ASX Announcement

7 May 2019

Positive ore Sorting results from Toweranna

De Grey is pleased to report on positive preliminary ore sorting test work undertaken on geological samples from the Toweranna gold deposit, Pilbara Gold Project, Western Australia.

- Mineralised quartz and sulphide vein material efficiently separated from non-mineralised host granitoid and sediments with single pass laser sorting.
- Sorting was effective at a coarse feed size of 20mm to 100mm.
- Negligible quartz observed in the reject fraction, indicating very low ore loss.
- The application of ore sorting at Toweranna has potential to improve project economics and increase gold production through:
  - Facilitation of bulk mining that would reduce unit mining costs and ore loss experienced in selective mining and capture mineralisation outside the modelled resource
  - Rejection of waste material ahead of milling, leaching and tails disposal leading to lower processing costs
  - Potential for higher grade ore feed through pre-concentration prior to milling
  - A possible reduction in ore transport costs
- Additional test work will be carried out on a wider range of samples to further assess the grade distribution, crushing parameters and economic viability of ore sorting at Toweranna.

Figure 1 Laser sorting products

De Grey Mining Limited (ABN: 65 094 206 292) ASX Code: DEG FRA Code: WKN 633879
Level 3, 24-26/22 Railway Rd, Subiaco WA 6008, Australia
PO Box 2023, Subiaco WA 6904
T: +61 8 6117 9328
F: +61 8 6117 9330
E: admin@degreymining.com.au
W: www.degreymining.com.au

TOMRA Evaluation

The test work was undertaken by TOMRA Sorting Pty Ltd (TOMRA), a leading ore sorting specialist group based in New South Wales, Australia.

Five distinct geological rock types were provided from a single drill hole from the Toweranna deposit. TOMRA were requested to assess the various rock types and if feasible to then demonstrate that the mineralised quartz-sulphide vein material could physically and efficiently be separated from the non -mineralised "waste" rock types.

On receiving the drill core samples, TOMRA determined the most appropriate sorting processes to be trialled. The drill core was then physically broken into pieces approximately 20mm to 100mm dimensions and then all the rock types were combined into a single composite sample. The composite sample was then sorted using laser scanning. A second pass of X-Ray Transmission (XRT) scanning was undertaken on the waste product to determine if any sulphide mineralisation remained in the waste product. XRT results showed there was negligible sulphide minerals remaining in the waste product.

The evaluation was set to retain any fragments with >5% quartz by area. Notably the laser scanning, which targets identification and retention of quartz veining, has accurately retained almost all fragments with any quartz veining. This accuracy in quartz vein yield demonstrates the potential for very minimal ore loss as the waste product shows very little quartz veining. *De Grey cautions this test work is on only one relatively small volume sample (~10kg) and further test work is planned to provide additional confidence in the ore sorting technique.*

The geological rock types provided were all fresh material and included:

- Quartz only veining
- Quartz-sulphide veining
- Sediments
- Granitoid
- Altered granitoid

Assays of the material have not been undertaken as this preliminary sampling was designed to provide only rock type characterisation. Planned further ore sorting testing will target known mineralised intercepts to determine potential increased grade pre-concentration through ore sorting. Grade increases are expected with ore sorting as the gold is known to be almost exclusively hosted in the quartz-sulphide veins based on detailed core samples and gold results.

Figure 2 Visible gold in quartz-sulphide vein

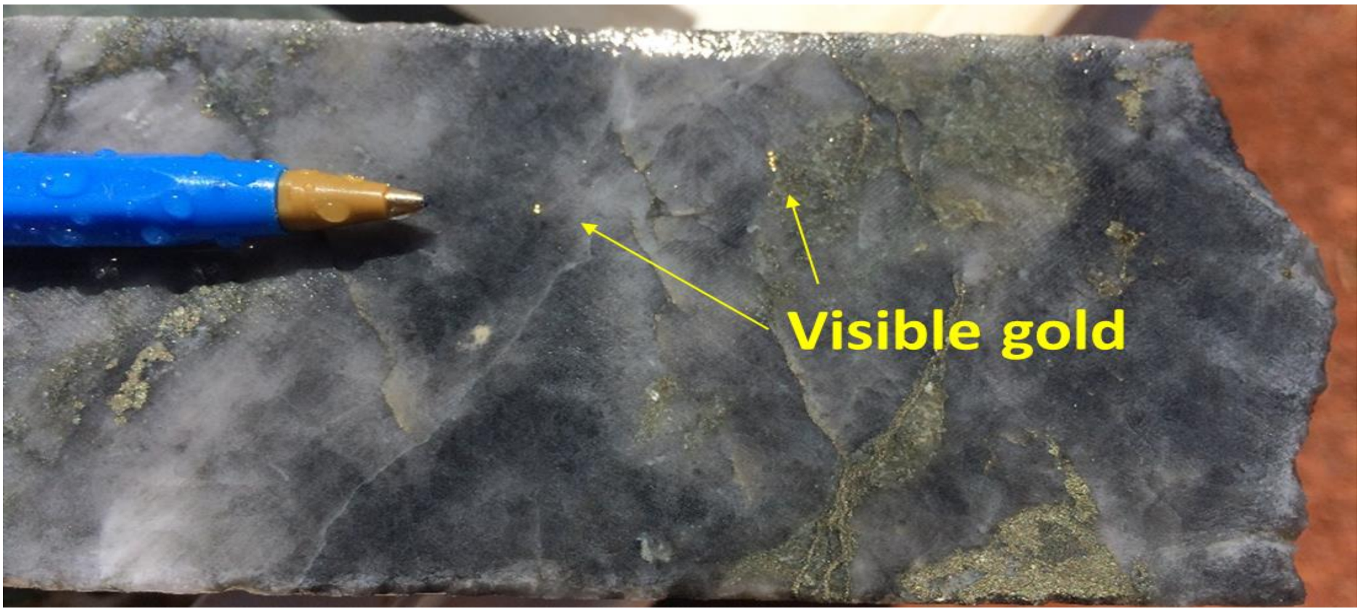
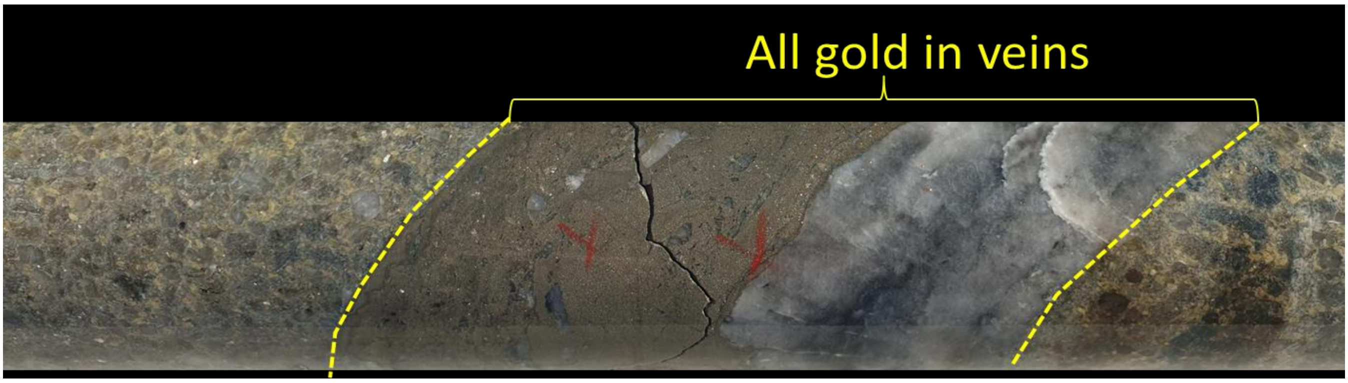


Figure 3 Quartz-sulphide veining



Potential Impacts

De Grey considers the results are excellent and clearly demonstrate the potential to upgrade and concentrate the quartz vein material prior to trucking to the proposed processing plant. The results provide additional confidence that ore sorting may provide significant added benefits through enhanced grade increases that may enhance future economics at Toweranna. Further test work is considered warranted.

The application of ore sorting at Toweranna has potential to improve project economics and increase gold production through:

- Facilitation of bulk mining that would reduce unit mining costs and ore loss experienced in selective mining and capture additional mineralisation outside the modelled resource.
- Rejection of waste material ahead of milling, leaching and tails disposal leading to lower processing costs
- A possible reduction in ore transport costs

Path Forward

Ongoing conventional metallurgical test work, ore sorting test work and financial evaluation is considered warranted and planned activities include: Finalise metallurgical test work on the purpose drilled PQ core, which is already well advanced by ALS Metallurgy.

- Ore sorting on bulk samples (1 - 2 tonne) aiming to determine potential flow sheet parameters, and crushing characteristics, including percentages of fines.
- Assessment of gold grade “upgrading” through ore sorting on selected known drill core gold intercepts.
- Cost evaluations

Ore Sorting Background

Ore sorting is the separation of a target mineralogy, ore or element from waste at an individual particle level. The ore is sorted to remove waste and improve the efficiency and capacity of the processing plant while increasing the grade.

Ore sorting is:

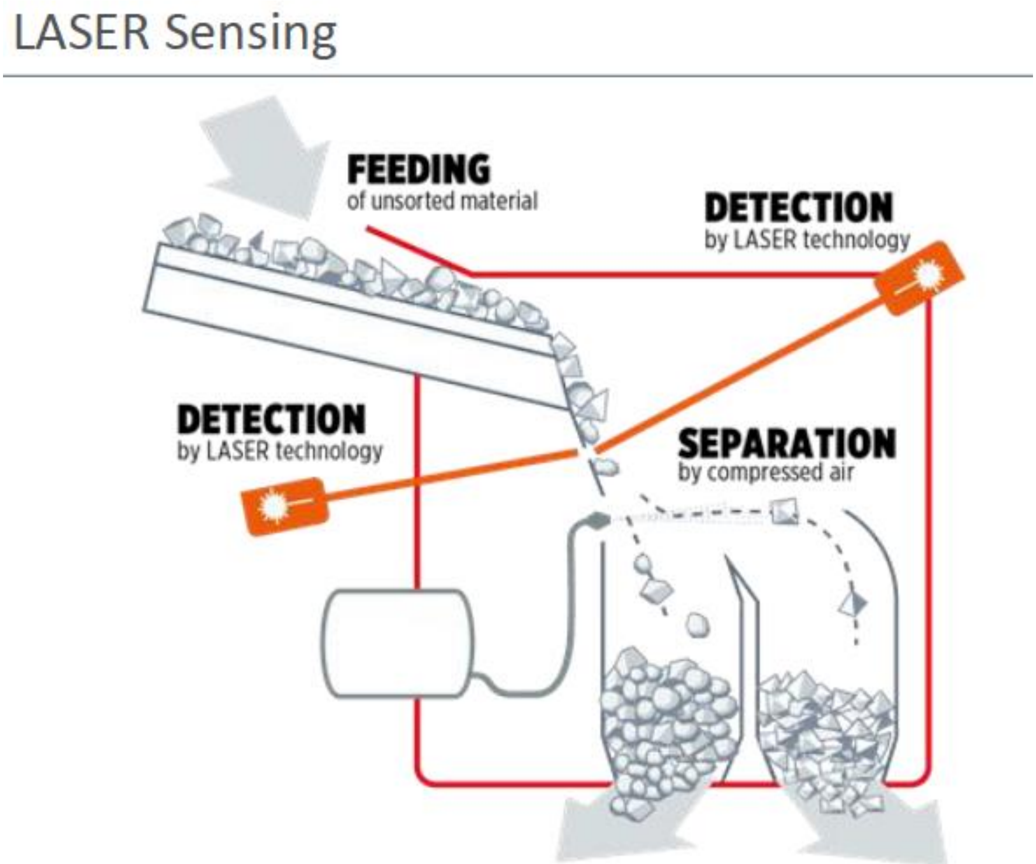
- accurate with high percentage recovery,
- fast volume and therefore tonnage can be processed (up to 5,000 particles per second)
- mature and proven technology
- removes the variability in the plant feed

Ore sorting creates additional value in the mining and processing functions including:

- decrease in mining costs
- increase in deposit exploitation and life of mine
- efficient preconditioning of ore providing reliable ore availability
- decrease in haul costs
- streamlining of processing ore types
- increases in production
- reduced energy costs and water consumption
- reduced tailings requirements
- potential saleable coarse waste product

Ore sorting aims to reject 10%-90% of the mined mass prior to the haulage, crushing and processing stages. Waste or low grade ore is typically removed prior to transporting allowing high grade ore to be prioritised, lower grade ore deferred and waste minimised.

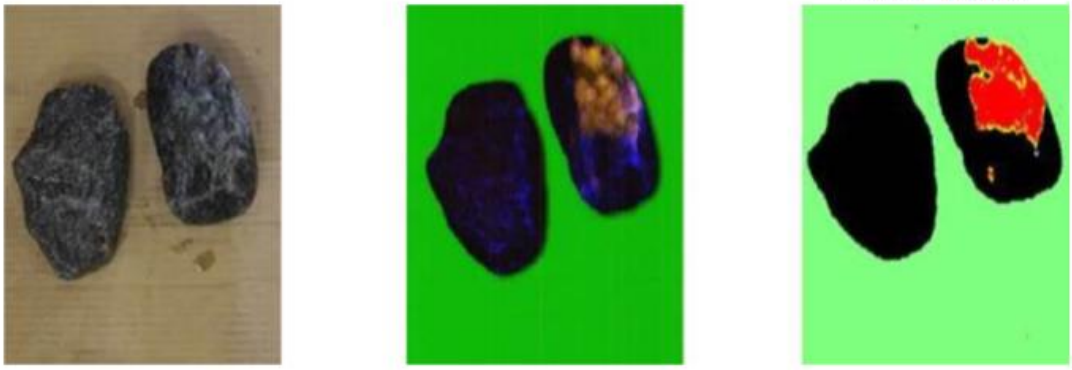
Laser scanning, as contemplated at Toweranna, is the "next generation" in ore sorting and is ideal on quartz vein hosted gold deposits. Laser scanning technology is robust, accurate and repeatable. Coarse crushed product ranging from +20mm to -120mm is typically used. The particles are laser scanned from both sides as it falls from the conveyor belt and if the particle is quartz rich then it is deflected into the ore bin with a short blast of compressed air. The waste material continues to fall to the waste bin. The laser process is shown in the following simplified diagrams (courtesy of TOMRA).



In the following diagram, the initial picture shows two particles which appear the same, the second shows the Laser identified quartz rich particle (yellow particle on the right hand side) and in the final image the red classified ore particle is the particle diverted to the ore bin and the other particle continues to fall into the waste bin.

LASER Sensing

How we see the ore | How the LASER sees it | How the sorting program classifies



Digital photo of the ore | Raw LASER image of the ore | Classified ore image

Various forms of ore sorting are increasingly used in many commercial mines throughout the world, including manganese, iron ore, nickel, uranium, coal and gold mines. Australian companies either carrying out test work or using ore sorting in their mines includes: Newcrest, Evolution, Northern Star, St Barbara, KCGM, Saracen, Westgold and Resolute.

For additional information on gold ore sorting and case studies refer to the TOMRA website:

www.tomra.com/en/sorting/mining/segments/non-ferrous-metal-sorting/gold/quartz-associated-gold

For further information:

Simon Lill (*Executive Chairman*) or

Andy Beckwith (*Technical Director and Operations Manager*)

De Grey Mining Ltd

Phone +61 8 6117 9328

admin@degreymining.com.au

Competent Person

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr. Andrew Beckwith, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Beckwith is a consultant to De Grey Mining Limited. Mr. Beckwith 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 Resource and Ore Reserves". Mr. Beckwith consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Table 1 Ore sorting - Drill hole location information

Sample ID	Hole ID	From_m	To_m	Rock Type
TOS01	TRC086D	63.0	64.2	Alteration around vein
TOS02	TRC086D	65.3	66.5	Quartz veining
TOS03	TRC086D	139.0	140.0	Unaltered granite
TOS04	TRC086D	142.6	143.3	Sulphide rich quartz vein
TOS05	TRC086D	157.0	157.8	Unaltered granite
TOS06	TRC086D	193.0	194.0	Unaltered sediments

Site ID	East MGA	North MGA	RL MGA	Dip	Azim MGA	Hole Depth
TRC086D	591415.20	7679970.07	80.01	-53.00	272.92	210.60

Table JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• All diamond drilling and sampling was undertaken in an industry standard manner • Samples were collected with a diamond drill rig drilling HQ diameter core. • Fresh core was provided to the laboratory, as half core, after logging and photographing.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• The diamond drill holes were HQ size core.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Samples are considered representative with good recoveries. • Core recovery is measured for each drilling run by the driller and then checked by the Company geological team during the mark up and logging process. • Samples are considered representative with generally 100% recovery. • No sample bias is observed
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support*	• Company geologists logged each hole and supervised all sampling. • Sampling has been previously been undertaken on a nominal 1m basis or less based on geological boundaries.

Criteria	JORC Code explanation	Commentary
	appropriate Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *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.*	• Diamond drilling was logged, photographed and sampled as cut half core. • Half core was provided for ore sorting test work with TOMRA Pty Ltd. • The samples were provided for a range of geological rock types to determine if ore sorting could separate the mineralised quartz veins from the other rock types. • The individual rock type samples were broken into nominal 20-100mm pieces using a hand held hammer at the laboratory. • The samples were then combined into a single composite sample for test work.
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.* • *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.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The samples were submitted to a TOMRA Pty Ltd, a commercial independent laboratory located in New South Wales, Australia. • The samples were inspected to determine an appropriate processing flowsheet. • Core was broken into nominal 20-100m pieces with a hand held hammer. • Laser scanning was initially undertaken successfully, followed by XRT scanning of the waste product to determine if any sulphide material remained in the waste. • No assaying was were undertaken.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Sample assaying has previously been completed and reported. • No assaying was undertaken in this test work.
Location of data points	• *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*	• Drill hole collar locations for diamond are located by Differential GPS to an accuracy of +/-20cm. • Locations are given in either GDA94 zone 50 projection. • Drill hole information is provided in the report

Criteria	JORC Code explanation	Commentary
	estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Topographic control is by airphoto photogrammetry to a resolution of either 0.10m or 0.15m, together with DGPS control.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The ore sorting samples were taken from various previously drilled core hole within the resource area. • The hole has been previously geologically logged and provide a strong basis for geological control and continuity of mineralisation. • Ore sorting results will be used to define the proposed processing flowsheet and expected recoveries for economic evaluations. • Geological samples were composited into a single sample to determine if the quartz vein material could be separated.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The drilling is approximately perpendicular to the strike of mineralized lodes.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been completed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The resources are on tenements of the Pilbara Gold Project, located approximately 60km south of Port Hedland. • The resources of Toweranna are on a tenement held by Indee Gold Pty Ltd, which De Grey mining has an option to purchase 100%. De Grey has executed a Share Sale purchase Agreement on 9 February 2018, to acquire 100% of the Indee Gold Pty Ltd, holder of the Indee Gold Project tenements. Under the executed Share Sale Agreement, the total acquisition price is A$15 Million, with payments of and Initial Exclusivity Fee of $100,000 (paid in Jan 2017), Initial Deposit of $1.5 Million (paid on SSA execution - 9 February 2018); extension payment of $700,000 paid in Dec 2018 with a total of $12.7M on Settlement scheduled for 24 July 2019 as $9.7M in cash and $3 Million of Consideration Shares (new De Grey fully paid ordinary shares) to be issued on Settlement.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• De Grey and Indee Gold as well as previous owners have completed exploration activities including extensive drilling to define the resources. Ongoing exploration activities continue.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The mineralisation targeted is hydrothermally emplaced quartz-sulphide veining hosted dominantly within a granitoid intrusive into

Criteria	JORC Code explanation	Commentary
		sediments. • The deposit is similar to other Archaean gold deposits.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Drill hole location and directional information is provided in this report.
Data aggregation methods	• *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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• The results have been presented by the independent laboratory.
Relationship between mineralisa-tion widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole 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').*	• Assay results have been previously reported.
Diagrams	• *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.*	• Photographs are provided in the report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable,*	• The report is considered balanced and provided in context.

Criteria	JORC Code explanation	Commentary
	representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	• *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.*	• Detailed metallurgical test work is currently in progress on purpose drilled drill core.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Bulk samples (1 -2 tonnes) are planned to be collected and evaluated by TOMRA Pty Ltd. • Further ongoing metallurgical test work is continuing. • Extensive RC and diamond drilling is underway to extend and increase gold resources.