

29 July 2015

The Manager Companies ASX Limited 20 Bridge Street Sydney NSW 2000

(9 pages by email)

# REPORT ON ACTIVITIES FOR THE QUARTER ENDED 30 JUNE 2015

(ASX: AUK)

#### **HIGHLIGHTS**

- Randu Kuning waste rock has the properties required to be highly suitable for a variety of stone aggregate uses including concrete.
- Preliminary aggregate market assessment for the Wonogiri Solo region indicates that Randu Kuning waste rock could be sold into the regional aggregate market.
- Ongoing metallurgical testwork on whole bulk grind samples of Randu Kuning ore composites returned:
  - o 54.3% recovery of gold by gravity; and
  - 86.6% gold, 70.7% silver and 87.7% copper recovery of by gravity + flotation of gravity tailings.
- Two year extension of the Wonogiri IUP Exploration licence received.
- Commenced scout drilling of coincident geochemical and geophysical targets at the
  Toluludu property. Core observations from the first hole confirm quartz-vein hosted
  molybdenite + chalcopyrite mineralisation in potassic altered andesite host rock.
  Assays results are pending.
- Initial counter-current atmospheric leach ('CCAL') testwork on a blended Homeville resource sample reported overall nickel and cobalt extractions of 90% and 96% respectively with a low overall acid consumption of 710 kg/tonne of ore.
- Based on the positive Homeville testwork results, a scoping study for a 3,000 5,000 tonnes per annum nickel equivalent plant producing a mixed cobalt-nickel sulphide precipitation with a 60% nickel content has been commissioned.

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# **PROJECTS**

Augur Resources Ltd ('Augur' or the 'Company') is a resource development company, with a focus in Indonesia with the advanced Wonogiri gold and copper project in Central Java and the exploration properties in Gorontalo, North Sulawesi. Augur also has interests in exploration projects in central New South Wales, including Collerina which includes the Homeville nickel-cobalt deposit.

#### **INDONESIAN PROJECTS**

Wonogiri Project (Augur - 45%)

Extension of the Wonogiri IUP Exploration licence for a two year period ending January 2017 will allow for remaining feasibility work and environmental Amdal permitting to be completed at Randu Kuning without the associated added costs of having a Production IUP.

## **Wonogiri Metallurgical Studies**

Previous testwork at the project indicated the optimum grind size to be minus 53 microns. However, the current metallurgical testwork, with optimisation studies ongoing, has indicated that the optimum grind size could be coarser with resulting lower operating costs.

The testwork completed during the quarter included gravity concentration of gold from an ore sample whole ground to 80% passing minus 53 micron. This was followed by an intensive cyanide leach of the gravity concentrate. The gravity processing was completed using a Falcon centrifugal concentrator and resulted in gold recovery of 54.8%. Subsequent intensive leach of the gravity concentrate resulted in recovery of 99.1% of the contained gold resulting in a combined total gravity + leach gold recovery of 54.3% and 19.6% of silver from the gravity concentrate. Ongoing testwork will evaluate gold recoveries from intensive leaching of the gravity tailings and when combined with the gravity concentrate recoveries the total recoverable gold (+silver) will be determined.

Flotation testwork on the gravity separation tailings of three different grind sizes has been carried out. Again, it was determined that the grind size of 80% passing 53 microns gave the best recovery of >70% gold. When combining gravity separation followed by flotation on the gravity separation tails, overall recoveries of 86.6% gold, 70.7% silver and 87.7% copper were achieved. These results are consistent with previous sulphide flotation test results that indicated that up to 89.0% recovery of gold and 93.4% recovery of copper could be achieved to produce a high quality marketable concentrate with grades of up to 21.2% copper and 90.6 g/t gold.

Given the whole grind gravity plus leach results for the minus 53 micron sample, it was determined that similar testwork should be performed on a sample whole grind to 80% passing minus 75 microns. This work will also include intensive leaching of the gravity tailings from the previous grind sizes to determine gold recoveries. If recoveries from the coarser grind of minus 75 microns are similar to those for the minus 53 micron then there would be significant project economic benefits as a result of a reduced grinding cost.

The completed testwork has also importantly confirmed that Randu Kuning tailings material will be non-acid forming and will be a net acid consumer. This indicates that there will be no acid mine drainage concern for the process tailings.

# **Aggregate Evaluation**

General ASTM standard rock quality tests were completed at PT Geoservices laboratory in Bekasi, West Java, and are compiled in Table 1 below. Test work was completed on four bulk rock samples (and three sub samples) made from two waste rock composite samples collected from drill core within the Randu Kuning conceptual open pit. The results indicate that the Randu Kuning waste rock has the properties required to be highly suitable for a variety of stone aggregate uses including concrete. Specific concrete design testwork has not been completed as this is best done by the individual producers.

Test	ASTM No.	BB. 028313	BB. 028313	BB. 028314	BB. 028315	BB. 028315	BB. 028316	BB. 028316
Physical Properties	ASTM D7263 - 09	Aphantic Andesite Weathered	Andesite Slightly Weathered	Aphantic Andesite Fresh	Aphantic Andesite Fresh	Porpyritic Andesite Fresh	Aphantic Andesite Fresh	Aphantic Andesite Fresh
Natural Density t/m3	ASTM D7263 - 09	2.1	2.3	2.65	2.7	2.5	2.6	2.7
Porosity%	ASTM D7263 - 09	23.6	8.2	1.66	0.8	9.8	2.5	0.7
Water Absorption%	ASTM D7263 - 09	11.7	7.9	0.66	2.2	4	0.9	0.2
Bulk Density	ASTM - C127 - 12	2.336		2.553	2.62		2.663	
'Bulk' Absorption	ASTM - C127 - 12	6.81		2.5	0.341		0.239	
Point Load Test mpa	ASTM D5731 - 08	24	24	65	147	58	60	
Five Cycle Soundness – Sodium Sulfate%	ASTM C88 – 13	56.97	4.18	4.1	5.03	27.92	4.37	
Organic Impurities in Fine Aggregate for Concrete	ASTM C40/C40M - 11	Color No. 1 (Clear)		Color No. 1 (Clear)	Color No. 1 (Clear)	Color No. 1 (Clear)	Color No. 1 (Clear)	
Los Angles Abrasion % 100 Rotations	ASTM C131 – 06	51.82	5.92	5.58	3.24	4.64	3.44	
Los Angles Abrasion % 500 Rotations	ASTM C131 – 06	85.06	23.34	19.54	12.54	18.04	13.74	
Water Soluble Chloride Content%	ASTM D512-12	0.029		0.036	0.03	0.03	0.027	
Water Soluble Sulfate Content%	ASTM D516-11	0.015		0.019	0.005	0.047	0.014	
Sulfate Content	ICP	0.02		0.02	0.02	0.03	0.02	
Loss on Ignition at 900 C	1000 °C furnace	4.69		4.09	3.39	5.01	5.43	
Potential Alkali Reactivity	ASTM C289	None			None		None	
End Use		Fill/Road Base	Road Base	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate

ASTM test results for Randu Kuning waste rock composite samples

The completed regional market study provided important information about current aggregate use within a 100 kilometre radius of the Wonogiri property. A total of 60 users and suppliers were visited during the survey and the information compiled. The results of this work suggest that aggregate production from a modest 150tph crusher could be absorbed into the regional market for a variety of uses without price disruption. It is also clear from the market study and related discussions with industry consultants that there is a strong demand for high quality aggregate throughout Java to supply ongoing and planned infrastructure projects as part of an extensive transportation upgrade initiative by the Indonesian Government.

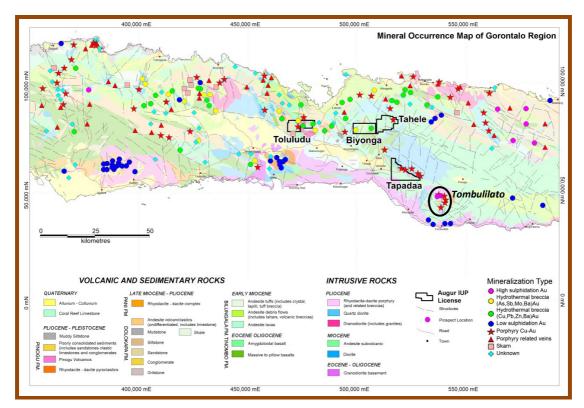
The Company is evaluating several aggregate production scenarios including initial production from stand-alone quarries outside the conceptual Randu Kuning open pit. This could provide a low capital cost opportunity to get early cash flow with which to advance development of the Randu Kuning mine.

#### Gorontalo Properties (Augur - 80%)

#### **Toluludu Property**

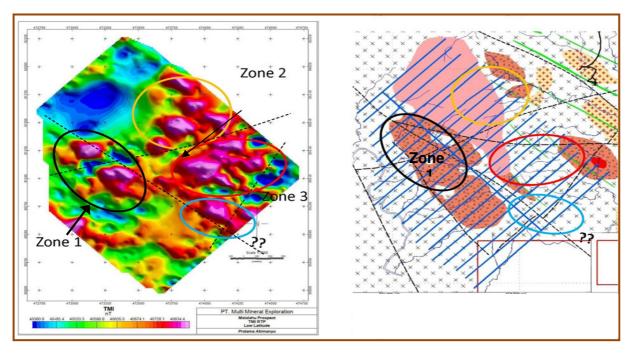
Scout drilling commenced with a single man-portable drill at the Toluludu IUP property at the Molalahu prospect area. Three holes are planned to test to test porphyry-type Cu-Mo mineralisation targets defined by coincident high magnetic geophysical targets and visible Cu-Mo in surface rock samples and noted as Zone 1 in the figure below. The first drill hole was abandoned at 106 metres due to difficulty drilling through an interpreted fault zone. Although the target depth to effectively test the high magnetic anomaly was 200 metres the core recovered does confirm the presence of quartz – magnetite veins containing molybdenite ± chalcopyrite. The veins are hosted within an altered andesite containing abundant secondary biotite and magnetite as an early phase of alteration and mineralisation. A latter alteration event manifest as pervasive silicification overprinted the andesite and resulted in minor additional molybdenite within fractures and fine disseminations. The drill is currently being moved to Zone 2 area to test another area of anomalous Cu – Au within surface rock samples. Consideration will be given to redrilling at site 1 pending evaluation of core sample assay results.

The other drill target area at Toluludu is at the Toluludu East prospect where a single hole is planned to test exposed high grade gold + base metal veins. Mapping by Augur has identified, narrow (<1 metre) structurally-controlled quartz-sulphide veins with rock-chip samples returning up to 8.69 g/t gold, 370 g/t silver, 4.4% copper and 0.73% zinc. The exploration target is for intermediate sulphidation type quartz veins.



Geologic map of the Gorontalo region showing Augur's IUP property locations and also locations of known mineral occurrences.

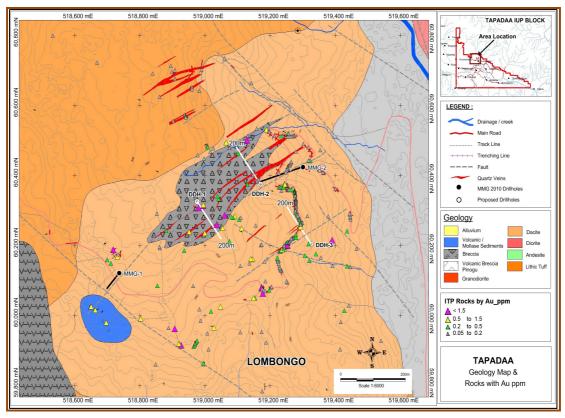
The Tombulilato porphyry copper-gold deposit area currently in feasibility is also shown.



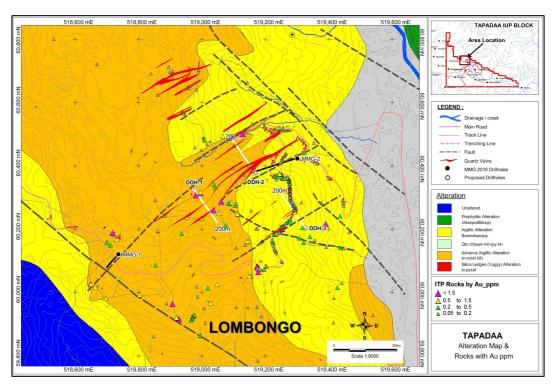
Reduced to Pole - magnetic map for Molalahu Prospect (left) and showing areas of interest as defined by surface geological mapping (right).

# **Tapadaa Property**

Previous detailed surface mapping by Augur identified areas of sheeted, epithermal-type quartz veins hosted within an argillic and silicified breccia. Surface rock sampling returned up to 3.0 g/t gold from weathered vein material. Three drill holes are proposed to test the veins to about 150 metres depth. Previous drilling by MMG Exploration Pty Ltd ('MMG') was designed to test high magnetic anomalies as part of a porphyry copper-gold exploration strategy and did not test the epithermal veins. A previous MMG hole drilled south of the veins and parallel to assumed vein direction returned 2 metres of 1.74 g/t gold from 83 metres downhole.



Geological map of the Lombongo prospect area within the Tapadaa IUP property. The location of surface rock samples and the extent of quartz veins and location of proposed and previous drill holes are shown.



Surface alteration map of the Lombongo prospect area within the Tapadaa IUP property. The location of surface rock samples and the extent of quartz veins and location of proposed and previous drill holes are shown.

# **Future Exploration Work**

Scout drilling at the Molalahu and Toluludu East prospect areas will be completed, followed by drill mobilisation to the Tapadaa IUP to test defined epithermal vein targets. Objectives for both programs are to confirm the occurrence of significant mineralisation which will then warrant a detailed resource delineation drill program.

#### **AUSTRALIAN PROJECTS**

The central and western region of NSW hosts a number of world class deposits including the Cadia, Ridgeway and Northparkes deposits. At the Collerina project Augur has defined a JORC compliant resource estimate for the Homeville nickel-cobalt deposit of 16.3 Mt at 0.93% nickel and 0.05% cobalt comprised of 4.4 Mt of Indicated Resource at 0.99% nickel and 0.06% cobalt and 11.9 Mt of Inferred Resource at 0.91% nickel and 0.05% cobalt of (using a 0.7% nickel cut-off)<sup>1</sup>.

## **Homeville Testwork**

During the quarter, final results from testwork carried out by **hrl**testing Pty Ltd, Brisbane, were received. The combined CCAL results from testing of blended saprolite and limonite samples achieved overall extractions of 90% nickel and 96% cobalt. After accounting for the acid recycled from stage 2 to stage 1, the overall acid consumption was 710 kg/t ore which is very low when compared to co-current agitated atmospheric leaching (typically 900-1,000 kg/t ore).

Approximately 15 kg of saprolite composite was prepared along with approximately 5 kg of limonite composite. Each composite was screened and crushed to 100% passing 26 mm and then rotary split into representative aliquots ahead of the testwork program and assayed.

The leaching testwork examined a single-stage leaching process and, using synthetic liquors, simulated the first and second stages of a CCAL process. In the first stage, fresh ore was leached in a lower free acid solution, leaching the readily leachable material and producing a pregnant leach solution with relatively low residual acidity. The leach residue solids from the first stage were washed and forwarded to the second stage of leaching. In the second stage of leaching, concentrated sulphuric acid was used and the more resistant material was leached at a higher concentration of acid. The leach solution from the second stage, with a much higher residual acid concentration, was recycled to the first stage leach as the acid source.

The CCAL process offers higher nickel and cobalt extractions (14% and 11% higher respectively) than single stage leaching with an 11% reduction in acid requirement. Extractions of contaminant species - iron, magnesium and aluminium - are lower than nickel and cobalt.

Based on the positive Homeville testwork results, Augur has commissioned Boyd Willis Hydromet Consulting and Canopean Pty Ltd to undertake a scoping study for a 3,000 - 5,000 tonnes per annum nickel equivalent plant producing a mixed cobalt-nickel sulphide precipitation with a 60% nickel content.

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

Yours sincerely

Peter J. Nightingale

**Director** 

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#### **Statement of Compliance**

Information that relates to Exploration Results of the Wonogiri project and Gorontalo properties was previously reported to the ASX on 29 October 2014 and is available to view on the Company's website at www.augur.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information or supporting documentation included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Information regarding Mineral Resources was prepared and first disclosed under the 2004 Edition of the 'Australasian Code for Reporting of 'Exploration Results, Mineral Resources and Ore Reserves'. 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 the Mineral Resources is based on information compiled by Augur staff and contractors and approved by Michael Corey PGeo., who is a Member of the Association of Professional Geoscientists of Ontario (APGO) in Canada. Michael Corey is a full-time employee of Augur 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Michael 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.

#### <sup>1</sup> Nickel Equivalent Calculation

Where reported, Nickel Equivalent results are calculated using a nickel price of 9/1b and a cobalt price of 13/1b. In calculating Nickel Equivalents, nickel and cobalt recoveries are assumed to be 100%. It is the Company's opinion that all metals used in the equivalent calculation have a reasonable potential to be recovered in the event that material from the Homeville project was to undergo processing.