

## SOIL SAMPLING DELINEATES GOLD DRILL TARGETS AND LITHIUM ANOMALIES AT BEASLEY CREEK

- **Specialist geochemical review identifies four high-priority gold and lithium anomalies for rapid field verification and drilling.**
- **Numerous other lower-order stream sediment and soil anomalies, including for base metals, have also been delineated for follow-up.**
- **Multi-target RC drilling campaign to commence as soon as possible subject to access permitting and other approvals.**

Castle Managing Director, Stephen Stone commented **“We have now systematically delineated at least four high-priority geochemical sampling based targets at Beasley Creek, two of which are strongly indicative of the structurally-controlled, orogenic gold-style mineralisation that we have primarily been targeting in this very unexplored area.”**

**“Two others are unexpected lithium anomalies supported by anomalous and commonly associated signature elements in close proximity to the Rocklea granite.”**

**“We will now move to verify in the field these priority and other interesting anomalies and, once we obtain the relevant site access permits, implement a multi-target RC drilling program”**

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Explorer and project incubator, Castle Minerals Limited (ASX: CDT) (“Castle”, the “Company”), advises that a specialist review of geochemical datasets, which includes the results of a recently completed infill soil sampling program, has identified four high-priority targets for gold and possibly pegmatite-hosted lithium at the Beasley Creek project on the northern flanks of the Pilbara’s Rocklea Dome granite intrusion (Fig 1)(Appendix – Table 1).

Castle’s recognition that the under-explored older Archean greenstone sequence of rocks at Beasley Creek is prospective for structurally controlled, orogenic-style gold mineralisation is beginning to pay dividends.

Results from a series of rock chip, stream sediment, soil sampling and mapping campaigns combined with a recent high resolution aeromagnetic survey and detailed structural interpretation have reinforced the belief that the area contains several viable drill targets.

Two of the priority gold targets fall within a structurally bound, northwest trending anomalous corridor in the centre of the licence. They comprise a consistently anomalous 600m zone with associated copper anomalism and a smaller anomalous gold zone with a multi-element association of silver, bismuth, nickel, platinum and palladium. Sample values peaked at 137ppb Au and 1010ppm Cu.

## Lithium

The two other priority targets have a strong lithium signature in both soil and stream sediment samples. These are located in the southern section of the greenstone rocks, close to their margin with the Rocklea Granite.

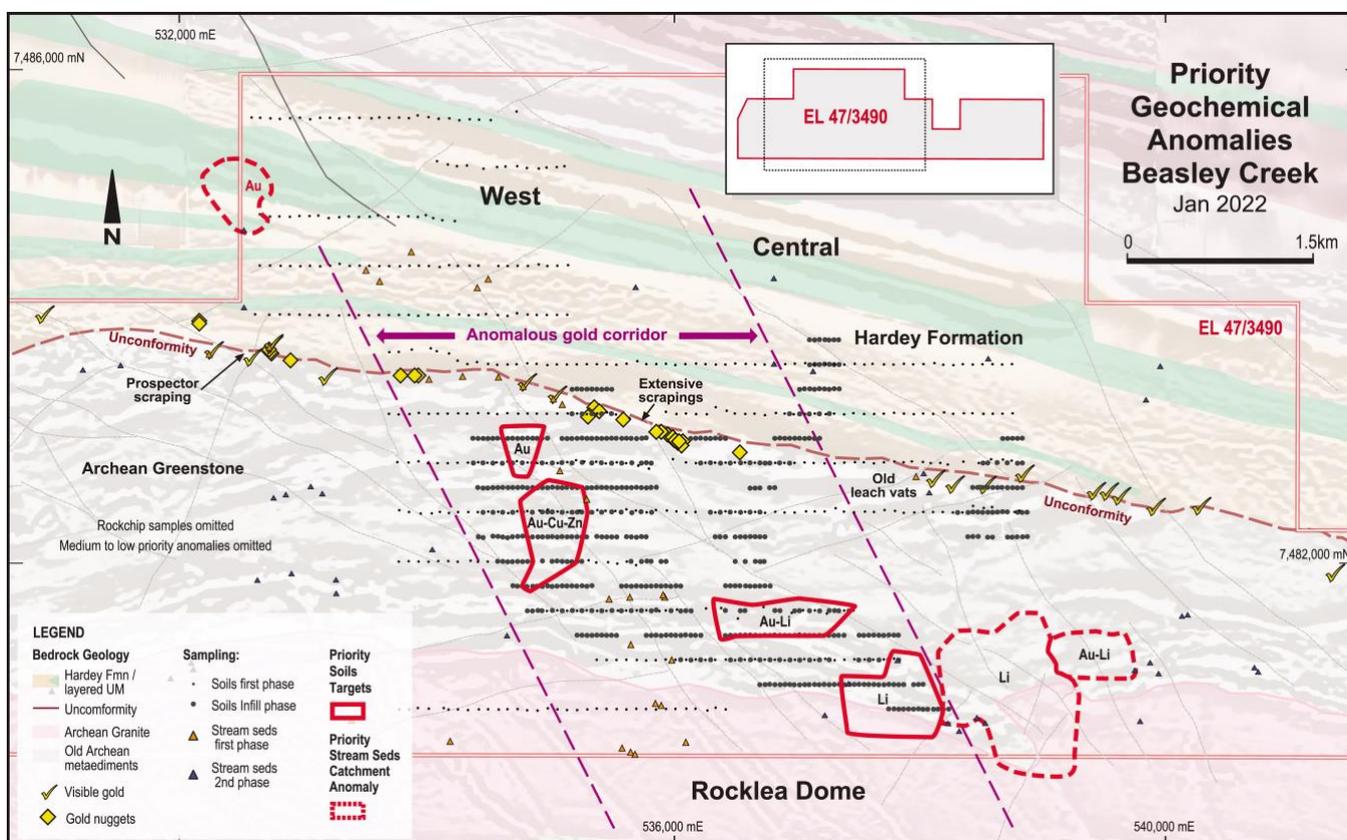
Lithium and the anomalous associated pathfinder elements also identified were not a specific target for exploration at Beasley Creek but their elevated values have provided Castle with an additional dimension to its exploration in the region.

The multi-element signatures of these anomalies are consistent with possible hard rock lithium mineralisation associated with lithium-cesium-tantalum (“LCT”) type pegmatites and their close proximity to the Rocklea granite provides additional encouragement.

At this stage it is too early to have a firm understanding of the origin of the lithium. It is also stressed that Castle has not yet carried out enough sampling to confirm the source of the lithium or other associated elements and no pegmatites have as yet been identified in the field or are apparent from satellite imagery.

A field inspection is planned as a priority and before any decision to drill the lithium targets is made.

**Fig 1: Top-ranked gold and lithium soil and stream sediment anomalies at Beasley Creek**



## Review details

When soil and steam sediment samples are collected, they are assayed for up to 30 different elements. Specialist consultant, Sugden Geoscience, was contracted to undertake a detailed multi-element geostatistical study that looked closely at individual and groups of ‘pathfinder’ elements to identify areas with typical ‘signatures’ for possible orogenic gold and VMS-style mineral deposits.

The study also effectively ‘levelled’ the various datasets in the context of the underlying stratigraphy in order to screen out ‘false positives’ and identify zones of bona fide anomalism.

The review interrogated 1,327 samples of which 989 were from the recently completed infill soil sampling survey (200m x 40m grid) with another 149 and 189 samples respectively extracted from preceding stream sediment and rock chip sampling programs.

A Castle stream sediment survey carried out in early 2020 had already highlighted anomalism in several of the drainages within the older Archean greenstone sequence. A subsequent soil sampling campaign, where samples were collected on a 400m x 80m sampling grid, outlined a broad zone of anomalism bounded by northwest trending structures. These structures were identified by a detailed interpretation of a high-resolution aeromagnetic survey commissioned by Castle (refer ASX release 5 August 2021).

The statistical analysis of the various datasets generated a total of twenty three multi-element targets (>90% percentile values) that were ranked against a number of geological criteria. Four targets in particular were designated as high-priority.

**Field reconnaissance**

Concurrent with the last phase of soil sampling, Castle undertook a field reconnaissance program to check for and sample any outcropping mineralisation. This was able to identify various sedimentary sequences along with mafic volcanic rocks which showed indications of hydrothermal activity.

Another field visit is planned asap to inspect the high-priority and other ranked anomalies prior to the planning of a drill program. Commencement of drilling will, amongst other things, be subject to the undertaking of a heritage survey by the area’s indigenous custodians and other statutory requirements.

**EIS Co-Funding**

As the emphasis at Beasley Creek has shifted away from gold mineralisation in the vicinity the unconformity between the Hardey Formation and the underlying Archean greenstone sequence, Castle has informed the GSWA that it no longer needs to drill the deep stratigraphic diamond core holes that were to be co-funded under the Exploration Incentive Scheme (EIS).

Authorised for release to ASX by the Board of Castle Minerals Limited:

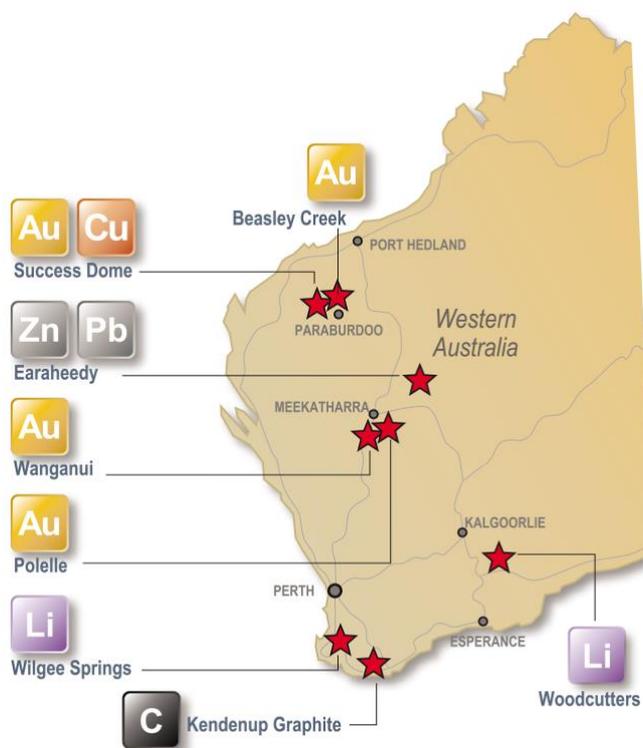
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**About Castle Minerals Limited**

Castle Minerals Limited is an Australian Securities Exchange (ASX: CDT) listed and Perth, Western Australia headquartered company with interests in several projects in Western Australia and Ghana that are prospective for battery metals (lithium and graphite), base metals and gold.

The **Earaheedy Basin** project encompasses terrane prospective for base and precious metals in the Earahedy and Yerrida basins base metals provinces. The project comprises the **Withnell, Terra Rossa** and **Tableland** sub-projects. The Withnell application is adjacent to the evolving Chinook-Magazine zinc-lead project of Rumble Resources Ltd (ASX: RTR) and north of the Strickland Metals Limited (ASX: STK) Iroquois prospect. The four Terra Rossa applications are immediately east of the Thaduna copper deposit.



The **Beasley Creek** project lies on the northern flanks of the Rocklea Dome in the southern Pilbara. The strategy is to define orogenic-style, structurally controlled gold targets within the various Archean sequences. The sheared granite - greenstone contact and the “Paulsen Gold Mine” type setting within the gabbro/dolerite units that intrude the Hardey Sandstone in the northern part of the project area, are also of particular interest.

The **Success Dome** project lies in the Ashburton structural corridor and is located midway between the Paulsen’s and Ashburton gold deposits. It is prospective for gold and base metals. Major thrust faults and sub-parallel shear zones highlighted in the regional magnetic and gravity data, combined with additional detailed geophysics data from previous explorers, brought this available area to Castle’s attention.

The **Polelle** project (E51/1843, 162.5km<sup>2</sup>), 25km south of Meekatharra and 7km southeast of the operating Bluebird Mine, hosts a mainly obscured and minimally explored greenstone belt. The belt is comprised of a combination of prospective lithological units and major structural features including the Albury Heath shear which hosts the Albury Heath deposit immediately adjacent to the east boundary of Castle’s licence. Aeromagnetic surveys have indicated that the southwest trending Albury Heath shear and a splay structure are traceable onto the Polelle project area for some 12km.

At the **Wanganui** project (E51/1703, 18.4km<sup>2</sup>), 33km south-west of the active Meekatharra mining centre and 15km south-west of the operating Bluebird gold mine, the opportunity is to test for down-plunge and along strike extensions to the existing Main Lode North and South deposits, as well as for other similar targets. The Main Lode mineralisation, which can be intermittently traced for at least 1km, is one of at least four structurally related mineralised zones.

The **Wilgee Springs** project (ELA70/5880, 120km<sup>2</sup>), along strike from and within the same metamorphic belt as the World-Class Greenbushes lithium mine, 25km to the south in Western Australia’s South-Western region, provides an opportunity to explore using the latest geochemical and geophysical techniques for spodumene bearing pegmatites beneath a lateritic cover that has previously hampered exploration.

The **Woodcutters** project (ELA15/1847/1847, 242km<sup>2</sup>) is prospective for lithium bearing pegmatites, 25km southeast of the Bald Hill lithium mine in the Bald Hill pegmatite field region and 25km northwest of the Buldania lithium deposit.

The **Kendenup** project (EL70/5514 – granted) comprises the historical Kendunup graphite workings and an adjacent application encompasses the Martigallup graphite occurrences (ELA70/5963).

In **Ghana, West Africa**, Castle has a substantial and contiguous tenure position in the country’s Upper West region. Ghana has a long history of gold exploration and mining with several world-class gold mining operations owned by Tier 1 mining companies. Castle’s Ghana licence holdings encompass large tracts of highly prospective Birimian geological terrane, the host to many of West Africa’s and Ghana’s multi-million-ounce gold mines. The project area is also host to the open-ended **Kambale** graphite project for which test work on near-surface samples produced a 96.4% total carbon fine flake graphite concentrate.

Castle retains a **4% net smelter precious metal royalty** over the adjacent Julie West licence, a key component of Azumah Resources Limited’s Wa Gold Project.



### Cautionary Statement

All of Castle’s projects in Australia are considered to be of grass roots or of relatively early-stage exploration status. There has been insufficient exploration to define a Mineral Resource. No Competent Person has done sufficient work in accordance with JORC Code 2012 to conclusively determine or to estimate in what quantities gold or other minerals are present. It is possible that following further evaluation and/or exploration work that the confidence in the information used to identify areas of interest may be reduced when reported under JORC Code 2012.

The **Kambale graphite deposit** is at an early stage in its evaluation with little known about how extensive the deposit is or how the graphite quality varies within it. Work to date has been undertaken on an easily accessible area which may or may not be representative of the broader deposit once that is known.

To date, the area investigated at Kambale has produced from weathered samples a fine flake size concentrate of a potentially commercially acceptable grade at a reasonably high recovery. Definitive test work on fresh material and material from other parts of the deposit has yet to be undertaken.

### Forward Looking Statement

Statements regarding Castle’s plans, forecasts and projections with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that Castle’s plans for development of its mineral properties will proceed. There can be no assurance that Castle will be able to confirm the presence of Mineral Resources or Ore Reserves, that any mineralisation will prove to be economic or that a mine will be successfully developed on any of Castle’s mineral properties. The performance of Castle may be influenced by a number of factors which are outside the control of the Company, its Directors, staff or contractors.

### Competent Persons Statement

The scientific and technical information in this Report that relates to the geology of the deposits and exploration results is based on information compiled by Mr Stephen Stone, who is Managing Director of Castle Minerals Limited. Mr Stone is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit 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 Stone is the Qualified Person overseeing Castle’s exploration projects and has reviewed and approved the disclosure of all scientific or technical information contained in this announcement that relates to the geology of the deposits and exploration.

## Appendix: JORC Code 2012 Edition – Table 1

### Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Certified Person 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.	Soil sampling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Soil samples are homogenised by the collection process.

Criteria	JORC Code explanation	Certified Person Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report.	Soil sampling results are a first pass exploration technique that can assist in vectoring toward mineralisation.
	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 3kg was pulverised to produce a 30g 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.	Soil sampling is regarded as a standard first pass exploration techniques. For soil sampling, at the selected sample site, a small hole is dug to a depth of approximately 20 cm. The soil material at the base of the hole was sieved, and approximately 2kg of -2mm soil material was collected into a numbered calico bag.
<b>Drilling techniques</b>	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).	Not Applicable.
<b>Drill sample recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	Not Applicable.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable.
	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.	Not Applicable.
<b>Logging</b>	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.	Not Applicable.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not Applicable.
	The total length and percentage of the relevant intersections logged.	Not Applicable.
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	Not Applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Soil sample were sieved to collect the -2 mm fraction. All samples were dry.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The entire sample was pulverized to a nominal -80 micron at the laboratory. Once the sample was pulverized a 25g subsample was taken by a scoop for digestion.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	There was no subsampling.
	Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.	Field repeat soil samples were collected every 50 <sup>th</sup> sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the material being sampled.
<b>Quality of assay data and</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and	25g sub-sample of the soils were digested in an aqua regia solution and analysed for a multielement suite by ICP OES or MS. The aqua regia technique is not a

Criteria	JORC Code explanation	Certified Person Commentary
<b>laboratory tests</b>	whether the technique is considered partial or total.	complete digestion but for soil material is considered adequate.
	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 Applicable.
	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.	For the soil samples, a field repeat sample was collected every 50 <sup>th</sup> sample and given a separate sample number. These samples were collected in an identical manner to the original sample.
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	Anomalous geochemical thresholds were determined by a senior geologist.
	The use of twinned holes.	Not Applicable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Pre numbered sample bags were used. Field operator was provided as an electronic file of the planned sample locations to load into a GPS. The actual sample location was recorded as a waypoint with the sample number of the sample collected. The operator provided a digital copy of the downloaded GPS file.
	Discuss any adjustment to assay data.	As part of the interpretation of the geochemical data, the raw results were levelled to remove effects of geology and batch differences by the Company's consultant geochemist.
<b>Location of data points</b>	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.	The operator used a GPS unit to navigate to each predetermined sample site. The actual sample site was recorded as a way point.
	Specification of the grid system used.	GDA 94, zone 50.
	Quality and adequacy of topographic control.	GPS measurements of sample positions are sufficiently accurate for first pass geochemical sampling.
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	Soil sample collection was on east west lines. The sample pattern was designed to infill the earlier reconnaissance soil program in order to close in the sample density to 200m X 40m .
	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.
	Whether sample compositing has been applied.	No.
<b>Orientation of data in relation to geological structure</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Sample lines were orientated approximately parallel to the geological strike and perpendicular to strike of the interpreted major structures. Given the topography and early stage of exploration, the sampling orientation is not considered to introduce a bias to the interpretation of the data
	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.	Not Applicable.
<b>Sample security</b>	The measures taken to ensure sample security.	Samples were collected into labeled polyweave sacks which were sealed by cable ties. The polyweave sacks were placed in bulka-bags and transported to the

Criteria	JORC Code explanation	Certified Person Commentary
		laboratory by freight company. Once the samples arrived at the laboratory, the samples numbers were checked against the sample submission form and no errors were identified.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	As part of the interpretation of the data the Company's consultant geochemist undertook a review of the assay data quality, including laboratory batch effects. No significant biases were identified.

## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Certified Person Commentary
<b>Mineral tenement and land tenure status</b>	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.	Tenement E47/3490 is granted, and in good standing with DMIRS.  Registered Tenement Holders: Castle has an 80% interest in the tenement with Rosane Pty Ltd which has a 20% interest in the tenement, free-carried until Castle makes a decision to mine.  Rosane has entered into an Access and Heritage Agreement with the traditional owners which is in the process of being assigned to Castle.
	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 tenement is in good standing.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	Previous work on the tenement has included alluvial mining for gold along creek draining conglomerates on the Fortescue unconformity. CRA undertook exploration for Nickel and PGE mineralisation in the mafic and ultramafic units intruding the Hardy Sandstone but failed to define any significant anomalism.  Vageta and Diamond Rose NL in joint venture explored for shear hosted gold mineralisation in the old Archean metasediment sequences completing stream sediment sampling and RC drilling of outcropping quartz veins. The stream sediment sampling returned anomalous results but drilling results were e low.  Dragon Energy followed up the Vageta/Diamond Rose work with interpretation of government aster data but were primarily focused on iron ore exploration outside the current tenement.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The tenement is located on the northern edge of the Rocklea Dome in the Archean Pilbara region of West Australia. The tenement straddles the unconformity contact between the older Archean greenstones and granites and Fortescue Group sediments. Alluvial gold mineralisation is present close to the unconformity surface but the source of the gold is unknown. The Company is focusing on exploring for gold or base metal mineralisation associated with structures in the older Archean and Fortescue Group sequences
	A summary of all information material to the understanding of the exploration results including	No drillholes are reported.

Criteria	JORC Code explanation	Certified Person Commentary
<b>Drill hole Information</b>	a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul>	
	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.	The plan provided in the body of the report identifies the location of the geochemical sampling sites as well as the priority target areas defined by the Company's consultant geochemist.
<b>Data aggregation methods</b>	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 adjustments to the assay results as reported have been undertaken.
	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.	Not Applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not Applicable.
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results.	Not Applicable.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not Applicable.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Not Applicable.
<b>Diagrams</b>	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.	Appropriate maps displaying all the data points and anomalous values are provided in the body of the report.
<b>Balanced reporting</b>	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.	Not Applicable.
<b>Other substantive exploration data</b>	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.	Since acquiring an interest in the tenement, Castle Minerals has flown low level aeromagnetic and radiometric survey over the tenement, completed detailed geological mapping on the Archean Fortescue unconformity contact, stream sediment, rock chip and reconnaissance scale soil geochemical sampling.

Criteria	JORC Code explanation	Certified Person Commentary
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	The Company's geological team will field check each of the priority target areas prior to planning additional field work. Work will likely include geological mapping ahead of drill testing.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Appropriate plans are provided in the body of the report.