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# BREAKAWAY MINING RESEARCH

## *DAILY REPORT*

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Wednesday, 3<sup>rd</sup> May 2017\*

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### OVERNIGHT COMMENTARY

#### Markets

Bloomberg report that U.S. equities turned higher in afternoon trading, though gains were muted as investors may yet be reluctant to commit to any direction ahead of the Federal Reserve's policy review and Friday's jobs report in light of weaker-than-expected economic growth in the first quarter. The French election on Sunday is adding to concern, while the deal to avert a U.S. government shutdown fuelled uncertainty about the timing for any Trump policy priorities.

#### Commodities

The direction of overnight prices were mixed. Q1 GDP numbers had come in below expectations driven by a significant reduction in private consumption growth. Elsewhere there is downward pressure on manufacturing gradually emerged in April in China, with all indicators weakening. The Chinese economy may be starting to embrace a downward trend in the near term as prices of industrial products decline and active restocking comes to an end, an analyst has reported.

*\*prepared based on announcements made by ASX Listed Resource Companies on the preceding day.*

**COMMODITY PRICE MOVEMENTS**

Commodity Prices	Price	Daily Change	Market Movements	Price/Level	Daily Change
<b>Base Metal Prices (US\$/lb)</b>			<b>Broad Market Indices</b>		
Copper	2.62	-1.2%	DJIA	20,949.89	0.2%
Lead	1.03	-0.9%	FTSE-100	7,250.05	0.6%
Zinc	1.20	1.2%	S&P/ASX 200	5,950.40	-0.1%
Nickel	4.29	0.6%	<b>Mining and Energy Indices</b>		
Aluminium	0.87	1.0%	S&P/ASX 200 Resources	3,319.00	0.2%
Tin	9.08	0.1%	S&P/ASX 300 Metals & Mining	2,868.80	-0.1%
Cobalt	24.83	-0.5%	S&P/ASX 200 Energy	9,258.60	1.0%
Molybdenum	6.75	-0.7%	S&P/ASX All-Ordinaries Gold	4,227.00	-1.2%
<b>Precious Metal Prices (US\$/oz)</b>			<b>Global Mining</b>		
Gold	1255	-0.2%	S&P/TSX Global Mining	65.44	0.1%
Silver	16.95	0.4%	<b>Commodity Indices</b>		
Platinum	927	-0.5%	CRB Index	181.89	-0.7%
<b>Energy</b>			LME Index	2768.20	0.0%
Oil WTI (US\$/bbl)	48.41	-0.6%	S&P GSCI	2240.40	-0.3%
Thermal coal (US\$/t)	79.40	-6.4%	Baltic Dry	1073.00	-3.2%
Iron ore (US\$/t)	69.35	-0.9%	<b>Overnight snapshot</b>		
<b>Exchange Rates</b>			Sources include Bloomberg, Macquarie, TradingEconomics, S&P, Commsec, Xe.com, marketindex.com, Reuters, Breakaway Research yahoofinance.com		
AUD/USD	0.753	0.4%			
EUR/USD	1.091	0.1%			
USD/ZAR	13.35	-0.4%			

## MARKET REVIEW

### New Deals (Including Deals in Progress or Terminated) & Tenure News

ASX Code	Company Name	Details
CBS	CABRAL RESOURCES	Has entered into a binding agreement to acquire 100% of Bowen Coking Coal P/I with interests in the Bowen Basin, including Comet Ridge Coal Project Qld. Post completion CBS will be seeking a relisted on the ASX.
CTP	CENTRAL PETROLEUM	ASX – STO have exercised its option to acquire 50% participating interest and be operator in EPA 111 and 124 in the Southern Amadeus Basin and adjacent to other tenure already in the 50:50 JV between the Companies.
RMX	RED MOUNTAIN	Have extended the due diligence exclusivity period on the Mokane-Kasari Co Cu Project in the DR Congo to 19th May.
SUH	SOUTHERN HEMISPHERE	SUH to acquire a 50% interest in the 549 sq km Marble Bar Spodumene Lithium Project WA, where pegmatite host rocks can be traced over 3.5kms of strike. Surface grades reported up to 3.7% Li <sub>2</sub> O and 3.3% Li <sub>2</sub> O. Past drill intersections include 3m @ 3.7 % Li <sub>2</sub> O. The other 50% is to be acquired by TSXV-MMS. The Companies will operate a 50:50 JV.

### Production or Emergent Production News (from completed DFS/BFS onwards)

ASX Code	Company Name	Details
CDU	CUDECO	Report that the Rockland plant produced 6,844 dmt of Cu concentrates at a grade estimated at 25% Cu in April. The target is 8217 tonnes per month.
EXC	EXTERRA RESOURCES	Commercial scale sorting operations have commenced at the Second Fortune Au Mine WA. The sorting operation is designed to increase the grade of the ore 2-3 times to reduce the volume hauled to a toll treatment facility.

**Feasibility Studies (Including Scoping Pilot and Appraisal Study Results)**

ASX Code	Company Name	Details
AKM	ASPIRE COAL	Have signed an agreement to mine and purchase coking coal from a mine adjacent to the Company's Nuurstei Coking Coal Project Development in Mongolia (45% AKM) The coal to be purchased will be similar and represent around 10% of feed to any coal wash plant to be built at Nuurstei in the future. Meanwhile project evaluation programs continue.
AMI	AURELIA METALS	Have completed a Scoping Study over the Nymagee Project, located within of the Company's Hera Mine in the Cobar Basin NSW. The study suggested that the project will add 4 years for the Hera Plant after the completion of mining at Hera. The Nymagee Production Target is 1.38Mt @ 2.2% Cu 1.6% Pb and 3.1% Cu. The Company plans to produce 24-30kt Cu; 10-20kt Pb; 25-30kt Zn and 6000-700koz Ag from the Project. The resource is 8.1Mt @ 1.2%Cu 0.3%Pb 0.7% Zn and 9g/t Ag. Capex is expected to be in the range \$20-25M. The Company plan to move to a PFS.
CLZ	CLASSIC MINERALS	Have completed a Scoping Study at its 80% Forrestania Au Project WA based on a gold price of \$1700/oz. The study assumes two open pit mines feeding 1Mtpa CIL Plant to produce around 40koz Au pa over an initial LOM of 2.5 years. Estimated AISC is \$1080-1160/oz. A Feasibility Study is scheduled for completion in H1 18. The contained resources are 217koz Au
MCT	METALICITY	MTC is evaluating directional drilling techniques to be used in Stage 2 of a PFS into the development of the Admiral Bay Zn Project WA, with the objective of reducing PFS costs and accelerating a decision to mine.

**Resources and Reserves - Updates**

ASX Code	Company Name	Details
STA	STRANDLINE RESOURCES	Have updated the Fungoni HMS Resource Tanzania, by 38% to 21.7Mt @ 2.8% HMS. The contained HMS has been increased 27% to 610Kt HMS. A preliminary mining study is planned. The HMS comprises 41% Ilmenite; 17% Zircon; 4% Rutile.

**Drilling Results**

ASX Code	Company Name	Details
RNI	RNI	Copper sulphide mineralization has been noted in drill core from the first hole at the Wodger Cu Project WA. DHEM is to be used to enhance follow up target drilling. Assays pending

**Drilling Results Continued...**

KLL	KALIUM LAKES	Drilling at the Beyondie SOP Potash Project WA has returned potassium grades of 25,600mg/L. Production bore installation is progressing at 10 Mie and pump testing has resumed. Drilling is to move east along palaeochannels
ARV	ARTEMIS RESOURCES	20 hole (600m) program has been completed at Whundo Cu Project Pilbara WA. The results from 8 holes have been received. 4 intersections were noted by ARV including 7m @ 4.4% Cu from 13mdh.
EXU	EXPLAURUM	Drilling at the Tampia Au Project WA has returned 17 intersections noted by EXU at the Leicester Gold Zone including 8m @ 5g/t Au from 4mdh (individual assays to 185g/t Au) and 4 intersections from 200m down dip of the Northern Zone including 15m @ 2.8g/t Au. 102 RC holes have been completed to date for 14,126m. Drilling will continue to June when a new resource estimate will be made.

**Drilling Planned, Underway or Completed (with Assays Pending)**

ASX Code	Company Name	Details
CTM	CENTAURUS METALS	The first drill rig is on site at the Serra Misteriosa Au Project in Brazil and drilling of a 3,500m program is expected to commence in the next 5-10 days.
VAN	VANGO MINING	An initial 5 hole DD program is underway at Trident Prospect (Plutonic Dome Au Project WA). The drilling will test extensions to high grade mineralization in previous holes including 5m @ 16.7g/t Au from 203mdh.
HMX	HAMMER METALS	Drilling has commenced at the Dronfield Cu Au Targets SE of Mt Isa Qld (HMX earning 80%) to test chargeability anomalies. Results expected early June.
HNR	HANNAS	DD has commenced at the Queen Victoria Rock Ni sulphide project 50kms SW of Coolgardie WA, to test geophysical targets.
MRD	MOUNT RIDLEY MINES	Drilling is in progress to test EM targets at Tyrrells Prospect Fraser Range Project WA. An AC program have been completed at 3 other prospects involving 184 holes (5100m). Assays pending

**Other Announcements on Existing Projects**

ASX Code	Company Name	Details
LIT	LITHIUM AUSTRALIA	The Company reports success with using Laser Induced Breakdown Spectroscopy as an innovative lithium analyzer during drilling at Agua Fria Prospect, Electra Lithium Clay Project Mexico.

**Other Announcements on Existing Projects Continued...**

GSC	GLOBAL GEOSCIENCE	Report recoveries of 98% for lithium and 99% for boron from acid – leach metallurgy tests on samples from the Rhyolite Ridge Li Bo Project Nevada USA. A PFS is due later in 2017. GSC has exercised its option to acquire 100%.
ZNC	ZENITH MINERALS	Geochem sampling has been completed at the Zacatecas Lithium Project Mexico and samples sent to the lab. Geophysical surveys and drill and trench permits are being prepared for the Nevada and Arizona Projects. Exploration is being funded by UK investor Jim Mellon. The aim is to have 4 lithium prospects drill ready by June.

**Capital Raising And Financings (\$1M)**

ASX Code	Company Name	Details
OKU	OKLO RESOURCES	Have received commitments for \$8.7M in a placement at 24 cents per share. Canaccord Genuity acted as Lead Manager and Taylor Collison Broker to the issue. The funds will be used to accelerate drilling at the Seko Discovery Dandoko Mali.
GEV	GLOBAL ENERGY VEN	Have raised \$5M at 14 cents per share from clients of Foster Stockbroking. The funds will be used to accelerate investment opportunities in upstream energy assets.
SO4	SALT LAKE POTASH	Have received commitments for \$17.63M in a placement at 43 cents per share. Cenkos Securities were the bookrunner in the UK and Argonaut Securities acted as Manager in Australia. The funds to be used to advance the Company's potash project.

**Corporate News**

ASX Code	Company Name	Details
AOP	APOLLO CONSOLIDATE	Advise that the Company will receive \$3.2M as a result of the transfer of title of the Seguela Au Permit Cote D'Ivoire to ASX -NCM.

## Investor Presentations

ASX Code	Company Name	Details
OSH	OIL SEARCH	OSH hold a 29% interest in PNG LNG Project operated by ExxonMobil & 60% interest in all PNG producing fields (OSH the operator). The project is now operating at an annualized rate of 8.3 Mtpa LNG above the 6.9Mtpa nameplate. Production Costs US\$8 10/boe with the LNG \$US6.34/boe and the Operated Oil & Gas \$US14.25/boe. Planning 2 more trains to fill a possible shortage of LNG by 2020, underpinned with a 2C resource of 10TCF of undeveloped gas in the Elk – Antelope and P’nyang Fields. Exploration is focused on proving up further resources, including the new Muruk Discovery. OSH are of the view that 60% of PNG petroleum resources remain undiscovered of which > 90% expected to be gas. Good track record as OSH has drilled 44 development wells since 2003 with an 85% success ratio. Also undertaking 3D seismic offshore in the shallow water of the Gulf of Papua
NTU	NORTHERN MINERALS	NTU hold the Brown Range Dome on the NT/WA border, East Kimberley covers 60km x 30km area, much of which has not been effectively explored. A \$39M pilot plant development, at 10% of full scale capacity is under construction in China and expected to be commission from Q1 2018. And operate for 3 years, ahead of a final development decision. The aim of the Pilot is to validate product specification for downstream separators. Contained Reserves are 26.4Kt of TREO and Resources 56.7Kt TREO. The ultimate aim is to produce 573 tonnes of RE carbonates per annum from an open pit operation. The Company is planning for the project to be the first significant dysprosium producer (49tpa) outside of China.
JAL	JAMESON RESOURCES	JAL is developing the Crown Mountain Coking Coal Project in the Elk Valley Coalfields BC Canada. The resources are 98Mt Coal with a reserve of 56Mt. The project is well positioned close to railway and port infrastructure. A PFS is underway and is expected to be completed in early Q2 17. The estimated range of capex is \$US 123-339M and opex \$US100-117/t. Assumed coal price is \$US 170/t. Meanwhile the Company is advancing environment studies and preparation for an ultimate mine permit.
EVN	EVOLUTION	EVN is Australia’s 2nd largest gold miner with total reserves of 7Moz and resources of 14.2Moz Au. EVN have 7 mining operations, with 4 in Queensland (Ernest Henry (0.95Moz Au 182kt Cu Contained reserves), Mt Carlton (0.73Moz Au), Cracow (0.19Moz Au) and Mt Rawdon (0.87Moz Au); one in NSW (Cowal 3.2Moz Au) and 2 in WA (Mungari (0.6Moz Au) and Edna May (0.43Moz Au). Cowal FY 17 guidance is 245-260koz at AISC \$885-945/oz. EVN see regional opportunities to enhance the asset. Ernest Henry is a long life Cu Au mine operated by Glencore. EVN economic interest is 100% of the gold and 30% of Cu Ag produced over an LOM of 11 years. FY 17 guidance is 80-85koz Au at AISC \$(59/oz). Mungari has 800 sq km of tenure along the Zuleika Shear with regional exploration upside being evaluated. FY 17 guidance is 150-160koz Au at \$970-1030/oz. Mt Carlton is a high grade pit with drill intersections including 11m @ 21g/t Au8 from 171mdh suggesting extensions to depth. The FY 17 guidance is 90-100koz Au at \$675-725/oz. Cracow FY 17 guidance is 80-85koz AISC \$1100-1160/oz. Edna May is a similar operation.



**Investor Presentations Continued...**

IVR	INVESTIGATO RESOURCES	<p>IVR is undertaking a PFS into the developing the Paris Ag Project SA, with contained resources of 42Moz @ 139g/t Ag. The Paris Ore body is shallow and flat lying and hence amenable to open pit mining. Processing options being considered include CIL/CIP, or flotation to produce a Ag Pb concentrate or flotation followed by leaching to produce a silver dore. The PFS is due by mid-2017 and BFS in mid-2018. Recent infill drilling aimed at upgrading the resource to "Indicated status" has been completed and a new resource estimate is due in March. Exploration potential includes extensions at depth and along strike and Cu Au targets within the Paris Mineral Field. Recent drilling has confirmed the Nankivel Cu Au Ag system, where infill drilling is planned. Numerous other regional targets which IVR feel warrants an aggressive geophysical program.</p>
SAR	SARACEN MINERALS	<p>SAR is growing its gold production to 300 kozpa by June 17, at its 2 operating centres at Carosue Dam (underground mines producing 160-170koz Au pa) &amp; Thunderbox WA (Open pit mine 130-140koz Au pa.) In addition the Company objective is to decline AISC costs to \$950/oz in FY20. At Carosue Dam mine development involve a second decline at the Karari Mine, where recent drilling has outlined a high grade zone and an UG drill drives at Whirling Dervish. A 36,000m drilling program is planned for FY 18. Thunderbox has a 10 year mine life &amp; 30,000 metre drill program underway to extend the underground resource Also underground potential at nearby King of the Hills where drill intersections include 14.3m @ 21.2g/t Au. Total current resources 7.9moz Au and Reserves 1.6moz Au.</p>



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The team at Breakaway Research comprise experienced analysts with more than 25 years experience in geology and investment banking.

For enquiries, please contact:

Rachel Szabo  
Manager Client Services

+61 2 9392 8032

[rachel.szabo@breakawayinvestmentgroup.com](mailto:rachel.szabo@breakawayinvestmentgroup.com)  
[www.breakawayresearch.com.au](http://www.breakawayresearch.com.au)

## **AUSTEX MINING PTY LTD**

### **Rob Murdoch - Principal Consultant**

#### **Austex Mining Pty Ltd**

#### **BA FAusIMM CP FAIG**

Austex Mining Principal Rob Murdoch is an Australian geologist who has specialised in the management of junior resource companies for 30 years. His experience enables Rob to provide a quick and valid assessment on the potential of impact of many announcements, for example those involving new discoveries, drill results or resource upgrades and tracks the progress of companies on their various exploration or development projects.

Austex maintains an extensive database on all ASX listed resource companies, their corporate situations and the status of their various projects. This database helps to identify industry and investment trends which may not be apparent otherwise. Breakaway Research is extremely pleased to be able to utilise Rob's extensive experience in both corporate and technical capacity to assist in identifying resource investments that will directly benefit our subscribers.



**PO Box 1677, NEW FARM QLD 4005**

**Phone: +61 418 712 011**

[rmurdoch@austexmining.com](mailto:rmurdoch@austexmining.com)

[www.austexmining.com](http://www.austexmining.com)

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