### **ASX Announcement**

30 November 2020



# Large Scale Copper-Gold Targets identified at Copper Ridge

## Highlights

- Great Western Exploration (ASX:GTE) has identified two large scale Copper-Gold (+Mo) targets at Copper Ridge
- The copper-gold targets, Copperhead and Taipan, are within a mineralised zone including a number of Cu-Au + Mo anomalies over some 4km strike length (east – west) and 1.5km width (north – south)
- The targets sit within a structurally complex area, interpreted to be proximal to the intersection of two regional structures providing a perfect setting for focussing mineralised fluids
- These substantial copper-gold targets are drill ready and are 100% owned by GTE
- Drilling to test Copperhead and Taipan will commence in the first quarter of 2021

# Copper Ridge Project Copper-Gold Targets – Copperhead & Taipan

Great Western Exploration Limited's (ASX: GTE) ("the Company", "Great Western") is pleased to announce the Company has identified two large scale Copper-Gold (+Mo) targets at Copper Ridge located 40kms west of the Wiluna Gold Mine along the Goldfields Highway and 110kms south-south east of Sandfire's (ASX:SFR) DeGrussa Copper Mine, and south of Great Western's Yerrida North Project where Sandfire is earning 70% (see **Figure 1**).

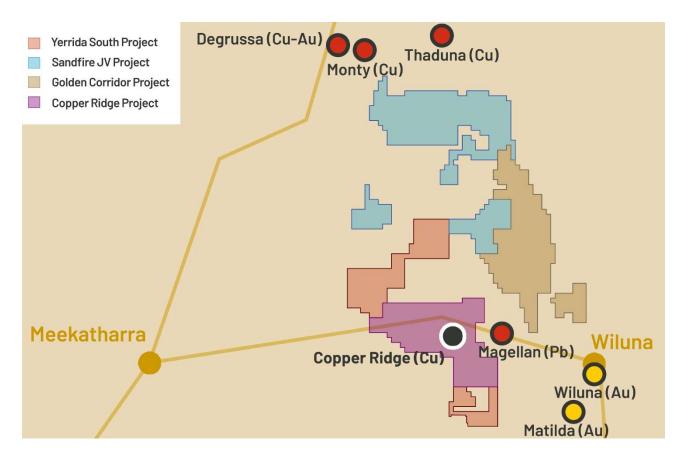


Figure 1 Location Map Showing Copper Ridge Project Area

Managing Director Tom Ridges commented: "Our Copper Ridge Project area is basically unexplored. Our first phase of exploration has highlighted two very exciting, large scale copper-gold targets in Copperhead and Taipan that Great Western will drill in the short term. I also look forward to seeing what a broader regional programme will highlight. Great Western is coming into a very busy period across our many projects, including the drilling of our camp scale Finlayson drill target early next year, and I look forward to updating the market on further field activities currently in the planning stage, the drilling programme for those projects, and proving up more targets to drill test during what will be a very active 2021 field work programme."

Results from Great Western's Ultrafine + soil sampling programme at Copper Ridge has defined three anomalies that the Company believes have the potential to be the surface expression of large areas of copper-gold mineralisation.

Two of the anomalies that have been defined are high priority, large scale, drill ready copper-gold targets.

Copperhead has a very significant **strike length of over 1km and a width of 600m** and is open to the north east with anomalous Cu >160 ppm, Au >12 ppb and Mo >8ppm.

Taipan has a significant **strike length of 800m and a width of 250m** with anomalous Cu of >320ppm and Au of >6ppb.



The copper-gold surface expression sits adjacent to a prominent magnetic unit that appears to be cross cut by a series of NW trending faults denoting an area of structural complexity (see **Figure 2**). Such areas of complexity within Proterozoic basins can provide a perfect setting for focusing mineralised fluids. The target area is proximal to an interpreted intersection of a large north-south, regional fault and the cross-cutting north-west trending faults.

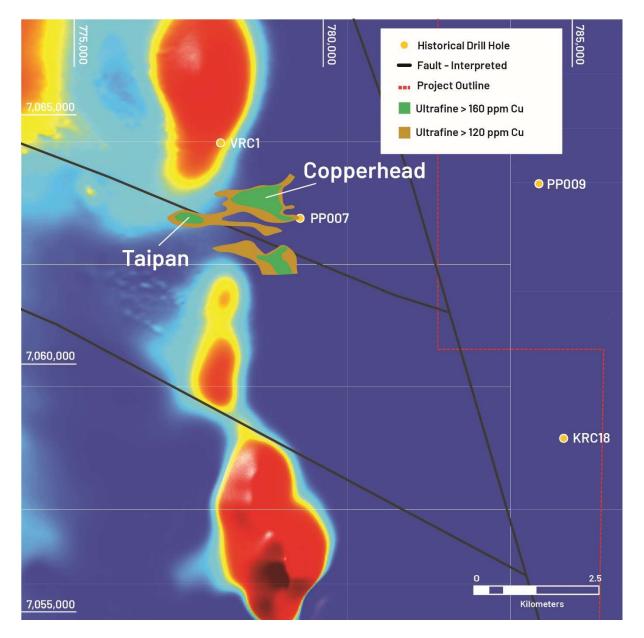


Figure 2 Regional Magnetic High Features and Structural Complexity Associated with Copperhead and Taipan

In addition, there is a third >6ppb gold only anomaly in this region that is open to the east and is limited to 500m strike extent only by the coverage of Great Western's Ultrafine + soil sampling programme (see **Figure 3**).

Great Western will drill test Copperhead and Taipan in the first quarter of 2021. In addition, further soil sampling to test the ultimate footprint of Copperhead, the >6ppb gold only target to the east, and to define additional drill targets, will be conducted early in the first quarter of 2021.



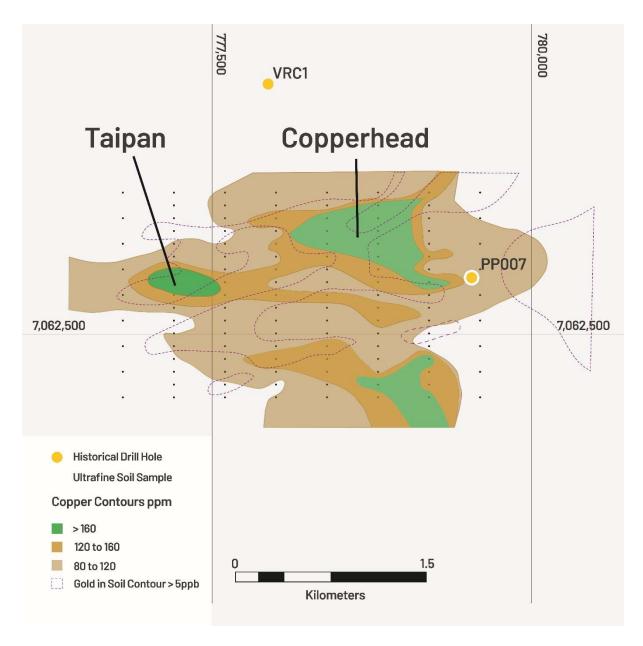


Figure 3 Copper and Gold Anomalies across Copperhead and Taipan Prospects

An independent review of the results of Great Western's soil sampling programme by GCXplore has confirmed both the large-scale nature of the anomalism and the drill ready nature of Copperhead and Taipan.

Copperhead and Taipan can add significant value for the Company's shareholders given their proximity to Sandfire Resources' (ASX:SFR) operating DeGrussa mine, and regional infrastructure including the Goldfields Highway and gas pipeline. The discovery of DeGrussa within the Bryah Basin re-invigorated copper exploration within the region, and Great Western believes that the Copper Ridge Project has the potential to do the same for the Yerrida Basin.



#### **Background**

Great Western identified a favourable structural setting in the geophysical data for copper-gold mineralisation after following up highly anomalous copper mineralisation in a single historical drill hole. The hole (PP007) was drilled in the 1980s by ACM as part of a very broad space (~5km spacing) drill programme to gather information about the stratigraphy of the Yerrida basin in this region. PP007 intersected 50m @ 900 ppm copper from 10m depth that included 10m @ 2800 ppm copper. A second hole (VRC1) located 2.2 km to the north-west, drilled a decade later by RGC (the company that found the nearby Paroo (Magellan) Lead Mine), also intersected a broad zone of anomalous copper (40m @ ~428ppm). Both these holes indicate a large area of unexplained anomalous copper mineralisation proximal to an interpreted intersection of a large north-north-west trending, long lived regional fault and a north-west trending intra basin fault.

Great Western completed Ultrafine + geochemical soil sampling, a newly developed exploration technique developed by the CSIRO for detecting blind base metal and gold mineralisation. The sampling (mostly 100m by 400m) has delineated a large-scale copper and gold target that contains two strong geochemical anomalies. Historical drill hole PP007 is located within the area of the surface sampling programme, however it was not drilled within the defined anomalies, so therefore these remain untested. Drill hole PP007 and VRC01 also indicate that the area is mostly under thin soil cover.

The work programme proposed at Copper Ridge is derived from Great Western's assessment of the Project area and GCXplore's recommendations following their review.

In addition, the zone of anomalous gold and copper is within a small portion of the Copper Ridge Project area that has had surface sampling completed across it. The remainder of the Project area is currently in the process of being reviewed for a larger regional surface sampling programme to assess the prospectivity of the broader region covered by Great Western's significant landholding. There are a number of areas that appear highly prospective.

The process for gaining the relevant approvals to complete the field work programme testing the Copper Ridge targets has already begun, prior to drill testing Copperhead and Taipan in the first quarter of 2021.

**Authorised for release** by the board of directors of Great Western Exploration Limited.

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### **Competent Person Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Jordan Luckett who is a member of the Australian Institute of Mining and Metallurgy. Mr. Luckett is an employee of Great Western Exploration Limited 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. Luckett consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **Appendix 1: Soil Sampling Summary**

Sample Medium: Soil; B horizon or 30 cm depth

Sample Collection: ~~ 500g sample collected using metal tools passing through 0.9mm sieve into plastic bags and

submitted to LabWest Minerals Analysis Pty Ltd for Ultrafine + and conventional analysis.

Industry standard procedures used to minimise sample site contamination.

Sample Spacing: Nominal 400m x 100m pattern; see plan in Appendix 2

No Samples: 140

QAQC: Duplicate sample collected every 50; no CRM standards submitted; laboratory reported

standards

Analysis: Labwest split 56 samples into ~200g and 300g samples for Ultrafine + analysis and conventional

aqua regia respectively for orientation and comparison. Remaining 84 submitted for Ultrafine +

only

Ultrafine +: Ultrafine + is a recently developed geochemical method

developed by CSIRO and carried out by Labwest.

Sample Preparation: 2 g of 2-micron size fraction sieved from sample the

remaining sample discarded

Sample Analysis: Microwaved assisted aqua regia with ICP-MS/OES

Elements: Au, Cu, Pb, Zn, Ag, Ni, Co, Cr, Mo, V

Conventional Conventional 900 um (-0.9mm) soil sample

Sample weight: ~300g

Sample Preparation: Pulverise to -75 micron
Sample Analysis Aqua Regia with ICP-MS/OES

Elements: Au, Cu, Pb, Zn, Ag, As, Bi, Mo, Mn, Fe, Ni, Co, Cr, V, Sb, Hg,

Te, W, U

Conclusion from comparing results from the different fractions

The -2um fraction is superior to the -900um fraction. Statistically the contrasts for both fractions are similar but the finer -2um fraction has produced superior spatial contrast particularly for Au.

#### <u>Ultrafine + Statistics</u>

Element	Count	Min	Max	Mean	Median	SD	25%	75%	90%	96%	98%
Au	140	2.1	14.9	4.51	4.2	1.81	3.20	5.23	6.80	7.64	8.42
Cu	140	48	355	105.68	97.9	49.11	73.53	120.00	155.60	189.20	278.44
Pb	140	27.7	49.1	38.49	39.2	3.60	36.38	40.53	42.20	43.40	45.11
Zn	140	49.5	146	67.15	64.4	12.36	59.18	70.48	81.79	92.91	96.15
Ag	140	0.04	0.15	0.07	0.07	0.02	0.06	0.08	0.09	0.10	0.13
Mo	140	1.4	12	3.56	2.9	1.82	2.30	4.40	5.82	7.36	8.37
Ni	140	25	123	47.29	43	14.43	39.00	50.00	62.20	76.08	86.74
Со	140	7.5	77.8	18.01	14.25	10.18	11.98	21.15	32.97	39.20	43.50
V	140	118	202	156.49	154.5	15.35	145.75	168.00	177.00	183.00	189.00

#### Conventional -900um Statistics

Element	Count	Min	Max	Mean	Median	SD	25%	75%	90%	96%	98%
Au	56	0.25	2.5	1.13	1.00	0.50	0.80	1.50	1.70	1.90	2.35
Cu	56	28.1	123	56.38	55.40	18.20	42.13	65.30	78.55	82.96	97.52
Pb	56	15	24.1	20.00	20.05	1.93	18.98	21.30	21.85	23.34	23.95



Element	Count	Min	Max	Mean	Median	SD	25%	75%	90%	96%	98%
Zn	56	22.1	46	32.31	32.10	4.58	29.13	35.45	38.15	39.60	40.60
Ag	56	0.04	0.11	0.07	0.06	0.02	0.06	0.07	0.09	0.10	0.11
As	56	5.7	32.7	12.64	11.65	4.56	9.80	14.33	17.80	19.14	25.32
Bi	56	0.3	0.4	0.33	0.30	0.04	0.30	0.33	0.40	0.40	0.40
Mo	56	1	6	2.67	2.50	1.02	2.00	3.15	3.90	5.02	5.10
Mn	56	104	700	262.59	220.00	141.58	164.50	291.75	449.50	609.60	682.00
Fe	56	4.08	6.94	5.22	5.18	0.67	4.72	5.65	6.15	6.39	6.56
Ni	56	15	41	23.09	23.00	4.48	20.00	25.25	27.00	31.40	33.80
Co	56	4.1	16.4	7.18	6.10	2.62	5.28	8.40	10.85	12.96	13.00
Cr	56	128	248	189.82	187.00	31.96	163.00	215.50	233.00	241.00	244.70
V	56	120	233	169.39	164.50	22.75	154.75	183.75	201.50	210.60	217.30
Sb	56	0.5	2.5	1.24	1.10	0.44	0.90	1.53	1.85	2.00	2.18
Hg	56	0.025	0.025	0.03	0.03	0.00	0.03	0.03	0.03	0.03	0.03
Te	56	0.1	0.3	0.13	0.10	0.05	0.10	0.20	0.20	0.20	0.29
W	56	0.05	0.2	0.14	0.10	0.05	0.10	0.20	0.20	0.20	0.20
U	56	1.12	2.18	1.69	1.70	0.22	1.56	1.85	1.95	1.98	2.00

## Appendix 2: Historical Drill Hole Summary

Only 2 historical drill holes have been found in the historical data in the vicinity of the reported target areas.

lo Easting	Northing	Hole Type	Dip	Azimuth	Depth	Year	Company
1 777942	7064454	RC	-90	0	100m	1995	RGC
7 779553	7062937	RC	-90	0	150m	1984	ACM
779333	7002937	NC .	-90	U	130111	1904	,

Hole No: VRC01

Company: RGC Exploration Pty Ltd ("RGC")

Year: 1995

Reference WAMEX A48417

Drill Type: RC Depth: 100m

Sample Method: Samples were taken at 1m intervals and composited over 10m intervals. Sample intervals >

1000ppm Zn & Pb were resampled at 2m intervals

Analysis: Not reported

Elements: Ag, As, Au, Ba, Cu, Fe, Mn, Pb, Sb, Zn

Comments: Raw assays were reported on diskette that has not been found. Assay data has been extracted

from an historical .dat file downloaded from the department website.

Significant Results: From (m) To (m) Cu (ppm)

40 80 428 including 50 60 458



<sup>\*</sup>downhole intersection, not true width

Hole No: PP007

Company: Australian Consolidated Minerals Ltd ("ACM")

Year: 1984

Reference WAMEX A12928

Drill Type: RC Depth: 150m

Sample Method: Not reported Analysis: Not reported

Elements: Au, Pt, Ag, Cu, Pb, Zn, Co

Comments: Assays were reported as 10m intervals; how the samples were taken or composited was not

reported

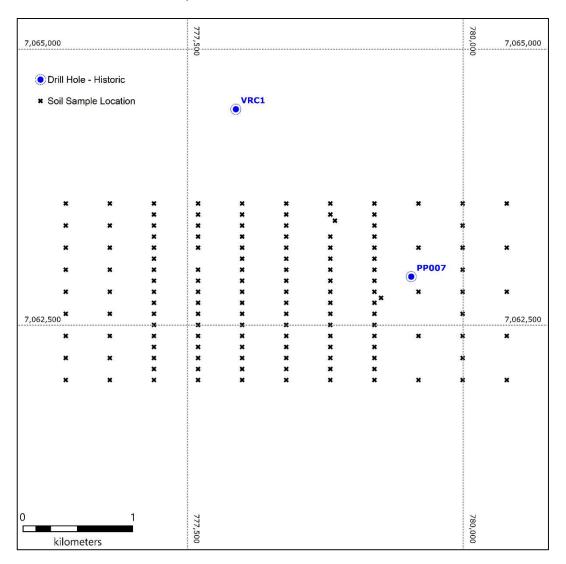
Significant Results: From (m) To (m) Cu (ppm)

10 60 900

including

10 20 2800

Plan: Historical Drill Location and Soil Sample Locations



<sup>\*</sup>downhole intersection, not true width

## **Appendix 3:**

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	Commentary
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>	See Appendix 1 & 2
Drilling techniques	<ul> <li>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).</li> </ul>	Soil Sampling  Not applicable  Historical Drill Holes



Criteria	JORC Code explanation	Commentary
		RC
		See Appendix 2 for more details
Drill sample recovery	, ,	<u>Soil Sampling</u>
	<ul><li>and results assessed.</li><li>Measures taken to maximise sample recovery and ensure</li></ul>	Not applicable
	representative nature of the samples.	<u>Historical Drill Holes</u>
	<ul> <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>	Not reported by the original operator.
Logging	Whether core and chip samples have been geologically and	<u>Soil Sampling</u>
	geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical	No logged
	studies.	<u>Historical Drill Holes</u>
	<ul> <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>	Geological logs and sections included in Reports
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core	<u>Soil Sampling</u>
techniques and	taken.	See Appendix 1 for details
sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<u>Historical Drill Holes</u>
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	Not reported by the original operator.
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	• 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>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	



Criteria	JORC Code explanation	Commentary
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 determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <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>	Sample submitted to Labwest for Ultrafine + method developed by the CSIRO for exploration of blind deposits.  See Appendix 1 for details  Historical drill Holes  Not reported by the original operator.
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>	<ul> <li>Results reviewed by both the Chief Geologist and Geochemistry consultant</li> <li>Assays were received both as text files and pdf from laboratory</li> <li>Results are stored in central database</li> <li>No adjustments or calibrations were made to the results</li> </ul> Historical drill Holes Not reported by the original operator.
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>	Soil Sampling  Data was GPS located on UTM grid GDA94 zone 50 sub 5m accuracy  Historical drill Holes  Not reported by the original operator.



Criteria	JORC Code explanation	Commentary
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>	Samples were taken on a nominal 400m x 100m pattern Plan showing location in Appendix 1
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>	Soil Sampling  Not applicable  Historical drill Holes  Not reported by the original operator
Sample security	The measures taken to ensure sample security.	Soil Sampling Samples were transported to Perth by Company personnel Sample security not considered a significant risk  Historical drill Holes Not reported by the original operator
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No Audit or reviews conducted



# **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	Type, reference name/number, location and ownership including	Tenement No:	E53/1894
land tenure status	agreements or material issues with third parties such as joint ventures,	Tenement Type:	Exploration License
	partnerships, overriding royalties, native title interests, historical sites,	Status:	Granted - 24/05/2017
	wilderness or national park and environmental settings.	Location:	Wiluna
	• 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.	Size (km2)	213
	known impediments to obtaining a needle to operate in the area.	Ownership:	100%
		Native Title:	Prospect area covered by Determined Native Title claim; TMPAC; Regional Land Access Agreement executed
		Other Agreements:	none
		Non-State Royalties:	none
		Other Encumbrances:	none
		National Parks:	none
		Other Environmental:	none
		Tenement No:	E51/1727
		Tenement Type:	Exploration License
		Status:	Granted - 31/10/2017
		Location:	Wiluna
		Size (km2)	135
		Ownership:	100%
		Native Title:	Prospect area covered by Determined Native Title claim; TMPAC; Regional Land Access Agreement executed
		Other Agreements:	none
		Non-State Royalties:	none
		Other Encumbrances:	none
		National Parks:	none



Criteria	JORC Code explanation	Commentary
		Other Environmental: none
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There is minimal previous exploration.  Two RC drill holes (PP007 & VRC01) completed in the vicinity of the target See Appendix 2 for details and plan.  • PP007 was drilled in 1984 by Australian Consolidated Minerals Ltd (ACM) and reported in WAMEX report A12928.  • VRC01 was drilled in 1995 by Renison Limited (RGC Exploration Pty Ltd) and reported in WAMEX report A48417
Geology	Deposit type, geological setting and style of mineralisation.	Sedimentary Hosted Copper & Base Metals, VMS; Gold Lode
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following informatio for all Material drill holes:         <ul> <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> </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>	



Criteria	JORC Code explanation	Commentary
Data aggregation	<ul> <li>In reporting Exploration Results, weighting averaging tech</li> </ul>	·
methods	maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	- Not applicable
	• Where aggregate intercepts incorporate short lengths of I	nigh grade <u>Historical drill Holes</u>
	results and longer lengths of low grade results, the proced such aggregation should be stated and some typical exam aggregations should be shown in detail.	- NOT TEDOLLED BY THE OLIGINAL ODELATOR
	<ul> <li>The assumptions used for any reporting of metal equivale should be clearly stated.</li> </ul>	nt values
Relationship between	• These relationships are particularly important in the repor	ting of <u>Soil Sampling</u>
mineralisation widths	Exploration Results.	Not applicable
and intercept lengths	a. If it is not known and only the down halo langths are reported there	<u>Historical drill Holes</u>
		NOU TEDOLLEU DV LITE OTTEINAL ODELALOI
Diagrams	• Appropriate maps and sections (with scales) and tabulation	ons of <u>Soil Sampling</u>
	intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill	- Plan inclined in Annendix i
	hole collar locations and appropriate sectional views.	Historical drill Holes
		Plan included in Appendix 2
Balanced reporting	• Where comprehensive reporting of all Exploration Results	
	practicable, representative reporting of both low and high and/or widths should be practiced to avoid misleading rep	- ΝΕΕ Δημεριαία Ι
	Exploration Results.	Historical drill Holes



Criteria	JORC Code explanation	Commentary
		See Appendix 2
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.	1
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>Further soil sampling</li> <li>Geological mapping</li> <li>Aircore and/or RC drilling</li> <li>Ground geophysics if deemed suitable</li> </ul>

