

# September 2016 Quarterly Activities Report

**Solid gold production with reduced operating costs; Preparations for underground mine commenced with lower development costs forecast; Successful completion of Philippines DENR audit process**

## Highlights

### Operations – Siana Gold Project, Philippines

- 17,062oz recovered for the Quarter (June 2016 Quarter: 18,047oz) and gold sales of 15,148oz (June 2016 Quarter: 19,946oz).
- Reduction in All-in Sustaining Costs (AISC) to A\$1,035 per oz (June 2016 Quarter: A\$1,168 per oz), reflecting a decrease in the waste-to-ore ratio in the open pit and a reduction of the mining fleet.
- A total of 423,529 tonnes of ore at an average grade of 1.92 g/t Au and 313,276 bank cubic metres (BCM) of waste moved ex-pit during the Quarter.
- Ore stockpiles at Quarter-end of 393,815 tonnes at 1.39 g/t Au.

### Siana Underground Development

- Forecast capital and operating costs revised down by approximately US\$20 million.
- Initial 3-month contract for development of the underground portal awarded to well-regarded Philippine underground mining contractor, Paramina Earth Technologies Inc., with cutting of the portal commencing in October 2016.
- Two contractors short-listed for the main underground mining contract.
- Acquisition of three Caterpillar generator sets to underpin the power station upgrade.
- Construction of the concrete batch plant, bulk explosives storage facility and underground workshop underway.
- Geotechnical drilling and installation of Vibrating Wire Piezometers (VWP) for the underground mine dewatering program completed.

### Environmental Management and Compliance

- Audits of large-scale mining operations in the Philippines completed by the Philippines Department of Environment and Natural Resources (DENR) during the Quarter. At a press conference held in September 2016, the DENR noted that Greenstone Resources Corporation (Red 5's Philippine affiliated company) has been cleared to continue mining operations.
- Greenstone Resources short-listed for the 2016 Presidential Mineral Industry Environmental Award (PMIEA) in the Surface Mine Operations Category.

### Finance

- A\$24M cash balance (unaudited) as at 30 September 2016 (30 June 2016: A\$18.2M).
- Gold sales for the Quarter of A\$26.9M (June 2016 Quarter: A\$34.4M).
- EBITDA (unaudited) from operations of A\$17.1M (June 2016 Quarter: A\$20M).

### Outlook

- 17,000-20,000oz of gold expected to be recovered for the December 2016 Quarter.

### Exploration

- Preparations continued for exploration drilling to commence in the December 2016 Quarter targeting the Alegria-Madja prospect area, where previous soil sampling, geophysics and early reconnaissance drilling have identified significant copper-gold anomalies (up to 1km in diameter).



*Figure 1: Installed rock bolts and wire mesh ahead of shotcreting at the -22m RL portal, Siana Underground Development*

## **OVERVIEW**

### **Operations**

Red 5 Limited (ASX: RED) is pleased to report on another strong operational performance at the Siana Gold Project for the September 2016 Quarter with a total of 17,062 ounces recovered for the Quarter.

The reduction in the waste-to-ore strip ratio exceeded expectations (1.7:1) and the C1 cash operating cost for the Quarter fell to A\$650 per ounce, down from A\$663 per ounce in the June Quarter. The All-in Sustaining Cost (AISC) for the Quarter was A\$1,035 per ounce sold, compared to A\$1,168 per ounce in the previous quarter.

### **Underground Progress**

Construction activities commenced during the September 2016 Quarter on a number of key infrastructure components required for the transition to underground mining operations. Filipino mining and civil construction service contractor, Paramina Earth Technologies Inc., was awarded a 3-month contract for the construction of the underground portals, which commenced in September 2016.

### **Successful completion of Philippines DENR audit**

The Philippines Department of Environment and Natural Resources (DENR) held a press conference in Manila in September 2016, where it announced the results of an audit of mining operations in the Philippines to determine compliance by mining companies with the regulatory requirements of the DENR.

The DENR noted at this press conference that the operator of the Siana Gold Project, Greenstone Resources Corporation, has been cleared to continue operations at the Siana Mine. No formal notification of the DENR audit results has yet been received.

### **Open Pit**

Following the successful implementation of a radar monitoring unit, a second unit has been acquired to allow continuous monitoring of a larger portion of the open pit walls. Pit wall stability has always been, and continues to be, an ongoing issue at Siana; accordingly, the Company's mining operational team continues to closely monitor the pit walls as part of normal operating procedures.

To ensure that the Company achieves its gold production target from the open pit without disruption from weaker areas of ground in the south-eastern and northern portions of the open pit, the Company intends to take a cautious approach and is currently considering a revised mining schedule for 2017 to ensure that the remaining 100,000 to 115,000 projected ounces are produced from the open pit. A further update on the mining schedule will be released once the review of the mining schedule and operations for 2017 has been completed.

### Director Search

The Company has engaged Heidrick & Struggles to assist in identifying suitable candidates for an additional non-executive director to join the Company's Board. An appointment is expected following the Annual General Meeting.

### Quarterly Gold Production – Key Statistics

Key Indicators	Unit	Dec. 15 Quarter	Mar. 16 Quarter	Jun. 16 Quarter	Sep. 16 Quarter
<b>Mine Production</b>					
Waste Mined (ex-pit)	BCM' 000s	1,088	852	835	313
Ore Mined	T	121,068	269,068	222,321	423,529
Mining Cost per tonne (ore and waste)	\$/t	4.0	3.5	3.3	4.5
<b>Mill Production</b>					
Ore Processed	T	173,601	119,758	188,453	232,154
Head Grade – Gold	g/t	3.1	3.1	3.4	2.8
Head Grade – Silver	g/t	6.1	7.1	8.6	7.3
Processing Cost per Tonne	\$/t	27	35	27	24
Recovery – Gold	%	85	82	87	83
Recovery – Silver	%	32	29	43	31
Gold Recovered	oz	14,431	9,448	18,047	17,062
Silver Recovered	oz	11,245	8,014	24,086	16,787
Gold Sold	oz	14,762	10,365	19,942	15,148
Silver Sold	oz	12,273	8,291	19,822	19,655
Average Gold Price Received	US\$/oz	1,130	1,177	1,252	1,339
	A\$/oz	1,575	1,630	1,724	1,778
Cash Operating Costs (i)	A\$/oz	680	870	663	650
Total Operating Costs (ii)	A\$/oz	1,144	1,289	1,019	1,014
All In Sustaining Costs (iii)	A\$/oz	1,673	1,799	1,168	1,035

(i) Includes all site expenditure, royalties, doré shipping and refining costs, silver credits and inventory movement adjustments. Does not include actual waste stripping costs which are deferred and amortised over the life of the open pit.

(ii) Includes Cash Operating Costs (i) plus plant and equipment depreciation and amortisation of capitalised waste stripping, pre-production mining and exploration costs.

(iii) Includes Cash Operating Costs (i) plus actual waste mining, sustaining capital and corporate costs.

## OPERATIONS

### Mining Activities

Mining activities during the September 2016 Quarter were focused on mining ore from Stage 4 of the Siana open pit. Mining of material suitable for delivery for incremental lifts of the current Tailings Storage Facilities was also ongoing during the Quarter.

A co-ordinated program is in place to manage the geotechnical constraints at Siana, including civil and geotechnical work, detailed planning and progressive execution. These measures proved effective in identifying geotechnical concerns with areas of the northern pit wall during the reporting period, enabling the Group to effectively and rapidly manage the issue with limited impact on production. This philosophy of active geotechnical assessment and management will continue throughout the life of the Siana open pit mining operation.

Production is forecast at 17,000-20,000oz of gold in the December 2016 Quarter. As indicated above, the Group is reviewing the 2017 mining schedule and will release further details when that review is complete. The Group remains on track to achieve its production guidance to recover up to 100,000 to 115,000 ounces over the remaining life of the open pit.

Reconciliations of actual ore tonnes and grade mined against the block model have continued to exceed expectations to date. This is considered to be encouraging for grade expectations during the remainder of the open pit.

A total of 423,529 tonnes at 1.92 g/t Au of ore and 313,276 bank cubic metres (BCM) of waste was moved ex-pit during the Quarter. The average cost of mining for the quarter (including rehandle) was A\$4.50/tonne compared to A\$3.30/tonne in the previous quarter.

As scheduled under the mine plan, the mobile fleet was significantly reduced over the Quarter, with approximately 30% of the mobile mining fleet decommissioned.

Ore stockpiles, including low-grade material, at Quarter-end were 393,815 tonnes at 1.39 g/t Au.

### **Processing**

The Siana processing plant has continued to perform well, with a total of 232,154 tonnes of ore processed for the Quarter (June 2016 Quarter: 188,453 tonnes). The average head grade and recovery was 2.8 g/t Au and 83% respectively (June 2016 Quarter: 3.4 g/t Au and 87%).

A total of 17,062oz of gold was recovered for the Quarter. The average unit ore processing cost for the Quarter was A\$23.50 per tonne, compared with A\$26.80 per tonne for the June 2016 Quarter.



*Figure 2: Siana Gold Project de-siltation ponds*

### **Tailings Storage Facilities (TSF)**

A staged tailings storage solution is being implemented for the Siana Gold Project. During the Quarter, construction of the next stage of the High Density Poly Ethylene (HDPE) lined Tailing Storage Facility 5 (HDPE TSF 5) and TSF4 was completed. Deposition of tailings into TSF4 and TSF5 facilities continued during the quarter.

Planning and preparation activities also continued during the Quarter on the long-term TSF. Following completion of the Philippines Department of Environment and Natural Resources (DENR) audits, the Group continues to focus on securing the final permitting required for the long-term TSF as an immediate priority for the December 2016 Quarter.

The Group aims, subject to DENR approvals, to commence construction of the long-term TSF by the end of calendar year 2016, noting that the existing TSF facilities will accommodate the Group's operational needs until at least the end of the March 2017 Quarter, depending on settlement densities achieved. The Group is also evaluating additional short-term tailings storage alternatives, if required.

### **Dewatering**

To assist in the analysis for locating the required underground water bores, three Vibrating Wire Piezometer (VWP) drill holes were completed during the period. These holes were designed to intersect key positions in the west wall to improve hydrology and geotechnical knowledge in the respective areas where underground development will occur.

The construction of the additional dewatering bores is planned for 2017. Engineering is being finalised in relation to the upgrade of the open pit surface water pumping system. This upgrade is being undertaken in stages over 2016 and 2017.

### **SIANA UNDERGROUND MINE DEVELOPMENT**

Following completion of the Siana Underground Feasibility Study in the previous Quarter, initial site development works for the underground operation commenced during the September 2016 Quarter. The Group plans to transition to underground mining following the completion of the open pit by the end of calendar year 2017.

The Group has identified cost savings of approximately US\$20 million, realised through the receipt of development contract tender submissions, detailed designs and costing for infrastructure, as well as utilising the Company's existing Projects Team to undertake the bulk of the EPCM works.

The maximum draw-down capital cost, staged over 27 months, is now estimated to be US\$49.5 million, including a US\$4.2 million contingency (down from US\$60 million, including a US\$5 million contingency).

The forecast All-in Sustaining Cost (AISC) has fallen to US\$800-US\$850 per ounce and the All-in Cost (including all development and Capex) has been reduced to US\$870-US\$920 per ounce (down from US\$930-US\$980 per ounce).



*Figure 3: Bulk Emulsion Depot under construction, Siana Gold Project*

### **Award of Underground Portal Contract**

A three-month contract for the construction of the underground portal has been awarded to Filipino mining and civil construction service contractor, Paramina Earth Technologies Inc. Paramina commenced cutting the portal in October 2016, using hand-held airleg machines.

The Group has received submissions from mining contractors for the underground mine development and has refined this to a short-list of two preferred contractors. A decision on the successful contractor is expected to be made in due course.

During the Quarter, construction of the concrete batch plant, bulk explosives storage facility and underground workshop commenced.



*Figure 4: Concrete Batch Plant under construction, Siana Gold Project*

Three additional second-hand Caterpillar generator sets were acquired during the Quarter to facilitate the required upgrade to the Siana power station for underground mining. These gen-sets will provide an additional 7MW of power and will be integrated with the existing power supply.



*Figure 5: Additional generator sets being transported to Siana*

#### **FUTURE DEVELOPMENT STRATEGY – MAPAWA LSY DEPOSIT**

Following the Scoping Study completed in the March 2016 Quarter to assess the Mapawa Project's potential to provide a source of satellite ore feed for the Siana processing plant, a Feasibility Study on this project is underway and was ongoing throughout the Quarter.

Further exploration activities are also planned at Mapawa with the aim of increasing the current Mineral Resource base (8.8Mt grading 1.0 g/t gold for 289,000 contained ounces) sufficiently to enable a potential stand-alone gold operation to be developed based on near-surface epithermal gold-bearing mineralisation developed from fertile gold-copper porphyry systems at depth.

#### **EXPLORATION**

##### **Near-mine Exploration and Sterilisation Drilling**

Drilling has been completed in the east wall corridor to test for additional hanging wall mineralisation to the east of the Siana resource. The intercepted lithology for this hole (SMDD187) was limestone down to 92.5 metres followed by basalt with sheared zone intervals. The hole was drilled to an end-of-hole depth of 362.0 metres.

Trace native copper (<1%) along fractures was observed. Sheared zone intervals are generally reddish brown, clayey, limonitic alteration with some pebble-sized and finer basalt fragments with minimal (<1%) fine disseminated pyrite. No significant mineralisation was observed. The hole will be assayed for confirmation.

## Alegria

Exploration has commenced over the area to the south of the Siana open pit in the southern Siana tenement, known as Alegria. Field mapping over the three identified prospects – Alipao, Madja and Budlingin – followed by selected trenching and sampling of the artisanal workings commenced during the September Quarter and will continue in the December Quarter.

From the current exploration activities, drill targets have been identified for the Madja prospect area. An initial drilling campaign has been designed to test the Madja porphyry copper-gold anomaly and to test the narrow high-grade gold-bearing epithermal veins located to the north-west of Madja which were identified and mapped during the Quarter.

The drilling campaign and track construction is planned to commence in the December 2016 Quarter. The primary mineralisation in the area has been identified as near-surface epithermal gold-bearing veins and copper-gold porphyries at depth.

Previous exploration programs identified three significant prospects within the Alegria area – the Alipao, Madja and Budlingin prospects (refer to Figure 6 below for location). All three prospects show coincident geochemical and Induced Polarisation (IP) geophysical anomalies. In 2005, seven diamond holes were drilled targeting the IP geophysical highs at the Alipao and Madja prospects. These initial holes were very encouraging and confirmed that the area has been intruded by fertile gold and copper-bearing intrusives. Artisanal miners are also active within this area, exploiting the near-surface epithermal veining associated with the gold-copper porphyry intrusives.

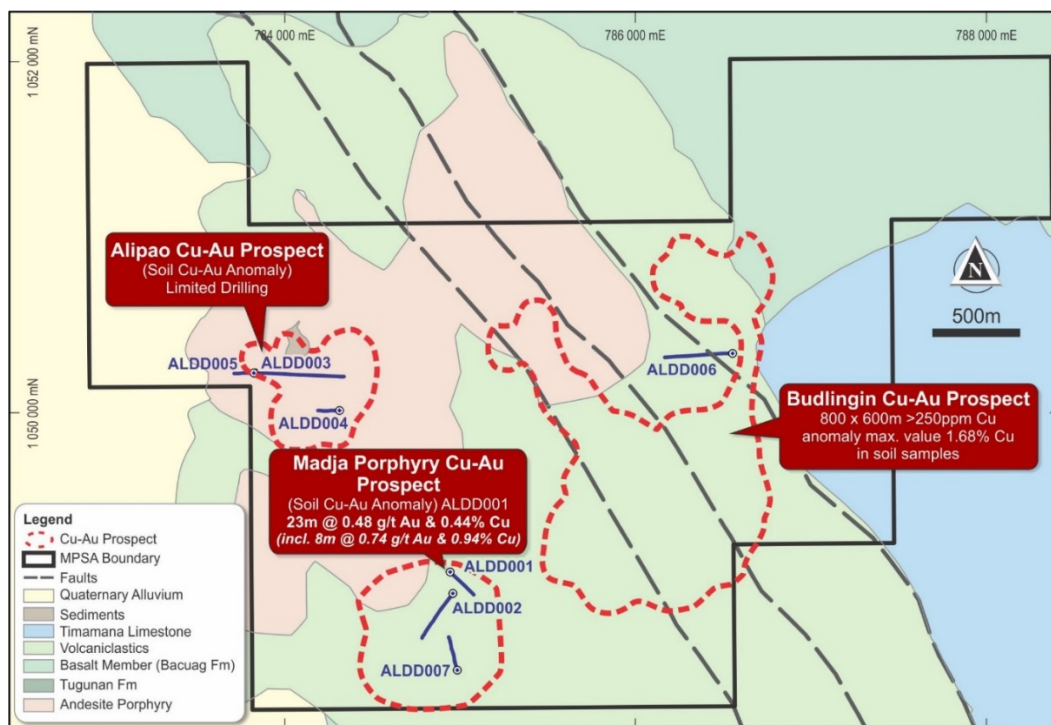


Figure 6: Siana MPSA Block I tenement showing the Alegria Prospects Alipao, Madja and Budlingin

Priority will be given to near-surface mineralisation along with follow-up drilling at the Madja prospect, where previous drilling intersected significant copper-gold mineralisation.

## Mapawa

Exploration activity commenced during the September Quarter on the Mapawa MPSA with activities concentrating on field mapping around the LSY resource and St Nino prospect. Priorities for the mapping are to map out the epithermal veins identified in the St Nino area and to develop drill targets. Mapping in the LSY area is designed to identify suitable location options for sterilisation for required Waste Storage Facility (WSF) for the pending Mapawa Feasibility Study along with potential resource extensions.



## ENVIRONMENTAL

### Successful Completion of Philippines DENR Audit

During the Quarter, the Philippines Department of Environment and Natural Resources (DENR) completed an audit of the Siana Gold Mine as part of an audit of mining operations in the Philippines to determine compliance by mining companies with the regulatory requirements of the DENR. An initial audit was completed at the Siana Gold Project in July and a validation audit completed in August, covering the areas of safety, health, environmental, social and general compliance.

The audit team included representatives from DENR, the Mines and Geosciences Bureau (MGB), the Environmental Management Bureau (EMB) and civic society organisations.

At a press conference held in late September 2016, the DENR noted that the operator of the Siana Gold Project, Greenstone Resources Corporation, had been cleared to continue operations at the Siana Mine. No formal notification of the DENR audit results has yet been received.

### Presidential Mineral Industry Environmental Award (PMIEA)

Greenstone Resources Corporation was nominated by the MGB for the 2016 PMIEA in the Surface Mine Operations Category. Greenstone Resources has since been short-listed for this award, which will be concluded and presented by the Philippines Mines Safety and Environment Association in November 2016.

The Siana Project also recently received recognition for its use of the ground-based radar technology to assist with monitoring the mine pit walls. Ground-based radar is one of the technological advancements in the field of ground monitoring, particularly in open pit mines.

The MGB visited Siana to assess the radar technology, as part of its efforts to identify effective technologies that may be implemented at other mine sites to help the Bureau deliver improved outcomes within the Philippine mining industry.

Following the MGB's assessment, the use of this technology has now been verified as assisting in the rapid identification of hazards and providing improved over-all risk management.

### Review of ISO Accreditation

In August 2016, Greenstone Resources Corporation received notification from the certifying body for continued certification of Quality Management, Environmental Management and Health and Safety international standards, ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 after a successful outcome of the surveillance audit conducted in July 2016.

## FINANCIAL

Gold sales for the Quarter totalled A\$26.9 million (June 2016 Quarter: A\$34.4 million) from the sale of 15,148 ounces (June 2016 Quarter: 19,946 ounces) at an average price of A\$1,778 per ounce (June 2016 Quarter: A\$1,724 per ounce).

The total operating cost for the Quarter (including depreciation and amortisation charges) was A\$1,014 per ounce which was in line with the June 2016 Quarter (A\$1,019 per ounce).

The AISC for the Quarter of A\$1,035 per ounce reflects the forecast reduction in the waste-to-ore strip ratio.

The Siana operation generated unaudited EBITDA of A\$17.1 million for the Quarter. EBITDA after allowing for Philippine and Australian corporate expenses was A\$16 million. Net earnings from operations were A\$11.5 million and A\$10.5 million after corporate costs. The consolidated cash position as at the end of September 2016 was A\$24 million (June 2016 Quarter: A\$18.2 million).

Financial Summary	Dec 2015	Mar 2016	Jun 2016	Sep 2016
	A\$M	A\$M	A\$M	A\$M
Sale proceeds	23.3	16.9	34.4	26.9
Operating costs	(10.5)	(8.9)	(13.1)	(9.9)
Philippine and Australian corporate costs	(1.2)	(0.9)	(1.3)	(1.0)
EBITDA	11.6	7.1	20	16
Depreciation and amortisation	(6.8)	(4.3)	(7.1)	(5.5)
Net earnings/(loss) from operations	4.7	2.8	12.9	10.5
<b>Capital expenditure</b>				
Plant/equipment/development	14.1	10.0	10.4	8.5

**ENDS**

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**About Red 5 Limited**

Red 5 Limited (ASX: RED) through its associated Philippine company Greenstone Resources Corporation is a gold producer which operates the Siana Gold Project, located in the established gold mining region of Surigao del Norte in the Philippines. This richly endowed region hosts epithermal gold systems and porphyry copper-gold deposits.

The Siana Gold Project re-commenced operations in January 2015 following the redevelopment of tailings storage capacity and is now focused on steady-state gold production and laying the foundations for the Company's future growth. The Company is focusing on the following key areas to create value for shareholders:

- **Reliable production** – to deliver steady and reliable gold production at Siana based on achievable targets;
- **Technical strength** – to implement high standards across all aspects of the business, including mining, processing, the management of the Tailings Storage Facility (TSF) and the open pit wall cut-backs; and
- **Growth** – laying the foundations for future growth by implementing long-term mining plans for the open pit and future underground mines, and by recommencing exploration activities to grow the resource and reserve inventory and unlock the potential of the Group's highly prospective exploration portfolio.

## Tenement Schedule

Project	Tenement number	Registered holder	Equity interest	
			Red 5 group	Other
<b>Philippines</b> Siana gold project	MPSA 184-2002-XIII	Greenstone	40%	SHIC 60%
	APSA 46-XIII	Greenstone	40%	SHIC 60%
Mapawa gold project	MPSA 280-2009-XIII	Greenstone	40%	SHIC 60%
<b>Western Australia</b> Montague	ML57/429, ML57/485, EL57/793		25% free carried	

No interests in mining tenements or farm-in or farm-out agreements were acquired or disposed of during the quarter.

### Abbreviations

*Greenstone: Greenstone Resources Corporation*

*SHIC: Surigao Holdings and Investments Corporation*

*MPSA: Mineral Production Sharing Agreement*

*APSA: Application for MPSA*

*ML: Mining Lease*

*EL: Exploration Licence*

### Competent Person Statements for JORC 2012 Mineral Resource and Ore Reserves

The information in this report that relates to the Mineral Resources at the Mapawa Project is extracted from the report titled *Maiden 289,000oz Gold Resource for Mapawa LSY Deposit*, dated 21 October 2015 and is available on the ASX web-site. The information in this report that relates to the Mineral Resources for the Siana Underground deposit is extracted from the report titled *704,000oz Mineral Resource for Siana Underground*, dated 23 February 2016 and is available on the ASX web-site. The information in this report that relates to the Ore Reserves for the Siana Underground deposit is extracted from the report titled *Siana Gold Project: Underground Mine Approved for Development Following Completion of Positive Updated Feasibility Study*, dated 14 June 2016 and is available on the ASX web-site. 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.

### Competent Person Statements for JORC 2004 Exploration Results

The information relating to Exploration Results are based on information compiled by Mr Byron Dumpleton, Member of the Australian Institute of Geoscientist (Member No 1598). This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Mr Dumpleton is a full-time employee of Red 5 Limited. Mr Dumpleton has sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Dumpleton consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

### Production forecast

Red 5 confirms that all material assumptions underpinning the Siana Underground production target and financial information derived from that production target referred to in this report continue to apply and have not materially changed from when first reported on 14 June 2016, within the report titled *Siana Gold Project: Underground Mine Approved for Development Following Completion of Positive Updated Feasibility Study*, which is available on the ASX web-site. In addition, the ore reserves underpinning the production forecast for the Siana Open Pit in this report are probable ore reserves and have been prepared by a competent person in accordance with the requirements of JORC 2012.

### 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.