

### AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

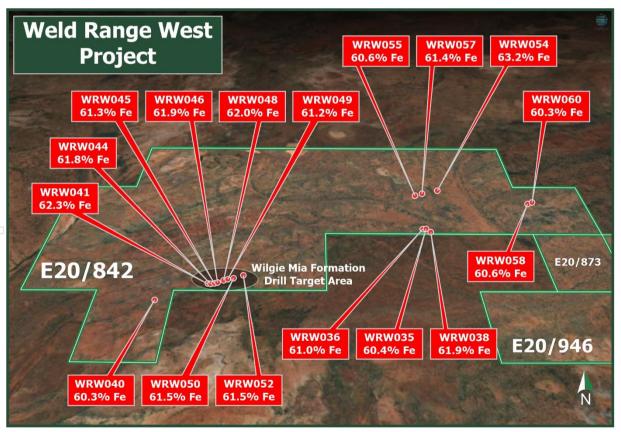
4 November 2020

## ROCK CHIP SAMPLES FROM THE WELD RANGE WEST PROJECT RETURN HIGH GRADE IRON ASSAYS

### Mid-West Western Australia

Mount Ridley Mines Ltd (ASX: MRD) ("Mt Ridley" or the "Company") is pleased to announce that it has received the assay results for rock chip samples taken during a site visit to the recently acquired Weld Range West Iron Project (WRWIP), located in the Mid-West region of Western Australia.

- Fe Assays between 58.2% Fe and 63.2% Fe returned from 21 of 24 samples, from 6 locations;
- Geophysical data is being processed to refine drill targets in the highly desirable Wilgie Mia Banded Iron Formation (BIF). A total strike length > 6 kilometres is available for drilling;
- Other drill targets will be processed in the Central BIF which exceeds 4 kilometres in length;
- Drilling will initially target the Wilgie Mia BIF and statutory approvals are being sought; and
- The Madoonga BIF was not sampled during this initial field trip.



**Figure 1**: Weld Range West Project showing locations of high-grade rock chip samples with Iron assays >60 Fe%. Anomalous rock chips were returned from the Wilgie Mia Formation and the Central BIF.



Mount Ridley's Chairman, Mr Peter Christie confirmed that

"The Company has now put boots onto the Weld Range West Project at several areas identified as highly prospective for DSO iron ore. The very encouraging rock chip results announced today validate the Company's interest in the project and we look forward to completing the acquisition following the Company's Annual General Meeting and to commencing drilling operations in earnest."

The WRWIP is located approximately 330km northeast of Geraldton, in the Mid-West region of Western Australia. The Weld Ranges are defined by BIFs which extend for over 60km, with iron deposits recorded in Geological Survey bulletins published in the 1950s.

The northern-most BIF horizon is referred to as the Madoonga Formation and the southern-most, the Wilgie Mia Formation. Both host high-grade (>62.5% Fe) haematite iron deposits (see notes 1 and 2 below), the primary target of Mount Ridley's exploration initiatives.

### Prior Field Work by Crosslands Resources Limited

In 2008, Crosslands Resources Limited (Crosslands) reported that it had completed:

- geological mapping and a rock chip sampling programme covering an area equivalent to Mount Ridley's tenement, E20/842. BIF units were classified visually into 4 variations according to relative silica and iron content, being magnetite/quartzite, magnetite/jaspilite, haematite enriched or goethite enriched BIF;
- a 'detailed' aeromagnetic and radiometric survey over the same area; and
- gravity surveys covering the Madoonga and Wilgie Mia formation BIFs on a 200m x x50m grid within E20/842. A Central BIF unit, sampled by Mount Ridley, was not surveyed.

Southern Geoscience Consultants (SGC) interpreted the aeromagnetic data, generating a pseudogeological map based on the magnetic intensity of BIF and enclosing rocks.

This was followed in 2009 with 24 holes drilled into an area of the Madoonga Formation, mapped generally as magnetite/quartzite BIF by Crosslands and StrMagBIF (strongly magnetic BIF) by SGC. Drilling returned minor intersections of magnetite mineralisation. No further work was undertaken.

### Field Work by Mount Ridley

Targets within the Wilgie Mia and Central BIF were visited following selection using several criteria:

- areas of BIF mapped as exhibiting either haematite or goethite enrichment by Crosslands;
- areas where haematite or goethite coincided with magnetically more subdued units identified by SGC (thought to represent areas where magnetite has been altered to non-magnetic haematite);
- Topographic highs representing outcropping strike extensions to areas recognised by Crosslands. Generally the WRWIP has subdued topography when compared to other areas of the Weld Ranges.

Iron (Fe) assays returned from rock chip samples taken at 6 locations of BIF outcrop ranged in iron content between 58.2% Fe and 63.2% Fe from 21 of 24 samples (refer to Table 1), and also returned desirably low phosphorus (P) and silica (Si) content.

Using the Crosslands aeromagnetic interpretation for E20/842 as a base plan, the sites of the iron-bearing rock chips aggregate along two linear trends; one being the Wilgie Mia Formation BIF, which had samples



taken at locations over a strike length of 6.5 kilometres within the tenement, and the second, the Central BIF outcrop, with samples taken over 1.5km of poorly exposed BIF although aeromagnetic imagery indicates that each BIF horizon exceeds 10km in length within E20/842.

### Planned Work and Targeting

The Company is planning to drill areas with potential for substantial tonnages of haematite mineralisation, which could form the basis of a mine and direct shipping ore (DSO) operation.

The genesis of haematite mineralisation is still subject to conjecture, but the preferred model involves faulting of primary rock units to permit fluid movement, resulting in the formation of hydrothermal cells where magnetite will alter to haematite, and which can extend to a great depth.

Drill targets are being defined by processing existing Crosslands' geological and geophysical (aeromagnetic and gravity) data to highlight:

- substantial areas of complex faulting and deformation which may act as fluid pathways;
- specific geological horizons of the BIFs where haematite is known to have preferentially formed, therefore the Wilgie Mia, Central and Eastern Madoonga Formations will receive detailed appraisal first; and
- areas where alteration is detectable by remote sensing. The process that alters magnetite-BIF to haematite-BIF destroys magnetism without substantially reducing the density of the rock. Geophysical modelling is used to identify high density zones (gravity data) that are non-magnetic (aeromagnetic data) as the possible location of haematite alteration.

Drilling will commence at the first available opportunity following the completion of geophysical modelling, and the receipt of clearances and statutory approvals to undertake the work. This is likely to be in the first quarter of 2021.

### About the Weld Range West Iron Project

The geological stratigraphy of the Weld Range West Project is analogous to the overall Weld Range package, as aeromagnetic imagery shows that the parallel horizons of BIF extend for the entire length of the Weld Ranges. The northern-most horizon is referred to as the Madoonga Formation and the southern-most, the Wilgie Mia Formation.

Mount Ridley's Weld Range West Project provides tenure to the western 20% of the overall Weld Ranges, covering 4 parallel BIF units, each with a strike length of over 10 kilometres, including the highly prospective Madoonga and Wilgie Mia Formations.

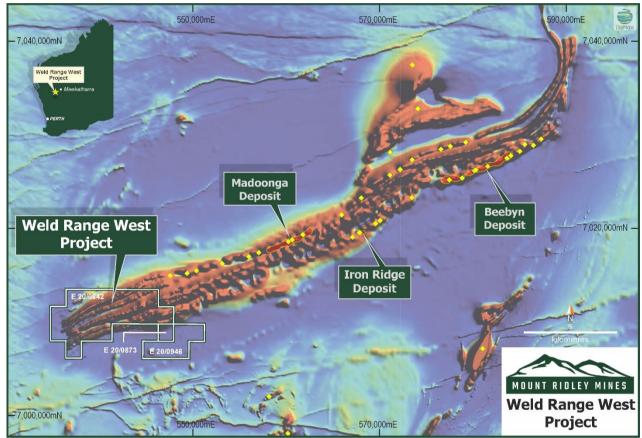
Substantial resources of Iron Ore have been defined in the 80% of the Weld Ranges held by Sinosteel Midwest Corporation Limited<sup>1</sup> ("**Sinosteel**") and Fenix Resources Limited<sup>2</sup> ("**Fenix**") (ASX: FEX). To date however drilling has not tested haematite iron targets within Mount Ridley's ground.

Note 1. Source https://smcl.com.au/projects/weld-range/ Note 2. Fenix Resources Ltd announcement to ASX 21 September 2020



### Due Diligence Programme and Project Acquisition

On 14 October 2020, Mount Ridley announced that it has entered a binding agreement with Zeedam Pty Ltd to purchase the WRWIP, subject to shareholder approval which will be sought at the Company's AGM to be held on 30 November 2020. The initial site visit has confirmed the results of the internal due diligence programme carried out over the asset.



**Figure 2**: Aeromagnetic imagery highlights the continuous nature of BIF units of the Weld Ranges that extend into Mount Ridley's Weld Range West Project, and iron occurrences (yellow points) recorded in the WAMEX database.

For and on behalf of the Board

Peter Christie Chairman TEL: +61-8-6165 8858 WEB: www.mtridleymines.com.au



#### Competent Persons Statement

The information contained in this report to exploration results relates to information compiled or reviewed by David Crook who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Crook is a geological consultant to the Company, and has sufficient experience which is relevant to the activity which is reported herein to qualify as a Competent Person as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Crook consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments

	Table 1.									
	Locations and Analytical Results (Key Elements) for Rock Samples									
	Sample	East	North	Fe	Al2O3	Р	S	SiO2	TiO2	LOI
		(m)	(m)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
17	WRW032	536,952	7,007,621	50.9	1.0	0.17	0.08	19.6	0.03	5.82
1	WRW035	543,742	7,009,962	60.4	2.6	0.03	0.11	6.3	0.10	3.90
	WRW036	543,689	7,009,942	61.0	1.6	0.10	0.19	5.0	0.02	4.90
_	WRW037*	543,657	7,009,930	46.6	10.6	0.06	0.07	13.9	0.72	6.55
	WRW038	543,833	7,009,895	61.9	0.9	0.01	0.05	5.1	0.02	5.03
	WRW039	537,754	7,007,806	40.4	0.5	0.07	0.03	38.9	<0.01	2.42
_	WRW040	537,669	7,007,715	60.3	3.3	0.05	0.14	5.8	0.09	3.73
//	WRW041	538,740	7,008,172	62.3	2.6	0.08	0.07	3.7	0.16	3.88
	WRW044	538,817	7,008,151	61.8	2.2	0.06	0.15	3.2	0.22	5.07
	WRW045	538,858	7,008,171	61.3	2.8	0.05	0.11	4.4	0.20	4.26
1	WRW046	538,923	7,008,196	61.9	2.9	0.03	0.13	3.2	0.09	4.69
	WRW047	539,004	7,008,281	59.5	1.9	0.05	0.17	5.2	0.05	6.90
_	WRW048	539 <i>,</i> 063	7,008,269	62.0	2.2	0.04	0.09	4.6	0.07	3.99
_	WRW049	539,125	7,008,286	61.2	2.6	0.04	0.14	3.4	0.11	5.76
	WRW050	539,250	7,008,345	61.5	1.8	0.05	0.10	3.8	0.09	5.87
_	WRW051	539,344	7,008,369	58.2	2.0	0.03	0.08	8.9	0.03	5.45
	WRW052	539,485	7,008,430	61.5	1.9	0.05	0.12	4.4	0.04	4.86
	WRW054	544,282	7,011,493	63.2	1.5	0.08	0.09	3.1	0.12	4.07
	WRW055	543,661	7,011,299	60.6	1.4	0.20	0.11	2.9	0.03	7.94
	WRW056	543,727	7,011,320	59.2	2.3	0.16	0.23	3.6	0.08	7.86
	WRW057	543,854	7,011,372	61.4	1.8	0.08	0.10	4.3	0.04	5.31
	WRW058	546,484	7,010,945	60.6	1.7	0.09	0.13	5.2	0.03	5.48
	WRW059	546,546	7,010,983	58.8	2.0	0.12	0.14	4.8	0.05	7.93
	WRW060	546,575	7,010,996	60.3	1.4	0.10	0.16	5.3	0.02	5.79

Coordinates presented are GDA94-50, having been transformed from the original recorded GPS coordinates.

• \* WRW037 is a sample of laterite, not BIF (NB Al2O3 assay).



### About Mount Ridley Mines Limited

Mount Ridley is a company targeting demand driven metals in Western Australia. At its namesake Mount Ridley Project located within a Frazer Range sub-basin, drilling has intersected disseminated and blebby nickel and copper sulphides hosted in a differentiated mafic intrusion. Further drilling may will be planned based on the results of a detailed SQUID geophysical survey which is to be completed as soon as possible.

A shortage of supply of iron ore, in part due to the effects of COVID-19 in Brazil, has resulted in a rise in price which makes projects like the Weld Range West Project very compelling, where exploration success could result in a fast tracked mining operation.

### **JORC TABLE 1**

### Section 1 - Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Weld Range West Project, Rock Chip Sampling.

Criteria	JORC Code explanation	Commentary			
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut Faces, 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).</li> <li>These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	<ul> <li>Rock chip sampling of specific geological strata. Chips are randomly taken within a specific area of approximately 15 square metres</li> <li>Samples of this type is considered fit for purpose, which is to help quantify the prospectivity of an area.</li> <li>Industry-standard analytical suites used to provide analytical results.</li> </ul>			
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>An experienced geologist took the samples to ensure the degree of representivity required was maintained.</li> </ul>			
	<ul> <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>Previous mapping and some historic rock chip analyses (not reported) were used as a guide to sample sites.</li> <li>At a site considered prospective by the geologist, a sample of approximately 3 kg was taken by taking a number of rock chips of 100-1000g weight each within an area of about 15 square metres.</li> <li>Samples were selected to be of similar geological composition and from the same stratigraphic unit.</li> </ul>			
Drilling techniques	• 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).	No drilling undertaken			
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling undertaken			
1	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling undertaken.			
	• 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 studied			

Criteria	JORC Code explanation	Commentary			
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.	Brief field notes were made. Rock chip samples were photographed before submission to the laboratory.			
	• Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography.	Field geological logging is intrinsically qualitative.			
	• The total length and percentage of the relevant intersections logged.	No drilling undertaken.			
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> </ul>	<ul> <li>Samples of approximately 3kg were taken.</li> <li>No sub-sampling was undertaken.</li> <li>The samples are considered fit for purpose.</li> </ul>			
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No sub-sampling was undertaken.			
	• 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.	<ul> <li>Samples are of a reconnaissance nature.</li> <li>Samples taken by an experienced geologist.</li> <li>Samples considered fit for purpose.</li> </ul>			
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• The sample size is considered appropriate for the purpose of the sample.			
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.	<ul> <li>Sample preparation and assay method used is considered standard industry practice for this style of Iron mineralisation.</li> <li>Laboratory: ALS, Perth,</li> <li>Technique: ME-XRF21n, Iron Ore by XRF Normalised. 24 elements (Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu,Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr, Total)</li> <li>H2O/LOI by TGA furnace</li> </ul>			
	• For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No use of additional analytical tools.			
	<ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Laboratory-supplied standards, blanks and duplicates were analysed by the Laboratory as part of its normal procedure.</li> <li>No independent standards were used.</li> </ul>			

Criteria	JORC Code explanation	Commentary			
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> </ul>	No samples were twinned.			
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The Company uses consultants to store, load and validate data and appraise quality control samples.			
	Discuss any adjustment to assay data.	No assays have been adjusted.			
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.	• The sample locations were determined using a Garmin 64sx GPS, with an accuracy generally regarded to be +- 5 metres.			
	• Specification of the grid system used.	• GDA94 (Zone 50)			
	Quality and adequacy of topographic control.	Not recorded			
Data spacing	Data spacing for reporting of Exploration Results.	Rock chip sites were located periodically along the targeted stratigraphic unit.			
and distribution	• 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.	No. The data is of a purely exploration nature.			
	Whether sample compositing has been applied.	• No			
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>	Rock chip sites were located periodically along the targeted stratigraphic unit.     No consideration to bias was made.			
Sample security	The measures taken to ensure sample security.	• The samples were in the custody of the Company's consulting geologist, who delivered them to the laboratory personally.			
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Not noted.			

### 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	<ul> <li>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</li> </ul>	<ul> <li>The rock chip geochemistry reported herein is from tenement E20/842. The Registered holder of the tenement is Zeedam Enterprises Pty Ltd, however Mt Ridley Mines Limited has entered into a Heads of Agreement to acquire the tenement, subject to shareholder approval.</li> <li>The tenement is predominantly on Glen Station.</li> <li>The tenement is within the Wajarri Yamatji Claim, which is partially determined.</li> </ul>		
	• 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>At the time of this Statement the granted tenements are in 'good standing'. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to current operations within the tenement.</li> </ul>		
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous work is referenced.		
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Project is within the Murchison Terrane Greenstone, comprising rocks typical of Western Australian Archaean terranes, including basal sediments and ultramafic rocks, overlain by generally more mafic rocks. The Greenstones have been intruded by granites.</li> <li>Iron is deposited in Banded Iron formations. When hydromorphically altered, magnetite, the dominant iron mineral, can alter to haematite. When the iron grade is high and contaminants low, haematite can be excavated and sold as a 'direct shipping ore'.</li> </ul>		
Drill hole Information	<ul> <li>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, including 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 plus hole length.</li> <li>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.</li> </ul>	Refer to Appendix 1 Table 1.		

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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>Assays reported are as received from the laboratory.</li> <li>There are no metal equivalent values reported.</li> </ul>
Relationship between mineralisation 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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Rock chip samples are not intended to represent stratigraphic widths or intersections.</li> </ul>
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>	Refer to figures in this report.
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.	<ul> <li>Assays of all rock chip samples from within E20/842 are included, however only elements considered to be relevant to iron ore evaluation are included in Table 1 of this announcement.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	All meaningful and material exploration data has been reported.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Planned further work includes further mapping, rock chip geochemistry, geophysical data modelling and drilling.</li> </ul>