

For Release: 29 September 2023

### **Uranium Mineralisation in first trench at SWC Project**

- Exploration program begins at SWC Target with 1 trench completed to date
- Scintillometer readings 'max-out' at 9,999 counts per second (cps)
- Further results expected in October as more trenches are completed
- Trenches are in the area of excellent (2008) auger drillhole intersections including:

MRSA04: 5m @ 700 ppm U<sub>3</sub>O<sub>8</sub> from 7m including 2m@ 1,300ppm
MRSA06: 7m @ 440 ppm U<sub>3</sub>O<sub>8</sub> from surface including 2m@ 675ppm
MRSA12: 8m @ 1,273 ppm U<sub>3</sub>O<sub>8</sub> from surface including 2m@ 3,825ppm

MRSA07: 5m @ 1,200 ppm U<sub>3</sub>O<sub>8</sub> from 2m@ 2,705ppm
 MRSA13: 7m @ 494 ppm U<sub>3</sub>O<sub>8</sub> from 3m@ 803ppm

- Shallow auger holes drilled in 2008 by Mantra Resources (Mantra) but were not followed up with many holes ending in mineralisation
- SWC is ~50 kms south of Mantra/Uranium One's world class "Nyota" deposit (hosting a Measured and Indicated MRE of 187 Mt at 306 ppm  $U_3O_8$  containing 124.6 Mlbs  $U_3O_8$ ) in a similar geological setting
- The current trenching is the first exploration work in the area since 2012
- Drilling is planned to start as soon as possible after the results of the trenching program and the radiometric survey have been completed.
- ~120 line km ground radiometric survey to be completed during October to assist with drillhole planning

**Gladiator Resources Ltd (ASX: GLA) (Gladiator** or the **Company**) is pleased to announce that it has begun its exploration program at its flagship SWC Target within its 724km2 Mkuju Uranium Project and has encountered highly mineralised material in the first trench. The region hosts significant sandstone hosted uranium deposits including the 125Mlb U<sub>3</sub>O<sub>8</sub> Nyota deposit. Trenching will be followed by drilling in early 2024.

#### **Trenching Program**

Gladiator mobilised a team and has completed its first trench of a planned 4 at SWC. A 30m long zone is present with scintillometer readings over 1000 cps and up to >9,999 cps, the maximum for the device. The mineralisation is hosted in highly weathered sandstone (saprolite) with yellowish secondary uranium visible within the matrix (between the sandstone grains). The trenches are to be a maximum of 180 m long and 3 to 4 m deep. The first is at the location of 2008 auger hole MRSA12 (Fig. 1). The next trenches are planned at the site of auger holes MRSA06 and MRSA07. Samples will be collected from the trenches and sent for analysis.

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Concurrently with the trenching, a ~120-line km ground radiometric survey is to be completed during October. The data from this work will inform a drilling program which is planned to test the depth and lateral extent of the known and potentially new areas recognized from the ground radiometric data.

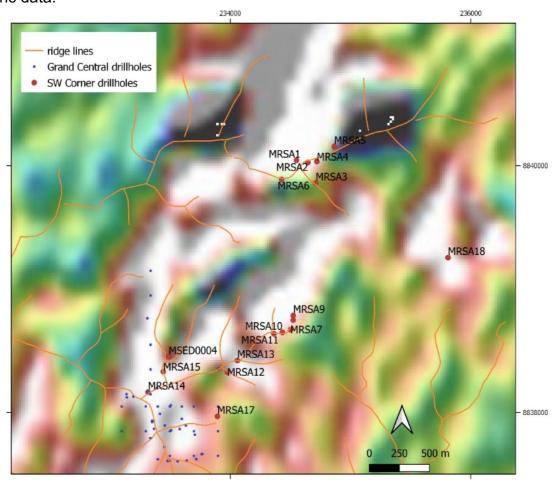


Fig 1: SWC target area and airborne radiometric (white is highest radiometric intensity)
data and auger drill holes

#### The SWC Target

The target is a relatively intense 3.5 x 1.8 km airborne radiometric anomaly in the southwest corner of Prospecting Lease 12354 which was recently secured by Gladiator<sup>1</sup>. The target is at the end of a 12 km long NE-SW oriented trend of radiometric anomalies referred to as the Mtonya-SWC trend (**Fig.2**). SWC has the most intense radiometric anomaly of all those on the trend but no exploration has been carried out since 2008 except for a single diamond core hole

<sup>&</sup>lt;sup>1</sup> GLA announcement dated 1 June 2023



drilled in 2012. Reportedly, Mantra (who originally drilled the auger holes) did not follow-up the highly elevated U<sub>3</sub>O<sub>8</sub> results at the time due to prioritising their large "Nyota" Uranium deposit 50 km to the north which was central to an AUD\$1 Billion takeover by Uranium One in 2011.

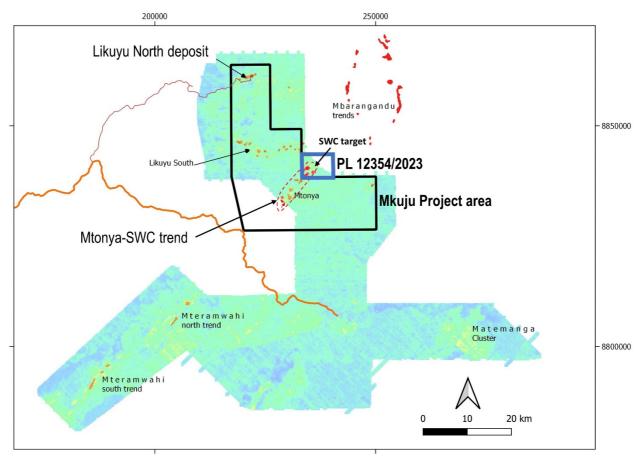


Figure 2. GLA's Mkuju Project area showing the SWC target

#### 2008 Auger Hole Results

The work reported herein is historic: In 2008 Mantra carried out auger drilling to test airborne radiometric anomalies at the SWC target. Available data indicates that they drilled 18 holes to a maximum depth of 13m with a total of 154m drilled. The holes were terminated on reaching the change from weathered to less-weathered harder rock, as an auger bit will not penetrate harder ground. *Table 1* provides the results in the database obtained by Gladiator. The holes were all drilled along ridgelines for ease of access.





Fig 2: New trench wall and scintillometer with >9,999 cps

Hole_ID	Туре	Max Depth (m)	Date completed	UTM East	UTM North	RL (m)	From (m)	To (m)	nterval (m	U3O8 (ppm)	Comments
MRSA01	auger	10	4/26/2008	234550	8840044	794	3.0	9.0	6	182	
MRSA02	auger	13	4/27/2008	234645	8840026	807	11.0	13.0	2	305	ended in min.
MRSA03	auger	13	4/28/2008	234710	8839860	806	0.0	3.0	3	130	
MRSA04	auger	12	4/29/2008	234719	8840034	813	7.0	12.0	5	700	ended in min.
MRSA05	auger	10	4/29/2008	234864	8840155	810	8.0	9.0	1	90	
MRSA06	auger	7	4/30/2008	234427	8839889	821	0.0	7.0	7	440	ended in min.
MRSA07	auger	8	4/30/2008	234500	8838672	975	3.0	8.0	5	1200	ended in min.
MRSA08	auger	5	5/2/2008	234523	8838750	796	4.0	5.0	1	150	ended in min.
MRSA09	auger	6	5/2/2008	234523	8838787	794	1.0	2.0	1	100	
MRSA10	auger	6	5/2/2008	234433	8838650	791	4.0	6.0	2	270	ended in min.
MRSA11	auger	6	5/2/2008	234362	8838639	801	1.0	5.0	4	348	
MRSA12	auger	8	5/2/2008	233976	8838328	822	0.0	8.0	8	1273	ended in min.
MRSA13	auger	7	5/2/2008	234059	8838422	819	0.0	7.0	7	494	ended in min.
MRSA14	auger	9	5/4/2008	233316	8838166	838	No data				
MRSA15	auger	7	5/4/2008	233443	8838332	830	NSI				
MRSA17	auger	11	5/27/2008	233893	8837970	805	No data				
MRSA18	auger	8	5/31/2008	235810	8839256	784	NSI				
MSED0004	diamond core	701	10/18/2012	233488	8838452	819	58.1	59.3	1.2	824	

Table 1: SWC drill holes with Uranium intersections (all holes vertical). NSI = No significant Intersection

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#### **Geology and Target Type**

The area is comprised of sediments of the Upper Triassic Mbarangandu Formation, which are coarse sandstones, grit-stones, conglomerates and lesser mudstones. The stratigraphy is gently dipping to the northeast and east, with local variations. The Uranium observed at the nearby Mtonya deposit is hosted by feldspathic sandstone and interpreted as 'stacked roll-front mineralisation' type, hosted in 3 'tiers' from tens to hundreds of meters below surface and separated by mudstones.

Based on the work at Mtonya, the primary target type is a Uranium 'roll-front' system. These are accumulations of Uranium at the interface of oxidised and reduced sandstones or siltstones, which are globally one of the most important types of Uranium deposit. They may be very large, of excellent grade and are generally amenable to mining by In-Situ Recovery (ISR) methods, as is widely used in the USA, Kazakhstan and Australia. ISR can be beneficial in terms of economics and having less impact on the environment.

Released with the authority of the Board

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#### **Competent Person (CP) Statement**

Information in this "ASX Announcement" relating to Exploration Targets, Exploration Results and Mineral Resources has been compiled by Mr. Andrew Pedley who is a member in good standing with the South African Council for Natural Scientific Professions (SACNASP). Mr. Pedley has sufficient experience that is relevant to the types of deposits being explored for and qualifies as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012 Edition). Mr. Pedley consents to the inclusion in this document of the matters based on the information in the form and context in which it appears. The market announcement is based on, and fairly represents, information and supporting documentation prepared by the Competent Person. Mr. Pedley is a non-executive director of Gladiator Resources Limited.



#### JORC Code, 2012 Edition – Table 1

#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
1.1 Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Gladiator Trenches:</li> <li>No samples have been collected at the time of writing, trenches are first being mapped.</li> <li>A handheld Exploranium GR100 scintillometer is being used to map out mineralisation in the sidewall of the trenches.  Historic drillholes:  No records of sampling methodology were available to Gladiator for review.</li> <li>All that is known is that the holes were drilled using an auger rig and that samples were 1 metre in length. It is uncertain if the full sample or a split of it was collected.</li> <li>The single core hole was presumably sampled by cutting into half and submitting half-core though no description has been obtained.</li> <li>Following on from the above, no assurances of sample representivity can be made.</li> </ul>
1.2 Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Historic drillholes:  The holes were drilled using an auger rig and were vertical. Holes stopped when they reached 'refusal' – auger rigs will only penetrate soft material. The holes might have recovered the upper highly weathered bedrock (saprolite) but not beyond this.  The hole MSED0004 was drilled by diamond core drilling of unknown diameter.



Criteria	JORC Code explanation	Commentary
1.3 Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Historic drillholes:     No records of recovery are available and so no comment on sample representivity or adequacy of the method can be made.
1.4 Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Historic drillholes:</li> <li>There is no logged geological data for the auger holes.</li> <li>The single diamond hole has a detailed geological log recording weathering, lithology, grainsize, sorting and other characteristics.</li> <li>No photographs are available.</li> </ul>
1.5 Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Historic drillholes:  No records or description of subsampling techniques are available and so no comment on appropriateness or representivity can be made.
1.6 Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in</li> </ul>	Gladiator Trenches:  • A scintillometer does not measure uranium it measured radiation though in this area it is well known that the radiation is almost entirely from the decay of uranium. The cps data can not be converted to uranium grades.



Criteria	JORC Code explanation	Commentary
	determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (lack of bias) and precision have been established	<ul> <li>Historic drillholes:</li> <li>No record of assay and laboratory methods available. The assay sheet in the database do record that the method was 4 acid digest followed ICPOES and that the analyses were carried out at A in Perth. The mineralised samples were analysed XRF, presumably as a second analysis requiring higher detection limit more appropriate to the mineralised samples which have up to 6130 pp U3O8. These methods are appropriate.</li> <li>No quality control data is available and so the CP camake no assurances on the quality (accuracy as precision) of the analyses.</li> </ul>
1.7 Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Historic drillholes:     There has been no independent verification of t auger hole results.     Uranium measured as U in the database w converted to U3O8 by multiplying by 1.1792 as correct according to molecular weights of U and O
1.8 Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Gladiator Trenches:</li> <li>The new trenches are being located using a han held Garmin GPS, positioned at the site of a selection of the 2008 auger holes.         <u>Historic drillholes:</u> </li> <li>There is no description of survey method for the auger holes other than that it was by GP presumably a hand-held unit.</li> <li>All holes are positioned using WGS84 UTM zone 37.</li> <li>There has been no topographic survey.</li> </ul>



Criteria	JORC Code explanation	Commentary
1.9 Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	Historic drillholes:     The drillholes were drilled along topographic ridgelines and so are arranged accordingly. They are between 40 and 200 m apart and in two areas plus a single outlying hole.
1.10 Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Gladiator Trenches:  The first trench is oriented along the ridgeline. It is uncertain yet what the orientation of mineralisation is though it is likely to be horizontal or gently dipping. This will be better understood with the results of the trench sampling.  Historic drillholes:  No information is available on orientation of the mineralised intervals but it can be reasonably assumed that they are either horizontal or gently dipping as the rocks are consistently of this aspect in the area. The regolith also has a flat to gently undulating development, as has been observed by the CP.
1.11 Sample security	The measures taken to ensure sample security.  The results of any audits or reviews of sampling.	Historic drillholes:     There is no information on this. The CP cannot make any statement regarding the assurance of sample security.  No physical review or audit has been carried out of
1.12 Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No physical review or audit has been carried out of sampling techniques. The data is in a tidy format and appears to be an export from a database.</li> </ul>
Criteria	JORC Code explanation	Commentary



Criteria	JORC Code explanation	Commentary
2.1 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 licence to operate in the area.	<ul> <li>The SWC target is within Prospecting Licence (PL)12354/2023 granted on the 19 May 2023 and is valid for 4 years.</li> <li>The target is within the Mbarang'andu National Community Forest Reserve. Zeus has informed the CP that there are no restrictions to operate in this Reserve as per section 95 of the Mining Act 2019.</li> <li>If developed as a mining project detailed Environmental and Social Impact Assessment (ESIA) and an Environmental Management Plan (EMP) would be required to be completed and approved.</li> </ul>
2.2 • Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>An airborne magnetic survey was carried out by one of the companies exploring in the wider area, possibly Mantra Resources, probably sometime before/during 2008. This data may have been helpful in identifying the targets on the Mtonya-SWC trend.</li> <li>The auger drilling at SWC was carried out by Mantra in 2008.</li> <li>A single diamond core was drilled at SWC in 2012 though it is not known by which company.</li> </ul>
2.3 Geology •	Deposit type, geological setting and style of mineralisation.	<ul> <li>The majority of the uranium deposits and occurrences in eastern and southern Africa occur within the Karoo Supergroup, a thick sequence of continental clastic sediments which are from late Carboniferous to Jurassic in age. Sandstones are the dominant lithology, with lesser amounts of conglomerate, siltstone, and mudstone.</li> <li>In southern Tanzania the Karoo sediments are within the NNE trending Selous Basin, a rift basin that extends over a length of about 550km and a width of up to 180km.</li> <li>At SWC the uranium intersected by the auger holes is assumed to be within highly weathered bedrock, as was observed by the CP at the nearby Mtonya deposit. The rocks are feldspathic sandstones of the Upper Triassic aged Mbarangandu Formation.</li> <li>Concentration of 'secondary' Uranium in the near-surface saprolitic material by supergene processes may partially control the grade and thickness of the reported intervals. This needs investigation to understand how it relates to potential deeper 'primary' mineralisation. Preliminary observations by indicate that this mineralized saprolitic material is found along the topographic ridgelines, and that away from the ridges it has been at least partially eroded.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>At Mtonya the exploration defined relatively narrow 'fronts' of mineralisation within the fresh bedrock. It is likely that similar 'primary' mineralisation is also present at SWC, as indicated by the intersection in the single diamond core hole MSED004 from 58.1 to 59.3m grading 824ppm U308. Efforts should be focused on locating potential thicker zones of primary roll-front mineralisation.</li> <li>The presence of tabular uranium deposits cannot be ruled out. The Likuyu North deposit 35km to the north appears to be a tabular deposit. At Likuyu North the mineralised layers are stacked stratiform zones interpreted as tabular bodies principally controlled by the sedimentary units with grade increasing where there are changes in grainsize, increased carbonaceous material in the sands and changes in oxidation state. The Likuyu deposit is hosted by the Mkuju River Formation whereas the rocks at SWC are of the Mbarangandu Formation.</li> <li>In the trench at SWC the mineralisation is hosted in massive and highly weathered sandstone (saprolite with yellowish secondary uranium visible within the matrix (between the sandstone grains). No bedding or other controls are evident. The aspect/orientation of the mineralisation is uncertain though it is expected to be flat to gently dipping as is the stratigraphy in this area.</li> </ul>
2.4 Drill hole Information	<ul> <li>A summary of all information understanding of the exploration a tabulation of the following inj Material drill holes:</li> </ul>	results including  The drillhole information is provided in the table in
	o easting and northing of the drill h	nole collar
	<ul> <li>elevation or RL (Reduced Level – sea level in meters) of the drill ho</li> </ul>	
	o dip and azimuth of the hole	
	o down hole length and interception	n depth
	o hole length.	
	<ul> <li>If the exclusion of this information the basis that the information is this exclusion does not det understanding of the report, Person should clearly explain why</li> </ul>	not Material and tract from the the Competent



Criteria	JORC Code explanation	Commentary
2.5 Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Historic drillholes:</li> <li>No weighted average methods were used for the auger results as samples were all of 1m length.</li> <li>For the core hole MSED004 sample length weighting was used to work out the average grade of the interval.</li> <li>Hole MRSA012 had a sample with 6130ppm U308 from surface, without this sample the average grade of the interval is 579 ppm U308 (as opposed to 1273ppm). Similarly, the first sample in hole MRSA09 is 4480ppm U308, without it the interval grades 380 ppm U308 (as opposed to 1200 ppm)</li> </ul>
2.6 Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Historic drillholes:</li> <li>The auger holes only tested the regolith, largely comprised of weathered bedrock (saprolite) which is expected to have an aspect similar to that of the bedrock in the area which is gently dipping.</li> <li>It is expected that the intercept lengths are a true reflection of the thickness of the mineralisation.</li> <li>Of relevance is that the oxidised material interested by the auger holes may not extend off the ridgelines if it has been eroded away from the ridges.</li> </ul>
2.7 Diagrams	<ul> <li>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.</li> </ul>	Maps and tabulations are provided in the announcement. A cross-section is not included.
2.8 Balanced reporting	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.	The reporting is considered balanced.



Criteria		JORC Code explanation		Commentary
2.9 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.	•	There is no other data available other than that which has been reported.
2.10 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).	•	Completion of the sampling and analysis of the trenches and the mapping of the sidewalls to attempt to understand the nature of the mineralisation.
	•	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	•	Drill at the site of the best of the historic auger holes and/or trenches using a drilling method that can continue into the unweathered bedrock, to reach the base of the oxide mineralisation and to test for deeper primary mineralisation.
			•	Completion of the planned ground radiometric survey as this may identify additional targets.
			•	Drilling to test the lateral extent of the oxide mineralisation and potential primary uranium.
			•	Work to understand the role of the regolith and supergene processes that may control the mineralisation intersected in the auger holes and understand the evolution of this supergene uranium over time.