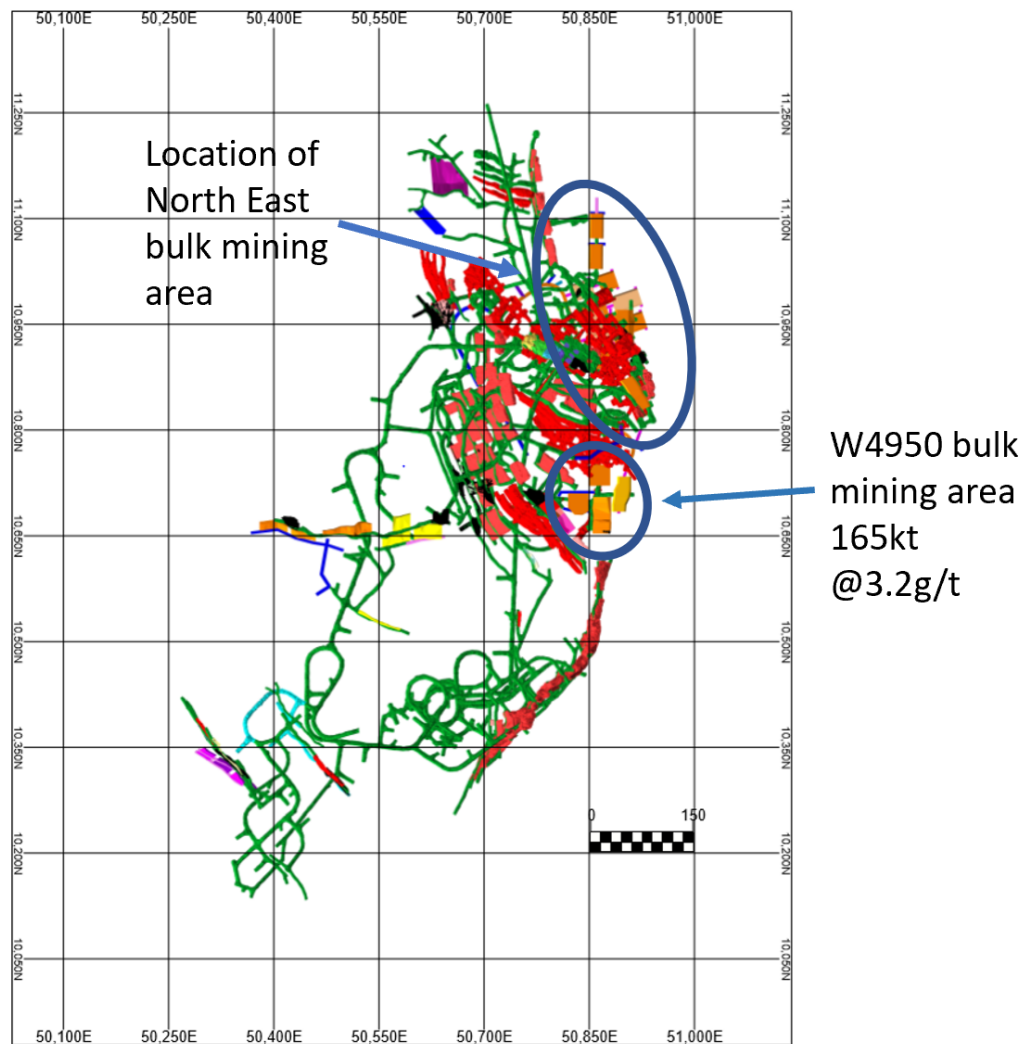


*Figure 1. West facing isometric of North East bulk mining area*

Other areas of the mine are generating additional bulk stoping opportunities at a grade appropriate for the Truck-to-Darlot business, and the potential for additional bulk stopes at a lower cut-off grade feeding any future potential on-site mill forms part of the resource and reserve assessment currently underway.

The numbers used to describe the stopes (e.g. W4920) refer to the mine level (i.e. 4920m) on which the base of the stope is located. The surface level is 5299m, so the 4920 level is 379m below surface.

The new bulk stopes outlined in Figure 1 are located in the north-eastern sector of the mine (*see Figure 2 below*) and there are additional bulk stopes currently designed or in concept shown further south in the centre of the deposit (the W4950 bulk mining area).



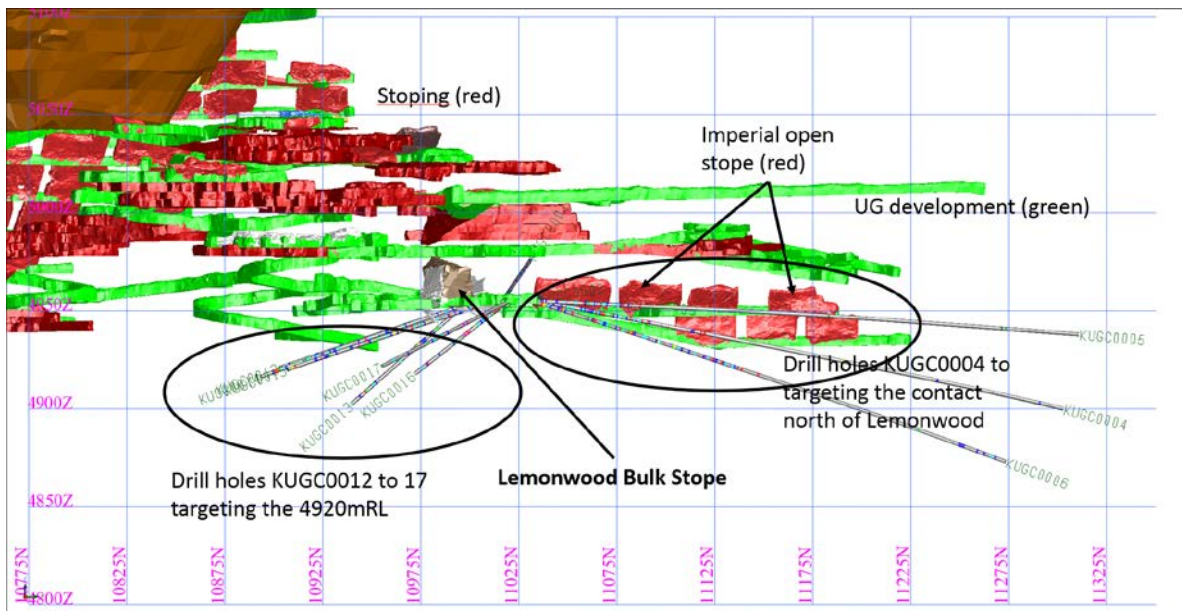
**Figure 2:** Schematic plan view of King of the Hills Gold Mine, showing the location of the new underground bulk mining area in the north-eastern and central sectors of the mine (in orange).

### UNDERGROUND BULK MINING STRATEGY

As outlined in recent announcements, assay results from the ongoing 30,000m underground diamond drill program at KOTH have enabled the mining team at KOTH to expand the bulk stope designs within the existing Truck-to-Darlot mine plan in addition to validating and upgrading the previously announced 1.88Moz bulk mining Resource (see ASX announcements, 13 March 2019 and 30 January 2019).

This work has resulted in the delineation of new bulk stopping opportunities proximal to the successful Lemonwood bulk stope (see ASX announcement 4 December 2018) and the recently completed W4975 bulk stope, which delivered 19,989 tonnes at an average mined grade of 4.5g/t Au. Both of these bulk stopes achieved positive reconciliations in terms of tonnes, grade and recovered ounces.

The recently mined and proposed new bulk open stopes are located in the north-eastern sector of the mine, with their location relative to existing underground workings and recently reported drill-holes completed as part of the current 30,000m underground drilling program shown in Long Section in Figure 3 below.



**Figure 3:** Long section view showing the location of the Lemonwood Bulk Stope and previously mined stopes relative to the existing open pit and underground workings and recently reported diamond drilling.

The bulk stopes, which have been designed using a +2.5g/t cut-off grade as part of the current Truck-to-Darlot business model, range in size from 30,000-80,000 tonnes and will underpin planned production of between 30,000-35,000 tonnes per month, supplemented by 15,000-20,000 tonnes per month from high-grade narrow vein stopes and development ore.

The bulk stopes will be mined utilising the existing mine fleet currently on-site at KOTH, with the increased tonnages mined arising from the improved efficiencies of bulk mining. Larger sized ore drives can be mined without the dilution that exists for narrow vein mining, allowing the larger loaders from the existing mining fleet to be used for stoping.

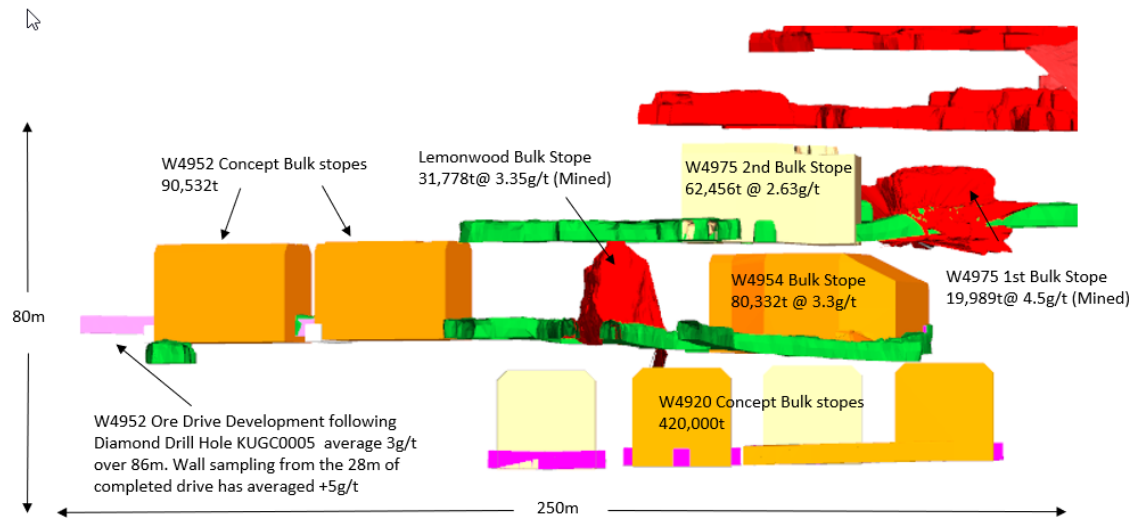
This is expected to result in higher ore production rates being achieved with a lower cost per tonne, as no increases in personnel will be required to achieve the increased production rate of ~50,000 tonnes per month compared with ~35,000 tonnes per month under the existing mine plan.

The increased efficiencies and economies of scale realised through the implementation of this mine plan are expected to result in a number of cost savings, including:

- A lower unit cost for drilling and blasting, given that bulk stoping requires approximately 30-40% less metres of blast-hole drilling and kilograms of explosives per tonne of ore with increased drill spacing when compared to narrow vein mining;
- Improved utilisation and efficiency in use of the Long-hole Drill currently underground, increasing stope ore delivered from this single drill rig;
- A lower cost to load the ore as larger loaders can be utilised with 12-tonne buckets rather than 7-tonne buckets with narrow vein mining;
- An estimated 50% reduction in required capital and operating development, due to the proximity of the current planned bulk stopes to existing mined workings and the increased ounces per vertical metre extracted in the bulk stopes, as evidenced by the reduction of development crews from February 2019;
- Additional efficiencies gained by equipment working in a single area for longer, reducing travel time to multiple work-sites; and

- Reduced dilution with bulk mining plus any dilution encountered with also contain some level of grade associated with it.

Figure 4 below is a cross-section looking west through the granodiorite ultramafic contact, showing previously mined stopes in red and planned or conceptual stopes forming part of the mine plan for the next 12-15 months in orange or yellow.



*Figure 4: North-South cross-section of planned bulk mining area at King of the Hills.*

The upper red stopes were mined historically by previous KOTH owners.

The Lemonwood bulk stope was mined by Red 5 in the December 2018 Quarter and delivered 31,778 tonnes at an average mined grade of 3.35g/t Au. Of this, 30,888 tonnes was produced in the December 2018 quarter, contributing 29% of planned production for that quarter.

Bulk stope W4975 was mined early in the March 2019 Quarter and delivered 19,989 tonnes at an average mined grade of 4.5g/t. This stope was fired in a single mass blast. The W4975 and other bulk stopes are expected to contribute ~50% of planned production at KOTH for the quarter.

In the June 2019 quarter, production from bulk stopes is forecast to account for ~65% of total ore production at KOTH.



Figure 5: Plan view of bulk mining area.

The second stage of the bulk mining strategy is subject to the outcomes of the review of the stand-alone process plant opportunity. Conceptually, significantly larger bulk stopes could be contemplated based on a lower cut-off grade than required under the Truck-to-Darlot business model. This in turn could result in the realisation of additional operating efficiencies, the use of larger loading and drilling units and a further reduction in operating costs.

#### MANAGEMENT COMMENT

Red 5 Managing Director, Mark Williams, said the bulk underground mining strategy at King of the Hills represented an important component in the Company's overall plan to unlock the broader value of the project.

*"While we are putting considerable effort into the review of the bulk mining opportunity and the potential for stand-alone processing at KOTH A key benefit today flowing from the current 30,000m drilling program has been the ability to design bulk stopes which will have a positive impact on our current production and operating costs.*

*"The bulk stope concept was shown to be viable with the Lemonwood Stope last year, and we have since had further success in mining Bulk Stope W4975 earlier this Quarter. This stope, which was fired in a single large blast, delivered a grade of 4.5g/t Au.*

*"These bulk stopes will now form part of our mine plan for the next 12-15 months, underpinning our production profile at KOTH and is expected to result in an increase in ore production rates and that will in turn allow costs to be lowered as a result of the economies of scale and underground mining efficiencies."*

*"In the meantime, we will complete the review of the stand-alone process plant opportunity at KOTH and evaluate the optimum way to unlock the broader bulk mining potential of the deposit, as evidenced by the recently reported 1.88Moz Resource."*



## ENDS

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### Competent Person's Statement

#### Exploration Results

Mr Byron Dumpleton confirms that he is the Competent Person for the historic Exploration Results summarised in this report and Mr Dumpleton 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 Dumpleton is a Competent Person as defined by the JORC Code, 2012 Edition, having 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 Dumpleton is a Member of the Australian Institute of Geoscientists, No. 1598. Mr Dumpleton is a full time employee of Red 5 Limited. Mr Dumpleton 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.

#### JORC 2012 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.

#### 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.