

6 November 2017

Highly Positive Testwork Results - Lorella Oxide Copper

Highlights

Lorella Prospect

- Acid leach testwork on oxide copper mineralisation from the Lorella prospect has returned highly positive results and indicates >90% recoveries, with low acid consumption.
- Previous drilling by Sandfire Resources NL delineated oxide copper mineralisation at shallow depths at the Lorella prospect.
- Potential for SXEW operation to produce cathode copper.
- Work commenced on estimating an inferred resource and exploration target based on potential strike extent.
- Aircore program (2000m) at Lorella is planned for November to test strike extensions to increase potential tonnage of oxide copper, and to test for significant indications of primary copper mineralisation.

The Borroloola West Joint Venture ("BWJV") consists of 12 exploration licences and 1 mining licence (1,817 km²). The parties to the BWJV are 51% Pacifico Minerals Limited ("Pacifico" or "Company") (ASX code: PMY) and 49% Sandfire Resources NL ("Sandfire Resources") (ASX code: SFR).

Lorella – Oxide copper

Preliminary acid leach test work carried out at SGS Metallurgy in Perth has returned highly positive results and indicates that leaching the oxide copper material could be economically viable. Acid consumption is relatively low and copper recoveries better than 90% were obtained.

There is potential for the construction of a solvent extraction, electrowinning operation ("SXEW") to produce cathode copper within a short lead time, and with relatively low capital and operating costs.

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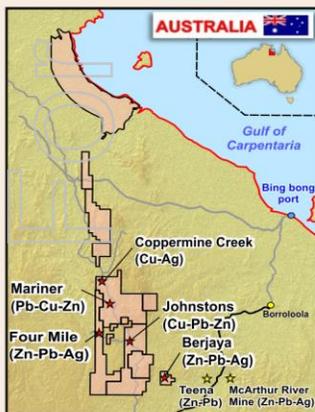
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The Lorella prospect lies 100km NE of the McArthur River Mine. The Nathan River Road lies 7km to the west, and the Lorella Springs Road is 9km to the east, both unsealed public roads (Figure 7).

Oxide copper mineralisation is flat lying, beneath about 25m of unconsolidated sands. Sandfire, during 2010 and 2011, carried out an extensive drilling program targeted at primary sulphide copper mineralisation, of which 17 RC holes and 1 diamond hole intersected significant flat-lying oxide copper mineralisation over an area of about 400m x 400m (Figure 2 and Appendices 1 and 2)¹.

The oxide copper mineralisation consists of disseminations, blebs, veins and fracture fill of malachite and azurite within highly leached siltstone and fine grained sandstone (Figures 4, 5 and 6). The intersection thickness averages 8m using 0.4% Cu cut-off, and results in an average grade of about 1.0% Cu (Appendix 2). The primary rock is dolomitic and lies within the Amelia Dolomite sequence. However, the carbonate minerals have been almost completely leached out, as reflected by the low acid consumptions in the testwork.

The primary control of the copper mineralisation is considered to be stratigraphic, dipping gently to the west. Elsewhere in the BWJV tenements e.g. at Coppermine Creek, copper mineralised horizons within the Amelia Dolomite are recognised that extend for several kilometres. At Lorella, the distribution of copper mineralisation indicates that it has been oxidised, transported and enriched by supergene processes (Figure 3).

Only 500m of the sub-outcropping strike of mineralisation has been tested previously. There is potential for about 10km of strike (Figure 1) under shallow alluvial cover within the BWJV tenements that is virtually untested. The oxide copper mineralisation is open to the SSE (Figure 2) and there is the likelihood of further lenses to the north west (Figure 1).

Work has commenced on estimating an inferred resource in the area of detailed diamond and RC drilling by Sandfire (Figure 2) and to set an Exploration Target estimate based on the potential strike extent (Figure 1).

Testwork

Two composite samples from Sandfire’s drill core were sent to SGS Metallurgy in Perth for acid leach testwork, which comprised acid leach bottle roll tests performed on two composite samples. The preliminary test results show encouraging copper leach extractions at relatively low acid additions (37kg/t and 44kg/t) for both samples. The key results are summarised below:

Table 1: Copper leach testwork results

	Sample Composite Hole No and interval	Head grade	Acid addition	Residue	% Cu extraction
Composite A	11BLD0006 35-37m	1.68% Cu	44 kg/t	0.07% Cu	94.1
Composite B	11BLD0006 37-39m	1.16% Cu	37 kg/t	0.08% Cu	92.8

¹ Sandfire 2010-12 Borroloola Project Group Annual Mineral Exploration Reports GR121-09 to NT Dept Primary Industry & Resources

Planned work

An aircore program (2000m) is planned for November to test the strike extensions to the NW and SSE of previously intersected oxide copper mineralisation, and also for indications of significant down-dip primary sulphide mineralisation. Holes will be drilled on lines 1km apart, with a hole spacing along the lines of 100m, to an average depth of 50m.

Should this preliminary program be successful, the entire strike length will then be explored with aircore drilling. RC drilling programs, some PQ diamond drill holes, and more comprehensive testwork on the drill chips and core would then be planned to define inferred and indicated resources.

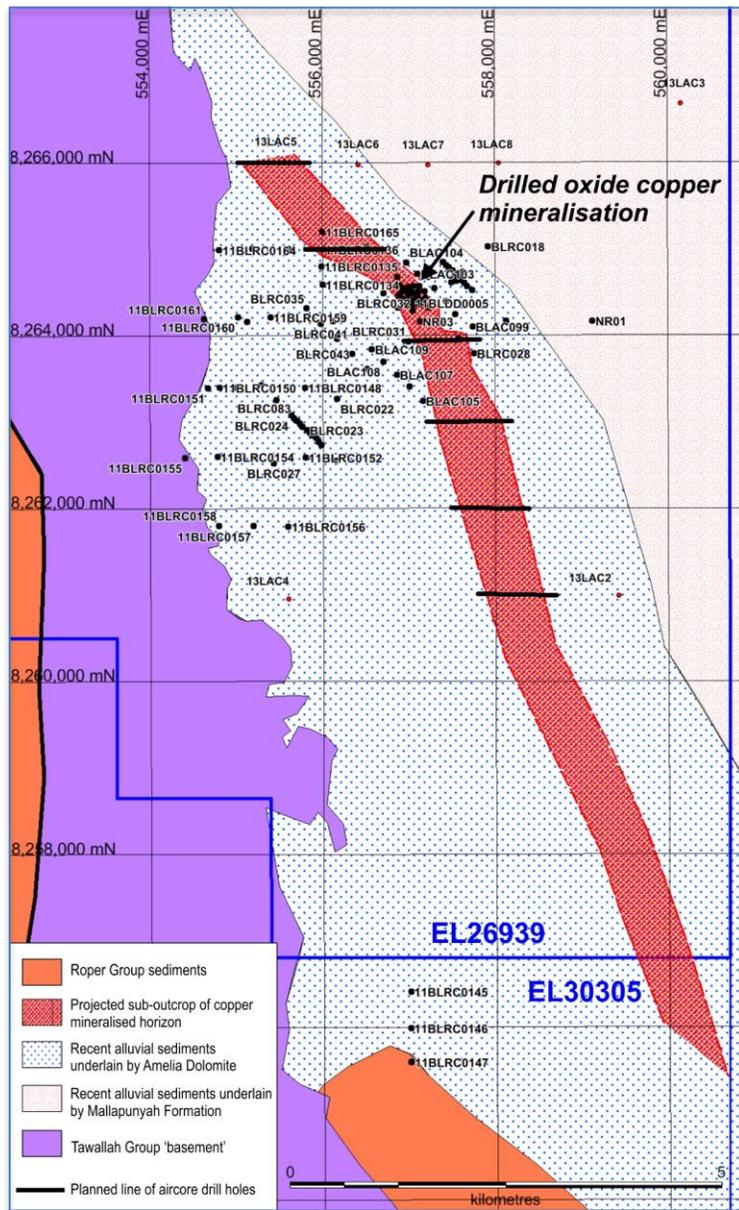


Figure 1: Lorella Prospect, plan showing historical drill hole collars and projected extent of sub-surface copper mineralisation

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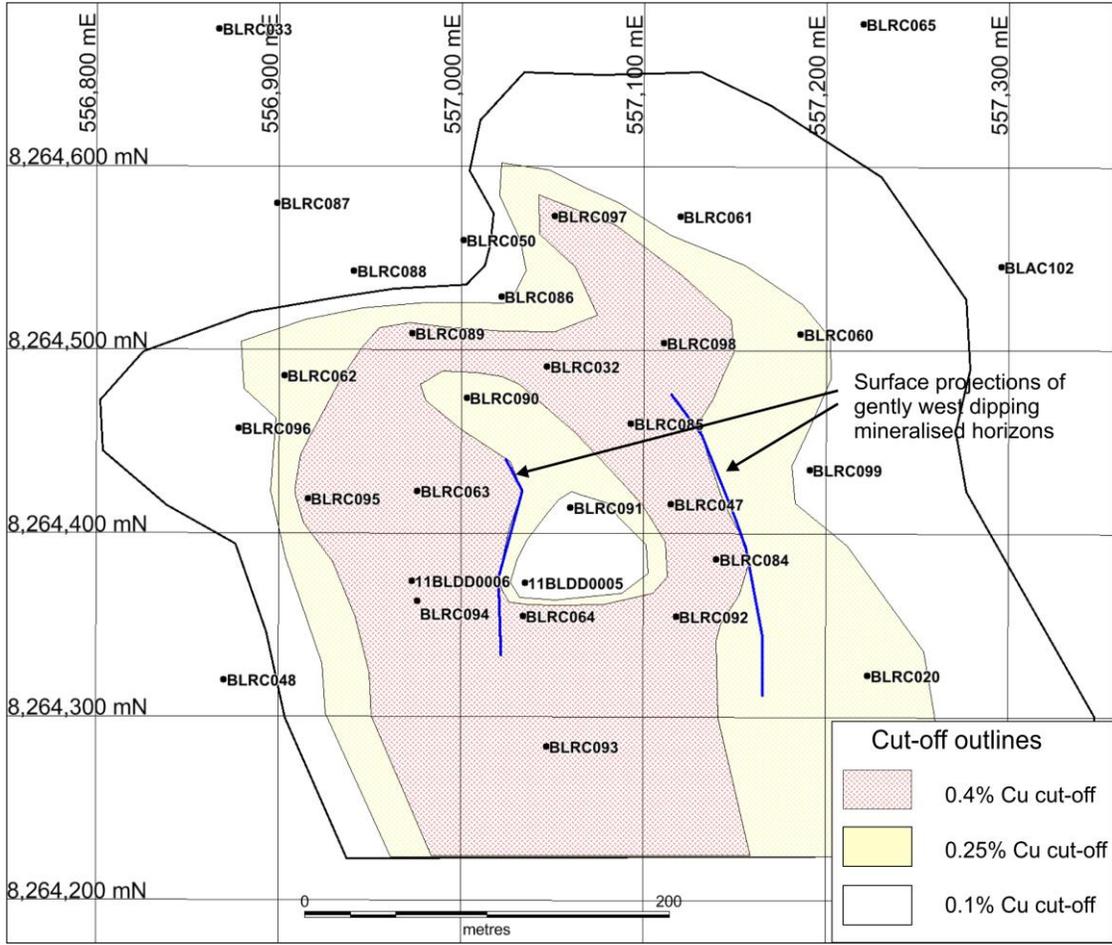


Figure 2: Cut-off outlines based on preliminary assessment of historical drill data

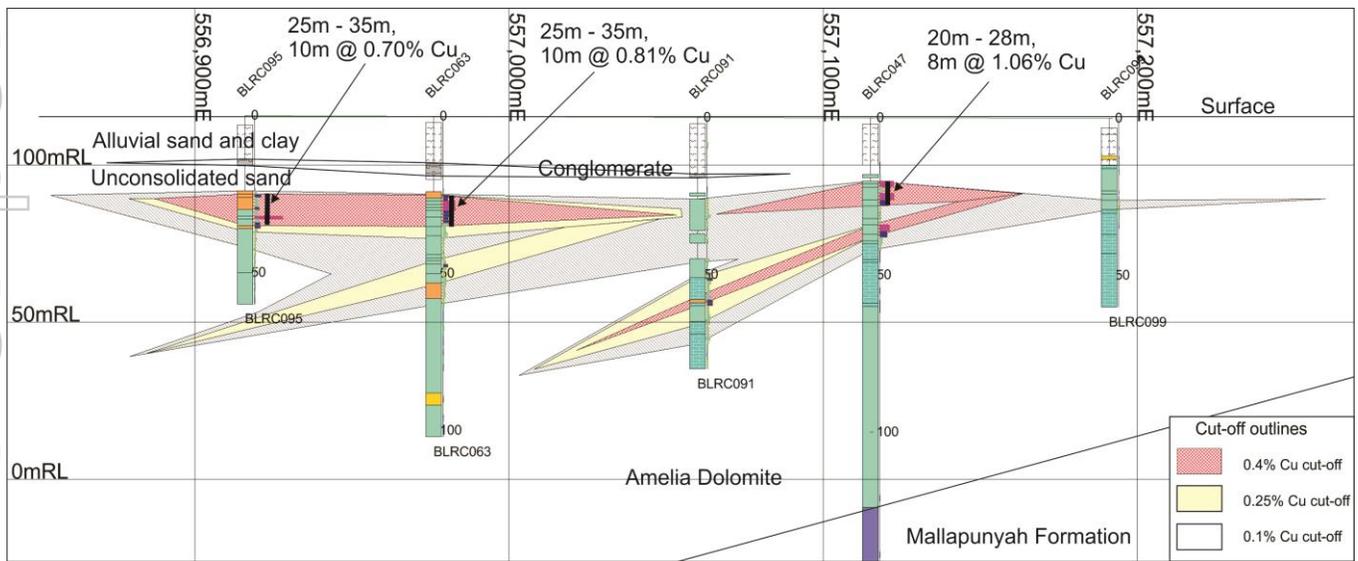


Figure 3: Section through oxide copper mineralisation, Lorella prospect

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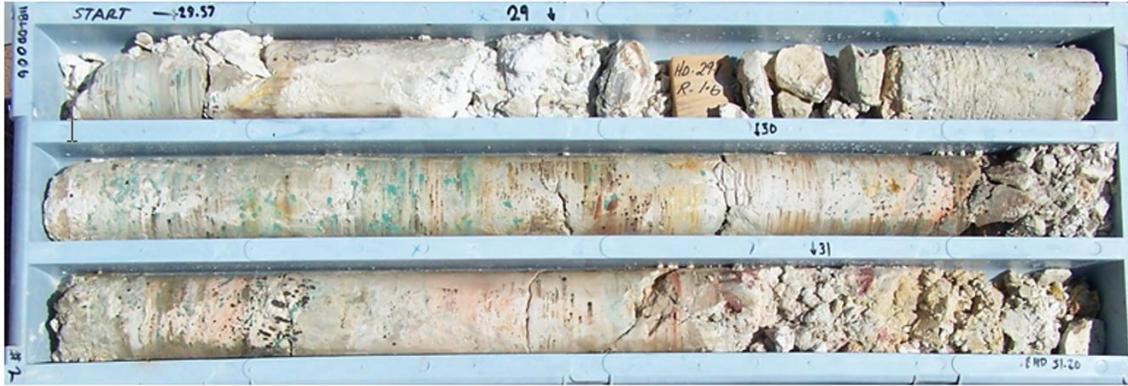


Figure 4: Blebs and disseminated malachite in Sandfire diamond hole 11BLDD006



Figure 5: > 3.35mm fraction from testwork on core – large fragments with malachite (green)



Figure 6: > 0.85mm size fraction from testwork on core – visible rounded pieces of malachite (green) and azurite (blue)

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Figure 7: Location of Lorella Prospect within the Borrooloola West Joint Venture Tenements (Pacifico 51%, and Sandfire 49%)

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About Pacifico Minerals Ltd

Pacifico Minerals Ltd (“Pacifico”) (ASX: PMY) is a Western Australian based exploration company with interests Australia and Colombia. In Australia the company is focussed on advancing the Borroloola West project in the Northern Territory. The Borroloola West Project covers an outstanding package of ground north-west of the McArthur River Mine (the world’s largest producing zinc – lead mine) with high potential for the discovery of world class base metal deposits. In Colombia the company is focussed on advancing its Berrío Gold Project. Berrío is situated in the southern part of the prolific Segovia Gold Belt and is characterised by a number of operational, artisanal-scale adits. The project is 35km from the Magdalena River which is navigable to the Caribbean Sea and has excellent infrastructure in place including hydro power, sealed roads, a water supply and telecommunications coverage.

Competent Person Statement

The information in this announcement that relates to the Borroloola West Project is based on information compiled by Mr David Pascoe, who is a Member of the Australian Institute of Geoscientists. Mr Pascoe is contracted exclusively to Pacifico Minerals Limited. Mr Pascoe 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 Pascoe consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

Appendix 1 – Coordinates of reported historical drill holes (drilled by Sandfire 2010 -2012)¹

Hole Number	E	N	Elevation	EOH	Hole Type
11BLDD0006	556973	8264374	115.14	61.9	DD
BLRC020	557223	8264323	114.678	235	RC
BLRC032	557047	8264491	115.324	210	RC
BLRC047	557115	8264416	114.978	200	RC
BLRC060	557186	8264509	114.894	102	RC
BLRC062	556903	8264486	115.972	102	RC
BLRC063	556976	8264423	115.506	102	RC
BLRC064	557034	8264355	115.171	102	RC
BLRC084	557140	8264386	114.902	60	RC
BLRC085	557093	8264460	115.116	60	RC
BLRC089	556973	8264509	115.647	60	RC
BLRC090	557003	8264474	115.474	60	RC
BLRC092	557118	8264355	114.939	80	RC
BLRC093	557047	8264284	115.017	80	RC
BLRC094	556976	8264363	115.415	80	RC
BLRC095	556916	8264419	115.776	60	RC
BLRC097	557051	8264573	115.438	60	RC
BLRC098	557111	8264504	115.107	60	RC

¹ Sandfire 2010-12 Borroloola Project Group Annual Mineral Exploration Reports GR121-09 to NT Dept Primary Industry & Resources

Appendix 2 – Historical oxide copper drill Intersections using 0.25% Cu and 0.4% Cu cut--offs

Hole Number	0.25% Cu c/o intersection				0.4% Cu c/o intersection			
	From	To	thickness m	%Cu	From	To	thickness m	%Cu
11BLDD0006	28	45	17	1.17	28	43	15	1.29
BLRC020	22	28	6	0.31				
BLRC032	18	26	8	1.45	20	26	6	1.83
BLRC047	20	28	8	1.06	20	28	8	1.06
BLRC060	25	28	3	0.29				
BLRC062	26	36	10	0.33				
BLRC063	25	39	14	0.67	25	35	10	0.81
BLRC064	24	31	7	0.5	25	30	5	0.57
BLRC084	22	28	6	0.59	22	25	3	0.87
BLRC085	20	27	7	0.77	20	24	4	0.96
BLRC089	22	31	9	0.79	23	31	8	0.84
BLRC090	23	26	3	0.38				
BLRC092	25	44	19	0.44	31	37	6	0.63
BLRC093	23	31	8	0.58	24	31	7	0.62
BLRC094	24	38	14	1.18	24	38	14	1.18
BLRC095	25	37	12	0.66	25	35	10	0.7
BLRC097	23	27	4	1.25	23	26	3	1.54
BLRC098	26	33	7	0.98	26	32	6	1.09
Intersection thickness weighted average grade % Cu				0.77				1.01
Average thickness m			10			8		

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (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. 	<ul style="list-style-type: none"> RC samples (previous exploration) were taken at 1m intervals from which about 1.5kg was crushed and pulverised for analysis. Diamond drill core was halved and quartered with a core saw diamond core samples were taken over 1m intervals. About 3.5kg was crushed and pulverised for analysis. Samples were submitted to AMDEL Laboratories in Adelaide. Sample were analysed using an aqua regia digestion and ICP-MS and ICP/OES multi-element analysis.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Reverse circulation, face sampling bit. Diamond drilling, PQ, HQ and NQ2 core No core orientation.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> Diamond drill recoveries recorded every run (usually 3m). Drillers maximise recoveries with due care. No significant core losses in mineralised ground. Sufficient analyses not received to be able to assess recovery related sample result bias.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	<ul style="list-style-type: none"> All RC chips and core were geologically logged. All logging is descriptive and qualitative

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Mineralised diamond drill core was halved and quartered with a core saw. One quarter of every meter was sent for analysis. RC chips were rotary split and taken every meter. Both dry and wet samples were taken. Samples were crushed, pulverised and a 250g split taken for analysis. It is assumed that standards, duplicates and blanks were inserted for quality control Sample sizes were correct for the style of copper mineralisation sampled, however studies and checks are ongoing.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	<ul style="list-style-type: none"> It is assumed that standards, duplicates and blanks were inserted into the sample sequence before sending to the laboratory for analyses and checked when results were received. The acid digestions are sufficient to provide a total copper analysis.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Still at exploration and discovery stage. Primary data is contained in Sandfire 2011-12 Borroloola Project Group Annual Mineral Exploration Reports GR121-09
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Holes located by handheld GPS and accurate to 4 or 5m. WGS 84 grid coordinates.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Only exploration drilling. No sample compositing No Mineral Resource or Ore Reserve reported

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Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Drillholes all vertical into flat or gently dipping mineralisation. Any intersections described refer to down hole lengths.
<i>Sample security</i>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • It is assumed that correct procedures were carried out by Sandfire
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • None required at this preliminary exploration stage.

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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 style="list-style-type: none"> 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 style="list-style-type: none"> The Borroloola West JV Project consists of EL's 26939, 30305, 26938, 28659, 28540, 28541, 28534, 28658, 30302, 28657, 28508, MLN 624 and ELA 26599. The Borroloola West Project is a joint venture with Sandfire. Pacífico is the operator. Some of the licence areas are covered by the Limmen National Park and permissions for exploration have been obtained from both the traditional owners and the Parks and Wildlife Commission. Lorella (EL26939) lies on Lorella Springs Station and permissions for exploration have been obtained from the traditional owners and from the station operator. Granted licences - No known security of tenure issues or anticipated impediments to operate in the area.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Various companies have explored the area now covered by the Borroloola West Project including Sandfire Resources NL, Western Mining Ltd, Mount Isa Mines Ltd and BHP Exploration Pty Ltd.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Borroloola West Project is considered prospective for sediment hosted massive sulphide zinc lead silver deposits and copper deposits in the Proterozoic sedimentary sequence. Manganese deposits may be present in Cretaceous sediments. Diamonds may occur in concealed kimberlitic pipes.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract 	<ul style="list-style-type: none"> Drill hole coordinates and details are provided in Appendix 1 of this announcement to the ASX

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Criteria	JORC Code explanation	Commentary
	<i>from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>The assumptions used for reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> All analyses were taken over 1m and no weighting techniques have been used. No grades have been cut. Cut-off grades are clearly stated. Aggregations of grades are listed in the intercepts in Appendix 2. No metal equivalent values have been used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<ul style="list-style-type: none"> Down-hole lengths only have been reported. The mineralisation is flat to gently dipping. All the drillholes reported in Appendix 1 are vertical and therefore reflect vertical thicknesses
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Map and section are provided (figures 1 and 2). A tabulation of intercepts is included (Appendix 2).
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> A summary of all results over a cut-off of 0.25% Cu are reported.
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Some additional geological observations are included
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Further step-out drilling Map shows interpreted extension of mineralisation.

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