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West Wits' Qala Shallows DFS Delivers Strong Results Supporting Progress to Stage 1 of Mine Development

DEFINITIVE FEASIBILITY STUDY HIGHLIGHTS

- High Potential: Definitive Feasibility Study ("DFS" or "the Report") of Qala Shallows Stage 1 of the Witwatersrand Basin Project ("WBP" or "the Project") delivers robust and compelling results, triggering the first of five planned stages of development
- Substantial Maiden Ore Reserve: declared ore reserve of 3MT at 2.88g/t for 278 000oz, which includes Proved Ore Reserve of 830,000t at 3.13g/t for 84,000oz.
- **Significant Life-of-Mine:** DFS reports a **17-year LOM** project for Qala Shallows alone and 7.3MT at 2.81g/t recovered grade for **663,000oz Recovered Gold for WBP's initial stage**.
- All In Sustaining Cost ("AISC") of an estimated US\$1,144/oz Gold with a steady state AISC of US\$1,027/oz
- Peak Funding requirement: US\$50million and 5.5 year pay back period. Qala Shallows development underpins subsequent stages of the WBP development identified in the Scoping Study¹.
- **Solid Production:** Qala Shallows DFS is underpinned by peak Steady-State Production at 53 000oz per annum for 10 years
- Project Financials: Pre-tax NPV_{7.5} of US\$150 million (AU\$205m)⁷ and IRR of 35% at a Gold Price of US\$1,750/oz
- Project Commencement: Development of the Qala Shallows Project is planned to commence in September 2021
- Qala Shallows represents only Stage 1 of 5 projects stages to be developed by WWI comprising the WBP, with the Qala Shallows representing an estimated 40% of the total planned production of the total potential of the WBP¹.

GOLD PRICE SENSITIVITY								
Gold Price	Pre-Tax Project NPV _{7.5}	Pre-Tax Project IRR	Post-Tax Project NPV _{7.5}	Post-Tax Project IRR	Operating Margin	Peak Funding Requirement	Payback Period	
USD/oz	USD'm	%	USD'm	%	%	USD'm	years	
1 400	36	15	23	13	31	66	8.5	
1 750	151	35	106	30	45	48	5.5	
2 000	233	48	162	42	52	46	4.8	
2 300	331	62	230	54	58	44	4.2	

Robust Project: Strong results on Gold Price Sensitivities



Commenting on the results of the DFS, West Wits Managing Director Jac van Heerden said, "The completion of the DFS is a key achievement in West Wit's journey of transforming from an exploration operation to a robust, mid-tier gold production company."

"Historically, the Witwatersrand Basin produced more than 35% of total global gold production and here we stand today, with positive DFS results, at the dawn of a gold revival in the same area. We are greatly encouraged with the result of this report, as we now strive to unlock significant value for our investors and shareholders, with this first of five stages of development. Additionally, we are also looking forward to progressively stimulating the local economy as we start to engage skills, local contractors and service providers from the area."

West Wits Mining Limited (**ASX: WWI**) ("**West Wits**" or "**the Company**") is pleased to provide the results of the Company's Definitive Feasibility Study carried out over the Qala Shallows, stage 1 of the Witwatersrand Basin Project, located on the Kimberly Reef package in the Witwatersrand Basin, South Africa. The DFS supports an underground mining operation with a robust rate of return over a 17-year Life-of-Mine.

EXECUTIVE SUMMARY

Results from the DFS by third party mine engineering firm, Bara Consulting (Pty) Ltd (**"Bara"**), confirmed the robust economic viability of WBP's stage one of five projects - the Qala Shallows.

Previous Company announcements have detailed that West Wits' WBP mining right area consists of five mining targets, including the Qala Shallows Project¹. **Image 1** below from the WBP Scoping Study¹ shows the production schedule of the 5 mining targets combined. The Qala Shallows Project is just the first stage of the process to exploit the potential of the whole WBP area.

The overall WBP's production potential is shown in **image 1** below, which provides a graphical representation of WBP's production profile and incremental contributions of each development stage as identified by the Scoping Study Report¹.



Image 1: The WBP Scoping Study's¹ ROM production schedule by stage over the WBP's 25-year life-of-mine.



Image 2 below updates the Qala Shallows production profile to a DFS level of accuracy. Whereas the remaining four stages are currently at Scoping Study level and will be subjected to individual Definitive Feasibility Studies as WWI's progresses towards execution. The DFS on the second stage of development, Main Reef, is expected to commence before the end of 2021.

The DFS has found that the Qala Shallows stage on the Kimberly Reef has the potential to ramp-up to a run-of-mine ("ROM") steady state production and peak production of approx. 53,000 oz Au and 60,000oz per annum respectively. First ore is expected to be extracted 12-months from the commencement of development, building up to an annualised production rate of 25,000 oz Au per annum after 30 months and reaching a full steady state production rate of 53,000 oz Au per annum after year 4.



Image 2: The Qala Shallows Production profile, showing the Waste and Ore mining, overlaid with the ounce profile over the life of Qala Shallows

The Qala Shallows Project will continue a projected production at steady state of 53,000 oz Au per annum for approximately 10 years. **Image 1** indicates that once the Qala Shallows is depleted, production will continue at Qala Deeps, utilising most of the existing infrastructure. **Image 3** shows the Qala Shallows area, the subject of this DFS, in relation to the Qala Deeps area.

The production schedule contains a portion of inferred Mineral Resources, 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.





Image 3: 3D schematic of the Qala Shallows project (not to scale)

Image 4 depicts the monthly production build-up from start of execution. Note that the development of the underground decline and infrastructure will commence followed by the ore development and the stoping. It is apparent from Image 4 that following a 9 months infrastructure construction, box cut and decline rehabilitation, the first production from the stoping section will be accomplished after 22 months of development with a steady production increase to 50,000 tonnes per month.



Image 4: Production build-up of the Qala Shallows Project



The initial development will commence with the rehabilitation of the existing box cut and decline, once access for man and machine has been established the decline development and level development will commence.

Table 1 shows the key production metrics for the Qala Shallows, stage 1 of the WBP.

Qala Shallows DFS – PRODUCTION DATA	OUTCOME
Life-of-Mine (Construction to Relinquishment) ¹	17 Years
Total Production (Run of Mine)	7.3 million t
Max Production Rate (Tonnes)	608 000tpa
Run-of-Mine Grade Au (Average) ¹	3.06g/t Au
LoM Contained Au ¹	721 000 oz
Metallurgical Recovery Au (Overall)	92%
Gold Produced ¹	663 000 oz
Average Annual Gold Production (17yrs) ²	39 000 oz
Average Annual Steady State Gold Production (10yrs) ³	52 500 oz
Max Gold Production (Year 10)	55 000 oz

TABLE 1: Qala Shallows Key Production Metrics

¹ Including Inferred Resources

² Production Years – 17yrs

³ Steady-State – excludes ramp-up and ramp-down production – 10yrs (Yr5 – Yr15)

Ore Reserve Statement

Table 2 shows that the Qala Shallows sits with a significant ore reserve of 278 000 oz. The mining area scheduled within the payback period of 5.5 years consists of only 16% inferred resources, there is significant scope to migrate more inferred resource into indicated and measure resources during the operation of the mine. It is noted that the declaration of the ore reserves is based on a financial evaluation of Measured and Indicated Mineral Resources only, excluding any inferred Mineral Resources. This stand-alone financial evaluation has motivated the declaration of Ore Reserves as per the table below.

ORE RESERVE STATEMENT FOR QALA SHALLOWS (JORC 2012)							
Reef Type	Ore Reserve Category	Tonnage (Mt)	Grade (g/t)	Content (kg)	Content (oz)		
	Proved	0.37	3.38	1 260	40 400		
К9А	Probable	0.45	2.32	1 040	33 400		
	Total K9A	0.82	2.80	2 300	73 800		
	Proved	0.46	2.94	1 340	43 200		
К9В	Probable	1.72	2.91	4 990	160 600		
	Total K9B	2.17	2.92	6 330	203 800		
Grand Totals	Proved	0.83	3.13	2 600	83 600		
	Probable	2.17	2.79	6 000	194 000		
	Total	3.00	2.88	8 600	277 600		

Table 2: Qala Shallows Ore Reserve Statement

Note: errors may occur due to rounding differences



Financial Modelling

The DFS' financial evaluation of the Project was undertaken using a discount cashflow analysis. The evaluation used a gold price of US\$1,750 per ounce and a rate of exchange of R15/US\$.

The financial model for the Qala Shallows, stage 1 of the WBP, includes detailed capital and operating cost estimates for all infrastructure, equipment and labour complement required over the life of the mine. The cost estimates have been compiled by estimating quantities of materials from drawings, the mining schedule and from requesting prices and rates from supplies and contractors.

Table 3 shows the key baseline financial metrics for the Qala Shallows Project.

WBP – QALA SHALLOWS – FINANCIAL EVALUATION	OUTCOME
Total Revenue (USD)	\$ 1 160 million
Total Free Cashflow (USD)	\$ 240 million
Peak Funding (USD)	\$ 50million
LOM C1 Cost (USD/oz	\$ 970 / oz
LOM All in sustaining Cost (USD/oz)	\$ 1 144 /oz
Steady-State All in Sustaining Cost (USD/oz)	\$ 1 027 /oz
Payback (years)	5.5 years
Pre-Tax Net Present Value 7.5 (USD)	\$ 151m
Post-Tax Net Present Value 7.5 (USD)	\$ 106m
Pre-Tax Internal Rate of Return (%)	35%
Post-Tax Internal Rate of Return (%)	30%

Table 3: Qala Shallows Baseline Financial Evaluation Outcome

The sensitivity analysis in **Table 4** below shows that even at a low gold price of US\$1,400/oz, the project is still viable, and at a gold price of US\$2,300/oz, the NPV almost doubles making this a highly robust project.

TABLE 4: SENSITIVITY ANALYSIS - GOLD PRICE SENSITIVITY								
Gold Price	Pre-Tax Project NPV _{7.5}	Pre-Tax Project IRR	Post-Tax Project NPV _{7.5}	Post-Tax Project IRR	Operating Margin	Peak Funding Requirement	Payback Period	
USD/oz	USD'm	%	USD'm	%	%	USD'm	years	
1 400	36	15	23	13	31	66	8.5	
1 600	102	27	71	23	40	53	6.2	
1 700	135	32	94	28	43	48	5.7	
1 750	151	35	106	30	45	48	5.5	
1 800	167	37	117	33	46	47	5.3	
1 900	200	43	140	37	49	46	5.0	
2 000	233	48	162	42	52	46	4.8	
2 300	331	62	230	54	58	44	4.2	



Funding

The Report estimates peak funding of USD 50m over a 4-year period. The Company recently raised AUD 7m via an equity Placement⁸ and is currently engaged in ongoing discussions with multiple financiers to assess project financing options over the funding period. The completion of the DFS will now enable these discussions to accelerate as the Company advances the early mining initiative.

Project Execution

The completion of the DFS heralds in the development of the Qala Shallows, the first stage of the WBP, which is estimated to commence this month, September 2021. The Company has recently raised \$7m in capital to facilitate the early works development of the infrastructure and re-commissioning of the existing box cut and decline at Qala Adit. The early works key objective will be to reduce the 9 months construction and rehabilitation time. Further to the early works, the Company will focus on the following:

- Procuring the required project finance by utilising various financial instruments.
- Contracting and executing the site establishment by the mining contractor
- Procuring long-lead mining equipment, while it should be noted that early works will utilise rental equipment as an interim measure
- Refining the toll treating / rental arrangement with the identified process facility during the build-up
- Continuing with further geological work and feasibility studies on Stage 2 and 3 of the WBP mining area
- Undertake additional exploration drilling with the aim of converting the inferred mineral resources to indicated and measured categories.



WITWATERSRAND BASIN PROJECT OVERVIEW

West Wits holds a recently granted (July 2021) mining right (GP 30/5/1/2/2/10073 MR)² for the WBP located approximately 15 km west of the city of Johannesburg in the Gauteng Province of South Africa.

There are a significant number of old mine workings in the area and the WBP is focused on three of these existing but closed mining sites, located on the Rand Leases Gold Mine ("**RL**") and the Durban Roodepoort Deep Gold Mine ("**DRD**"). There are a number of historically economic reef horizons in these areas which include Kimberley Reefs ("**K9A and K9B**"), Main Reef ("**MR**"), Main Reef Leader ("**MRL**") and the Bird Reef ("**BR**"). The three existing sites identified are listed below together with the reef horizons to be found at each site:

- Qala Project Site (RL). This site is made up of the Qala Incline Shaft, Qala Adit and the No. 11 Shaft. The Qala Project Site has been divided into discrete mining areas being Qala Shallows, Qala Deeps, and the No. 11 Shaft area. This project site hosts:
 - o K9A Reef
 - o K9B Reef
 - o Bird Reef
- No. 6 and 7 Shafts Project Site (RL) hosting:
 - Main Reef
 - o Main Reef Leader
- Circular Shaft Project Site (DRD) hosting:
 - o Bird Reef

A previous scoping study¹ undertaken on the WBP recommended that the K9A and K9B Reef horizons in the Shallows area of the Qala Project Site be the first portion of the three identified old mining sites to be evaluated in detail due to the larger mineral resource and likely longer life of mine, as well as the potential to develop the mine more rapidly than the other sites. As such, this DFS was initiated by the Company to evaluate the potential of the Qala Shallows asset.

Tenure

As part of the stakeholder engagement process, the Company has entered into an access agreement with Calgro M3, the company which owns the Section of Portion 17 and Portion 18 of the farm Vogulstruisfontein IQ 231. The access agreement was entered into in February 2019. This agreement gives West Wits access to the land to be used for mining purposes as per the relevant licensing approvals obtained.

The land is currently zoned for mining and the Qala Shallows site is located between old mining dumps, away from formal housing communities. The location of the infrastructure was included in the Environmental Impact Assessment ("**EIA**"), as well as for the Integrated Water Use License Application ("**WULA**"), and for both applications the landowner gave its consent.

Geology and Mineral Resources

The Witwatersrand Supergroup consists of the lower West Rand Group, comprising mainly shale with subordinate quartzite, and the upper, predominantly arenaceous Central Rand Group, in which the majority of the gold bearing conglomerates is located. Conglomerates comprise approximately 600 m or 8% of the total thickness of the Witwatersrand Supergroup (Pretorius, 1964). The majority of the Witwatersrand conglomerates occur in the Central Rand Group. The Central Rand Group contains the Kimberley Reefs which are the target reefs for mining at Qala Shallows.



The Kimberley Reef package consists of up to 17 individual conglomerate bands, separated by quartzites and grits, which vary in thickness from 0.45 m to 36 m (Pretorius, 1964). Individual conglomerate bands are lenticular and do not persist for great lengths along strike (Clay, 1988a). The average pebble size is considerably larger than in any of the underlying reefs (Clay, 1988a). The Kimberley conglomerates have only been mined economically in the western section of the Central Rand (Pretorius, 1964), but have recently been under investigation in the 3Cs (Crown Mines, Consolidated Main Reef and City Deep) area for possible open-cast mining operations. The grades associated with the Kimberley Reef packages are distributed erratically, both vertically and laterally. Gold accumulation increases proportionally with channel width (Clay, 1988b).

The Kimberley Reefs were mined extensively in the old DRD and RL gold mines. These reefs are found near the base of the Turffontein Subgroup and outcrop at surface through the centre of DRD and near the southern boundary of Rand Leases. Although numerous reefs contain gold values, mainly the K9B (Bottom) and K9A (Top) were exploited on both properties, and the K8 towards the west of DRD. The K8 is commonly scoured by the K9B Reef but where the former is present a high gold tenor is associated with a small pebble conglomerate. The K9A Reef is a thin more erratically mineralised, medium pebble conglomerate some 10 m above the consistently mineralised, robust, large pebble K9B conglomerate. The K9A Reef.

An update of the Mineral Resource for the Qala Shallows area has recently been undertaken³, the data QA/QC, geological modelling and resource estimation activities included:

- Utilising the captured and spatially referenced stope and development sampling and pegs that were amalgamated with the existing K9A Reef electronic database during 2020
- Combining the new drilling results (14 holes)⁵, supplied by WWI with the existing drilling database
- Geological modelling of the:
 - K9B Reef surface as an offset surface, using a distance of approximately 10 m, also incorporating the previously captured K9B data
 - o K9A Reef surface incorporating the above-mentioned data
- Mineral Resource estimation of the K9B and K9A reefs

Based on the above activities, mineral resource estimates have been generated for the K9A and K9B as shown in the tables below. The mineral resource shown in **Table 4** is confined to the perimeter of the recently awarded mining right and hence all this mineral resource has potential to be included in a mining plan, dependant on various other modifying factors.

K9A REEF JORC (2012) COMPLIANT MINERAL RESOURCE ESTIMATE ⁴							
Descurse Category	Tonnes	Au	Au	sw	cw	Au	
Resource Category	(Millions)	(MOz)	(g/t)	(cm)	(cm)	(cm.g/t)	
Measured	2.1	0.31	4.54	112	108	508	
Indicated	1.8	0.25	4.20	113	112	473	
Measured and Indicated	3.9	0.55	4.38	112	110	492	
Inferred	4.2	0.7	5.1	124	124	639	
Grand Total	8.1	1.2	4.8	118	117	564	

Table 4: K9A & K9B Reef JORC (2012) Compliant Mineral Resource⁴



Note: Errors may occur due to rounding differences

Notes:

- o Mineral Resource Estimate is inclusive of declared Ore Reserves
- Mineral Resources are reported in accordance with JORC (2012).
- Cut-off values are reported applying a gold price of US\$1500/oz and ZAR 15.00/1 US\$.
- o All Mineral Resources exclude geological structural loss.
- Any discrepancies in totals are due to rounding.
- o CW: Channel width
- SW: Stoping width

The following tonnage discounts factors have been applied for unknown geological losses:

- 5% for the Measured Mineral Resource Category
- 10% for the Indicated Mineral Resource Category
- 15% for the Inferred Mineral Resource Category

Cut-off Grade: 2.0 g/t

Density: 2.73 t/m³

K9B REEF JORC (2	2012) COMPLIANT MINERAL RESOURCE ESTIMATE ⁴
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Recourse Cotogom/	Tonnes	Au	Au	sw	cw	Au
Resource Category	(Millions)	(MOz)	(g/t)	(cm)	(cm)	(cm.g/t)
Measured	1.9	0.27	4.37	154	153	672
Indicated	6.2	0.83	4.14	162	162	672
Measured and Indicated	8.1	1.10	4.20	160	160	672
Inferred	2.4	0.4	5.5	123	123	675
Grand Total	10.5	1.5	4.5	150	149	673

Note: Errors may occur due to rounding differences

Notes:

- o Mineral Resource Estimate is inclusive of declared Ore Reserves
- Mineral Resources are reported in accordance with JORC (2012).
- Cut-off values are reported applying a gold price of US\$1500/oz and ZAR 15.00/1 US\$.
- All Mineral Resources exclude geological structural loss.
- Any discrepancies in totals are due to rounding.
- o CW: Channel width
- o SW: Stoping width

The following tonnage discounts factors have been applied for unknown geological losses:

- 5% for the Measured Mineral Resource Category
- 10% for the Indicated Mineral Resource Category
- o 15% for the Inferred Mineral Resource Category

Cut-off Grade: 2.0 g/t Density: 2.73 t/m³

Geotechnical

The following scope of work was undertaken as part of the geotechnical investigation:

• Geotechnical data collection based on:



- The geotechnical logging of approximately 990 meters of core, from six boreholes drilled as well as three historical boreholes
- Scanline mapping of the Qala Adit
- Selecting suitable core samples from the hanging-wall, orebody and footwall lithologies for rock strength test work
- Transforming raw field data into geotechnical rock mass characterisation systems, such as:
 - Rock Mass Ratings (RMR)
 - Geological Strength Index (GSI)
 - Q-Ratings (Q & Q')
 - Mining rock mass rating (MRMR)
- Providing an interpretation of the data collected and quantifying the geotechnical environment
- Stoping design, including:
 - o Determination of the minimum middling between the K9A and K9B reefs
 - Description of the stoping layout, including the pillar dimensions and extraction ratios
 - o Determination of the in-stope support requirements
 - Carrying out subsidence and blasting impact evaluations and determination of a minimum crown pillar thickness
 - o Determination of water pillar requirements
- Access design, including:
 - o Box cut design
 - o Description of the development area support requirements
- Geotechnical risk assessment

The designs produced were included as part of the mining design criteria on which the mine excavation design and mine layout were based.

Mining Design

A mining method selection process was undertaken. The evaluation of various alternative mining methods considered for the Qala Shallows Project showed that conventional breast mining in an underhand configuration is the optimal method for the Qala Shallows deposit.

The stopes will be accessed by strike drives developed on the K9B Reef horizon and both K9A and K9B stopes will be accessed from this infrastructure. The strike drives will connect to a decline system developed from the existing Qala Adit box cut, which will be located centrally in the mining area and in the footwall of the K9B Reef.

Most of the mining will take place in a large unmined block of ground to the east of the property, there will however also be limited mining of pillar remnants on the western side of the mining area. All mining in the western areas will take place above the flooded historical workings and a water pillar will be left between the eastern workings and the flooded areas to minimise pumping requirements. **Figures 1 and 2** show a plan of the mine layout and a plan of a typical stope block.









Figure 2: PLAN OF STOPE BLOCK

Mining in the stope blocks will be using standard conventional mining techniques widely used in South Africa with the deployment of hand-held drills mounted on jack legs with cleaning using a scraper and winch combination. Support will also be installed manually with a combination of rock bolts and timber poles.

Development of the strike drives and decline will be with mechanised methods including drill rigs, LHDs and ADTs deployed for drilling, face cleaning and hauling of blasted rock to the tips respectively.



To estimate the quality and quantity the run-of-mine (RoM) material that will be mined and delivered to surface, various modifying factors will be applied to the in-situ mineral resource. These modifications must consider anything that will impact the grade of the material and/or the tonnage of material delivered to surface. In the case of the Qala Project, the following modifying factors will be included:

- Estimation of any dilution that will be incurred in the mining process whether planned or unplanned and adjustment of the grade and tonnage of the mined material accordingly
- Estimation of any gold loss that may be incurred during the mining process
- Estimation of pay limit grades to ensure that only payable material is mined and delivered to surface
- Exclusion of any pillars that are required to be left in situ for ground stabilisation purposes
- Exclusion of any material that is not practical for economic or technical reasons

Table 5 outlines a run-of-mine mining inventory (delivered to surface) on application of the above modifying factors.

RUN OF MINE INVENTORY (MEASURED AND INDICATED)							
Resource category	Tonnes (t)	Grade (g/t)	Au Content (kg)	Au Content (oz)			
Measured	880,000	3.08	2,713	87,000			
Indicated	2,614,000	2.75	7,184	231,000			
Inferred	0	0	0	0			
Totals	3,494,000	2.83	9,897	318,000			

Table 5: Run-of-mine inventory (Measured & Indicated MRE - delivered to surface)

Note: Errors may occur due to rounding differences

It is specifically noted that the above inventory includes the measured and indicated mineral resources only, inferred resources are excluded. However, the inferred mineral resources are largely located in areas that will be accessed by the primary development to access and mine the measured and indicated mineral resources. Relatively limited additional development will be required to access and mine the inferred mineral resources in these areas and because of this, mine layouts and mining inventories have also been developed for the inferred mineral resources.

Table 6 outlines the mining inventory, including all mineral resource categories (Measured, Indicated and Inferred) and accounting for all modifying factors as described above.

Table 6: Mining Inventory (All Mineral Resource categories)

RUN OF MINE INVENTORY (MEASURED, INDICATED AND INFERRED)							
Resource category	Tonnes (t)	Grade (g/t)	Au Content (kg)	Au Content (oz)			
Measured	880,000	3.08	2,713	87,000			
Indicated	2,614,000	2.75	7,184	231,000			
Inferred	3,855,000	3.26	12,569	404,000			
Totals	7,349,000	3.06	22,466	722,000			

Note: Errors may occur due to rounding differences

Based on the mine layout and the modifying factors discussed above a mine development and production schedule was generated by calculating estimated mining productivities by excavation and



sequencing the layout in a logical order. All mine layouts and scheduling were undertaken in the Deswik suite of mine design and scheduling software. **Table 8** shows the productivity estimates, and **Figures 3 and 4** show the production profiles for the mining inventory including and excluding the inferred mineral resource material.

SCHEDULE KEY POINTS						
First gold production (from ore drives)	Month 12					
First stope production	Month 22					
Measure and Indicated Mineral Re	esources					
Sustainable full production	Approx. 37,000 t p/m					
Full production sustained	5 years					
Life-of-Mine	10 years					
All Mineral Resources						
Sustainable full production	Approx. 48,000 t p/m					
Full production sustained	10 years					
Life-of-Mine	17 years					

Table 7: Schedule Key Points

Table 8: Mining Productivity Estimates

MINING PRODUCTIVITY ESTIMATES BY EXCAVATION TYPE							
Excavation Type	Value	Unit					
Development							
Decline advance	96	m/month					
Level Development (Capital Phase)	50	m/month					
Level development (Operational Phase)	33	m/month					
Stopes							
Face advance	12	m/month					
Centares per panel	313	m²/month					
Reef Development							
Advance Strike Gully (ASG)	12	m/month					
Centre Gully (Raise)	20	m/month					
Ore Pass	15	m/month					





Figure 3: QS PRODUCTION PROFILE (MEASURED & INDICATED MINERAL RESOURCES ONLY)



Figure 4: QS PRODUCTION PROFILE (ALL MINERAL RESOURCES)

Figure 5 shows the sequencing and proportion of Ore Reserves and Mineral Resources in Life of Mine Production Schedule based on Tonnes and run of mine grade. Measured and Indicated Mineral Resource categories include Proven and Probable Ore reserves in the mine schedule. Ore Reserves are not in addition to Mineral Resources.





Figure 5: LIFE OF MINE SCHEDULE SHOWING PROPORTION OF PRODUCTION FROM ORE RESERVES, MEASURED, INDICATED AND INFERRED SOURCES (MINERAL RESOURCES ARE INCLUSIVE OF ORE RESERVES)

The production schedule contains a portion of inferred Mineral Resources, 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.

Primary Access and Logistics

As noted above, primary access to the mine will be by a decline system from surface. The box cut at surface is sited at the existing Qala box cut site and this excavation will be enlarged and re-supported.

Movement of employees, material and rock around the mine will be undertaken using trackless rubber tyred vehicles. The proposed fleet at full production is shown in **Table 9**.

PROPOSED UNDERGROUND MINING FLEET							
Description	OEM	Model	Qty	Capacity			
LHD (Decline)	Epiroc	ST1030	1	10t			
LHD (Level Development)	Epiroc	ST7	2	7t			
Truck (Decline hauling)	Epiroc	MT436B	6	30t			
Truck (Level hauling)	Epiroc	MT2200	4	20t			
Drill Rig (Decline development)	Epiroc	282 Boomer	1				
Cassette Carrier	Aard	UV80	4				
Scissor lift Cassette	Aard		1				
General Purpose Cassette	Aard		1				
Personnel Carriers Cassette	Aard		3				
Water Browser Cassette	Aard		1				

Table 9: Proposed Underground Mining Fleet



UG Ambulance	Toyota	Land Cruiser	1	
LDV-General	Toyota	Land Cruiser	4	
Flat Bed	Hino	300	1	4t
LDV-Management	Toyota	Hilux	1	
LDV-Stores	Toyota	Hilux	1	

Ventilation

Ventilation systems are designed to cater for always delivering the required amount of fresh air to all working places. Design has accounted for the mine layout, number of persons underground as well as the diesel mining equipment deployed in the mine.

The amount of air calculated to properly ventilate the mine is 280m³/s, allowing for leakage and inefficiencies. The fresh air will be introduced into the mine via the main decline system and a dedicated intake raise developed to the west of the decline system. Used air will be returned to surface via the mined out raise lines and stope blocks. Where required ventilation doors and crossovers will be constructed. There will be two main fans to the east and two to the west of the decline. Each fan will be sized to handle 75m³/s and the fans will be installed underground to reduce noise pollution at surface. **Figure 6** shows a schematic of the primary ventilation system



Figure 6: SCHEMATIC OF THE PRIMARY VENTILATION

Bulk Utilities

Bulk water will be supplied by extracting water from the flooded historic workings. Limited top up water will be required as a water balance exercise has shown that the mine will generally be water positive. The bulk water supply system will be installed at the existing Qala Incline Shaft at the site and



pumped to surface through this excavation. Excess water will be discharged back into the flooded mine areas through the same excavations.

Bulk power will be supplied by the local power utility "City Power". The calculated maximum demand for power is 6.6 MW.

Surface Infrastructure

All appropriate surface infrastructure required to support the planned mining operation has been allowed for, including the infrastructure listed in **Table 10**.

SURFACE INFRASTRUCTURE REQUIREMENTS FOR QALA SHALLOWS			
Description	Description		
Terracing	Mine water treatment plant		
Access road	Brake test ramp		
Internal road	Raw water tank		
Access control	Potable water tank		
Fencing	Service water tank		
Qala Adit	Fire water reticulation		
No. 2 Inclined Shaft	Potable water reticulation		
No. 2 Ventilation Shaft	Storm water channels		
Offices	Sewage reticulation		
Change house	Generator station		
Lamp room	Generator fuel yard		
Training centre	Wash bay – Parking		
Workshop – Trackless	Sub-Station		
Workshop - General	Laundry		
Store	Boardroom		
Store yard	Kitchen		
Laydown area	Server room		
Salvage yard	First aid station		
Timber tard	Explosives storage bay		
Diesel / Oil - Dispensing	Ore truck parking area		
Compressor house	Mini sub-station		
Parking – Light vehicles	Topsoil stockpile		
Proto room	Sand pit		
Control room	Tyre store / Inflating bay		
Pollution control dam	Personnel pick-up / drop off		
Waste rock dump	Reverse osmosis plant		
Ore handling pad	Fire water tank		
Weighbridge	No. 2A Ventilation Shaft		
Low grade stockpile			
Sewage treatment plant			

Table 10: Surface Infrastructure Requirements for Qala Shallows

Underground Infrastructure

All appropriate underground services required to support the planned mining operation have been allowed for. This includes the infrastructure listed below:

• Compressed air systems



- Service water systems
- Water hydraulic systems (for powering conventional mining equipment)
- Dirty water pumping and settling systems including underground dams
- Potable water systems
- Electrical supply systems
- Control and instrumentation including:
 - Ethernet network
 - Personnel asset tracking
 - o IP telephone system
 - o IT network
 - Access control systems
 - Level 9 proximity detection system
 - Environmental monitoring

In addition to the above services, the following fixed infrastructure will be constructed:

- Loading cubbies on strike drives with loading chute to load 20t trucks
- Tipping areas above the decline system to tip broken rock into the pass system connecting to the decline. Tips will include grizzley and rock breaker
- Loading cubbies off the decline system with loading chute to load 30t trucks
- Service bay for drill rig in decline system (conversion of old loading cubby)

Ore Processing

The reefs to be processed during the life of the Project are the two Kimberley Reefs, K9A and K9B. The Kimberley Reef is a free milling ore containing minor quantities of sulphides, mainly pyrite. Gold dissolution is generally of the order of 94% to 95%. Kimberley Reef ore has been processed in several metallurgical plants on the Witwatersrand in the past and is currently being treated in the Modder East plant.

To determine the likely recovery of gold from the Qala Shallows ore, test work was carried out at Maelgwyn Mineral Services during May and June 2021 on borehole core samples of K9A and K9B reefs. The test work performed was as follows:

- Head analyses
- Determination of head grade by analysis of the size fractions from a screen analysis
- Grind curves
- CIP vs CIL leaches
- Diagnostic leach tests

In addition, during 2018 and 2019, West Wits' Kimberly Reef ore from open pit sources was treated on a toll treatment basis at the Ezulweni metallurgical plant, located near Westonaria. To allocate gold to the different plan feed sources, the Ezulweni plant undertook bottle roll tests on this ore. The dissolutions from this plant test work were also used in the determination of recovery.



A grade dissolution curve for this data was generated and the recovery determined based on this curve. The grade dissolution curve is shown in **Figure 7**. For an average run of mine grade of just over 3 g/t, the gold dissolution will be 95%. A deduction of 3% was made to this dissolution percentage to allow for plant inefficiencies and to allow for metal accounting discrepancies at the process plant. A 92% recovery was therefore use for this Project.





The Kimberley Reef produced at Qala will be treated at an existing nearby plant on a toll treatment basis. Three plants have been identified as possible toll treatment sites including:

- \circ $\;$ Ezulweni Plant owned and operated by Sibanye Gold Division
- Doornkop Plant owned and operated by Harmony Gold
- o Gold Plat Plant owned and operated by Gold Plat

Although no agreement is currently in place, these plants have indicated their interest in accepting the Qala Shallows ore on a toll basis. For the purposes of this DFS, it has been assumed that ore will be sent to the Ezulweni Plant as this is where WWI historically sent its Kimberley Reef open pit sources. All three plants operate the Carbon-in-Pulp (CIP) process for gold recovery, which is commonly used for gold ores mined in South Africa. a typical plant flow sheet is shown in **Figure 8**.





Figure 8: TYPICAL CIP PLANT FLOW SHEET

Manpower

The shift cycle for mining operations at Qala Shallows is been based on the 11-shift fortnight structure. The cycle comprises a full work week (Monday to Friday) and a working Saturday every second week - therefore 11 working days in a 14-day cycle. There will be two shifts a day with support and blasting operations undertaken on day shift and cleaning operations on night shift.

The exception to this shift cycle is the mechanised decline development which will work 30 days per month on a two shifts per day basis. Blasting will be possible on both shifts.

Although a majority of the work carried out at Qala Shallows will be undertaken through external contractors, most notably the mining contractor, it was necessary to determine the overall labour complement to inform the infrastructure and equipment requirements for the operation. The labour compliment for Qala Project has been determined from first principles. The total labour complement, presented in **Table 11**, is estimated at 916 people.

SUMMARY OF LABOUR REQUIREMENTS							
Totals	Total	Offices	Change house				
Administration	31	15	3				
Mining	626	20	626				
Engineering	118	8	118				
Technical Services	15	5	15				
Sub-Total	790	48	762				
Absent, Leave and Relief	126	8	122				
Total	916	56	884				

Table 11: Total Labour Complement

Environmental, Social and Permitting

WWI has been undertaking work relating to environmental, social and permitting aspects of the greater WBP for some time. This work culminated in the submission of a mining right application in 2018. This documentation submission included:



- A mine works program ("MWP")
- Social and Labour Plan ("SLP")
- Environmental authorisation form dated July 2018

Subsequent to this submission, the additional following documents were submitted during March 2019:

- Environmental Scoping Report
- Documentation supporting a financial provision (guarantee) for the rehabilitation of the area disturbed by the mine upon mine closure

Based on these submissions, the DMRE granted an Integrated Environmental Authorisation and Waste Management Licence to WWI in June 2020. Appeals were lodged regarding this award, but were eventually set aside and the Mining Right was granted on 16th July 2021².

In addition to the above, the mining activities will require a Water Use License ("**WUL**") in terms of Section 21 of the NWA. An Integrated Water Use Licence Application process is currently being undertaken, with the final Integrated Water and Waste Management Plan ("**IWWMP**") submitted during July 2021. This has triggered the 139-day Competent Authority review process, after which a decision on the WUL will be made.

Project Implementation

West Wits will establish an internal project team to coordinate and direct the construction of Qala Shallows mine. The mine project team will carry out tasks like overall planning, identifying suitable work packages, monitoring progress and facilitating payments for the various contractors and suppliers.

WWI will appoint a technical consultant to conduct specialist designs for portions of the works, provide technical support to the project team, provide technical inputs to tender documentation and assist with construction supervision. Some of the contracts may be on an EPCM basis where a representative from the technical consultant will act as the Engineer, making determinations and approving payments to be made by WWI.

Risk Assessment

A risk assessment was undertaken. Key risks identified are listed below:

- Mining beneath existing surface structures. The planned mining in certain areas mines below various existing infrastructure including a mains water line, an explosives factory and a residential area. The impact of this has been studied and appropriate separation between the structures and mining has been left in the plan. In addition, risk assessments will need to be undertaken prior to mining below the structures during mining operations in these areas.
- Illegal mining in the old workings. Many of the old mine workings around Johannesburg have illegal mining activities. There is a safety and security risk associated with these illegal activities. WWI will ensure that all old underground access points in the area are sealed appropriately. The work to seal these access points has been happening for some time with the DMRE having closed a number of shafts and inclines in the areas over the last year or so.
- **Collapse of inter-burden in multi-reef mining areas when mining K9B**. This is considered possible and has been catered for in the design of the in-stope support systems of the K9B. Ongoing monitoring will be required in active K9B stopes.
- Safety risk of working at steep dips. Working in steep stopes with dips of up to 50 degrees will result in the potential for accidents related to rolling rocks as well as slip and fall



accidents. This risk is mitigated by the design of stope faces on an apparent dip of approximately 30 degrees.

- Flooded historical workings. The project is based on mining above and below old mine workings which are flooded. Water pillars have been designed to separate new working from these flooded areas as appropriate. In addition, water levels and water inflow into the new workings will be monitored at all times. Cover drilling will be planned in areas where new workings are approaching the old flooded areas.
- Water levels. The current water level in the old workings is maintained by the Trans Caledon Tunnel Authority (TCTA), a government funded company who pump water from the old mine working in the Central Rand Basin where Qala Shallows Project is located. In the case where pumping is stopped, water levels will rise slowly. If the final level of water was higher than the current designed water pillar, the new works will be flooded. Although there would be significant time to evacuate all personnel, it is expected that this event would be catastrophic to the mining operation. This is, however, considered highly unlikely.
- Access to a process plant for toll treatment of ore. No agreement has been signed in this regard and there is no guarantee that the required plant capacity will be available when required. There are three identified plants with toll treatment capacity in the areas, all of whom have been contacted. Although there is no agreement currently in place, a positive response has been received from all three plant operating companies.

Capital Costs

Capital costs have been estimated for the planned mine as previously outlined. A summary of the capital cost is shown in **Table 8**.

Capital costs have been defined in terms of project capital cost and sustaining capital cost. Project capital cost include all capital costs to realise Steady-State Production from the operation. This includes:

- The cost of all surface infrastructure related to Qala, including but not limited to the offices, change-houses, workshops and other surface facilities
- The cost of preparing the waste rock dump
- The cost of all underground infrastructure, up to the point at which steady state production is achieved
- The cost of decline development, up to the point at which Steady-State Production is achieved
- The cost of all mining equipment, including but not limited to trackless equipment, water hydraulic equipment and scraper winches
- Indirect costs related to the engineering design and procurement process required to initiate the project, head-office costs and other compliance costs
- Contingency related to the above costs

Sustaining capital includes:

- The cost of all underground infrastructure during Steady-State Production
- The cost of all decline during steady state production and the cost of all strike drive development
- The cost of replacing mining equipment throughout the Life-of-Mine



• Contingency related to the above costs

Table 12: Capital Cost Summary

SUMMARY OF CAPITAL COST								
Area	Project Capital [ZAR]	Sustaining Capital [ZAR]	LOM Total [ZAR]					
Surface Infrastructure	194 703 000							
Underground Infrastructure	63 944 000	118 949 000	182 893 000					
Mine Development	70 253 000	698 418 000	768 670 000					
Mining Equipment	377 622 000	26 250 000	403 872 000					
Indirects	52 442 000							
Contingency	77 949 000	84 362 000	162 311 000					
Total	836 913 000	927 978 000	1 764 891 000					

This estimate is an overall accuracy of +/- 14 per cent and is within the accuracy range required for a DFS class estimate.

Operating Costs

Operating costs have been defined as the cost of all activities related to ore mining, production and processing, including:

- Stoping
- Raising
- Vamping
- Ledging
- Mineral Processing
- Owners Costs
- Maintenance

The operating cost estimate is presented in **Table 13**. The table presents the Life-of-Mine total and the unit operating cost per tonne milled and per gram of gold recovered, by activity or area.

Table 13: Summary of Operating Cost

SUMMARY OF OPERATING COST							
Activity / Area	LOM Total [ZAR]	Cost per ROM Tonne [ZAR / t]	Cost per gram Recovered [ZAR / g]				
MINING							
Mining Contractor	2 119 719 000	710	270				
Diesel	135 879 000	50	20				
Maintenance	178 042 000	60	20				
Power	465 464 000	160	60				
Water	5 145 000	0	0				
MINING Total	2 904 249 000	970	370				



PROCESSING			
Toll Treatment	793 925 000	270	100
Ore Transportation	190 647 000	60	20
PROCESSING Total	984 572 000	330	120
GENERAL & ADMINISTRATION			
Labour	138 320 000	50	20
SLP and Compliance	29 700 000	10	0
Outside Contractors and Costs	213 406 000	70	30
G&A Total	381 426 000	130	50
TOTAL	4 270 246 000	1 430	540

Financial Evaluation

Based on the capital and operating costs generated and the cashflow schedules derived, a financial evaluation of the project was undertaken using the discounted cashflow method (DCF). The DCF was based on the mining inventory generated from the Measured and Indicated Mineral Resources only. In addition, certain financial factors were agreed with WWI as follows:

- Gold price: US\$ 1,750
- Exchange rate US\$ 1.00 to ZAR 15.00

Royalties and tax were included into the DCF as per the relevant South African legislation.

The outcomes of the financial model generated from the measured and indicated resources only are shown in **Table 14**.

Table 14: Financial Cashflow Analysis of Measure and Indicated resources only

SUMMARY OF DCF ANALYSIS – MEASURED & INIDCATED MRE						
Metrics	Units	Value (LOM / Avg)				
Physicals						
Tonnes Mined	Tonnes	2 990 000				
Gold Produced	Kg	8 000				
Gold Produced	Oz	255 000				
Recovered Grade	g/t	2.65				
Life-of-Mine (incl. Construction)	Years	9.9				
Time to First Gold (incl Construction)	Months	21.0				
Capital Cost						
Start-up Capital Cost	USD'million	32				
Project Capital Cost	USD'million	56				
Sustaining Capital Cost	USD'million	62				
Total Capital Cost	USD'million	118				
Operating Cost						
Total Operating Cost	USD'million	285				
C1 Cash Cost	USD / t _{ROM}	95				
C3 Cash Cost	USD / t _{ROM}	97				



AISC	USD / t _{ROM}	118
AISC	USD / g	44
AISC	USD / oz	1 379
Economics		
Revenue	USD'million	447
Free Cashflow	USD'million	31
Pre-Tax Project NPV _{7.5}	USD'million	11
Post-Tax Project NPV _{7.5}	USD'million	7
Post-Tax Project NPV ₁₀	USD'million	2
Post-Tax Project NPV _{12.5}	USD'million	- 3
Pre-Tax Project IRR	%	13
Post-Tax Project IRR	%	11
Operating Margin	%	36
Peak Funding Requirement	USD'million	50
Payback Period	Years	6.2

Gold price, in addition to process recovery and recovered grade, has a direct impact on project revenue, variations in the revenue will have the greatest impact on the financial metrics. **Table 15** below demonstrates the project financial sensitivity to revenue based on variation in gold price for the measured and indicated mineral resources only scenario.

Table 15: Sensitivity Analysis for Measured and Indicated Resources	

MEASURED, INDICATED AND RESOURCES GOLD PRICE SENSITIVITY								
Gold Price	Pre-Tax Project NPV _{7.5}	Pre-Tax Project IRR	Post-Tax Project NPV _{7.5}	Post-Tax Project IRR	Operating Margin	Peak Funding Requirement	Payback Period	
USD/oz	USD'm	%	USD'm	%	%	USD'm	years	
1,600	(12)	1	(12)	1	30	59	8.8	
1,700	0	7	(2)	6	35	53	6.7	
1,750	11	13	7	11	36	50	6.2	
1,800	19	16	13	14	38	48	5.9	
1,900	35	22	24	19	41	47	5.6	
2,000	51	28	35	24	44	46	5.3	
2,300	98	44	69	38	51	44	4.6	

Ore Reserves

Based on the evaluation undertaken and reported above, the Project shows a positive return and it is therefore possible to declare an Ore Reserve. The Ore Reserve is equivalent to the mining inventory based on the Measure and Indicated Resources only and has accounted for all appropriate modifying factors. The Ore Reserve is shown in **Table 16**.



ORE RESERVE STATEMENT FOR QALA SHALLOWS (JORC 2012)							
Reef Type	Ore Reserve	Tonnage	Grade	Content	Content		
	Category	(Mt)	(g/t)	(kg)	(oz)		
	Proved	0.37	3.38	1 260	40 400		
K9A	Probable	0.45	2.32	1 040	33 400		
	Total K9A	0.82	2.80	2 300	73 800		
	Proved	0.46	2.94	1 340	43 200		
К9В	Probable	1.72	2.91	4 990	160 600		
	Total K9B	2.17	2.92	6 330	203 800		
	Proved	0.83	3.13	2 600	83 600		
Grand Totals	Probable	2.17	2.79	6 000	194 000		
	Total	3.00	2.88	8 600	277 600		

Table 16: Ore Reserve Statement for Qala Shallows (JORC 2012)

Note: errors may occur due to rounding differences

Upside Potential

As discussed in the mining section above, the primary mine layout accesses a large amount of Inferred Mineral Resources in the process of accessing and mining the Measured and Indicated Mineral Resources. As such, a production profile was generated including these Inferred Mineral Resources, modified in the appropriate manner. This production profile has been used to generate a second DCF to demonstrate the potential upside at the Project if these Inferred Mineral Resources are brought to book.

In generating this second model, appropriate adjustments were made to cater for the changes to capital and operating cost:

Capital costs

- Increased mechanised equipment purchase and replacement costs required to meet the prolonged production profile
- Increased mine development cost associated with Inferred Mineral Resource material and extended Life-of-Mine
- Equipping of the above-mentioned development
- Contingency associated with the aforementioned additions

Operating costs

- Mining costs associated with the Inferred Mineral Resources
- Processing and transportation costs associated with the Inferred Mineral Resources
- An extension of fixed general and administration costs for the extended life of mine

 Table 17 outlines the outcomes of this modelling exercise.



SUMMARY OF DCF ANALYSIS (INCLUDING INFERRED MRE)			
Metrics	Units	Value (LOM / Avg)	
Physicals			
Tonnes Mined	tonnes	7 336 724	
Gold Produced	Кд	20 630	
Gold Produced	Oz	663 000	
Recovered Grade	g/t	2.81	
Life of Mine (incl. Construction)	years	16.3	
Time to First Gold (incl Construction)	months	21.0	
Capital Cost			
Start up Capital Cost	USD'million	32	
Project Capital Cost	USD'million	64	
Sustaining Capital Cost	USD'million	82	
Total Capital Cost	USD'million	145	
Operating Cost			
Total Operating Cost	USD'million	642	
C1 Cash Cost	USD / t _{ROM}	87	
C3 Cash Cost	USD / t _{ROM}	92	
AISC	USD / t _{ROM}	103	
AISC	USD / g	37	
AISC	USD / oz	1 144	
Economics			
Revenue	USD'million	1 161	
Free Cashflow	USD'million	241	
Pre-Tax Project NPV _{7.5}	USD'million	151	
Post-Tax Project NPV _{7.5}	USD'million	106	
Post-Tax Project NPV ₁₀	USD'million	80	
Post-Tax Project NPV _{12.5}	USD'million	61	
Pre-Tax Project IRR	%	35	
Post-Tax Project IRR	%	30	
Operating Margin	%	45	
Peak Funding Requirement	USD'million	48	
Payback Period	years	5.5	

Table 17: Summary of Discount Cashflow Analysis (including Inferred Mineral Resources)

The outcomes referred to in the above table are based on economic assessments, including inferred mineral resources, and are insufficient to support estimation of Ore Reserves or to provide assurance of a positive economic case at this stage.

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.



Sensitivities for gold price (revenue) has also been undertaken for the scenario considering the upside potential of the project by the inclusion of Inferred Mineral Resources in the mine plan. **Table 18** shows the results of this sensitivity analysis.

MEASURED, INDICATED AND INFERRED RESOURCES GOLD PRICE SENSITIVITY							
Gold Price	Pre-Tax Project NPV _{7.5}	Pre-Tax Project IRR	Post- Tax Project NPV _{7.5}	Post-Tax Project IRR	Operating Margin	Peak Funding Requirement	Payback Period
USD/oz	USD'm	%	USD'm	%	%	USD'm	years
1 400	36	15	23	13	31	66	8.5
1 600	102	27	71	23	40	53	6.2
1 700	135	32	94	28	43	48	5.7
1 750	151	35	106	30	45	48	5.5
1 800	167	37	117	33	46	47	5.3
1 900	200	43	140	37	49	46	5.0
2 000	233	48	162	42	52	46	4.8
2 300	331	62	230	54	58	44	4.2

Table 18: Sensitivity Analysis (including Inferred Mineral Resources)

SUMMARY AND CONCLUSIONS

The design and evaluation of the measured and indicated mineral resources for the K9A and K9B Reef horizons at the Qala Shallows Project, as described above, has demonstrated a positive outcome and based on this an Ore Reserve has been declared for Qala Shallows.

The recent granting of the mining license means that the Qala Shallows, first stage of the WBP, can now move rapidly to the design and implementation phase.

Approved for release by the Company's Managing Director.

Jac van Heerden Managing Director West Wits Mining Limited

For further information contact: Ryan Batros Investor Relations info@westwitsmining.com



ABOUT WEST WITS MINING LIMITED

West Wits Mining Limited (ASX: WWI) is focused on the exploration, development and production of high value precious and base metals for the benefit of shareholders, communities and environments in which it operates. Witwatersrand Basin Project, located in the proven gold region of Central Rand Goldfield of South Africa boasts a 3.55Moz gold project at $4.26g/t^3$. The Witwatersrand Basin is a largely underground geological formation which surfaces in the Witwatersrand. It holds the world's largest known gold reserves and has produced over 1.5 billion ounces (over 40,000 metric tons), which represents about 22% of all the gold accounted for above the surface⁶. In Western Australia, WWI is exploring for gold and copper at the Mt Cecilia Project in a district that supports several world-class projects such as Woodie Woodie manganese mine, Nifty copper and Telfer gold/copper/silver mines.

- The original report was "Scoping Study Results Highlight Potential for Long Mine Life" released to the ASX on 16 August 2021 and can be found on the Company's website (https://westwitsmining.com/). The Company confirms that all material assumptions underpinning the production target in the WBP Scoping Study continue to apply and have not materially changed.
- 2. WWI ASX Release 20/07/2021 "Mining Right Granted at Witwatersrand Basin Project"
- 3. The original report was "Restated JORC Resource of 3.55Moz Au for Mining Right" which was issued with consent of Competent Persons Mr. Hermanus Berhardus Swart. The report was released to the ASX on 23 July 2021 and can be found on the Company's website (https://westwitsmining.com/). The Company is not aware of any new information or data that materially effects the information included in the relevant market announcement. The form and context in which the Competent Person's findings are presented have not been materially modified.
- 4. The original report was "WWI Corporate Presentation" which was issued with consent of competent persons Mr Hermanus Berhardus Swart. It was released to the ASX on 30 July 2021 and can be found on the Company's website (https://westwitsmining.com/). The Company is not aware of any new information or data that materially effects the information included in the relevant market announcement. The form and context in which the Competent Person findings are presented have not been materially modified.
- 5. The original report was "Infill-drill Program Grows JORC Resource at WBP to 4.47Moz" which was issued with consent of competent persons Mr Hermanus Berhardus Swart. The report was released to the ASX on 05 July 2021 and can be found on the Company's website (https://westwitsmining.com/). The Company is not aware of any new information or data that materially effects the information included in the relevant market announcement. The form and context in which the Competent Person's findings are presented have not been materially modified.
- 6. Norman, N.; Whitfield, G. (2006) Geological Journeys. pp. 38–49, 60–61. Cape Town: Struik Publishers
- 7. RBA USD/AUD exchange rate of 0.7325 on 01/09/2021
- 8. ASX Release 03/08/2021 "WWI Raises \$7m to Commence Underground Mine Development"

Competent Person – Mineral Resources

The information in this ASX release that relates to the Company's Mineral Resource is extracted from and was originally reported in the Company's ASX announcement "Restated JORC Resource of 3.55Moz Au for Mining Right" was released to ASX on 23 July 2021 and can be found on the Company's website (https://westwitsmining.com/) or at www2.asx.com.au, the competent person being Mr Hermanus Berhardus Swart. The Company confirms that it is not aware of any new information or data that materially effects the information included in the relevant market announcement and that all material assumptions and technical parameter underpinning the estimate in that announcement continue to apply and have not materially changed. The Company confirms that the form & context in which the Competent Persons' findings in relation to the Mineral Resource estimate are presented have not been materially modified from the original market announcement.

Competent Person - Ore Reserves

The information in this report which relates to Ore Reserves is based on, and fairly represents, information and supporting documentation compiled by Mr Andrew Pooley for Bara Consulting (Pty) Ltd. Mr Pooley is a Principal Mining Engineer and does not hold any shares in the company, either directly or indirectly. Mr Pooley is a Fellow of the Southern African Institute of Mining and Metallurgy (SAIMM ID: 701458) and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Pooley consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.



Forward Looking Statements

This Announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond West Wits Mining Limited's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this presentation, including, without limitation, those regarding West Wits Mining Limited's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause West Wits Mining Limited's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). These factors include, but are not limited to, the failure to complete and commission the mine facilities and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for gold and silver; fluctuations in exchange rates between the U.S. Dollar, South African Rand and the Australian Dollar; the failure of West Wits Mining Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in the regulatory environment, industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; and global and regional economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. The information concerning possible production in this announcement is not intended to be a forecast. They are internally generated goals set by the board of directors of West Wits Mining Limited. The ability of the Company to achieve any targets will be largely determined by the Company's ability to secure adequate funding, implement mining plans, resolve logistical issues associated with mining and enter into any necessary off take arrangements with reputable third parties. Although West Wits Mining Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Appendix 1 - JORC Code (2012) TABLE 1 Report

The Company has relied upon its previously reported information, in respect of the matters related to sections 1, 2 and 3.

The original report was "Restated JORC Resource of 3.55Moz Au for Mining Right" which was issued with consent of Competent Persons Mr. Hermanus Berhardus Swart. The report was released to the ASX on 23 July 2021 and can be found on the Company's website (https://westwitsmining.com/). The Company is not aware of any new information or data that materially effects the information included in the relevant market announcement. The form and context in which the Competent Person's findings are presented have not been materially modified.

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

JORC Table 1 – Section 4 Estimation and Reporting of Ore Reserves below:



Table 1 – Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in Section 1, and where relevant in Sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral	Description of the Mineral Resource estimate used as	A mineral resource has been estimated using block modelling
Resource	a basis for the conversion to an Ore Reserve.	techniques as describes in Section 3 of Table 1.
estimate for		Qala Shallows Mineral Resource within mining right boundary,
conversion to		date 25 th June 2021 at cut off grade of 2g/t
Ore Reserves		Reef Type Resource Tonnes Au Au
		Category (Millions) (Moz) (g/t) K9A Measured 2.1 0.31 4.54
		K9A Indicated 1.8 0.25 4.20 Total K9A M&I 3.9 0.55 4.38
		K9A Inferred 4.2 0.7 5.1
		Total K9A 8.1 1.2 4.8
		K9B Measured 1.9 0.27 4.37
		K9B Indicated 6.2 0.83 4.14 Total K9B M&I 8.1 1.10 4.20
		K9B Inferred 2.4 0.4 5.5 Table/VD 10.5 1.5 1.5
		10tal K9B 10.5 1.5 4.50
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The mineral resource estimate is inclusive of any ore reserves
Site visits	Comment on any site visits undertaken by the	A number of site visit have been undertaken during the course of
	Competent Person and the outcome of those visits.	the DFS work, visits were undertaken during November 2020 and
		February, March and April 2021. Visits have been undertaken by
		the Competent person as well as engineers responsible for the
		following technical areas:
		o Geotechnical
		o Mining
		• Surface infrastructure
		o Waste rock dump
		 Underground infrastructure
		Purpose of site visits and work undertaken include:
		 General site orientation
		 View potential sites for surface infrastructure including road access
		\circ Identify potential bulk water and bulk power supply points
		 Visit core yard to log core geotechnically
		 Visit old underground workings to undertake geotechnical scan line mapping



Criteria	JORC Code explanation	Commentary
		 Meet potential construction and mining contractors at site to discuss project and scope of work
		0
		No material issues that are likely to prevent the establishment of
		mining activities at the site were identified during the site visits.
	If no site visits have been undertaken indicate why this is the case.	Site visits have been undertaken.
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	The level of study is Definitive Feasibility Study. Only measured and indicated resources have been considered in the declaration of ore reserves
	The Code requires that a study to at least Pre- Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	All factors required to convert Resources to Reserves have been considered including dilutionary effects, cut off grades, pillar requirements, non-viable parts of the mineral resource, capital and operating costs, selling prices, geotechnical conditions, mining efficiencies, metallurgical recoveries, environmental and social constrains, etc. These factors were used to develop a mine plan and mining inventory. The reserves reported are a portion of this mining inventory and represent the economic portion of this mining inventory. The use of these factors has resulted in a technically and economically viable plan.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied	Cut-off grade has been estimated using the following combination of factors:
		• Selling price
		 Mine costs derived from tenders received and costs estimated for the proposed mining operation.
		 Recoveries metallurgical testwork done at SGS (South Africa) and historical metallurgical testwork done by Ezulweni Plant during toll treatment operations of historical West Wits Kimberley Reef production.
		• Dilutionary effects of mining.
		• Estimate of gold loss during mining
		The cut-off grade estimated is 2.11 g/t, a 2.0 g/t cut off was used for planning purposes.
		The cut off grade calculation is shown below.



		0 - 500 r Description Gold Price Exchange Rate Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	Unit (US/oz) (USD:ZAR) (ZAR/g) (ZAR/oz) (%) (ZAR/g) (%) (ZAR/t milled) (g/t) (%) (g/t) % (g/t) % (g/t) % (g/t)	Value 1 750 15.0 844 80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		0 - 500 r Description Gold Price Exchange Rate Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	Unit (US/oz) (USD:ZAR) (ZAR/g) (ZAR/oz) (%) (ZAR/g) (ZAR/g) (g/t) (g/t) % (g/t) % (g/t) % (g/t) % (g/t)	Value 1 750 15.0 844 80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Description Gold Price Exchange Rate Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt	Unit (US/oz) (USD:ZAR) (ZAR/g) (ZAR/oz) (%) (ZAR/g) (ZAR/g) (ZAR/s) (g/t) % (g/t) % (g/t) % (g/t) Cmgt	Value 1 750 15.0 844 80 1% 830 1% 830 1450 1.7 92% 1.90 10% 2.11 152.6 322
		Gold Price Exchange Rate Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(US/oz) (USD:ZAR) (ZAR/g) (ZAR/oz) (%) (ZAR/delta) (%) (ZAR/delta) (%) (ZAR/delta) (%) (g/t) % (g/t) % (g/t) % (g/t) % (g/t) % (g/t) (cm) cmgt	1 750 15.0 844 80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Exchange Rate Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt	(USD:ZAR) (ZAR/g) (ZAR/oz) (%) (ZAR/g) (ZAR/g) (ZAR/g) (ZAR/t milled) (g/t) (%) (g/t) % (g/t) (cm) cmgt	15.0 844 80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Gold Price Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(ZAR/g) (ZAR/oz) (%) (ZAR/g) (ZAR/r milled) (g/t) (%) (g/t) (g/t) (g/t) (cm) cmgt	844 80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Refining, Transport and Marketing Royalty Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss Tramming Width Breakeven Insitu cmgt K9B	(ZAR/oz) (%) (ZAR/g) (ZAR/t milled) (g/t) (%) (g/t) % (g/t) % (g/t) (cm) cmgt	80 1% 830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
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		Realised Gold Price Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(ZAR/g) (ZAR/t milled) (g/t) (%) (g/t) % (g/t) (cm) cmgt	830 1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Total Operating Cost Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(ZAR/t milled) (g/t) [(%) [(g/t) [(g/t) [(cm) cmgt	1 450 1.7 92% 1.90 10% 2.11 152.6 322
		Breakeven Recovered Grade Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(g/t) (%) (g/t) (g/t) (g/t) (cm) cmgt	1.7 92% 1.90 10% 2.11 152.6 322
		Metallurgical Recovery Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(%) (g/t) (g/t) (cm) cmgt	92% 1.90 10% 2.11 152.6 322
		Breakeven RoM Grade Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(g/t) % (g/t) (cm) cmgt	1.90 10% 2.11 152.6 322
		Gold Loss RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	% (g/t) (cm) cmgt	10% 2.11 152.6 322
		RoM Grade before Gold Loss K9A Tramming Width Breakeven Insitu cmgt K9B	(g/t) (cm) cmgt	2.11 152.6 322
		K9A Tramming Width Breakeven Insitu cmgt K9B	(cm) cmgt	152.6 322
		Tramming Width Breakeven Insitu cmgt K9B	(cm) cmgt	152.6 322
		Breakeven Insitu cmgt K9B	cmgt	322
		K9B		
		Troponing \\/idth	(2000)	100 50
		Breakeven Insitu cmgt	(cm)	352
of pre	appropriate factors by optimisation or by eliminary or detailed design).	A mine design, layout and sched DFS technical report. Appropriat during the design and planning p equipment were planned to sup was fully costed (capex and op mining inventory which was so Indicated Mineral Resource, and economic by DCF analysis was sta	ule was completed e modifying factor process and all req poort the mining p pex). The resulta purced from the d which was demo ated as the Ore Res	d as part of the rs were applied uired plant and plan. The plan int part of the Measured and ponstrated to be serve.
The sele pai pre	ne choice, nature and appropriateness of the lected mining method(s) and other mining arameters including associated design issues such as re-strip, access, etc.	 The mining method was a geometry and the geotechn and mining efficiencies we skills in the South African method selected is a conv Mining method commonly Africa. 	selected based o ical conditions. P re estimated base mining industry entional labour in used on the gold	n the orebody roduction rates ed on available The mining ntensive Breas mines in South
		 Mining will be supported by K9B Reef horizon, levels wi manner. 	level developmen Il be developed ir	t located in the a mechanised
		 Primary access to access the decline. 	e mining levels wi	Il be a trackless
		• Transport of rock, men and	materials in and o	out of the mine



Criteria	JORC Code explanation	Commentary
		will be by diesel powered rubber tyre vehicles
		 An existing incline shaft at the site will be used as a second outlet
		 Intake ventilation air will enter the mine via the main decline system and a new dedicated intake air raise. Return air will exit the mine via two existing raise lines which hole to surface. The main exhaust fans will be located underground in these raise lines just below the crown pillar.
		 All required surface and underground mine services and infrastructure including bulk supplies will be established at the mine and have been considered in the planning and design.
	The assumptions made regarding geotechnical	The following scope of work was undertaken as part of the
	parameters (eg pit slopes, stope sizes, etc), grade	geotechnical investigation.
	control and pre-production drilling.	 Geotechnical data collection based on:
		✓ The geotechnical logging of approximately 990 meters of
		core, from 6 boreholes drilled as well as 3 historical
		boreholes and,
		✓ Scanline mapping of the Qala adit.
		 Selecting suitable core samples from the hanging-wall,
		orebody and footwall lithologies for rock strength testwork.
		 Transforming raw field data into geotechnical rock mass
		characterisation systems, such as:
		✓ Rock Mass Ratings (RMR)
		✓ Geological Strength Index (GSI)
		✓ Q-Ratings (Q & Q')
		✓ Mining rock mass rating (MRMR)
		 Providing an interpretation of the data collected and
		quantifying the geotechnical environment.
		 Stoping design, including:
		 Determination of the minimum middling between the K9a and K9b reefs.
		 Describe the stoping layout, including the pillar
		dimensions and extraction ratios.
		 Determine the in-stope support requirements.
		✓ Carry out subsidence and blasting impact evaluations
		and determine a minimum crown pillar thickness.
		 Determination of water pillar requirements
		 Access design, including:
		✓ Boxcut design.
		 Describe the development area support requirements.
		• Geotechnical risk assessment.



Criteria	JORC Code explanation	Commentary
		The geotechnical designs produced were included as part of the mining design criteria on which the mine excavation design and mine layout were based.
		Development of mining areas will be by on reef levels accessing raise line in the stope blocks. These excavations will be sampled at 3m intervals to inform the grade control model on which planning will be based. In addition, face sampling of stopes will also take place. Sampling manpower has been allowed for.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Selection of stopes to include in the mine planning model was based on the cut off grade described above applied to the mineral resource model provided.
	The mining dilution factors used.	Modifying factors used to convert the insitu Reef at Channel Width (deposit width) to a fully diluted run of mine material are shown in the table below. Dilution is stated as a modification (increase) of the Channel width

Description	Unit	K9A Reef	K9B Reef
Ave Channel Width	(m)	1.23	1.38
Stope Dimensions			
Minimum Mining (Stope) Width			
(Incl. 10cm Unplanned Stope Dilution Allowance)	(m)	1.33	1.48
Stope Block Strike	(m)	240	240
Stope Block Dip Length	(m)	90	90
Panel Length (Dip)	(m)	29	29
Number of Panels on Dip		3	3
Area of Stope Block	(m ²)	21 600	21 600
Percentage Extraction	(%)	86%	86%
Mined Area of Stope Block	(m ²)	18 667	18 667
Mined Volume at Stope Width	(m ³)	24 827	25 760
Planned Dilution			
Center Gully Length	(m)	90	90
ASG Total Gully Length	(m)	720	720
Total Gully Length in Stope Block	(m)	810	810
Gulley Width	(m)	1.5	1.5
Gulley Height	(m)	2.0	2.0
Gulley Height minus Stope Width	(m)	0.7	0.5
Area of Gulley in Stope Block	(m ²)	1 215	1 215
Additional Volume of Gulley in Stope Block	(m ³)	814	632
Effective Width of Gulley Dilution in Mined Area	(m)	0.04	0.03
Winch bed Area	(m ²)	9	9
Number of winch beds per stope block		7	7
Total winch bed area per stope block	(m ²)	63	63
Additional Volume of Winch bed in Stope Block	(m ³)	42	33
Effective Width of Winch bed Dilution in Mined Area	(m)	0.002	0.002
Total Planned Dilution by Additional Width	(m)	0.046	0.036
Additional Unplanned Dilution			
Allowance of additional Mining Width	(m)	0.15	0.15
Tramming Width	(m)	1.53	1.67



Criteria	JORC Code explanation	Commentary
	The mining recovery factors used.	The mineral resource model was evaluated, and areas excluded from the mining plan based on the following:
		 Areas below the selected cut off grade
		 Non-viable mining areas due to economic and/or technical considerations
		 Pillar loss in stoping areas at 14%
		 Additional pillar loss for specific pillars (Water pillar and Crown pillar)
		 Gold loss of 10% (or a Mine Call factor of 90% in South African terms)
	Any minimum mining widths used.	As stated above minimum mining widths in stopes are:
		 1.33m for K9A
		• 1.38m for K9B
		These are average widths and based on reef channel width plus
		10cms. In the case where the channel width reduces to 1.0m or
		1.10m.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred Mineral Resources have been included in the mine plan and mining inventory. Inferred Mineral Resources make up approximately 52% of the total mining inventory by tonnage. The financial model in the DFS Technical Report was run considering only Measured and Indicated Mineral Resources and resulted in a positive NPV thus justifying the declaration of the mining inventory from these sources as an Ore Reserve. It is further noted that in running the financial model on Measured and Indicated only the latter years of the mine plan did not show a positive result year on year, the financial model was therefore cut at the last positive month of return meaning that the Ore Reserve <i>is a sub-set of the Measured and Indicated Mineral Resource</i> <i>included in the mining inventory</i> . Mining inventories including and excluding inferred mineral resources are listed below:
		 Total Mining Inventory (Measured, Indicated and Inferred)
		 Tonnage:- 7,348,288 t
		 Grade:- 3.06 g/t Contained Cold: 722,202 cold
		Contained Gold:- 722,293 oz
		 Tonnage:- 3.493.719 t
		 Grade:- 2.83 g/t



Criteria	JORC Code explanation	Commentary
		Contained Gold:- 318,196 oz
	The infrastructure requirements of the selected mining methods.	There is an infrastructure requirement for both surface and underground infrastructure, this has been included in the
		technical Report as follows:
		Surface infrastructure
		SURFACE INFRASTRUCTURE REQUIREMENTS FOR QALA SHALLOWS
		Terracing Mine water treatment plant
		Access road Brake test ramp
		Internal road Baw water tank
		Access control Potable water tank
		Fencing Service water tank
		Qala Adit Fire water reticulation
		No. 2 Inclined Shaft Potable water reticulation
		No. 2 Ventilation Shaft Storm water channels
		Offices Sewage reticulation
		Change house Generator station
		Lamp room Generator fuel yard
		Training centre Wash bay – Parking
		Workshop – Trackless Sub-Station
		Workshop - General Laundry
		Store Boardroom
		Store yard Kitchen
		Laydown area Server room
		Timber tard Evolosiyes storage bay
		Diesel / Oil - Dispensing Ore truck parking area
		Compressor house Mini sub-station
		Parking – Light vehicles Topsoil stockpile
		Proto room Sand pit
		Control room Tyre store / Inflating bay
		Pollution control dam Personnel pick-up / drop off
		Waste rock dump Reverse osmosis plant
		Ore handling pad Fire water tank
		Weighbridge No. 2A Ventilation Shaft
		Low grade stockpile
		Sewage treatment plant
		Underground infrastructure UG Services
		• Compressed air systems
		 Service water systems
		 Water hydraulic systems (for powering conventional mining
		equipment)
		 Dirty water pumping and settling systems including
		underground dams
		• Potable water systems
		 Electrical supply systems
		• Control and instrumentation including:
		✓ Ethernet network
		✓ Personnel asset tracking
		✓ IP telephone system



Criteria	JORC Code explanation	Commentary
		 IT network Access control systems Level 9 proximity detection system Environmental monitoring UG Fixed infrastructure: Loading cubbies on strike drives with loading chute to load 20t trucks Tipping areas above the decline system to tip broken rock into the pass system connecting to the decline, tips will include grizzley and rock breaker. Loading cubbies off the decline system with loading chute to load 30t trucks Service bay for drill rig in decline system (conversion of old loading cubby)
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	<text></text>
	Whether the metallurgical process is well-tested technology or novel in nature.	 The process method selected is a standard method for mineralogically similar gold ores mined in South Africa and has been widely used in the country and on South African gold ores for decades. As the process is commonly used in South Africa it has been possible to consider toll treatment of ores for this project. Three plant in the locality of the project have been identified and ore will be sent to one of these sites for beneficiation. The three sites identified are: Ezulweni Plant Doornkop Plant

o Gold Plat Plant



Criteria	JORC Code explanation	Commentary
	The nature, amount and representativeness of	No agreement is in place although all three operating companies have indicated their interest in accepting the Qala ore. In addition, West Wits has historically toll treated Kimberley Reef ores from open cast sources at the Ezulweni Plant. Testwork was carried out at Maelgwyn Mineral Services during
	metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	 reefs. The testwork performed was as follows: Head analyses Determination of head grade by analysis of the size fractions from a screen analysis Grind curves CIP vs CIL leaches Diagnostic leach tests
		In addition, during 2018 and 2019, West Wits Kimberly Reef ore from open pit sources was treated on a toll treatment basis at the Ezulweni metallurgical plant, located near Westonaria. In order to allocate gold to the different plan feed sources the Ezulweni plant undertook bottle roll tests on this ore. The dissolutions from this plant testwork were also used in the determination of recovery.
		A grade dissolution curve for this data was generated and the recovery determined based on this curve. The grade dissolution curve is shown in the figure below, it can be seen that for an average run of mine grade of just over 3 g/t the gold dissolution will be 95%. A deduction of 3% was made to this dissolution percentage to allow for plant inefficiencies and to allow for metal accounting discrepancies at the process plant, a 92% recovery was therefore use for this project.





Criteria	JORC Code explanation	Commentary			
	Any assumptions or allowances made for deleterious elements.	A deduction of 3% on the gold recovery percentage determined was made to allow for plant inefficiencies and gold accounting issues during toll treatment.			
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	No bulk sample or pilot scale testwork undertaken.			
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Not applicable.			
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported	As the project is based on a toll treatment scenario, no environmental impacts of processing operations or tailings storage facilities have been undertaken. Any liability in this regard will be for the plant operating company who undertakes the toll treatment for Qala ore.			
		Environmental studies for the mining operation including all underground infrastructure, surface infrastructure, waste rock dump and road access have been submitted to authorities and approved with an integrated environmental authorisation and waste management license issued to West Wits in June 2020.			
		In addition, an application for an integrated water use license has been submitted during July 2021, this submission has triggered the 139 day Competent Authority review process after which a decision on award must be made.			
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk	Access infrastructure is minor due to existing roads, and the same is applicable for power, water, etc.			
	commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or	Land acquisition discussions are in progress but are yet to be completed. Total land to be acquired is approximately 16Ha.			
		The project location is not remote, and no mine specific accommodation is required and the workforce will live locally in established communities.			
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital costs have been estimated through the issue of enquiry documents to multiple contractors and the receipt of formal proposals by possible suppliers or contractors for all significant			



Criteria	JORC Code explanation	Commentary			
		works. These scopes of work include:			
		 Mining operations including capital mine development 			
		• Surface bulk earth works and civils			
		• Waste rock dump preparation			
		• Road construction			
		In addition, for items outs side these scope of work various quotes have been obtained for infrastructure that will be installed at surface and in the mine and an allowance for installation has been made.			
	The methodology used to estimate operating costs.	Mining operational cost have been calculated from formal proposals from 3 possible contractors.			
		Of the 3 proposals, one has been discarded because of elevated rates. The other. 2 of them are in a very close range and the selected one is the lowest.			
		Processing cost have been estimated based on historical costs paid to the Ezulweni Plant operating company historically and escalated to current terms.			
		Transportation costs for hauling the ore from the mine to the plant were based on five quotes received from transport contractors.			
		Limited manpower costs were estimated and was made up of the owners team and technical services only as mining manpower will be included in the mining contractor cost. The manpower costs estimated were estimated based on similar operations and cost based on a benchmarking of this cost in other operations in South Africa.			
		Supply of materials and mining consumables to the mine was based on the estimation of usage and the application of unit costs obtained from local suppliers for each item.			
	Allowances made for the content of deleterious elements.	Not applicable			
	Any assumptions or allowances made for deleterious elements.	Not applicable			



Criteria	JORC Code explanation	Commentary
	The source of exchange rates used in the study.	The prevailing South African Rand (ZAR) to United States Dollar (US\$) exchange rate was used in the study. There is a historic and ongoing devaluation of the ZAR against the US\$ over a long period of time equivalent to the difference between the inflation rates of the two countries. This trend is not expected to change and the ZAR is expected to weaken from the exchange rate selected for the study over time. The exchange rate selected is ZAR15 to US\$1.
	Derivation of transportation charges.	Estimated based on proposals from transport contractors
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Estimated based on the industry standards
	The allowances made for royalties payable, both Government and private.	Royalties have been calculated for the project based on the formula stipulated in South African legislation. This formula can result in varying percentages of royalty being paid, the calculated royalty for Qala averaged over the life of mine is 1.3%.
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Estimated head grade (RoM grade) is based on the modification of the grades in the mineral resource model according to the modifying and loss factors discussed above. The estimated recovery factor is applied to this to achieve an estimate of gold produced.
		Analysis of recent trends in the gold price was undertaken for the preceding 18 month period. The analysis is shown below.
		2 200 2 100 2 000 1 900 1 1000 1 700 1 1000 1 700 1 000 1 000

2025 2025

Month Spot Gold Price ---- 18 Month Avg ----- DFS Study Gold Price

202

2025

2021/08 20211



Criteria	JORC Code explanation	Commentary				
	JORC Code explanation	Commentary 18 Month Gold Price Distribution 10^{000} 10^{00				
		lower than the 18 month average on a gold price distribution basis. Gold revenues in ZAR are based on the estimate of the gold produced, the selected gold price and the selected exchange rate.				
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	See above				
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	In South Africa all gold must be sold through the Rand refinery or another licensed refining facility. The toll treatment options being considered all sell gold through this route.				
	A customer and competitor analysis along with the identification of likely market windows for the product.	See above				
	Price and volume forecasts and the basis for these forecasts.	See revenue factors above, US\$1750/oz selected				
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Not applicable				
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including	The Qala Shallows Project consists of the K9A and K9B Reef horizons. The following information relating to the financial evaluation represents the input parameters and results for the				



Criteria	JORC Code explanation	Commentary			
	estimated inflation, discount rate, etc.	project. Note that these results are based on the Measured and Indicated Mineral Resources only.			
		The after-tax NPV of the projected cash flows is ZAR104 million at an 7.5-percent (real) discount rate.			
		The after-tax internal rate-of-return is 11 percent.			
		All costs and prices are based on 2021 constant South African Rand (zero inflation assumed).			
		Up-front Capital Costs			
		Mining & mine related facilities ZAR706 million			
		Processing & plant related infrastructure = ZAR 0 (toll treatment, no process facility will be constructed.			
		Other capex including G&A = ZAR130 million			
		Up-front capital costs = ZAR836 million			
		A contingency of 10% applied to capex requirements for all Project facilities.			
		Production (tons)			
		Total Tonnes Mined over Life-of-Mine = 3.0 million tonnes			
		Plant recovery = 92%			
		Life of Mine = 10 years			
		Average Production Steady State = 37 koz/annum			
		Average Life of Mine Production = 25.5 koz/annum			
		Total Au Produced Life-of-Mine = 255 koz			
		Cash flow			
		Average Sales Price Received = ZAR 26,250/oz			
		Average Cash Operating Costs (C1) = ZAR1,486/t			
		Average Annual Operating Earnings before			
		Interest, Taxes, Depreciation and			
		Amortization (EBITDA) (steady state) = ZAR 364 million			
		Post Tax NPV (7.5) = ZAR 104 million			
		Internal rate of return (IRR) = 11%			
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	A sensitivity study has been undertaken based on variation in revenue (Gold price, grade, metallurgical recovery). The table			



Criteria	JORC Code explanation	Commentary							
		below shows the results of this study.							
		Post-Tax Post-Tax Post-Tax Operating Peak Funding Payback Gold Price Project NPV ₇₅ Project IRR Margin Requirement Revirement Period							
		USD/oz ZAR'm USD'm % ZAR'm USD'm years 1 400 349 23 13 31 991 66 8.5							
		1450 534 36 16 33 942 63 7.6 1500 714 48 18 36 892 59 7.0							
		1550 891 59 21 38 843 56 6.5 1600 1066 71 23 40 793 53 6.2							
		1650 1240 83 26 41 750 50 5.9 1700 1412 94 28 43 726 48 5.7							
		1750 1884 105 30 45 719 48 5.5 1800 1755 117 33 46 711 47 5.3 1800 1755 117 33 46 711 47 5.3							
		1 350 1 1220 1 28 35 46 703 47 5.2 1 900 2 096 1 40 37 49 697 46 5.0 1 905 2 325 151 20 50 601 46 4.0							
		2 000 2 435 162 42 52 685 46 4.8 2 000 2 564 174 47 52 685 46 4.8							
		2 100 2 772 185 46 54 674 45 4.5 2 150 2 043 195 46 55 671 45 4.4							
		2 130 2 343 130 46 53 071 43 4.4 2 200 3 112 207 50 56 667 44 4.3							
Social	The status of agreements with key stakeholders and	A social and labour plan (SLP) has been generated and submitted to the authorities. This SLP included interaction with all interested							
	matters leading to social licence to operate.								
		and affected parties. All outstanding issues in this regard have							
		been resolved and a mining right based on this SLP has been							
		issued.							
Other	To the extent relevant, the impact of the following on								
	the project and/or on the estimation and classification								
	of the Ore Reserves:								
	Any identified material naturally occurring risks.	N/A							
	The status of material legal agreements and	The following are relevant:							
	marketing arrangements.	\circ Agreement to purchase the surface rights is still under							
		discussion							
		\circ $$ No toll treatment agreement with a plant operating company							
		has yet to be concluded.							
	The status of governmental agreements and	The progress of key authorisation aspects of the project cis as							
	approvals critical to the viability of the project, such as	follows:							
	mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• Mining right application submitted with following documents							
		in support:							
		 ✓ Mine works program 							
		 Social and labour plan 							
		 Environmental authorisation form 							
		\circ Integrated environmental authorisation and waste							
		management license issued to West Wits in June 2020							
		\circ Mining right issued to West Wits in July 2021							



Criteria	JORC Code explanation	Commentary					
		Minin	g Right No:	GP 30/5/1/	/2/2/10073	MR	
		 Integr 2021. after v 	ated water 139 day cor which awarc	use licen mpetent au decision v	se applicat uthority rev vill be mad	tion submit view is now e.	tted in July in progress
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	Measured mineral resources have been classified as Proved ore reserves while Indicated mineral resources have been classified as Probable ore reserves.				Proved ore classified as	
		This is based on the following:					
		 Suitab has be in this to ore 	ly detailed een underta table and o reserves.	geological ken to dec confidence	and miner lare the mi levels appi	al resource ineral resou ropriate for	e evaluation urces stated conversion
		 Suitab under 	ly detailed taken to mo	DFS levels otivate the	of engine declaratior	ering study n of an ore r	have been reserve
		 The factor confided resour 	act that a m lence in th rces is there	iining right ne likelihoo fore high.	has alread od of min	ly been issu iing of the	ued and the ese mineral
	Whether the result appropriately reflects the	It is the view of the Competent Person that the outcomes of the					mes of the
Competent Person's view of the deposit.		feasibility study undertaken appropriately reflect the nature and potential of the deposit to be developed, viable exploitation is					
		considered	feasible.		,		
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Nil					
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	No independent audit has been undertaken to date.					
Discussion of	Where appropriate a statement of the relative	The ore res	serve at 31st	August 20	21 is showi	n in the tabl	le below.
relative	accuracy and confidence level in the Ore Reserve	Poof Type	ORE RESERVE	STATEMENT FOR	R QALA SHALLOW	S (JORC 2012)	Contont
accuracy/	estimate using an approach or procedure deemed	Reef Type	Category	(Mt)	(g/t)	(kg)	(oz)
confidence	appropriate by the Competent Person. For example,	KOA	Proved	0.37	3.38	1 257	40 430
	the application of statistical or geostatistical	KJA	Total K9A	0.82	2.32	2 297	73 863
	procedures to quantify the relative accuracy of the	1/00	Proved	0.46	2.94	1 343	43 188
	reserve within stated confidence limits, or, if such an	КЭВ	Total K9B	1.72 2.17	2.91 2.92	4 996 6 340	160 636 203 825
	approach is not deemed appropriate, a qualitative		Proved	0.83	3.13	2 601	83 618
	discussion of the factors which could affect the	Grand Totals	Probable Total	2.17 3.00	2.79 2.88	6 036 8 637	194 070 277 688
	relative accuracy and confidence of the estimate.	L	<u> </u>		1	<u>u</u>	J
		The confid	lence level	is reflecte	ed in the	resource c	lassification

category chosen for the reported Ore Reserve. The definition of



Criteria	JORC Code explanation	Commentary
		current Ore Reserves is appropriate for the level of study, the geological confidence stated in the Mineral Resource and the advanced state of the relevant license applications. The reported Ore Reserve is considered appropriate and representative of the grade and tonnage at the 2 g/t cut-off grade.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	All ore reserves declared have been based on Measured and Indicated mineral resources, no inferred material has been accounted for in the Ore Reserve Statement.
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	It is considered that all modifying factors applied to generate the ore reserve estimates have been developed to a level of accuracy required to support a feasibility study.
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Not available.