

ASX Code: VTX

Advanced Hill End Gold Project (NSW)
34km strike length high grade gold system – to be developed on a large scale - 1.6m ozs historically mined.

Advanced Hargraves Gold Project (NSW)
moving to a PFS.

Combined existing 2012 JORC 484K oz @ 3.28 g/t. Significant exploration upside likely to be amenable to gravity recovery, with recoveries potentially as high as 95%.

Highly prospective Pride of Elvire Gold Project (WA) & Taylors Rock Nickel Gold Project (WA).

Hill End is home to the largest gold reef nugget ever found – world record.



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SAMPLES CONFIRM HIGH GRADE IN PROCESS PLANT STOCKPILE

ASX ANNOUNCEMENT 21ST FEBRUARY 2023

HIGHLIGHTS:

- Vertex has been actively assessing all potential ore sources for processing feed stock. The Company was aware of visible gold in a stockpile of material adjacent to the Gravity Processing plant, and is pleased to announce that initial sampling has revealed an average sample grade of 4.02 g/t Au.
- The stockpile is located within 70m of the Company's crusher.
- An independent consultant has estimated the stockpile to contain 35,000 tonnes using the recent LiDAR survey information.
- Individual samples were taken from 5 areas of the stockpile, and all contained gold with the highest sample grade of 12.03 g/t and the lowest of 0.07 g/t.

Sample	Weight kg	Au grade g/t
M1	24.8	12.03
M2	24.6	7.20
M3	31.5	1.19
M4	27.9	0.07
M5	24.0	0.74
Total	132.8	4.02

- Grade estimation of stockpile is difficult due to their random nature and can only truly be determined by processing a bulk sample. Vertex plans to run a bulk sample through the Hill End Gravity Plant, where previous recoveries exceeded 95%.
- Refurbishment of the Plant has commenced with the testing and rewinding of electrical motors on crushing and processing equipment. The Company anticipates that wet commissioning of the plant will commence within the next two months.
- Vertex has prioritised the assessment of open pittable gold mineralisation on the Company's Mining Leases, to provide follow-on feed for the plant.

Cautionary Statement

It must be noted that only the surface of the stockpile was sampled and that the sample grades may not be representative of the entire stockpile which is up to 25m thick.

Vertex Minerals Limited (ASX: VTX) (“Vertex” or the “Company”) is pleased to advise they have sampled a stockpile immediately adjacent their Hill End gravity processing plant and received robust grades averaging 4 g/t. The stockpile is estimated to contain 35,000 tonnes.

Executive Chairman Roger Jackson commented:

“These samples represent a good start to building a feed for our Gravity Gold plant. Clearly it is a bonus to have it mined and stockpiled and sitting adjacent to the plant. We know that the stockpile was mined underground between 2008 and 2010. We also know that most of the underground development during that period was on the line of lode.

The stockpile represents the material that was below the cut off grade for the previous underground operation, which we have estimated to be around 12 g/t. This stockpile is likely to contain an economically viable resource for Vertex due to the significantly higher gold price today and the very low cost to get this stockpile into our crusher.

Further we know this ore recovers well through the plant. We are looking forward to further sampling and bulk sampling test work. We will be doing this while maintaining our exploration focus over the broader Hill End Goldfield.”

Sampling Technique

M1-M5 samples represent 5 by 20L (white plastic) discrete bucket loads of randomly collected samples within from the Amalgamated Dump. Each sample was collected from an area of around 3m radius.

Table 1 Stockpile sample weights, Au grade and sizing table.

Sample Description	<45mm		45 - 106 mm		>106mm		Total	
	Weight (Kg)	Au-(g/t)	Weight (Kg)	Au (g/t)	Weight (Kg)	Au (g/t)	Weight (Kg)	Au (g/t)
M1	15.28	2.34	7.70	33.50	1.86	2.70	24.84	12.03
M2	20.82	8.45	3.80	0.38			24.62	7.20
M3	24.08	0.39	7.40	3.81			31.48	1.19
M4	23.96	0.06	3.90	0.13			27.86	0.07
M5	16.60	1.06	7.38	0.02			23.98	0.74
Average	100.74	2.38	30.18	9.55	1.86	2.70	132.78	4.02

Each sample was split into the various size fractions to consider if gold was preferentially concentrated in one particle size. This was done to consider if ore sorting would be beneficial in the processing of this stockpile. The Company considers the processing of all size fractions is applicable based on the analysis.

Figure 1 illustrates the locations of the stockpile and each sample. The stockpile comprises material mined between 2008 and 2010 and is considered to be a low grade stockpile rather than a waste dump. This is because almost all the development completed during this period was either on the line of lode or within the mine sequence of rocks (about 25m wide) that comprise all of the vein sets historically mined at Hawkin's Hill. This means that all the material that comprises the stockpile has a high probability of being mineralised.

In 2009 the price of gold was around AUD1156 per ounce (source <https://abcbullion.com.au/products-pricing/eofy-price-history>). Back analysis of mine expenditure information in the Company's data archive indicates that this would have related to a break-even grade of around 12g/t Au. Material below this break-even grade would have likely been directed to the mine stockpile by the production geologists at the time. Vertex considers the stockpile to contain material that is economically viable to process and plans to restart the existing processing plant and process enough of the stockpiled material (+100 tonnes) to determine the average grade of the stockpile. If the grade of this initial bulk sample is sufficient to provide an economic benefit, the Company will continue to process the stockpile.



Figure 1 - location of stockpile and sample positions

Figure 2 shows an oblique view of the Gravity plant site looking to the north-east. This is data obtained from the Company's recent LiDAR survey and illustrates the wonderful detail that the survey delivered.

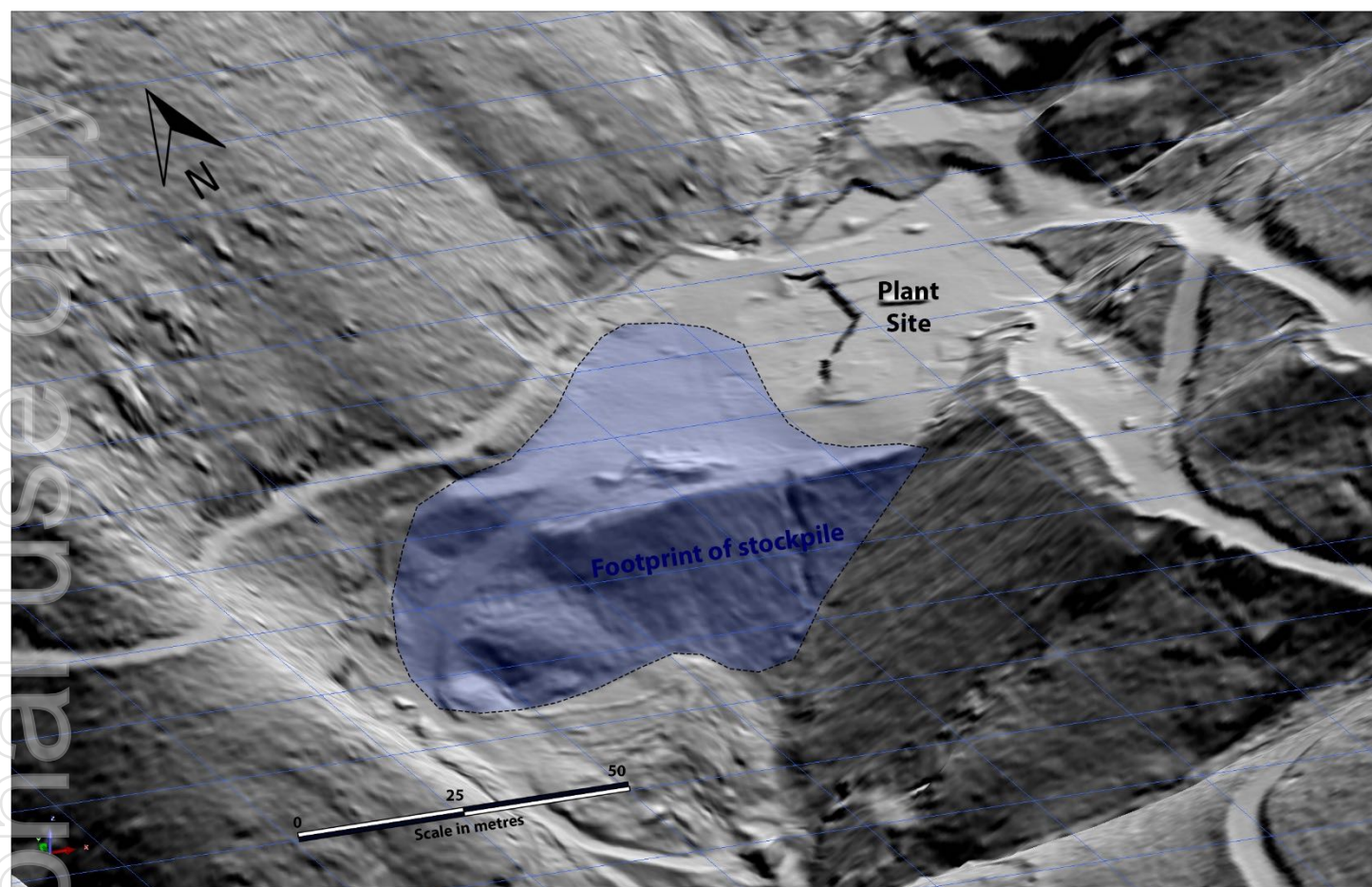


Figure 2 Oblique view of the stockpiles and the location of the Hill End Gold plant

Table 2 – Sample GPS locations and summary

Sample	mN	mE	Weight kg	Au grade g/t
M1	6,340,653	724,870	24.8	12.03
M2	6,340,646	724,900	24.6	7.20
M3	6,340,650	724,886	31.5	1.19
M4	6,340,642	724,859	27.9	0.07
M5	6,340,651	724,845	24.0	0.74
Total			132.8	4.02

This announcement has been approved by the Board of Vertex Minerals Limited.

Further Information:

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About Vertex Minerals Limited

Vertex Minerals Limited (ASX: VTX) is an Australian based gold exploration company developing its advanced Hargraves and Hill End gold projects located in the highly prospective Eastern Lachlan Fold Belt of Central West NSW. Other Company assets include the Pride of Elvire gold project and Taylors Rock gold/nickel/lithium project both located in the Eastern Goldfields of WA. The focus of Vertex Minerals is to advance the commercial production of gold from its NSW projects embracing an ethical and environmentally sustainable approach:

- **Gravity Separation:** The deportment of gold at the Hill End Project allows high recovery to a concentrate produced using gravity separation techniques.
- **Direct Smelting:** The use of direct smelting of a gold concentrate that eliminates the need to use cyanide as a solvent.
- **Contrast in Density:** These separation techniques take advantage of the contrast in density of gold ($\rho=19.3$) relative to quartz ($\rho=2.65$).
- **Renewable Energy Potential:** The unique landscape and infrastructure makes Hill End ideal for the establishment of renewable sources of power. The Crudine Ridge Windfarm is only 30km from the project site and Vertex plans to examine a pumped hydro-electricity scheme as an integral part of any proposed development. The topography and existing mine workings including shafts and adits make the establishment of a pumped hydro scheme achievable at modest expense.
- **Benign Tailings:** The tailings will essentially be quartz with little to no sulphide minerals.

Hargraves Gold Project (NSW)

- Hargraves Gold project is located approximately 2.5 km south of the town of Mudgee.
- The goldfield is 4 x 10 km with numerous mineralised structures with little modern exploration.
- An updated mineral resource in accordance with JORC 2012 Code was completed by SRK Consulting (Australasia) Pty Ltd (SRK) – total of **2.3Mt at 2.38g/t Au for 177koz Au.**

Hill End Gold Project (NSW)

- Consists of 10 mining leases and three Exploration Licences located in the core of the Hill End Trough on the eastern Lachlan Fold Belt.
- 14km of continuous gold lode with gold recovery rate to gravity at +90%.
- Work undertaken in 2015 by Hill End Gold Limited (HEG) culminated in a JORC 2012 resource estimate of **80,000 oz Au @ 1.7 g/t to 150m depth.**

Hill End Project Mineral Resource Estimate				
Deposit	Classification	Tonnes (kt)	Grade Au (g/t)	Contained Au (koz)
Reward Gold Mine	Indicated	55	12.4	22
	Inferred	782	8.1	205
Sub Total		837	8.5	227
Hargraves Project	Indicated	1,109	2.7	97
	Inferred	1,210	2.1	80
Sub Total		2,319	2.4	178
Red Hill Project	Indicated	413	1.4	19
	Inferred	1,063	1.8	61
Sub Total		1,476	1.7	80
Project Total	Indicated	1,577	2.7	138
	Inferred	3,055	3.5	347
Grand Total		4,632	3.3	485

Pride of Elvire Gold Project (WA)

- Tenements surround the Mt. Elvire homestead approximately 210km north of Southern Cross in Western Australia
- The project has seen historical drilling with encouraging gold results achieved.

Taylors Rock Project (WA)

- Located 80km WSW of Norseman in the Southern Goldfields region of Western Australia.
- The project has both Gold and Nickel potential, interesting historical intercepts have recorded encouraging mineralisation.

Competent Persons Statement

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr. Roger Jackson, a Director and Shareholder of the Company, who is a 25+ year Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), Fellow of the Australian Institute of Geoscientists (FAIG) and a Member of Australian Institute of Company Directors. Mr. Jackson has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking 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. Jackson consents to the inclusion of the data contained in relevant resource reports used for this announcement as well as the matters, form and context in which the relevant data appears.

Forward Looking Statements and Important Notice

This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations and estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Vertex Minerals' control.

Actual results and developments will almost certainly differ materially from those expressed or implied. Vertex Minerals has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. To the maximum extent permitted by applicable laws, Vertex Minerals makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and without prejudice, to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

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Appendix 1 – Hill End Stockpile– JORC Code 2012 Table 1 Criteria

The table below summarises the assessment and reporting criteria used for the Hill End Gold Gravity Stockpile and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Rock chip samples were taken from 5 areas on the stockpile. Each set of samples was taken from random areas within an area of circa 3m by 3m. Each sample filled a 20l bucket.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	No standards or duplicates were used for rock chip sampling.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	
	<i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	The samples were bulked up to about 25kg each to account for the nugget affect.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	No drilling is being reported.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drilling is being reported.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No drilling is being reported.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No drilling is being reported.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Samples are surface rock chip and geological interpretation is based on field observation
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No sub-sampling has been undertaken.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	

For all sample types, the nature, quality and appropriateness of the sample preparation technique.

Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.

Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.

Whether sample sizes are appropriate to the grain size of the material being sampled.

Quality of assay data and laboratory tests

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

Each sample was submitted to the laboratory, and sorted into the size fractions shown below in the table. Each sized fraction was weighed, dried, and then pulverised. The samples were weighed and wet screened. Sized and pulverised fractions were received at OR lab and assayed via Au-AA26 – Fire-assay fusion with AAS finish. A nominal 50g sample was weighed for each size fraction, fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead was digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid was then added and the bead further digested in the microwave at a lower power setting. The digested solution was cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Samples were assayed with a blank, two internal CRMs and a duplicate in the same fusion run. Each sample was assayed in single with M5>45<106mm selected randomly for a run duplicate.

The result reported is the grade of the analysed fraction and is not weight corrected for the sizing weight

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit
Au-AA26	Gold	Au	ppm	50	0.01	100

The +75 micron fraction was dried in aluminium trays, weighed and fire assayed to extinction. The -75 micron fraction was collected using flocculant, the liquor then decanted and the fines sample dried in an oven. This was homogenised in the LM2, weighed and fire assayed in duplicate using a 50 g charge. The assays for the -75 micron fraction were averaged and a weighted average is calculated with the +75 micron fraction.

Sample Description	<45mm		45 - 106 mm		>106mm		Total	
	Weight (Kg)	Au (g/t)	Weight (Kg)	Au (g/t)	Weight (Kg)	Au (g/t)	Weight (Kg)	Au (g/t)
M1	15.28	2.34	7.70	33.50	1.86	2.70	24.84	12.03
M2	20.82	8.45	3.80	0.38			24.62	7.20
M3	24.08	0.39	7.40	3.81			31.48	1.19
M4	23.96	0.06	3.90	0.13			27.86	0.07
M5	16.60	1.06	7.38	0.02			23.98	0.74
Average	100.74	2.38	30.18	9.55	1.86	2.70	132.78	4.02

For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.

Not used for reporting

	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established</i>	<i>Not applicable</i>
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Rock chip sampling reported with no independent verification
	<i>The use of twinned holes.</i>	Rock chip sampling only with no drill repeats
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field reconnaissance data is manually collected in field including photograph and location. Data is recorded in geological database
	<i>Discuss any adjustment to assay data.</i>	None required
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	All samples collected are located using a hand held GPS.
	<i>Specification of the grid system used</i>	The grid system used is GDA94 Zone 50
	<i>Quality and adequacy of topographic control.</i>	Nominal RLs based on regional topographic datasets are used initially; however, these will be updated if DGPS coordinates are collected.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Rock chip samples were randomly collected and were appropriate given the objectives of the program.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	MRE not being prepared.
	<i>Whether sample compositing has been applied.</i>	None undertaken.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Rock chip sampling was undertaken at the surface only. This does not represent the full stockpile volume.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
Sample security	<i>The measures taken to ensure sample security.</i>	Senior company personnel supervise all sampling and transport to assay laboratory in Perth.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No Audits or reviews were undertaken

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 	<ul style="list-style-type: none"> The project is located within granted Exploration Licence EL5868 Mining leases ML1541, ML1116, ML315, ML316, ML317, ML49, ML50, ML913, ML914, ML915 and GL5846 with the earliest expiry date of 19 January 2033. The leases are held by Vertex Minerals Pty Ltd. The site is covered by EPL 12008, scheduled activity is mining for minerals. <p>As more fully disclosed in the Company's 2022 IPO Prospectus (see sections 5.1 and 7.2 of the Prospectus, and pages 83 and 84 of the Independent Geologist Report that is annexed to the Prospectus) First Tiffany Resources Corporation (FTRC) has a right to obtain a 15% contributing interest, which will only be triggered by the Company providing an 'economic feasibility study'. Failure to contribute will result in forfeiture of this right. The result is that the Company has a 100% beneficial interest in all its tenements at Hill End, subject to reduction to 85% in respect of certain tenements, if FTRC contributes at the 15% level.</p>
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	All tenements are in good standing.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	In relation to this stockpile no previous exploration or sampling has been undertaken.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<ul style="list-style-type: none"> Mineralisation at the Reward deposit from which the stockpile is derived, occurs within a series of bedding parallel quartz veins occurring along the limbs of the Hill End Anticline which is located in the mid-Silurian to mid-Devonian Hill End Trough containing sedimentary and volcanic rocks. The deposit is best described as a brittle, thrust-dominated, competency-controlled orogenic gold low sulphide system developed post ductile deformation.
Drillhole Information	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> easting and northing of the drillhole collar 	No drilling undertaken
	<ul style="list-style-type: none"> elevation or RL (elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. 	
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	None completed.

Relationship between mineralisation widths and intercept lengths	<i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	No drilling completed by Lachlan Star
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Appropriate figures are presented in the announcement
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Recent exploration results reported and tabulated.
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<ul style="list-style-type: none"> • The mineralogy of the Hill End gold mineralisation is relatively simple with most gold being of high fineness and hosted within quartz veins with low sulphide content. • Preliminary metallurgical testing by Metcon Laboratories Brookvale NSW, indicated that the gold is coarse and free milling. Testing has determined that 98% of the contained gold is liberated and recoverable at a P80 grind size of 670 microns. • The gravity separation plant on site achieved a 95% recovery rate. During 2009 a total of 12,591 tonnes of ore at a grade of 15.9g/t was processed producing 5,871 ounces of gold.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<ul style="list-style-type: none"> • Bulk sampling by way of gravity gold processing will be undertaken