

24 October 2017

The Manager Companies  
ASX Limited  
20 Bridge Street  
Sydney NSW 2000

(5 pages by email)

## **OUTSTANDING ALUMINIUM SOLVENT EXTRACTION TEST WORK RESULTS (ASX: CLL)**

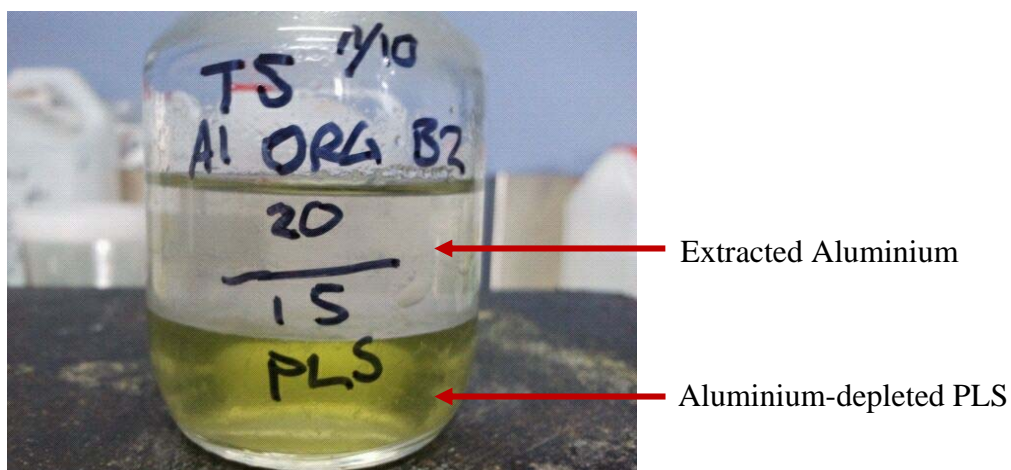
### **HIGHLIGHTS**

- Outstanding solvent extraction aluminium recovery of up to **73.3%** achieved, more than double initial expectations.
- Excellent selectivity for aluminium achieved.
- Robust aluminium extraction conditions identified, with potential for further optimisation.
- The program continues with the current work designed to produce **4N (99.99%)** High Purity Alumina (HPA) and high value Cobalt and Nickel products.

The Directors of Collerina Cobalt Limited ('Collerina Cobalt' or 'the Company') are pleased to announce outstanding results from the initial aluminium solvent extraction batch testwork on a representative sample of PLS generated from CCAL testwork (refer ASX announcement 5 October 2017).

Initial Aluminium solvent extraction batch test work across a number of different conditions has returned recoveries of up to 73.3%, well in excess of expectations. These results have been demonstrated to be consistently reproducible whilst also exhibiting excellent physical performance.

The next step will be to produce a saleable 4N (99.99%) HPA product.



**Organic phase of solvent extraction showing extracted aluminium sitting above aluminium-depleted PLS**

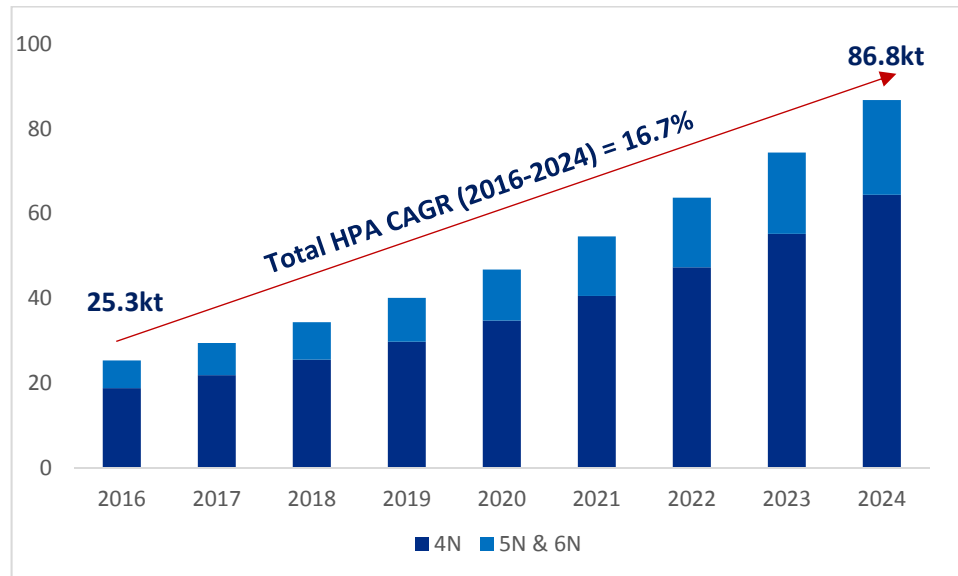
### **About HPA**

HPA is a white, powder-form chemical that is a pure form of Aluminium Oxide  $Al_2O_3$  and is used in the non-metallurgical alumina market across a growing range of high-performance products and applications including LED lighting, separators for lithium-ion batteries and scratch resistant artificial sapphire glass for smartphone screens and watches.

Growth in demand for HPA is dominated by the Asia-Pacific (APAC) region with more than 70% of current global demand emanating from China, Japan and South Korea. Conversely, current HPA supply is also dominated out the Asian Pacific region with China accounting for ~83% of global supply.

With global demand and supply dominated within the APAC region, Collerina Cobalt sees enormous opportunity as a focused HPA producer to become a genuine alternative supply source to the existing dominant APAC producing countries and more importantly fill an expected supply shortage as forecast HPA demand escalates over the next decade.

## HPA Demand Outlook (2016 -2024)



Source: Persistence Market Research

Commenting on these initial aluminium solvent extraction testwork results, Managing Director Justin Werner noted:

*“The outstanding results from this aluminium solvent extraction testwork are a critical step in furthering our ambitions to produce a marketable High Purity Alumina (HPA) product. Having demonstrated excellent aluminium recoveries through a proprietary solvent extraction process the final step of our aluminium test work will be to produce a 4N (99.99%) HPA which is expected to be the least challenging part of the metallurgical process.*

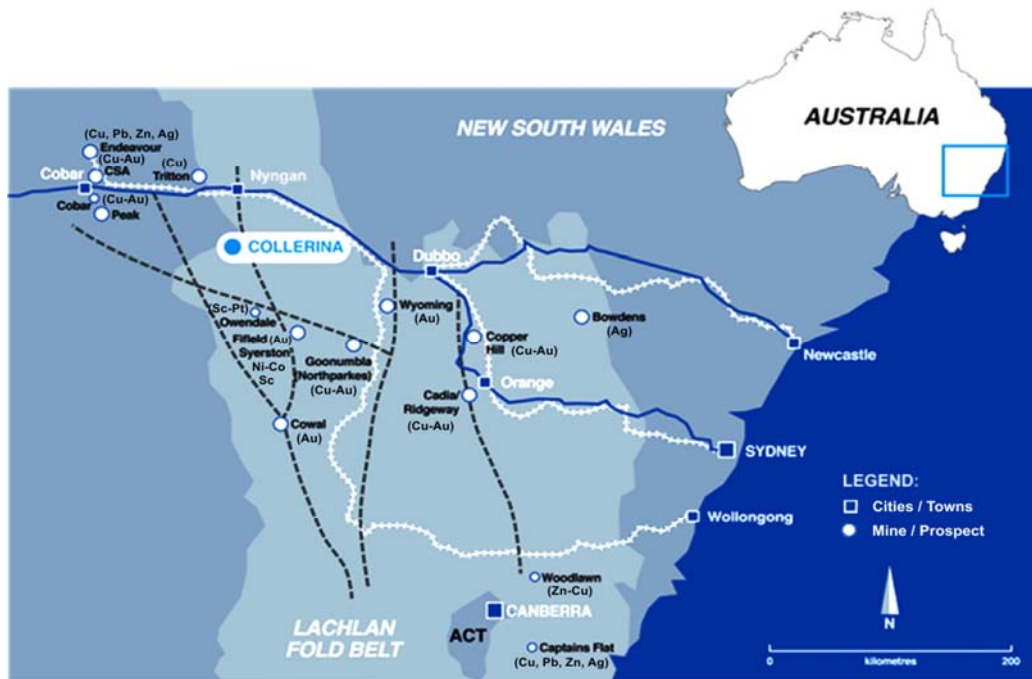
*Upon producing a batch sample of HPA the next milestone steps will be a mini-rig program designed to produce larger scale samples of HPA to facilitate discussions with potential offtake and funding partners and to develop pre-feasibility level data for a 5,000 – 10,000 tpa HPA plant with associated nickel and cobalt production.*

*With 4N HPA currently trading around US\$25,000/tonne, and with a mix of high value nickel and cobalt products offering potentially significant by-product credits, Collierina Cobalt has the potential to become an ultra-low cost HPA producer and an industry leader in HPA production from laterite ore.*

*This is an exciting time for the Company and we look forward to providing the market with further updates on our progress”*

## Collerina Project Location

The Collerina project lies about 40 kilometres south of Nyngan in the central and western region of NSW within the Lachlan Fold Belt which hosts a number of world class copper-gold mines including the Cadia, Ridgeway and Northparkes operations. The district also hosts the globally significant Syerston cobalt-nickel deposit owned by Clean Teq Holdings Limited (ASX: CLQ) which contains a reported 109 million tonnes of 0.10% cobalt and 0.65% nickel. The deposit is currently under definitive feasibility study.



The mineralisation identified by the Company's current drilling program is spatially associated with the previously announced JORC compliant high grade cobalt and nickel resource of 16.3 million tonnes of 3.1% aluminium, 0.93% nickel and 0.05% cobalt at a 0.7% nickel cut-off grade for 505,300 tonnes of aluminium, 151,000 tonnes of nickel and 8,100 tonnes of cobalt, which increases significantly to 27.2 million tonnes at 3.2% aluminium, 0.80% nickel and 0.05% cobalt for 870,400 tonnes of aluminium, 217,600 tonnes of nickel and 13,600 tonnes of cobalt at cut-off 0.5% nickel.

For further information, please contact Peter Nightingale on +61 2 9300 3310.

Yours sincerely

**Peter J. Nightingale**

**Director**

pjn9115

## **Statement of Compliance**

Information regarding the Mineral Resource at the Collerina project was prepared and first disclosed under the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. See ASX announcement 23 June 2011. It has not been updated since to comply with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' on the basis that the Company is not aware of any new information or data that materially affects the information and, in the case of the resource estimate, all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed.

The information in this report that relates to Mineral Resources is based on information compiled by Collerina Cobalt staff and contractors and approved by Mr Michael Corey, PGeo., who is a Member of the Association of Professional Geoscientists of Ontario (APGO) in Canada. Mr Corey is employed by the Company 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 Corey has consented to the inclusion in this report of the matters based on his information in the form and context in which they appear.