THETA GOLD MINES

A Sustainable Gold Miner in the Making



Indaba Investment Battlefield
(Cape Town, 5 February 2019)

Bill Guy - Chairman



ASX

ASX: TGM

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- The Company advises that the Scoping Study results, Production Targets and Forecast Financial Information contained in this announcement are preliminary in nature as the conclusions are based on low-level technical and economic assessments, and are insufficient to support the estimation of Ore Reserves or to provide an assurance of economic development at this stage. There is a low level of geological confidence associated with Inferred Mineral Resources used in this report and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised. The stated Production Target is based on the Company's current expectations of future results or events and should not be relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met. Investors should note that there is no certainty of funding for this project, and that any future funding obtained may be dilutive to the value of shares in TGM, and funding is one of the key risks to project timing.
- Theta Gold Mines believes it has reasonable grounds under ASIC Information Sheet 214 to report the results of the Scoping Study. The mine plan referred to in the quoted NPV contains 15% Indicated Mineral Resources and 85% Inferred.
- The information in this report relating to Mineral Resources and Columbia Hill drilling results is based on information compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, MGSSA), a director of Minxcon (Pty) Ltd and Mr Phil Bentley (MSc (Geol), MSc (MinEx), Pr.Sci.Nat. No. 400208/05, FGSSA), a consultant to the Company and a member of the South African Council for Natural Scientific Professions . The original reports titled "New High Grade Discovery At Columbia Hill" , "New Open Cut discovery at Vaalhoek Mine", "Theta Hill Open Cut Grows JORC Resources to 5.8 Moz" and "High Grade Shallow Gold at Theta Hill and Satellite Target Columbia Hill" were dated 16 January, 9 March, 26 September and 29 November 2018 respectively and released to Australian Securities Exchange on those dates. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Australian Securities Exchange announcements; and all material assumptions and technical parameters underpinning the estimates in the Australian Securities Exchange announcements continue to apply and have not materially changed.

Experienced Team

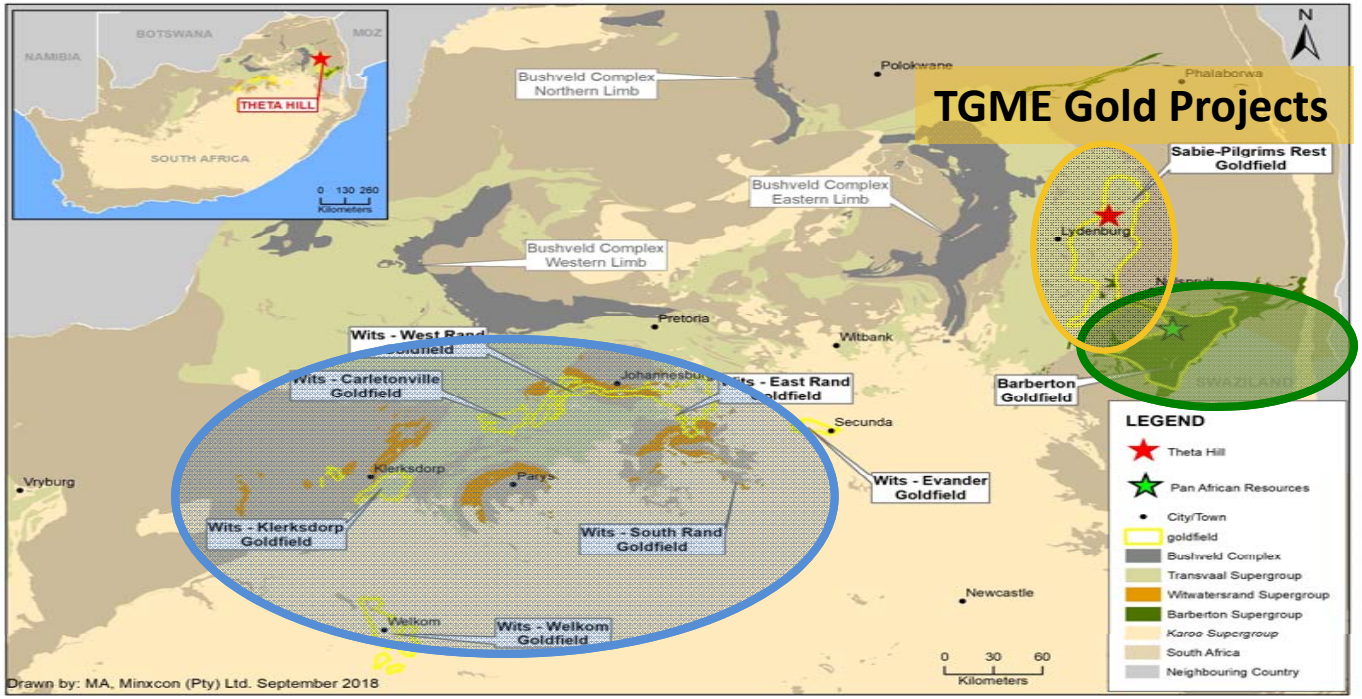
Corporate

Theta Gold Mines has new directors and shareholders that are dedicated to bring the company to production

Key Personnel	Position	Expertise and Role
Bill Guy (Australia)	Chairman	Bill is a professional mining executive and geologist with over 25 years' experience in exploration and resource development in Asia, Australia and Europe, most recently as the Managing Director of Longford Resources Limited (ASX: LFR). He has been involved in all aspects of the mining industry inclusive of capital raisings (LFR,JMS, etc), project acquisition (European Zinc) project development (Cockatoo Island Fe), and project discovery Mt Ida (Fe).
Robert Thomson (Australia)	Managing Director	35+ years Mining Engineer & Director (ASX/AIM/TSX.V). Development/Operations as CEO/Exec Director/Project Manager in 8 significant gold and base metal projects commercialised to sustainable operations through acquisition, exploration, BFS , approvals, financing, construction and delivery to operations. Commenced career in underground gold mining in Southern Africa. Successful in-country Project Director/GM including Chatree and Sepon Stage 1, 125,000+ ozpa gold mines.
Finn Behnken (South Africa)	Non Executive Director	Finn is a mining engineer and has South African mining operational experience as the CEO of Tshipi é Ntle Manganese Mining (Pty) Limited (during the construction and initial production phase of the major Tshipi Borwa Manganese Mine). Prior to this Finn was an investment banker with South African based Nedbank and has served as non-executive director of various mining companies including, most recently, as a director of the then AIM listed Gemfields plc.
George Jenkins (South Africa)	Chief Executive Officer	26 years mining industry experience. 22 years extraction metallurgist. 19 years in various hands-on management and executive roles in South Africa and Australia.
Johan Fourie (South Africa)	Environmental & Strategic Planning	40 years of mining industry experience. Has managed the successful completion of approvals for the Theta Gold Mines redevelopment plans.
Richie Yang (Australia)	Non Executive Director	Richie is an experienced company director working primarily in the mining resources sector. He has more than 10 years of corporate finance experience working with public and private companies, assisting them with funding and corporate developments. Richie has previously held executive positions in various public companies developing iron ore and gold assets.
Chin Haw Lim (Australia)	Chief Financial Officer	Chartered Accountant with many years mining industry experience. Has worked in various ASX-listed companies as CFO/Financial Controller and Company Secretary in areas of financing, development and operation.

The Big Three: TGME In The Making

- 1886 – Current. Witwatersrand (surrounds Johannesburg, currently mining up to 4km underground)
- 1881 – Current. Barberton Goldfield (450km East of Johannesburg, Greenstone belt, currently mining up to 2km underground, recently announced discovery of opencut resources to be the new focus, LSE: PAF, Market Cap: £200m+)
- ★ 1873 – WWII, 1980s, 90s .. TGME Goldfields (owned by TGM's subsidiaries, from/near surface flat reef systems)



Investment Overview

Our Assets

- As an ASX junior explorer , Theta Gold Mines has one of the largest JORC 2012 resources with 5.75 Moz
- 620 km2 of ground holding across the East Transvaal Goldfield (4 hours drive East of Johannesburg) that has historically produced ~7Moz. (7 MRs + 6 PRs)
- Hosting 43+ historical mine sites as drilling targets
- Discovery costs per ounce of gold sub $US15 (JORC 2012 Indicated ounces)
- Permitted existing CIL Plant, permitted existing tailings dam and permitted underground mines
- Multiple open-cut mines in the making, making TGM a very unique South African gold company
- Potential to bring multiple mines online and to organically increase the production profile

Current Focus:

- Feasibility underway for the initial open-cut mine at Theta Hill (fully funded)
  - Reserve drilling
  - Detailed engineering in progress
  - Pit optimisations in progress
  - Identifying long lead items
  - Initiated financing discussions
- Applying the Theta Hill "Data-to-drill Validation Model" to other open-cut resource targets, additional drilling ongoing
- Permitting of open-cut mines in progress
- Initiating social and labour programs locally


East Transvaal Goldfield
Open-cut Mining
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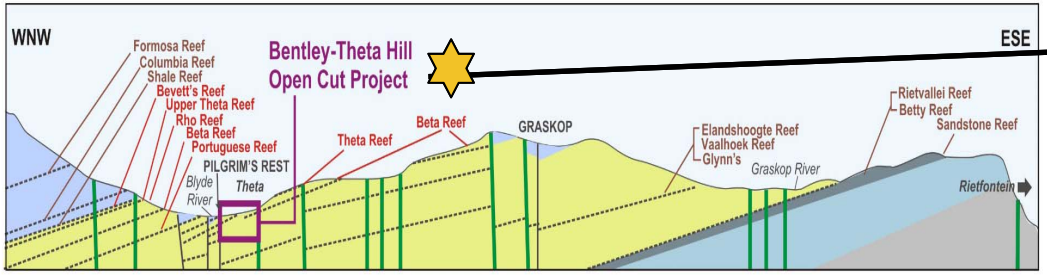
Proven “Data-to-drill Validation Model”

One of the 40+ open-cut targets generated from historical mining/exploration data currently being digitised from paper records for the first time in history.

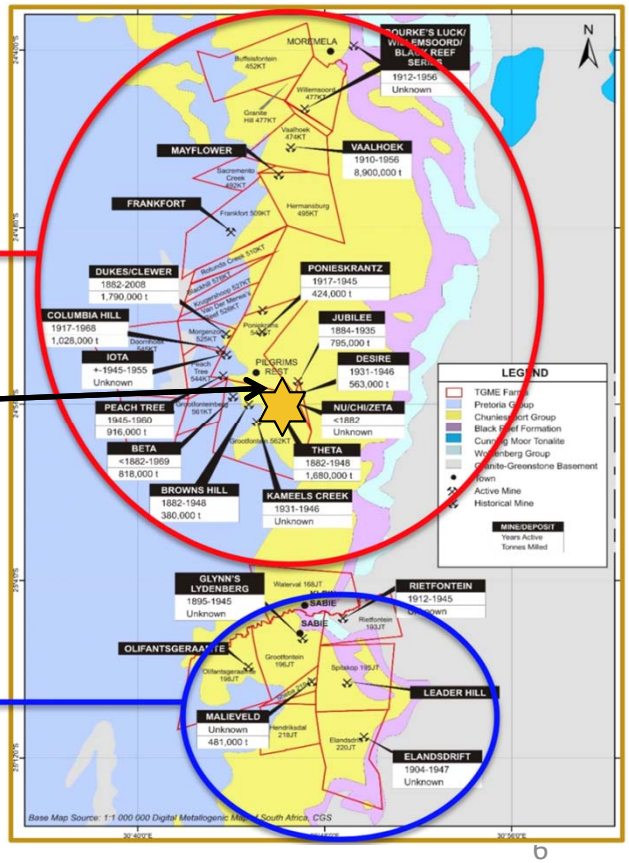


Northern & Central

- 1872 - 1972 : ≈ 4.27 Moz
- 2005 - 2014 : ≈ 0.23 Moz

Southern

- 1872 – 1972 : ≈ 2.15 Moz



Theta Hill Project

Open-cut #1 – Theta Hill

Resource Classification	Open Pit Mine	Reef	Diluted grade	Diluted Width	Diluted Tonnes	Au Content		% Resource
			g/t	cm	Mt	Kg	K Oz	
Indicated	Theta Hill	Upper Theta	1.13	100	0.185	210	6.7	1%
	Theta Hill	Lower Theta	4.26	100	0.587	2 500	80.4	13%
	Theta Hill	Beta						0%
Total Indicated			**3.51**	**100**	**0.772**	**2 709**	**87.1**	**15%**
Inferred	Theta Hill	Upper Theta	1.85	100	0.776	1 440	46.3	8%
	Theta Hill	Lower Theta	7.17	100	1.632	11 734	377.3	63%
	Theta Hill	Beta	2.13	102	1.302	2 770	89.1	15%
Total Inferred			**4.27**	**101**	**3.710**	**15 944**	**512.6**	**85%**

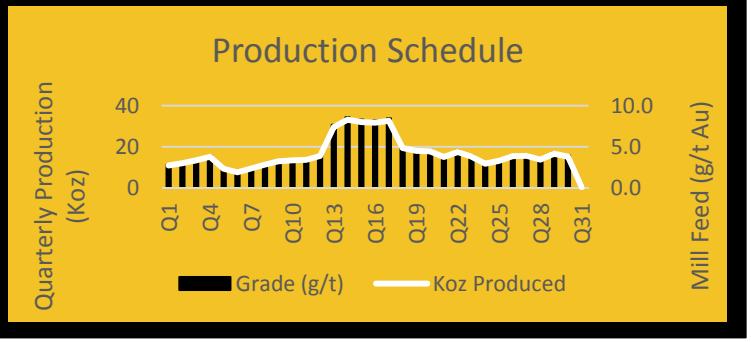
- **Theta Hill Resource 4.48 Mt @ 4.14g/t Au for 600,000 ounces**
- **Feasibility Study expected this quarter**
  - **Over 15,000 m drilling completed**
  - **Metallurgical and detailed plant engineering nearing completion**
  - **Shallow oxide gold reefs with RC drill samples fully diluted over 1m**

[1] Refer to ASX release dated 26/09/2018

First Open Cut – Positive Scoping Study

Open-cut #1 – Theta Hill

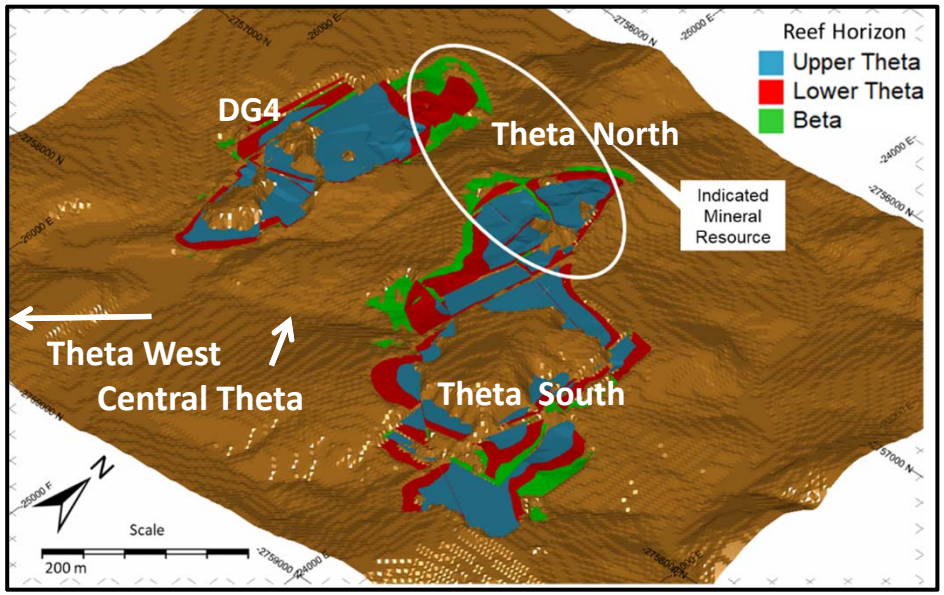
- **Mill feed of 3.6Mt @ 4.77g/t Au (**553koz contained, 509koz recovered)
- **LOM of 7.6 years, 67kozpa average @ AISC US$569/oz**[1]
- **Peak Capital of US$16m,** including US$11m for CIL plant refurbishment
- Post-Tax/Royalty NPV[7.5] of US$152m and **IRR of 132%** [1]
- **Post-Tax/Royalty Net Cashflow Life of Mine US$213m**
- Schedule to be further refined as part of Definitive Feasibility Study, with the current focus on upgrading Inferred Resources to Indicated
- Current Scoping Study based on drilling results before 4 September 2018.
- New results being compiled should add to Resources



[1]There is a low level of geological confidence associated with Inferred Mineral Resources used in this report 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. Scoping study estimates on costs are within JORC Guidelines.

High Grade Open-cut Plan

Open-cut #1 – Theta Hill



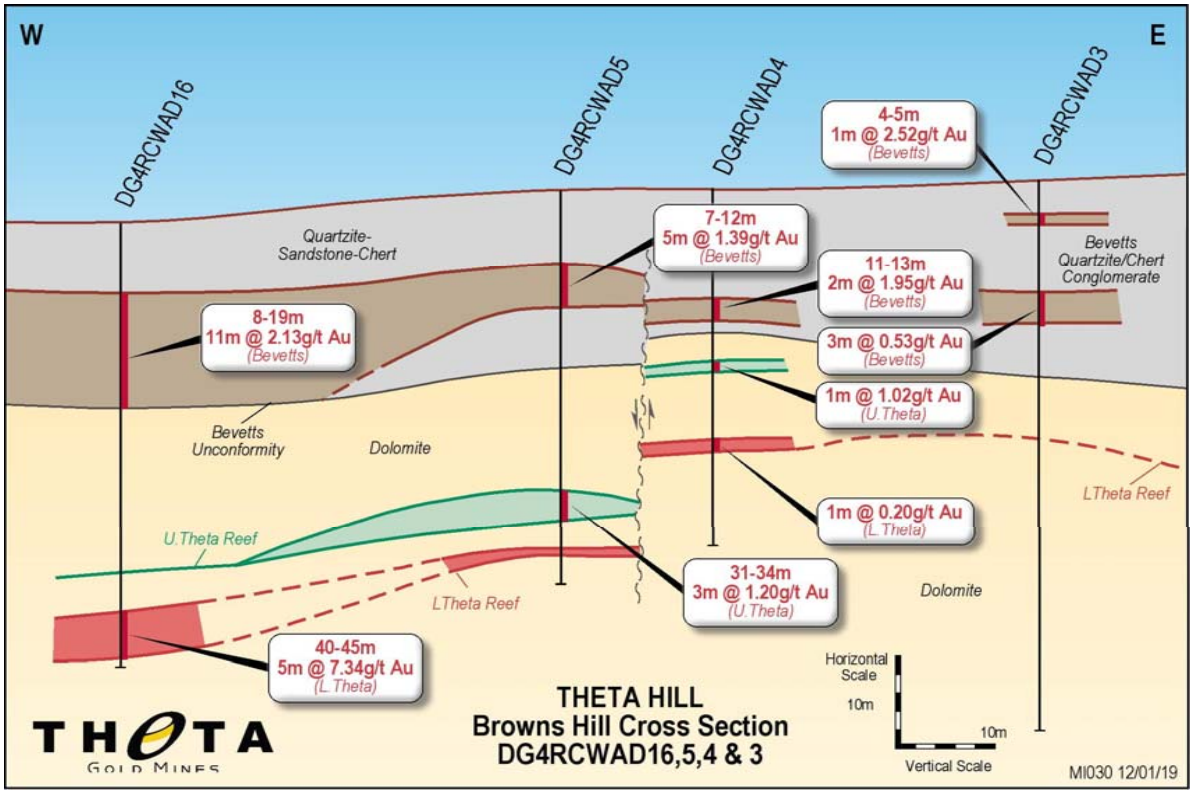
- **Theta Hill** to provide early mill feed for the refurbished Metallurgical plant
- Low cost and high margin is the desired outcome from feasibility work planned over 2018/early 2019.
- Board and Management focused on resumption of production at the earliest possible time
- Recent drilling has focused on Theta North and DG4.
- Theta West and Central Theta, once drilled, may also add additional ounces to the Mineral Inventory (Indicated JORC Resource targeted).

Theta Hill Cross section

Open-cut #1 – Theta Hill

Theta Hill drill statistics to date

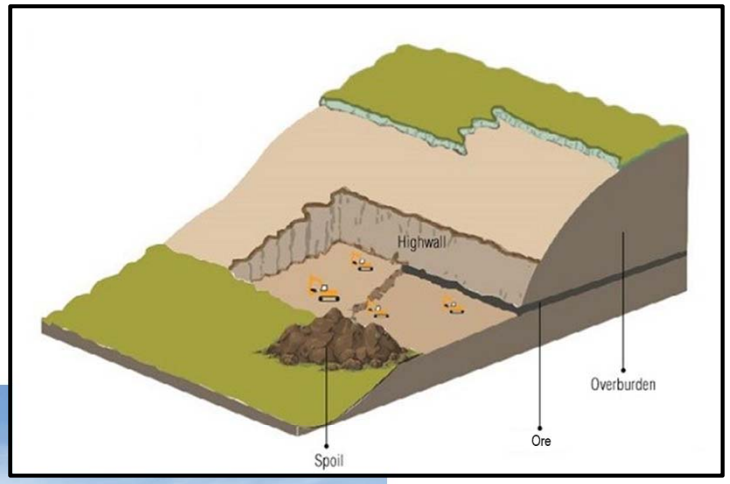
- No. of Boreholes 297
- Total Metres 13,021 m
- Avg hole depth 44 m
- Nominal drill spacing 45 m
- No. of assays including QAQC 14,323



Surface Roll-back Mining

Open-cut #1 – Theta Hill

Example of the style of open-cast, bench-mining planned at Theta Hill.
The method involves progressive strip mining, in-pit waste emplacement and rehabilitation as the mining is completed (diagram courtesy Minxcon)



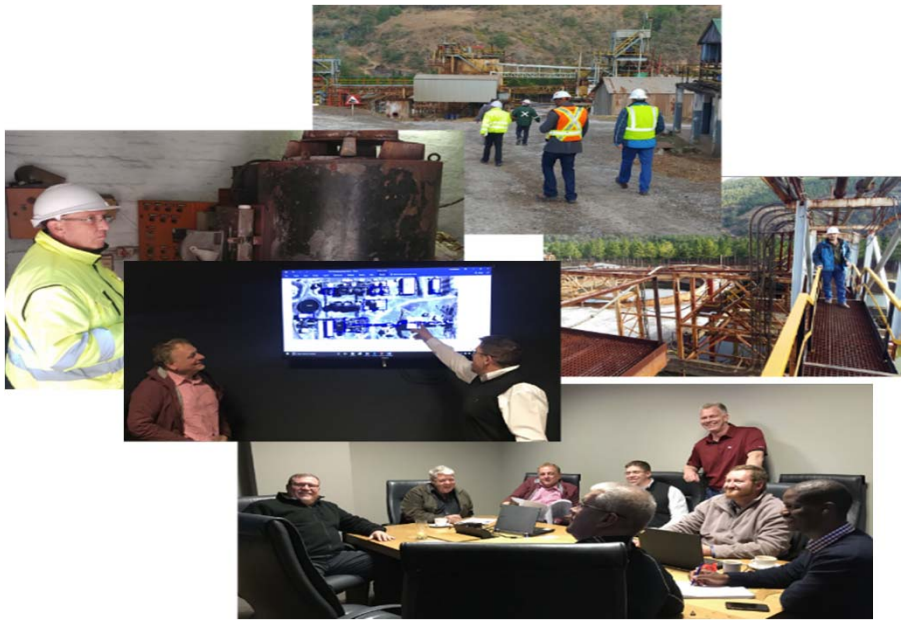


Example of surface miner at work (courtesy Minxcon/Wirtgen).

- **Low cost stripping of overburden**
- **Minimal drill and blast predicted due to very broken ground → cost effective & lesser environmental impact**
- **Selective Mining** - Reduced dilution maximised ore recovery, reduced gold losses
- **In-pit emplacement of waste during 'bench-style' contour mining**
- **Relatively flat-lying gold reef amenable to surface-miners**
- **Backfill perpendicular to mining with concurrent rehabilitation**
- **Short haulage distances and less handling**

Reduced Capital Plant Refurbishment Plans in progress

Theta Hill Open Cut

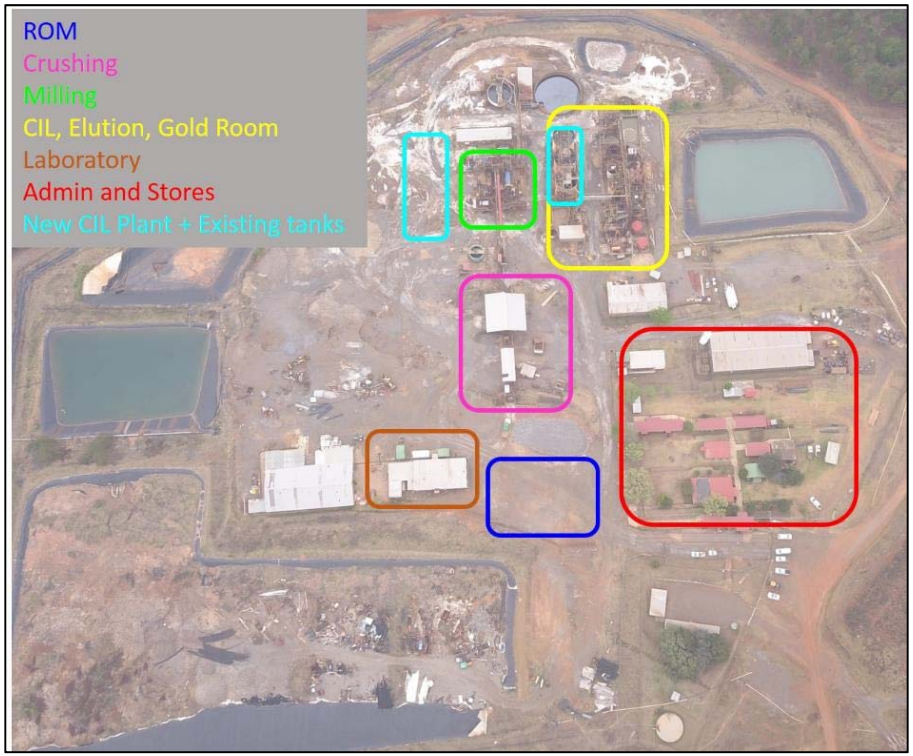


Site visits and planning workshops held in May, 2018 for planned refurbishment of the TGME CIL plant

- Preliminary cost estimate of US$11m for refurbishment and upgrade to a 480Ktpa plant (last operated in 2015)
- New crushing and Milling circuits, additional CIL circuit tanks, refurbishment of elution and gold room
- Expected to be an order of magnitude lower than cost of a new plant
- Detailed design costings to be completed as part of Feasibility Study

Plant Layout

Theta Hill Open Cut



Planned layout of upgraded facilities. Existing facilities last running in 2015.



Plant photos as at May 2018.


THE BIG PICTURE
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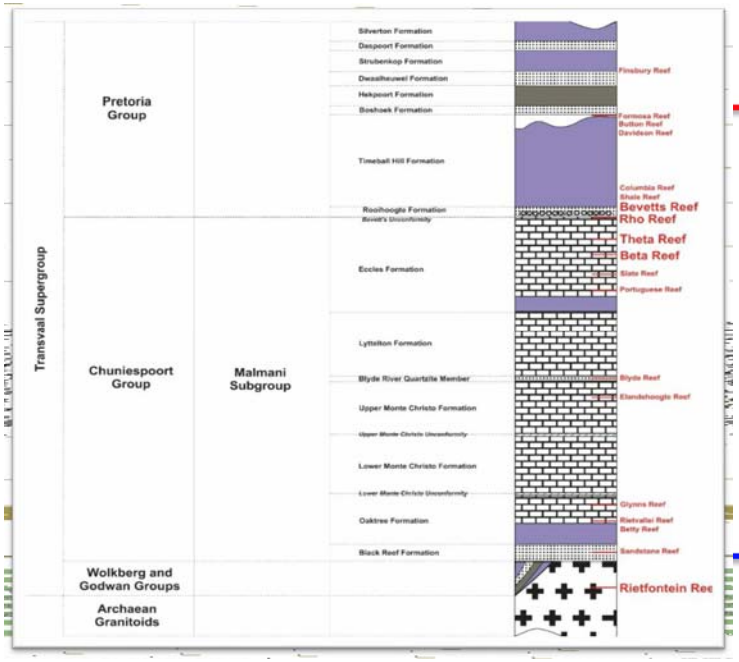
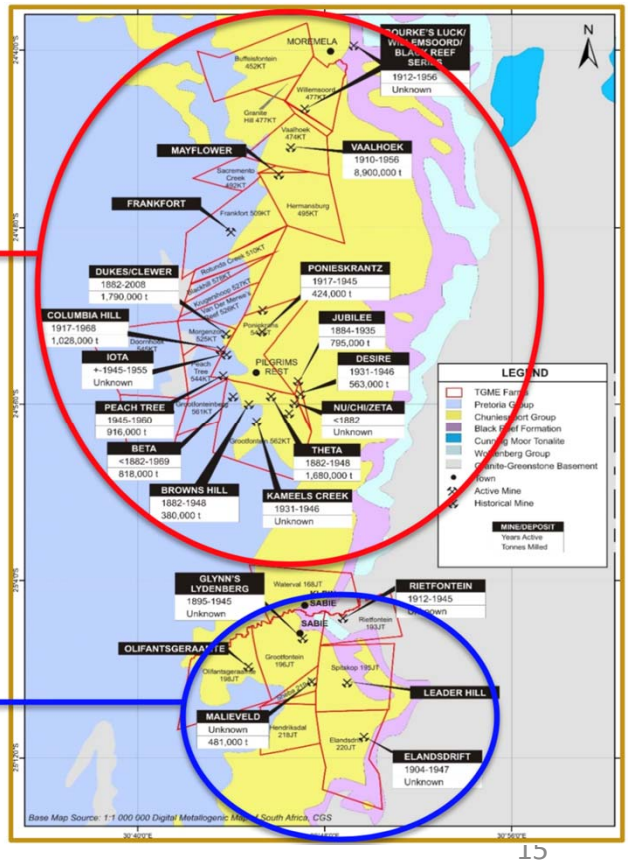
Many Targets

One of the 40+ open-cut targets generated from historical mining/exploration data currently being digitised from paper records for the first time in history.

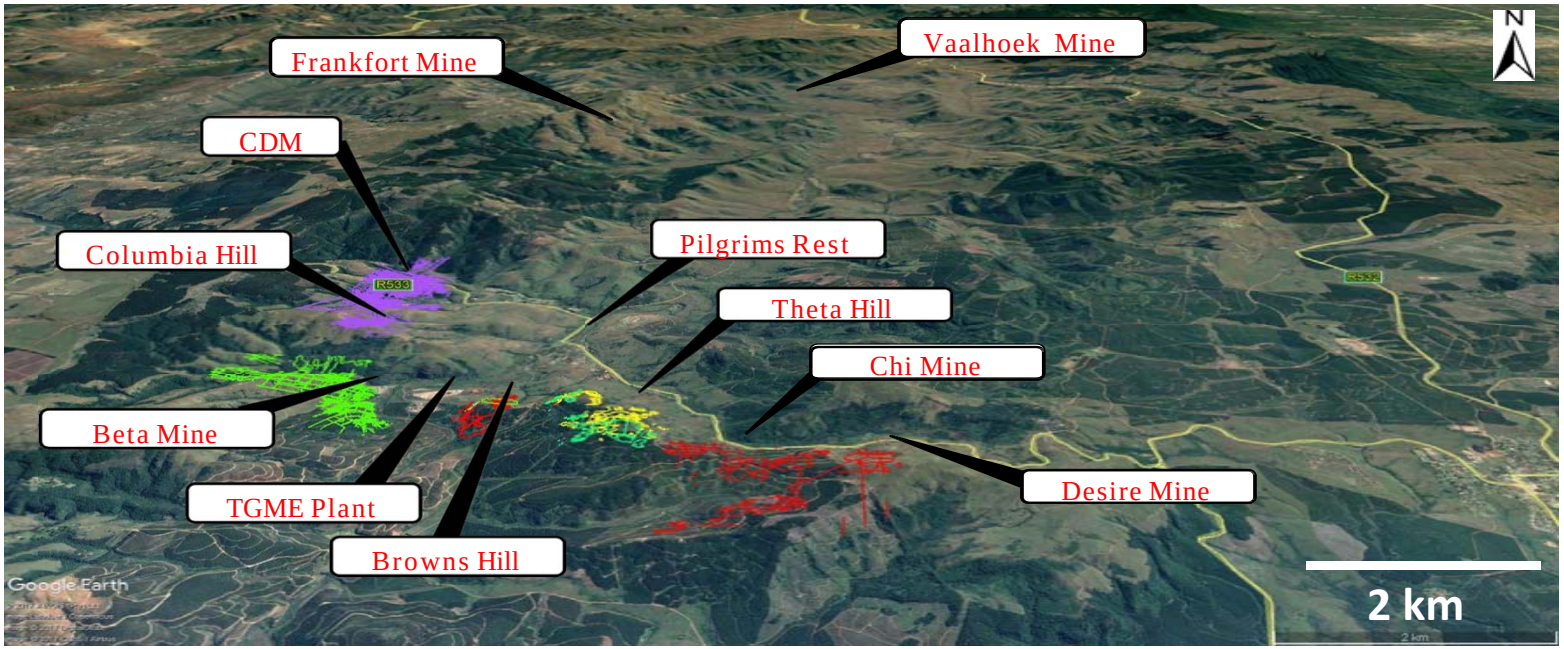
Growing Open Cut Resources





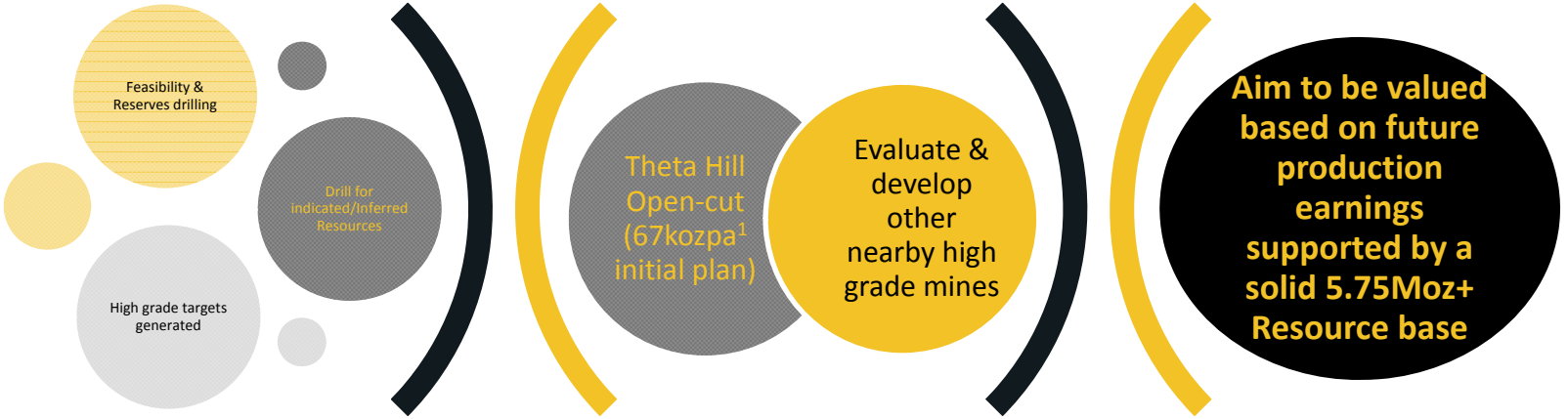
More Open-Cut Drilling Targets

Growing Open Cut Resources



Building Value

Investment Summary



Data mining & drilling to proof up **RESOURCES**	**Multiple mines** **DEVELOPMENTS**	**Going for the** **XXX MULTIPLES**

[1] Refer to ASX Announcement dated 15 October 2018


Appendices
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Resources JORC 2012

Mineral Resources for the Stonewall Underground Operations as at September 2018

Resource Classification	Mine	Reef	Reef Grade	Stope Grade	Reef Width	Stope width	Content	Reef Tonnes	Stope Tonnes	Au Content	
			g/t	g/t	cm	cm	cmgt	Mt	Mt	Kg	koz
Measured	Frankfort	Bevett's	7.13	5.37	73	103	520	0.069	0.091	489	15.7
Total Measured			**7.13**	**5.37**	**73**	**103**	**520**	**0.069**	**0.091**	**489**	**15.7**
Indicated	Frankfort	Bevett's	7.86	5.13	58	96	452	0.243	0.373	1 912	61.5
	CDM	Rho	13.19	3.80	23	90	307	0.258	0.895	3 401	109.4
	Beta	Beta	21.66	6.58	23	90	499	0.716	2.357	15 506	498.5
	Rietfontein	Rietfontein	14.57	8.20	52	92	755	0.517	0.919	7 534	242.2
	Vaalhoek	Vaalhoek	13.90	6.34	36	90	499	0.064	0.140	887	28.5
	Olifantsgeraamte	Olifantsgeraamte	16.97	4.62	25	90	416	0.026	0.091	422	13.6
Total Indicated			**16.26**	**6.21**	**36**	**91**	**591**	**1.824**	**4.774**	**29 661**	**953.7**
Total Measured & Indicated			**15.93**	**6.20**	**38**	**91**	**600**	**1.893**	**4.865**	**30 150**	**969.4**

Resource Classification	UG Mine	Reef	Reef Grade	Stope Grade	Reef Width	Stope width	Content	Reef Tonnes	Stope Tonnes	Au Content	
			g/t	g/t	cm	cm	cmgt	Mt	Mt	Kg	koz
Inferred	Frankfort	Bevett's	7.41	4.27	48	93	356	0.343	0.596	2 543	81.8
	CDM	Rho	10.06	3.02	24	90	244	0.544	1.811	5 472	175.9
	Beta	Beta	16.51	5.43	25	90	414	1.107	3.367	18 285	587.9
	Rietfontein	Rietfontein	14.06	8.52	57	94	803	1.190	1.962	16 721	537.6
	Olifantsgeraamte	Olifantsgeraamte	18.33	4.68	23	90	422	0.059	0.248	1 162	37.3
	Vaalhoek	Vaalhoek	16.28	4.77	22	90	361	0.873	2.980	14 209	456.8
	Vaalhoek	Thelma Leaders	12.18	9.47	96	123	1166	0.023	0.030	284	9.1
	Glynns Lydenburg	Glynns	15.87	5.19	25	90	397	3.218	9.833	51 078	1 642.2
	Ponieskrantz*	Portuguese	13.26	3.99	22	90	287	0.064	0.213	849	27.3
	Frankfort Theta*	Theta	7.22	3.24	34	90	244	0.099	0.220	714	23.0
	Nestor*	Sandstone	5.54	2.92	41	90	225	0.101	0.193	562	18.1
Total InFerred			**14.68**	**5.22**	**31**	**91**	**458**	**7.622**	**21.452**	**111 880**	**3 597.0**

Note: * Indicates historical manual resources

Resources JORC 2012

Mineral Resources for the Stonewall Open Pit Operations as at September 2018

Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Indicated	Hermansburg	Elluvial	1.79	0	0	0.505	905	29.1
	DG1	Elluvial	1.37	0	0	0.159	217	7.0
	DG2	Elluvial	0.76	0	0	1.174	892	28.7
	Theta & Browns Hill*	Upper Theta	1.13	100	113	0.185	210	6.7
	Theta & Browns Hill*	Lower Theta	4.26	100	426	0.587	2500	80.4
	Theta & Browns Hill*	Beta						
	Vaalhoek	Vaalhoek	17.25	33	574	0.111	1 920	61.7
Total Indicated			**2.44**	**30**	**73**	**2.722**	**6 644**	**213.6**

Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Inferred	Hermansburg	Elluvial	0.88	0	0	0.110	97	3.1
	DG1	Elluvial	2.95	0	0	0.293	864	27.8
	DG5	Elluvial	0.76	0	0	0.101	77	2.5
	Vaalhoek	Vaalhoek	20.32	43	880	0.213	4 319	138.9
	Vaalhoek	Thelma Leaders	14.25	97	1 388	0.293	4 172	134.1
	Theta & Browns Hill*	Upper Theta	1.85	100	185	0.776	1440	46.3
	Theta & Browns Hill*	Lower Theta	7.17	100	717	1.632	11 734	377.3
	Theta & Browns Hill*	Beta	2.13	102	217	1.302	2 770	89.1
Total Inferred			**5.40**	**87**	**470**	**4.719**	**25 472**	**818.9**

Resources JORC 2012

Mineral Resources for the Stonewall Tailings Dams as at September 2018

Resource Classification	Surface Operation	Reef	Tonnage	Gold Grade	Gold Content	
			Mt	g/t	Kg	koz
Indicated	Glynn's Lydenburg	Tailings	1.211	0.80	972	31.3
	Blyde 1	Tailings	0.590	0.73	434	14.0
	Blyde 2	Tailings	0.280	0.83	234	7.5
	Blyde 3	Tailings	0.316	0.87	275	8.8
	Blyde 4	Tailings	0.164	0.72	119	3.8
	Blyde 5	Tailings	0.022	0.61	14	0.4
	TGME Plant	Tailings	2.661	0.87	2 325	74.8
Total Indicated			**5.244**	**0.83**	**4 373**	**140.6**

Resource Classification	Surface Operation	Reef	Tonnage	Gold Grade	Gold Content	
			Mt	g/t	Kg	koz
Inferred	Blyde 3a	Tailings	0.023	0.57	13	0.4
Total Inferred			**0.023**	**0.57**	**13**	**0.4**

Mineral Resources for the Stonewall Rock Dumps as at September 2018

Mineral Resource Category	Surface Operation	Reef	Tonnage	Gold Grade	Gold Content	
			Mt	g/t	Kg	koz
Inferred	Vaalhoek	Rock Dump	0.121	1.64	199	6.4
Total Inferred			**0.121**	**1.64**	**199**	**6.4**

Notes:

1. Underground cutoff is 160cm.g/t, open pit cutoff is 0.5 g/t and the tailings cutoff is 0.35 g/t;
2. The gold price used for the cutoff calculations is USD 1,500 / oz;
3. Geological losses applied are, 10% for inferred and 5% for Indicated and Measured;
4. Declared Mineral Resources fall within the various permit areas;
5. Historical mine voids have been depleted from the Mineral Resource;
6. The inferred Mineral Resources have a high degree of uncertainty and it should not be assumed that all or a portion thereof will be converted to Mineral Reserves.

2018 Delivery – Columbia Hill strong drill results

Growing Open Cut Resources

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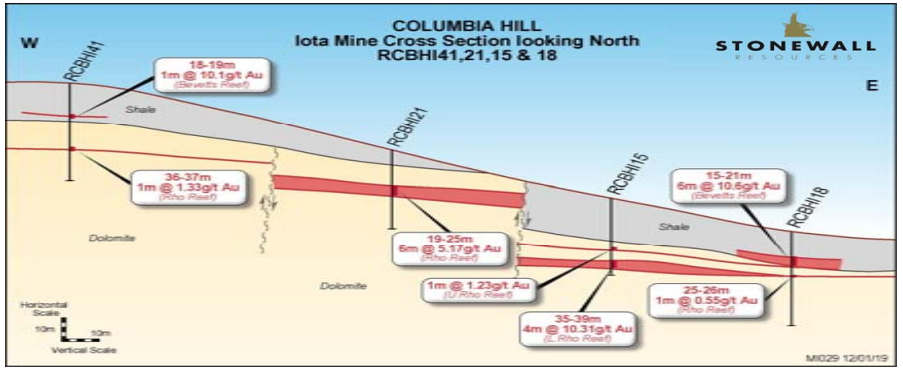
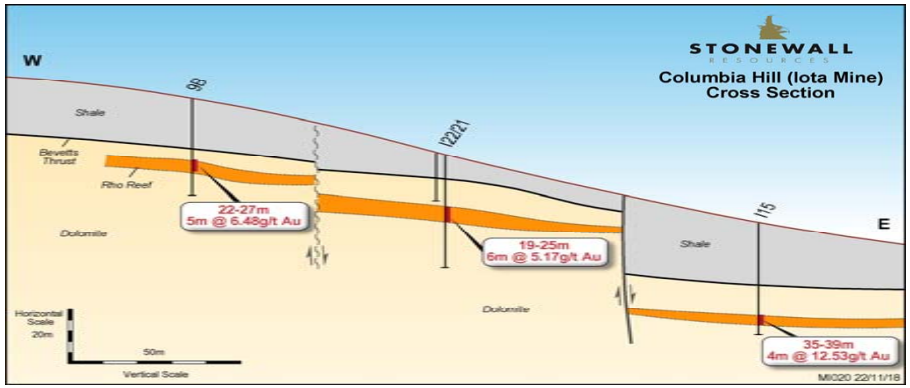
November 2018 Drill Results

BHID	From	To	Width	Au g/t	Au Comments	Au Content	Back calc in situ
Iota	m	m	m			Cm.g/t	Reef g/t over 25cm
RCBI12B	43.00	59.00	16.00	**3.27**	Bevetts	5,233	13.08
Incl	48.00	58.00	10.00	**4.46**	Bevetts	4,462	17.85
RCBI12B	76.00	77.00	1.00	**8.76**	Rho	876	35.04
RCBHI14	-	1.00	1.00	1.09	Quartz in Shale	109	4.36
RCBHI14	16.00	17.00	1.00	**2.20**	U Rho?	220	8.80
RCBHI14	28.00	31.00	3.00	**5.93**	Rho	1,778	23.71
RCBHI15	29.00	30.00	1.00	1.23	U Rho	123	4.92
RCBHI15	35.00	39.00	4.00	**12.53**	Rho	5,012	50.12
RCBHI16	-	6.00	6.00	**2.32**	Bevetts/Rho	1,393	9.29
RCBHI17	5.00	10.00	5.00	1.45	Bevetts	724	5.79
RCBHI21	19.00	25.00	6.00	**5.17**	Rho	3,102	20.68
RCBHI22	-	1.00	1.00	1.57	Quartz in Shale	157	6.28
RCBHI26	46.00	48.00	2.00	**4.89**	Shale / Bevetts	978	19.56
RCBHI26	62.00	68.00	6.00	1.79	Rho	1,073	7.15
incl	63.00	65.00	2.00	**3.89**	Rho	777	15.54



January 2018 Drill Results

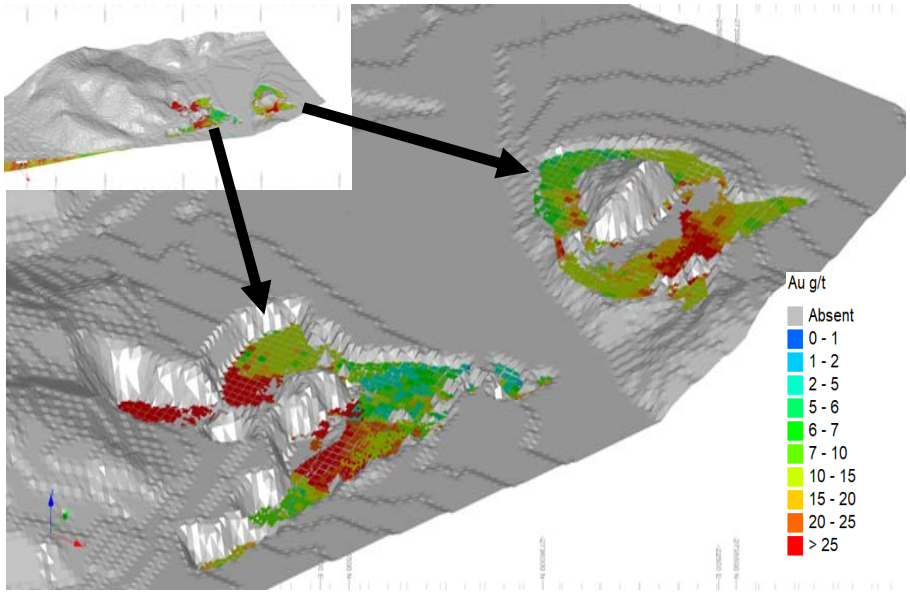
BHID	Intersection			Grade	Content	Reef
	From	To	Width m	Au g/t	Au cmg/t	
CHRC9	11	13	2	**5.32**	1064	Shale
	19	25	6	**2.10**	1260	Rho
incl	22	24	2	**4.95**	990	Rho
CHRC9B	22	30	8	**4.34**	3472	Shale & Rho
incl	22	24	2	**5.54**	1108	U Rho
and	26	27	1	**20.40**	2040	L Rho
CHRC6	41	42	1	0.41	41	Shale
CHRC10	28	29	1	0.28	28	Rho
CHRC11	22	23	1	0.49	49	Shale
CHRC3	37	38	1	**1.76**	176	Rho
CHRC4	28	29	1	0.19	19	Shale



Refer to ASX releases dated 16 January and 29 November 2018

More: Vaalhoek Open-cut

Growing Open Cut Resources



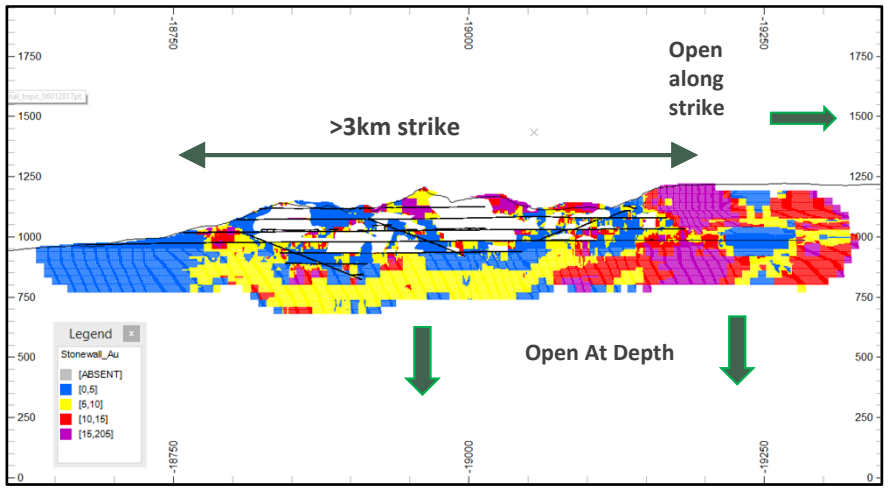
The Vaalhoek open-pits, may provide very high grade ore which can be treated at the TGME CIL plant, subject to further metallurgical testwork and confirmatory drilling to prove up Indicated Resources and then reserves.

- Potential second high grade open-cut mine
- **Resource of 0.62Mt @ 16.9g/t (335koz), 82% inferred[1]**
- Drilling planned for 2019 to upgrade to primarily Indicated Resources and plan for Reserves (JORC, 2012).
- Located within 20km of TGME processing plant
- Part of the Group's open-cut strategy of up to 100kozpa production

[1] **Refer to ASX Announcement on 9 March 2018.**

Rietfontein Mine

Shallow Underground Development pipeline



- **JORC Resource of 2.88Mt @ 8.42g/t Au for 780Koz** (31% Indicated, 69% Inferred)
- Mine not accessed since WWII due to water ingress over 70 years
- Focus of drilling will be on higher grade part of resource (>10g/t Au) to establish reserves



Mineral Resources for Rietfontein Underground as at April 2018

Resource Classification	Reef Grade	Stope Grade	Reef Width	Stope width	Content	Reef Tonnes	Stope Tonnes	Au Content	
	g/t	g/t	cm	cm	cmgt	Mt	Mt	Kg	koz
Total Indicated	14.57	8.20	52	92	755	0.52	0.92	7,534	242.2
Total Inferred	14.06	8.52	57	94	803	1.19	1.96	16,721	537.6
Total	**14.21**	**8.42**	**56**	**94**	**600**	**1.71**	**2.88**	**24,255**	**779.8**



Thank you

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