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encounter

**RESOURCES LIMITED** 

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# Exciting New Copper Target Identified at Lookout Rocks South

The directors of Encounter Resources Ltd ("**Encounter**") are pleased to provide an update on exploration activity at the Lookout Rocks copper project ("**Lookout Rocks**") in Western Australia. Lookout Rocks includes four tenements (~450km<sup>2</sup>) of highly prospective exploration ground located in the north-west of Encounter's Yeneena Project.

Exploration at Lookout Rocks is being conducted as part of the US\$6m earn-in agreement with Antofagasta Minerals Perth Pty Limited ("**Antofagasta**"), a wholly owned subsidiary of London Stock Exchange listed Antofagasta plc (see ASX announcement 30 July 2015).

### Background

The Lookout Rocks / Throssell Range project extends north-west of the 100% owned Fishhook prospect and cover over 30 strike kms of interpreted Broadhurst Formation sediments (Figure 4). Interpretation of the detailed airborne electromagnetic data indicates the prospective structures and Broadhurst lithologies extend into the project in an area that has seen minimal previous exploration activity.

In September 2015, an initial reconnaissance aircore and RC drilling program was completed at Lookout Rocks to test a number of key structural targets. The aim of this initial program was to test cover depth, refine bedrock geological interpretation and test for any copper regolith anomalism within the defined targets.

#### Lookout Rocks South Prospect

This drilling program included seven reconnaissance holes at a structural target along a covered belt of conductive stratigraphy situated at the western margin of a block of Coolbro Sandstone at Lookout Rocks South (Figure 2 and 3). Drilling confirmed the presence of deeply oxidised Broadhurst Formation, the geological unit that hosts the Nifty Copper deposit located 35km north (Figure 1).

The drilling also intersected broad intervals of moderate copper and lead anomalism with a strengthening geochemical vector to the east and towards the bottom of hole (see Table 2). This included drill hole EPT 2256 which intersected 116m @ 290ppm Cu and 457ppm Pb from 16m to 132m (end of hole). The final sample at the end of aircore hole EPT2256 returned 942ppm copper and importantly, iron oxide minerals interpreted to be derived from sulphides were noted in this interval.

The oxidised Broadhurst sediments in this area are heavily weathered and leached, indicating strongly acidic meteoric fluids were present. Intense leaching of the regolith material indicates it may have been significantly depleted any primary copper mineralisation.

In addition, a surface gossan with boxwork textures after sulphide minerals has recently been identified to the east of the reconnaissance drilling at Lookout Rocks South. Iron rich shallow outcrop and gossanous float occurs in an area approximately 300m by 200m immediately to the east of EPT2220 (Figure 2). Samples taken from this gossan returned copper assays up to 0.2% copper (Table 3) and exhibit similarities to iron rich surface samples taken at Nifty (refer to WAMEX historical reports).

These initial reconnaissance drilling results are interpreted to be regionally significant. Lookout Rocks South contains a number of clear similarities with the early exploration results at the Nifty copper discovery. Accordingly, Encounter and Antofagasta are highly encouraged by these early results and Antofagasta have committed to further drilling at Lookout Rocks South at the commencement of the 2016 drill season to test for a primary mineralised position at depth.



Figure 1: Yeneena Project – Leasing, major structures, major prospects and VTEM ch35



Figure 2: Lookout Rocks – Prospect locations IDs

(VTEM ch35 background)

Figure 3: Lookout Rocks South - Collar locations and hole

(VTEM 1VDTRP magnetics background)

Hole_ID	Northing (m)	Easting (m)	RL (m)	EOH(m)	Dip	Azi	Hole Type
EPT2219	7566790	351551	320	150	-60	090	RC
EPT2220	7566791	351698	320	132	-60	090	RC / AC
EPT2252	7566797	350503	320	31	-90	000	RC / AC
EPT2253	7566797	350902	320	78	-90	000	RC / AC
EPT2254	7567607	351201	320	108	-90	000	AC
EPT2255	7567602	351599	320	132	-90	000	AC
EPT2256	7567593	352001	320	132	-90	000	AC

Table 1: Drill hole collar location – Lookout Rocks South

Estimated drill hole coordinates GDA94 zone 51 datum. Collars positioned via handheld GPS (+/-5m), EOH = End of hole depth; m=metre; azi=azimuth. AC = aircore, RC = Reverse Circulation

Hole ID	From (m)	To (m)	Length (m)	Copper ppm	Phosphorous ppm	Lead ppm
EPT2219		nsa				
EPT2220	6	60	54	294	1719	11
incl.	48	50	2	1230	2600	34
EPT2252		nsa				
EPT2253		nsa				
EPT2254	40	60	20	322	690	14
EPT2255*	40	132	92	246	761	13
EPT2256*	16	132	116	290	1116	457
incl.	70	72	2	1020	3050	1430

 
 Table 2: RC drilling assay results – Lookout Rocks South

 Intervals are calculated at a 0.01% Cu lower cut-off, with internal higher grade intervals calculated at a 0.1% Cu lower cut-off.
 \* Denotes end of hole interval. nsa = no significant results

Sample_ID	Northing (m)	Easting (m)	Cu (ppm)	Fe (%)	Mn(ppm)	P (ppm)
EX208138	7566861	351803	918	27.6	568	6900
EX208139	7566856	351812	1290	36.4	632	9250
EX208140	7566885	351893	1270	48	26800	5100
EX208141	7566898	351900	1130	39.7	11200	2850
EX208142	7566820	351753	48	30.8	426	4850
EX208143	7566870	351888	550	50.7	32300	3400
EX208144	7566991	351712	1590	35.1	27600	6900
EX208145	7567020	351672	2180	14.7	256000	4000
EX208146	7566757	351776	50	34.5	1880	6700
EX208147	7566753	351751	82	31.4	1180	5800
EX208148	7566727	351814	38	47	1270	10800
EX208149	7566751	351741	96	25.8	876	4500
EX208150	7566865	351848	158	31.6	966	3650
EX209587	7566772	351815	72	38.1	594	5800
EX209588	7566871	351861	416	33	374	5200

 Table 3: Surface sample location and geochemistry – Lookout Rocks South

 Estimated sample coordinates GDA94 zone 51 datum positioned via handheld GPS (+/-5m),

#### Location Plan

The Yeneena Project covers 1,800km<sup>2</sup> of the Paterson Province in Western Australia, and is located 40km SE of the Nifty copper mine and 30km SW of the Telfer gold/copper deposit (Figure 4). The targets identified are located adjacent to major regional faults and have been identified through electromagnetics, geochemistry and structural targeting.



#### Figure 4: Yeneena Project leasing and targets areas

The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewick consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed.

## SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	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	Lookout Rocks South was sampled by Encounter using AC / RC and surface rock chip sampling. Seven holes were drilled for a total of 763m and a total of 15 rock chip samples were taken. The seven holes were drilled on two east-west sections and the rock chip samples were collected over an area approximately 200m by 300m.	
	should not be taken as limiting the broad meaning of sampling.	Onsite handheld Niton XRF instruments were used to systematically analyse RC samples, with a single reading taken for each 1m sample or 2m composite sample produced during drilling. These results are only used for onsite interpretation and the XRF results are not reported.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drill hole collar and rock chip locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.	
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	Aircore / Reverse circulation drilling was used to obtain 3-4 kg samples every 1m downhole and composited into 2m samples. The rock chip samples were generally 100-250gms each. These samples were sent to Bureau Veritas Minerals Pty Ltd Laboratories in Perth, where they were dried, crushed, pulverised and split to produce a sub – sample for ICP – OES and ICP – MS analysis.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	AC and RC drilling accounts for approximately 50% each of the results reported in this announcement. Holes were drilled using 3 1/2" diameter blade bit or face sampling hammer.	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Sample recoveries were estimated as a percentage and recorded by ENRL field staff.	
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Driller's used appropriate measures to maximise sample recovery and minimise down-hole and/or cross – hole contamination.	
	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.	To date, no detailed analysis to determine the relationship between sample recovery and/or and grade has been undertaken for this drill program.	

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.	Geological logging is carried out on all drillholes, with lithology, alteration, mineralisation, structure and veining recorded. Where core was orientated, structural measurements are taken.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative in nature and records interpreted lithology, alteration, mineralisation, structure, veining and other features of the samples.
	The total length and percentage of the relevant intersections logged	All drill holes will be logged in full by Encounter geologists.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No core samples reported in this announcement.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected on the rig using a splitter. Samples were recorded as being dry, moist or wet by Encounter field staff.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation was completed at Bureau Veritas Minerals Pty Ltd Laboratories in Perth. Samples were dried, crushed, pulverised (90% passing at a $\leq$ 75µM size fraction) and split into a sub – sample that was analysed using a 4 acid digest with an ICP – OES and ICP – MS finish.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these will be at an average of 1:33.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	Field duplicates were taken during RC drilling and were collected on the rig via a splitter at a rate of 1:50.
	duplicate/second-half sampling.	The results from these duplicates are assessed on a periodical basis.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of base metal anomalism and mineralisation at Lookout Rocks South.
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.	The samples will be digested and refluxed with hydrofluoric, nitric, hydrochloric and perchloric acids (four acid digest). This digest is considered to approach a total digest for many elements, although some refractory minerals are not completely attacked. Analytical methods used will be ICP – OES (AI, Ca, Cu, Fe, Mg, Mn, Ni, P, S and Zn) and ICP – MS (Ag, As, Bi, Cd, Co, In, Mo, Pb, U, Sr and TI).
	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.	Two handheld XRF instruments were used to systematically analyse RC samples and drill core onsite. The principal instrument used was a Thermo Scientific XL3t 950 GOLDD+. A Thermo Scientific XL3t 500 was also used infrequently. Reading times ranged from 20 – 25 seconds. Standards are analysed frequently to ensure accuracy.
	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.	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of in house procedures. Encounter also submitted an independent suite of CRMs, blanks and field duplicates (see above). A formal review of this data is completed on an annual basis.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The intersections included in this report have been verified by Anna Bradney – Exploration Geologist.
	The use of twinned holes.	No twinned holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected for Lookout Rocks South on hand held printed forms and on toughbook computers using Excel templates and Maxwell Geoservice's LogChief software. Data collected was sent offsite to Encounter's Database (Datashed software), which is backed up daily.
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data collected at Lookout Rocks South.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys) trenches mine workings and	Drill hole collar and rock chip locations are determined using a handheld GPS.
	other locations used in Mineral Resource estimation.	No down hole surveys were collected during this drilling program.
	Specification of the grid system used.	The grid system used is MGA_GDA94, zone 51.
	Quality and adequacy of topographic control.	Estimated RLs were assigned during drilling and are to be corrected at a later stage using a DTM created during the VTEM AEM survey.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The seven holes in this program were drilled on two separate east-west section. The two sections are 800m apart.
	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.	Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.
	Whether sample compositing has been applied.	Drill samples from this program were composited from 1m sample piles into 2m composite samples.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	N/A – this is early stage drilling and the orientation of sampling to the mineralisation is not known.
	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.	This is early stage drilling and the orientation of sampling to the mineralisation is not known.
Sample security	The measures taken to ensure sample security.	The chain of custody is managed by Encounter. Samples were delivered by Encounter personnel to Newcrest's Telfer Mine site and transported to the assay laboratory via McMahon's Haulage. Tracking protocols have been emplaced to monitor the progress of all samples batches.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the Lookout Rocks South data.

## SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Lookout Rocks South prospect is located within the tenement E45/3768 which is 100% held by Encounter. The prospect area is subject to an Earn In Agreement with a subsidiary of Antofagasta PLC, whereby Antofagasta may up to a 70% interest in the prospect area. This tenements are contained completely within land where the Martu People have been determined to hold native title rights. No historical or environmentally sensitive sites have been identified in the area of work.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Prior to activities undertaken by Encounter, only two lines of shallow RAB drilling had been completed in the Lookout Rocks South area by ESSO in the mid 1980s. Results from the ESSO drilling could not be verified.
Geology	Deposit type, geological setting and style of mineralisation	Lookout Rocks South is situated in the Proterozoic Paterson Province of Western Australia. A simplified regional stratigraphy of the area comprises the Palaeo-Proterozoic Rudall Complex, unconformably overlain by the Neo- Proterozoic Coolbro Sandstone. On top of this is the Broadhurst Formation, which hosts Lookout Rocks South. Lookout Rocks South is considered prospective for sediment – hosted copper mineralisation, with the Nifty deposit located 35km to the north, providing a basic conceptual model for exploration targeting.
Drill hole information	<ul> <li>A summary of all information material to the understanding of the exploration results including tabulation of the following information 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 meters) 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></ul>	Refer to tabulations in the body of this announcement.
Data aggregation methods	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.	All reported assays have been length weighted, with a nominal 0.01% Cu lower cut-off reported as significant in the context of the geological setting. No upper cuts-offs have been applied.
	Where aggregated 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.	Higher grade intervals that are internal to broader zones of copper mineralisation are reported as included intervals, using a lower cut-off of 0.1% Cu
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported in this announcement.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
Diagrams	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 plane view of drill hole collar locations and appropriate sectional views.	Refer to body of this announcement.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All significant intervals are reported with a 0.01% Cu lower cut-off (with internal higher grade intervals quoted at a 0.1% Cu lower cut-off).
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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.	All meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further drilling at Lookout Rocks South is required to test for copper sulphide mineralisation at depth and along strike. Diamond drilling is expected to re- commence in April 2016.