



FURTHER RUTILE TESTWORK CONFIRMS ATTRACTIVE PRODUCT SIZING

Sovereign Metals Limited ("the Company" or "Sovereign") is pleased to report favourable and highly commercial rutile product particle size distribution following further analysis of the outstanding 96.0% TiO₂ rutile product announced on 24 June 2019 (ASX: "Outstanding Metallurgy from Emerging Rutile Province").

HIGHLIGHTS:

- QEMSCAN[™] analysis has demonstrated that rutile produced from Sovereign's Malawi project has highly favourable grain size distribution with a d50 of 123µm - comparable to other leading natural rutile products in the market
- Sizing results show Sovereign's product likely to be **suitable for all major natural rutile end-use markets**, including the chloride pigment, titanium metal and welding flux markets
- Previous chemical analysis showed that this rutile product was very high-quality at 96.0% TiO₂
- The rutile concentrate was produced using conventional mineral sands processing methods and resulted in a recovered rutile grade of 1.16%
- The product exceeds typical market chemical specifications and has many parameters at best-inclass levels
- An accelerated exploration work program focussing on rutile is underway across Sovereign's extensive land holdings in Malawi

Sovereign's Managing Director Dr Julian Stephens commented:

"These initial QEMSCAN[™] results have confirmed the ability to produce a natural rutile product to commercial specifications in terms of both chemical composition and particle size distribution. Sovereign's rutile product compares favourably to other leading natural rutile products in the market and is likely to be suitable for all major end-user applications including chloride pigment, titanium metal and welding flux. This is a highly encouraging result and we look forward to continuing the accelerated exploration and metallurgical programs."

ENQUIRIES

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RESULTS OF RUTILE PRODUCT PARTICLE SIZE ANALYSIS

On 24 June 2019, Sovereign announced a metallurgical test-work program was undertaken on a 180kg sample of saprolite-hosted rutile from an area representative of the style of mineralisation at the Wofiira rutile zone. This type of metallurgical assessment is undertaken using laboratory-scale bench tests designed to replicate the wet concentration and dry separation processing routes of typical mineral sands operations. The test work provides metallurgical recovery information in addition to mineralogical and other quality information used for resource and reserve development.

This test work demonstrated that a high-quality commercial rutile product can be produced using conventional mineral sands processing methods. The recovered rutile grade from in-situ was 1.16% in a +38µm to -250µm size fraction containing 96.0% TiO₂.

The results of recent QEMSCANTM analysis have further demonstrated highly favourable particle size distribution of the rutile product with a d50 of 123µm, which is comparable to other leading natural rutile products in the market. The d50 is also known as the median diameter of the particle size distribution, i.e. it is the value of the particle diameter at 50% in the cumulative distribution by mass.

Table 1: Comparison of Sovereign's rutile d50 to leading global producers			
	Malawi RutileRBMNamakwa Sands(Sovereign)(Rio Tinto)(Tronox)		
d50	123µm	124µm	124µm
"Rio Tinto" is Rio Tinto plc; "Tronox" is Tronox Holdings plc. Source: BGR Assessment Manual titled "Heavy Minerals of Economic Importance" 2010.			

The favourable particle size distribution of rutile product from Sovereign's Wofiira zone, as indicated in Figure 1 below, demonstrates the potential to produce commercial rutile specifications suitable for all three major rutile end-use markets including pigment, titanium metal and welding flux.



Figure 1. Particle size distribution of Sovereign's high-quality rutile product

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QEMSCAN is standard analytical method for providing quantitative analysis of minerals. QEMSCAN is an abbreviation standing for **Q**uantitative **E**valuation of **M**inerals by **SCAN**ning electron microscopy. QEMSCAN creates phase assemblage maps of a specimen surface scanned by a high-energy accelerated electron beam. The data includes bulk mineralogy, particle grain size and shape, mineral associations and mineral liberation.

Sovereign's rutile product was analysed in Australia by leading independent laboratory services provider ALS Limited and by the CSIRO.

The results from QEMSCAN of Sovereign's rutile product are shown in Figure 2 below, where particles have been ordered by decreasing grain size.



Figure 2. QEMSCAN[™] analysis of Sovereign's high-quality rutile product

The results are further supported by previous QEMSCAN analysis conducted on a master composite sample of raw ore from across Sovereign's Malingunde graphite deposit which is regionally proximate to the Wofiira rutile zone. This demonstrated a d50 of 160µm for rutile in the raw ore with in-situ rutile grades of 1-2%. This additional data provides the Company with confidence that further zones of well liberated, high grade rutile mineralization in commercial size fractions will be identified through the ongoing exploration, mineralogical and metallurgical programs.





MAJOR NATURAL RUTILE END-USE MARKETS

Natural rutile is the highest-grade titanium dioxide (TiO₂) feedstock with its predominant end-use markets including high grade chloride pigment feedstock, titanium metal manufacture and welding flux. Global production of natural rutile has been approximately 750ktpa over the last few years.



Figure 3. Demand for Natural Rutile

TiO₂ Pigment

The TiO₂ pigment segment accounts for over 70% of all natural rutile demand. Natural rutile is the preferred feedstock for the chloride process compared to synthetic rutile or titanium slag because natural rutile:

- has the highest TiO₂ content and the lowest levels of impurities
- does not develop dust
- has the highest density
- has a narrow particle size band

Titanium Metal

Titanium metal has a high strength-to-weight ratio and is corrosion and heat resistant. As such, it is an ideal metal for use in aviation in the form of aircraft engines and frames, military applications, and medical industry uses e.g. hip joint production. Natural rutile for titanium metal manufacture should have low levels of tin. Smaller particle size fractions are acceptable for titanium metal manufacturers.

Welding and other uses

The welding market uses rutile in its raw form in the manufacture of welding flux cord wire. Rutile effectively stabilises the welding arc and protects molten metal from oxidisation. It is therefore crucial in welding-reliant applications such as ship building and steel construction. For welding purposes, the natural rutile should have low levels of phosphorus and sulphur so that the integrity of the weld strength is not compromised. Smaller particle size fractions are acceptable for the welding market.



RUTILE PRODUCT CHEMICAL SPECIFICATIONS

Chemical specifications of rutile product produced from the Wofiira zone are shown in Table 2 below, with comparisons to some other leading natural rutile products currently present in the market. Importantly, Sovereign's initial rutile product is of comparable quality to Sierra Rutile's, indicating potential for strong interest from natural rutile end-users.

Table 2: Comparison of Sovereign's rutile specifications to leading global producers						
Constitue	nt	Malawi Rutile (Sovereign)	Sierra Rutile (Iluka)	RBM (Rio Tinto)	Kwale (Base Resources)	Namakwa Sands (Tronox)
TiO ₂	%	96.0	96.29	93.30	96.18	94.50
ZrO ₂ +HfO ₂	%	0.14	0.78	1.30	0.72	1.10
SiO ₂	%	1.29	0.62	2.00	0.94	2.00
Fe ₂ O ₃	%	0.97	0.38	0.70	1.25	0.8
Al ₂ O ₃	%	0.33	0.31	0.90	0.23	0.6
Cr ₂ O ₃	%	0.046	0.19	0.11	0.17	0.14
V ₂ O ₅	%	0.50	0.58	0.40	0.52	0.33
Nb ₂ O ₅	%	0.25	0.15	0.30	-	0.04
P ₂ O ₅	%	0.036	0.01	0.03	0	0.02
MnO	%	<0.01	0.01	-	0.03	0.4
MgO	%	0.01	<0.01	-	0.1	0.01
CaO	%	0.02	0.01	-	0.04	0.04
S	%	0.02	<0.01	<0.05	-	0.01
Sn	%	0.005	-	-	-	-
U+Th	ppm	30	26	100	-	-

"Iluka" is Iluka Resources Limited; "Rio Tinto" is Rio Tinto plc; "Base Resources" is Base Resources Limited; "Tronox" is Tronox Holdings plc. "-" is not disclosed. Sources: RBM data from World Titanium Resources Ltd TZMI Conference Presentation November 2011 (Updated January 2012); Sierra Rutile, Kwale and Namakwa Sands data from BGR Assessment Manual titled "Heavy Minerals of Economic Importance" 2010.

NEXT STEPS

These exciting results indicate that Sovereign's >4,000km² ground package has the potential to host a new rutile province capable of supplying commercial specification at a time of decreasing supply. Accordingly, the Company is undertaking an accelerated work program over the coming months. Metallurgical work in progress at Australian laboratories includes analysis related to yields of rutile product and deportment i.e. grain size distribution and shape. Major elements of the work program include:

- Hand auger drilling and resampling of historical holes to define discrete areas of mineralisation for future resource definition at the Wofiira and Dedza rutile prospects
- Extensive regional soil sampling and panning to identify potential new areas of rutile mineralisation
- Continued metallurgical test-work designed to optimise and validate the metallurgical flowsheet





SOVEREIGN OVERVIEW

Sovereign controls a large ground package of over 4,000km² which contains the Malingunde saprolitehosted graphite project and newly identified areas of rutile mineralisation. The Company is progressing the DFS on the Malingunde graphite deposit whilst also actively assessing the potential for commercial rutile operations from deposits potentially hosted within the soft, saprolite material.



Figure 4. Project map showing Sovereign's significant ground position in Malawi.

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Competent Persons' Statements

The information in this report that relates to Exploration Results and QEMSCAN Results is based on information compiled by Dr Julian Stephens, a Competent Person who is a member of the Australian Institute of Geoscientists (AIG). Dr Stephens is the Managing Director of Sovereign Metals Limited and a holder of ordinary shares and unlisted options in Sovereign Metals Limited. Dr Stephens 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'. Dr Stephens consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Metallurgical Results is extracted from an announcement on 24 June 2019. This announcement is available to view on www.sovereignmetals.com.au. The information in the original announcement that related to Metallurgical Results was based on, and fairly represents, information compiled by Mr Gavin Diener, a Competent Person who is a member of the AusIMM. Mr Diener is the Chief Operating Officer of TZMI, an independent mineral sands consulting company and is not a holder of any equity type in Sovereign Metals Limited. Mr Diener 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement

Forward Looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.



Appendix 1: JORC Code, 2012 Edition – Table 1

SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Hand Auger Drilling 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.	A cluster of 10 Hand auger holes of 62mm diameter were drilled to obtain samples for this metallurgical test work. These holes were sampled vertically from surface at nominal 1-metre intervals, with all material being sampled.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Each vertical metre composite was passed through a standard Jones 50:50 riffle splitter for retention of a library sample of approximately 2kg mass. The main sample and 2kg sub samples are considered representative for this style of rutile mineralisation.
	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.	Weathering and lithological information logged from the 1-metre auger sample was used to define the compositing interval.
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).	62mm diameter hand auger bits are used with 1-metre long steel rods. Each 1m of auger drill advance sample is collected into separate bulk sample bags and set aside. The auger bits and flights are cleaned between each metre of sampling to avoid contamination.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Samples are assessed visually for recoveries. Overall, recovery is very good.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The company's trained geologists supervise auger drilling on a 1 team :1 geologist basis and are responsible for monitoring all aspects of the drilling and sampling process.
	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.	No bias related to preferential loss or gain of different materials has occurred.
Logging	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.	All individual 1-metre auger intervals are geologically logged, recording relevant data to a set template using company codes. A small representative sample is collected for each 1m interval and placed in appropriately labelled chip tray for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging includes lithological features and estimates of basic mineralogy. Logging is generally qualitative.
	The total length and percentage of the relevant intersection logged	100% samples are geologically logged.
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable – not core drilling
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples from the 10 auger holes drilled were composited for each vertical metre over the interval of interest (i.e. 6-7m, 7-8m, etc to 11-12m). Each vertical metre sample was passed through a standard Jones 50:50 riffle splitter for retention of a library sample of approximately 2kg mass.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Use of the Jones splitter is deemed appropriate given the mostly dry nature of the samples.

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Criteria	JORC Code explanation	Hand Auger Drilling Commentary
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	The splitter was cleaned after each sample.
	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.	Use of the Jones splitter is deemed appropriate given the mostly dry nature of the sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the material 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.	The laboratory procedures are considered to be appropriate for reporting recovered rutile grades. Further work is required in order to develop methods to accurately estimate rutile content from routine exploration samples. The following workflow was created to assess the suitability of the bulk sample to generate a high-grade rutile product;
		 Wet screen at 2mm and 38µm to remove oversize and slimes material Pass 38µm -2mm fraction through Upcurrent Classifier (UCC) Pass UCC underflow (i.e. denser materials) across series of wet tables to generate a heavy mineral concentrate (HMC) Light acid wash of HMC comprising sulphuric acid which is then rinsed to remove acid component Attrition HMC in water using Freevis reagent, then deslime and dry Dry separation circuit comprising a 3 stage electrostatic circuit followed by magnetic separation
		Subsamples were obtained at all parts of the flowsheet of the product and waste streams in order to allow a full mass and chemical balance to be undertaken. Subsamples were taken by splitting the relevant materials using a Jones riffle splitter.
		Chemical analysis comprised XRF analysis by ALS using the method as follows.
		Each entire sample crushed to nominally 100% -3mm in a Boyd crusher then pulverised to 85% -75 μm using a Tungsten Carbide ring mill.
		Approximately 0.7g of pulverised sample is fused with a Lithium Borate flux mixture to produce a glass fusion bead and is analysed via XRFS (X-Ray Fluorescence Spectrometry).
		Calibration is effected by standard glass beads of known composition of both internal and certified sources. Corrections are made for the catch weights, instrumental drift, line overlaps and inter element enhancement / absorption effects as well as moisture.
		QEMSCAN is standard analytical method for providing quantitative analysis of minerals. QEMSCAN is an abbreviation standing for Quantitative Evaluation of Minerals by SCANning electron microscopy. QEMSCAN creates phase assemblage maps of a specimen surface scanned by a high-energy accelerated electron beam. The data includes bulk mineralogy, particle grain size and shape, mineral associations and mineral liberation.
		Sovereign's rutile product was analysed in Australia by leading independent laboratory services provider ALS Limited and by the CSIRO.
	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.	No non-laboratory devices were used for analysis.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicate, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Internal standards were used by ALS. No interrogation has been undertaken on these standards in this case.
Verification of sampling & assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant mineralisation intersections were verified by qualified, alternative company personnel.
	The use of twinned holes.	The cluster of 10 hand auger holes twinned exploration hole MGHA0967.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data was collected initially on paper logging sheets and codified to the Company's templates. This data was hand entered to spreadsheets and

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Criteria	JORC Code explanation	Hand Auger Drilling Commentary
		validated by Company geologists. This data was then imported to a Microsoft Access Database then validated automatically and manually.
	Discuss any adjustment to assay data.	No assay adjustment has occurred.
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 estimation. Specification of the grid system used. Quality and adequacy of topographic control.	A Trimble R2 Differential GPS was used to pick up the bulk of the hand auger collars containing significant mineralisation. A smaller number of samples were surveyed using a standard hand held GPS. No downhole surveying of auger holes is completed. Given the vertical nature and shallow depths of the auger holes drill hole deviation is not considered to significantly affect the downhole location of samples. WGS84 UTM Zone 36 South. DGPS pickups are considered adequate topographic control (metres above mean sea level).
Data	Data spacing for reporting of Exploration	In this particular case the cluster of 10 auger holes within 5 metres of the
spacing & distribution	Results.	existing auger hole for the purpose of metallurgical sample collection. It was deemed that this sample should be broadly representative of the mineralisation style in the area in general, although it is essentially a single point sample.
	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.	Not applicable, no Mineral Resource or Ore Reserve estimations are covered by new data in this report. In this particular case the cluster of 10 auger holes was drilled within 5 metres of the initial existing auger hole for the purpose of metallurgical sample collection. It was deemed that this sample should be broadly representative of the mineralisation style in the area in general, although it is essentially a single point sample.
	Whether sample compositing has been applied.	Individual 1-metre auger intervals have been composited over the interval of interest (6-12m) for the 10 auger holes drilled in order to obtain a bulk sample of ~180kg mass for metallurgical test work.
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	No bias attributable to orientation of sampling has been identified.
	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.	No bias attributable to orientation of drilling has been identified.
Sample security	The measures taken to ensure sample security	Samples were stored in secure storage from the time of drilling, through gathering and splitting. The samples were sealed as soon as splitting was completed, and again securely stored awaiting shipment.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	It is considered by the Company that industry best practice methods have been employed at all stages of the exploration.

SECTION 2 - REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Commentary
Mineral tenement & 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 environment settings.	The Company owns 100% of 5 Exclusive Prospecting Licences (EPLs) in Malawi. EPL0355 renewed in 2017 for 2 years, EPL0372 renewed in 2018 for 2 years and EPL0413 renewed in 2017 for 2 years. EPL0492 and EPL0528 were granted in 2018 for an initial period of three years (renewable).
	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.	The tenements are in good standing and no known impediments to exploration or mining exist.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	No other parties were involved in exploration.

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Criteria	Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation	The rutile deposit type could be termed a residual placer formed by the intense weathering of rutile-rich basement paragnelses
	Style of mineralisation	Rutile occurs in a mostly topographically flat area west of Malawi's capital known as the Lilongwe Plain where a deep tropical weathering profile is preserved. A typical profile from top to base is generally soil ("SOIL" 0-1m) ferruginous pedolith ("FERP", 1-4m), mottled zone ("MOTT", 4-7m), pallid saprolite ("PSAP", 7-9m), saprolite ("SAPL", 9-25m), saprock ("SAPR", 25-35m) and fresh rock ("FRESH" >35m).
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 northings 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; and hole length	A total of 10 auger holes were clustered around an existing drillhole (MGHA0967). The cluster of holes, given their close proximity (<5m apart) have been given averaged joint collar information: Hole ID : MGHC0001 Easting: 572318 Northing: 8436400 RL: 1131 Depth: 17m The sample for test work composited from material at depths of 6-12m
	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	No information has been excluded.
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.	No grade weighting or lower or upper cuts were used.
	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 single intercept taken from 6-12m vertical depths is considered a single sample with no upper or lower cuts.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used in this report.
Relationship between mineralisation widths &	These relationships are particularly important in the reporting of Exploration Results.	It is considered that the mineralisation lies in laterally extensive, near surface, flat "blanket" style bodies in areas where the entire weathering profile is preserved and not significantly eroded.
intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The mineralisation lies in laterally extensive, near surface, flat "blanket" style bodies.
	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'.	Downhole widths approximate true widths, though all mineralisation currently remains open at depth.
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 the drill collar locations and appropriate sectional views.	Refer to figures in the body of this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable	All results have been reported in this report.
reporting	Exploration Results is not practicable,	

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Criteria	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.	Rutile has been determined to be the major TiO ₂ -bearing mineral at and around the Wofiira rutile prospect and within the Malingunde graphite deposit area through mineralogy and sighter metallurgy test-work reported in 2018. The company is currently examining other areas within the large tenement package for rutile mineralisation.
Further work	The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large-scale step-out drilling).	Commencement of additional mineralogical and metallurgical test-work on samples from each of the significant mineralised areas to assess mineralogy, recoverable rutile percentages, improve recovered rutile grades, determine the potential to produce other mineral by-products and further develop the flowsheet. Further analyses of historical drill samples to expand areas of known rutile mineralisation. Regional hand-auger drilling to attempt to delineate an initial rutile resource, if warranted, and further understand the regional distribution of rutile.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to diagrams in the body of this report.

