

ASX Announcement

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ASX: CUL

9 December 2020

Exploration Update

WONGAN HILLS PROJECT, EL's 70/4882 and 5162, and ELA 70/5414 ~180 km north-east of Perth, base metals and gold project (Cullen 90% - Tregor Pty Ltd 10%):

Drilling

Two RC holes (20WHRC003-004) have been completed at Rupert and one at Wongan (20WHRC005) for 456m (see Fig .1).

The holes at Rupert tested the northern and southern ground EM (Electromagnetic) conductor plates below historic gold and silver soil geochemistry. Both of these holes intersected sections of semi-massive to massive pyrite with minor pyrrhotite in shale and siltstone at mafic volcanics-sediment interfaces, from down-hole depths of 141m (3m thick) and 115m (5m thick). These sulphide intersections are interpreted to be the source of the modeled conductors in both cases and, from the position of mapped VTEM responses, may be two separate stratigraphic horizons or a single faulted unit (see Fig.1).

In addition, RC hole 20WHRC004, which tested the southern EM plate, intersected a section of pyrite/pyrrhotite-cemented quartz breccia over approximately 15m from 127m down hole. This sulphidic zone is interpreted to be within a NW-SE trending shear zone as shown on historic aeromagnetic interpretation plans.

The third RC hole (20WHRC005) tested below one of the better bottom-of-hole zinc with copper anomalies at Wongan from previous air core drilling (January 2019). It intersected mafic volcanics with minor disseminated pyrite-pyrrhotite in an interpreted fault.

A programme of air core drilling (~ 2000 metres) is about to commence to test the stratigraphic sections on either side of the pyritic horizons intersected in the RC drilling at Rupert, as described above, where there has been no previous drilling. In particular, air core drilling will test the line of VTEM conductors to the east of the southern EM plate and the adjacent granite-greenstone contact.

Visual inspection of the drill chips did not report any significant copper sulphides, however assay data to be received from the RC drilling and forthcoming air core drilling, will refine the model for VHMS sulphide deposits or otherwise, and direct further targeted drilling.

Composite 5m samples from the RC holes have been returned to Perth for first pass assaying, and one metre samples were also collected for later follow-up.



Table 1: RC drilling, December 2020 – E70/4882

					DEPTH	
HOLE ID	EAST	NORTH	DIP°	AZI°	(m)	RL (m)
20WHRC003	466426	6594151	-60	110	180	303
20WHRC004	466414	6503421	-60	90	156	305
20WHRC005	463482	6593471	-60	90	120	297

ATTRIBUTION: Competent Person Statement

The information in this report that relates to exploration activities is based on information compiled by Dr. Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Ringrose consents to the report being issued in the form and context in which it appears.

Information in this report may also reflect past exploration results, and Cullen's assessment of exploration completed by past explorers, which has not been updated to comply with the JORC 2012 Code. The Company confirms it is not aware of any new information or data which materially affects the information included in this announcement.

ABOUT CULLEN: Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (Fortescue and Liontown), and a number of projects in its own right. The Company's strategy is to identify and build targets based on data compilation, field reconnaissance and early-stage exploration, and to pursue further testing of targets itself or farm-out opportunities to larger companies. Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities. Cullen has a 1.5% F.O.B. royalty up to 15 Mt of iron ore production from the Wyloo project tenements, part of Fortescue's Western Hub/Eliwana project, and will receive \$900,000 cash if and when a decision is made to commence mining on a commercial basis -E47/1649, 1650, ML 47/1488-1490, and ML 08/502. Cullen has a 1% F.O.B. royalty on any iron ore production from the following tenements - E08/1135, E08/1330, E08/1341, E08/1292, ML08/481. and ML08/482 (former Mt Stuart Iron Ore Joint Venture Baosteel/Aurizon/Posco/AMCI) and will receive \$1M cash upon any Final Investment Decision. The Catho Well Channel Iron Deposit (CID) has a published in situ Mineral Resources estimate of 161Mt @ 54.40% Fe (ML 08/481) as announced by Cullen to the ASX - 10 March 2015.

FORWARD - LOOKING STATEMENTS

This document may contain certain forward-looking statements which have not been based solely on historical facts but rather on Cullen's expectations about future events and on a number of assumptions which are subject to significant risks, uncertainties and contingencies many of which are outside the control of Cullen and its directors, officers and advisers. Forward-looking statements include, but are not necessarily limited to, statements concerning Cullen's planned exploration program, strategies and objectives of management, anticipated dates and expected costs or outputs. When used in this document, words such as "could", "plan", "estimate" "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Due care and attention has been taken in the preparation of this document and although Cullen believes that its expectations reflected in any forward looking statements made in this document are reasonable, no assurance can be given that actual results will be consistent with these forward-looking statements. This document should not be relied upon as providing any recommendation or forecast by Cullen or its directors, officers or advisers. To the fullest extent permitted by law, no liability, however arising, will be accepted by Cullen or its directors, officers or advisers, as a result of any reliance upon any forward looking statement contained in this document.

Authorised for release to the ASX by: Chris Ringrose, Managing Director, Cullen Resources Limited.

Data description as required by the 2012 JORC Code - Section 1 and Section 2 of Table 1 RC Drilling – E70/4882

Section 1 Sampling techniques and data			
Criteria	JORC Code explanation	Comments	
Sampling technique	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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Sampling was by Reverse Circulation (RC) drilling testing bedrock and interpreted geological and/or geophysical targets for gold mineralisation and/or base metals. Three holes for 456m were completed – E70/4882.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The collar position were located using handheld GPS units with an approximate accuracy of +/- 5 m. Drill rig cyclone and sampling tools cleaned regularly during drilling.	
Drilling	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 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. Drill type (e.g. core, reverse	 Mineralisation determined qualitatively from rock type, alteration, structure and veining observations. Drilling was used to obtain one metre samples delivered through a cyclone into a calico bag, and stored. A 1m sample was also collected in plastic bags and from each drill bag, a ~500g sample was collected using a scoop and five of such 1m samples were combined into one 5m composite sample. The composite samples (2-3kg) were sent to Perth laboratory Minanalytical for analysis. 	
technique	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.).	hammer bit.	
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Sample recovery was assessed visually and adverse recovery recorded. The samples were generally dry, a few were damp, and showed some variation in volume, which was noted.	
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	The samples were visually checked for recovery, contamination and water content; the results were recorded on log sheets. Cyclone and buckets were cleaned regularly and thoroughly (between rod changes as required and after completion).	
	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.	The hole was kept dry and there was no significant loss/gain of material introducing a sample bias.	

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Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining and metallurgical studies.	All samples were qualitatively logged by a geologist in order to provide a geological framework for the interpretation of the analytical data.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Logging of rock chips was qualitative (lithology, type of mineralisation) and semi-quantitative (visual estimation of sulphide content, quartz veining, alteration etc.).
	The total length and percentage of the relevant intersections logged	Drill hole logged in full.
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable - no core taken.
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	One-metre samples were collected from a cyclone attached to the drill rig into calico bags, and plastic bags were lined up on the ground in rows. Composite samples were taken using a sampling scoop.
	For all sample types, quality and appropriateness of the sample preparation technique.	Not applicable – no assay data reported herein.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable – no assay data reported herein.
	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.	No field duplicate samples were taken. Selected one metre re-assaying to be completed.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the purpose of this drilling programme, which is reconnaissance only and primarily, aimed at establishing bedrock mineralisation style and type beneath air core anomalies and marked by EM conductors.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable – no assay data reported herein.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable, no geophysical parameters reported.

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Quality of assay data and laboratory tests	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.	Not applicable – no assay data reported herein.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Cullen staff (Managing Director) was geologist on site and visually inspected the samples and sampling procedures.
	The use of twinned holes	No twinned holes drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	All primary geological data are recorded manually on log sheets and transferred into digital format.
	Discuss any adjustment to assay data.	Not applicable – no assay data reported herein.
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 Resources estimation.	Drill collar survey by handheld GPS. Several measurements (2-3) at different times are averaged; the estimated error is +/-5 m. RL was measured by GPS.
	Specification of the grid system used.	The grid are in UTM grid GDA94, Zone50
	Quality and adequacy of topographic control.	There is currently no topographic control and the RL is GPS ($+/-5m$).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drilling tested EM conductors and down dip of air core anomalies.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.	The drilling was reconnaissance and not designed to satisfy requirements for mineral reserve estimations.
	Whether sample compositing has been applied.	The drill spoil generated by drilling was composited into 5m intervals and 1m samples were also collected.

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.	The drilling is reconnaissance level and designed to test geochemical, geophysical and geological targets, to assist in mapping, and to test for mineralisation below previous anomalies. The drill orientation was easterly (090° to 110°). It is unclear whether the sampling is unbiased or not.	
	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.	The exact dip of the structures/lithologies targeted has not been established yet but it is likely that the drilled intersections overestimate the true thickness of any intersected mineralisation.	
Sample security	The measures taken to ensure sample security.	All samples are handled, transported and delivered to the laboratory by Cullen staff/contractors. All samples were accounted for.	
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques and data have been conducted to date.	
Section 2 Reporting of exploration results			
Mineral tenements and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.	The drill targets are located on E70/4882, 90% owned by Cullen Exploration Pty Ltd (a wholly-owned subsidiary of Cullen Resources Limited). Cullen has completed a review of heritage sites, and found no issues. Particular environmental settings have been considered when planning drilling.	
	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.	The tenure is secure and in good standing at the time of writing.	
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	There has been no previous drilling by Cullen or others along the Rupert trend before this current programme, but air core drilling has been completed as previously reported at the Wongan area.	
Geology	Deposit type, geological settings and style of mineralisation.	The targeted mineralisation is volcanic-hosted base metal, type Cu-Au mineralisation	
Drill hole information	A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:		
	• Easting and northing of the drill hole collar	See included table	
	• Elevation or RL (Reduced level- elevation above sea level in metres)and the drill hole collar		

	\cdot 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 from the understanding of the report, the Competent Person should clearly explain why this is the case.	See included table
Data aggregation methods	In reporting Exploration results, weighing 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.	See included table
	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.	See included table
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used. Not applicable – no assay data reported herein.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Drilling was at -60 degree angles to test previous air core anomalies and EM conductor plates. The stratigraphy encountered in drilling appears to be dipping to the west at a moderate to high angle and any mineralisation intercepts are likely to overstate the true width of mineralisation.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The exact geometry of the mineralisation is not yet known.
	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')	See Table in report
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts would 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.	See included figure.

Delenced	Where comprehensive reporting of	Saa included Table
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reporting	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.	
Other	Other exploration data, if meaningful	See included figure where current reported data shown
substantive	and material, should be reported	together with interpretation of previous information.
exploration	including (but not limited to):	There are currently no other exploration data that appear
data	geological observations, geophysical	meaningful in the context of the drilling reported herein
	survey results, geochemical survey	prior to compilation of the assay data to come. Refer
	results, bulk samples – size and	previous Cullen ASX announcements as listed herein.
	method of treatment: metallurgical	
	test results: bulk density	
	groundwater gootechnical and rock	
	groundwater, geotecninear and rock	
	characteristics; potential deleterious	
	or containing substances.	
Further work	The nature and scale of planned	Further work, including air core, RC and/or diamond
	further work (eg tests for lateral	drilling, and/or DHEM has been planned.
	extensions or depth extensions or	
	large-scale step-out drilling).	
	Diagrams clearly highlighting the	See included figure.
	areas of possible extensions,	
	including the main geological	
	interpretations and future drilling	
	areas, providing this information is	
	not commercially sensitive.	

Further Information - 2020 ASX Releases

- 1. 29-1-2020 : Quarterly activities Report
- 2. 07-2-2020 : Exploration Update
- 3. 10-2-2020 : Share Purchase Plan
- 4. 12-2-2020 : Investor presentation
- 5. 03-3-2020 : Key Tenement Granted
- 6. 28-4-2020: Quarterly Report, March 2020
- 7. 19-6-2020: Barlee Update
- 8. 22-6-2020: Exploration Update
- 9. 15-7-2020: Exploration Update
- 10. 23-7-2020: Quarterly Report, June 2020
- 11. 21-8-2020: Exploration Update
- 12. 28-10-2020: Quarterly Report, September 2020

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