ABN 63 111 306 533

QUARTERLY REPORT TO SHAREHOLDERS

for the three months ended
31 December 2018

ASX Code - EME

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This report and further information are available on Energy Metals' website at:

www.energymetals.net

HIGHLIGHTS

Bigrlyi JV Project (NT)

Energy Metals' beneficial interest in the Bigrlyi Joint Venture increases from 53.29% to 72.39%.

Study of vanadium mineralisation at Bigrlyi continues.

Metallurgical review completed with plans for test-work to optimise co-recovery of uranium and vanadium.

Ngalia Regional Project (NT) & WA Projects

Review of tenement holdings completed and tenement consolidation plan commences.

FINANCIAL

Energy Metals had approximately $18.1M in cash and 209.7M shares on issue at 31 December 2018.

Shuqing Xiao
Managing Director
30 January 2019

INTRODUCTION

Energy Metals (EME) is a dedicated uranium company with eight exploration projects located in the Northern Territory (NT) and Western Australia covering over 3,200 km² (Figure 1). Most of the projects contain uranium mineralisation discovered by major companies in the 1970's, including the advanced Bigrlyi Project (NT).

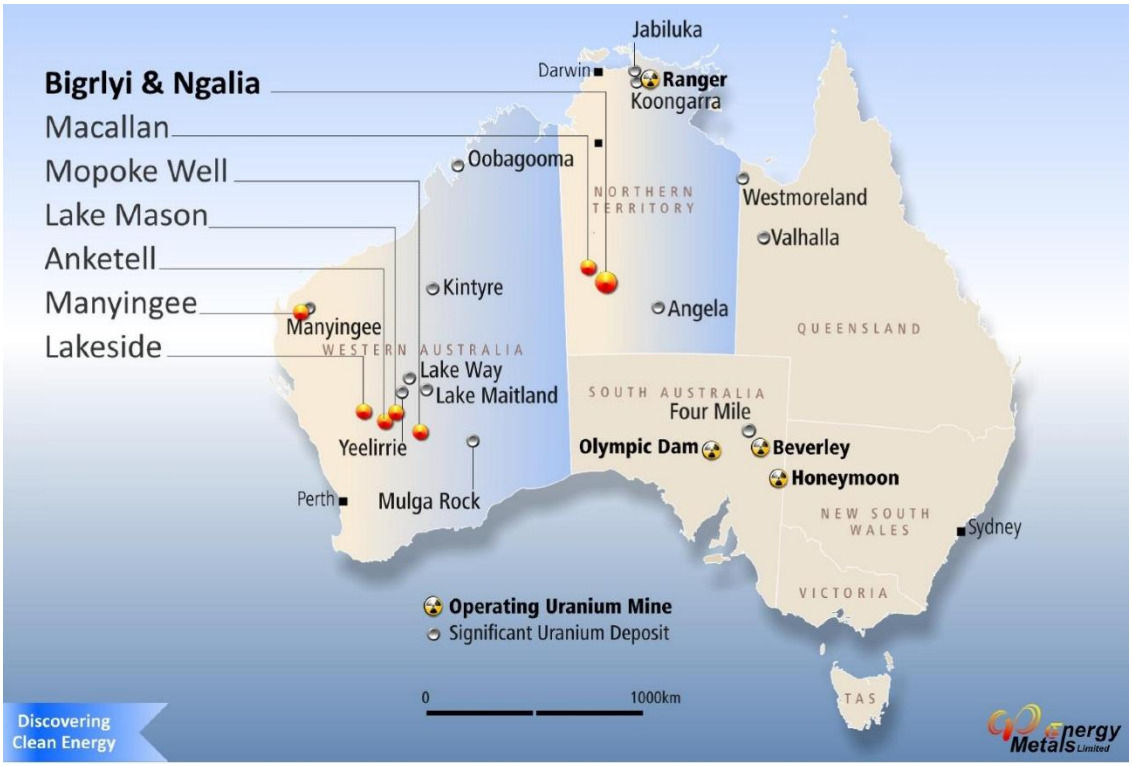

Figure 1 – Location of Energy Metals Projects

Energy Metals is well placed to take advantage of the favourable outlook for Uranium as nuclear power continues to play an increasing role in reducing global carbon emissions.

Importantly Energy Metals is one of only five companies that currently hold all the required permits and authorities to export Uranium Oxide Concentrates (UOC) from Australia. The Company has completed its first shipment of UOC and is negotiating with Australian uranium producers to enable further shipments from Australia for resale, primarily to major Chinese utility China General Nuclear Power Group (CGN), ultimately Energy Metals' largest shareholder.

China Uranium Development Company Limited, Energy Metals' largest shareholder (with 66.45% of issued capital), is a wholly owned subsidiary of CGN. As of 31 December 2018, CGN had 22 operating nuclear power units with a generation capacity of 24,300MWe and 7,430MWe of capacity under construction in six other nuclear power units across various locations in China. Additionally, CGN is one of only two companies authorised by the Chinese government to import and export uranium.

This unique relationship with CGN gives Energy Metals direct market exposure as well as access to significant capital and places the Company in a very strong position going forward.

NORTHERN TERRITORY

Bigrlyi Joint Venture (EME 72.39%)

The Bigrlyi Joint Venture comprises 11 granted exploration licences in retention (ELRs), one granted EL, and several applications within the Ngalia Basin, located approximately 350km northwest of Alice Springs. EME operates the Joint Venture in partnership with Northern Territory Uranium Pty Ltd and Southern Cross Exploration NL. The Bigrlyi Joint Venture tenements have been subject to significant exploration activity since discovery in 1973, including over 1,040 drill holes, metallurgical test-work and mining studies, with most work undertaken at the Bigrlyi project (Figure 2).

The Bigrlyi project is characterised by relatively high uranium grades, vanadium credits and excellent metallurgical recoveries. Historical base case acid leach tests recorded extraction rates of 98% uranium. For further information on metallurgical test-work, resource estimates and economic studies refer to ASX announcements or Company website: www.energymetals.net.

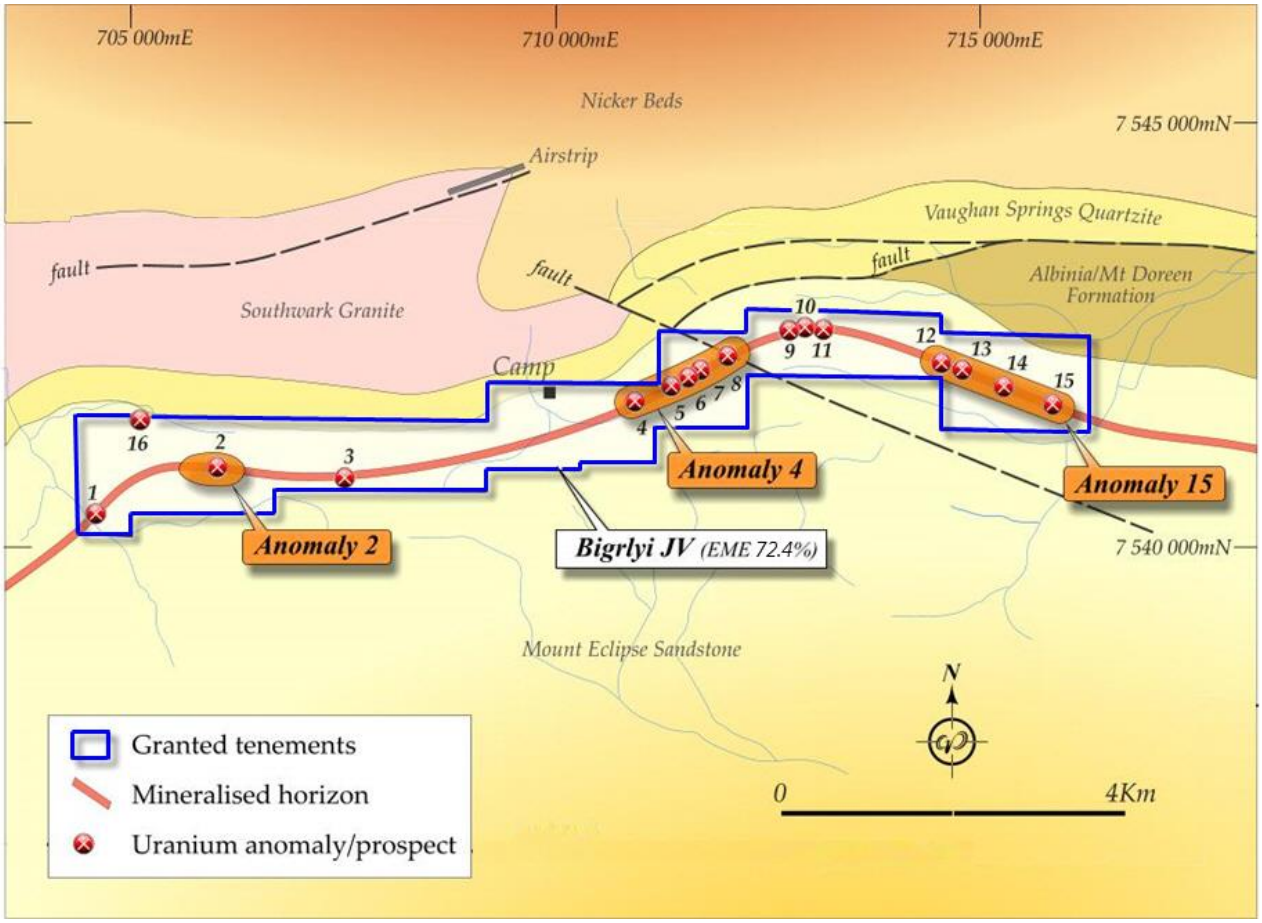

Figure 2 – Bigrlyi Joint Venture Project area showing simplified geology

The historic Karins deposit, located approximately 260km northwest of Alice Springs (Figure 3), is located on tenement applications MLN1952 and MCS318-328, which are part of the Bigrlyi Joint Venture. Karins is a tabular uranium-vanadium style of deposit similar to Bigrlyi although with an oxidised zone (carnotite zone) of variable thickness. EME acquired CPM's interest in

the project in 2005, including all the historical exploration records. A maiden JORC-compliant resource estimate for the Karins Deposit was released to the ASX in July 2015.

In October 2015, a maiden JORC (2012) resource estimate was announced for the historic Sundberg deposit, a satellite of the larger Walbiri deposit (Figure 3).

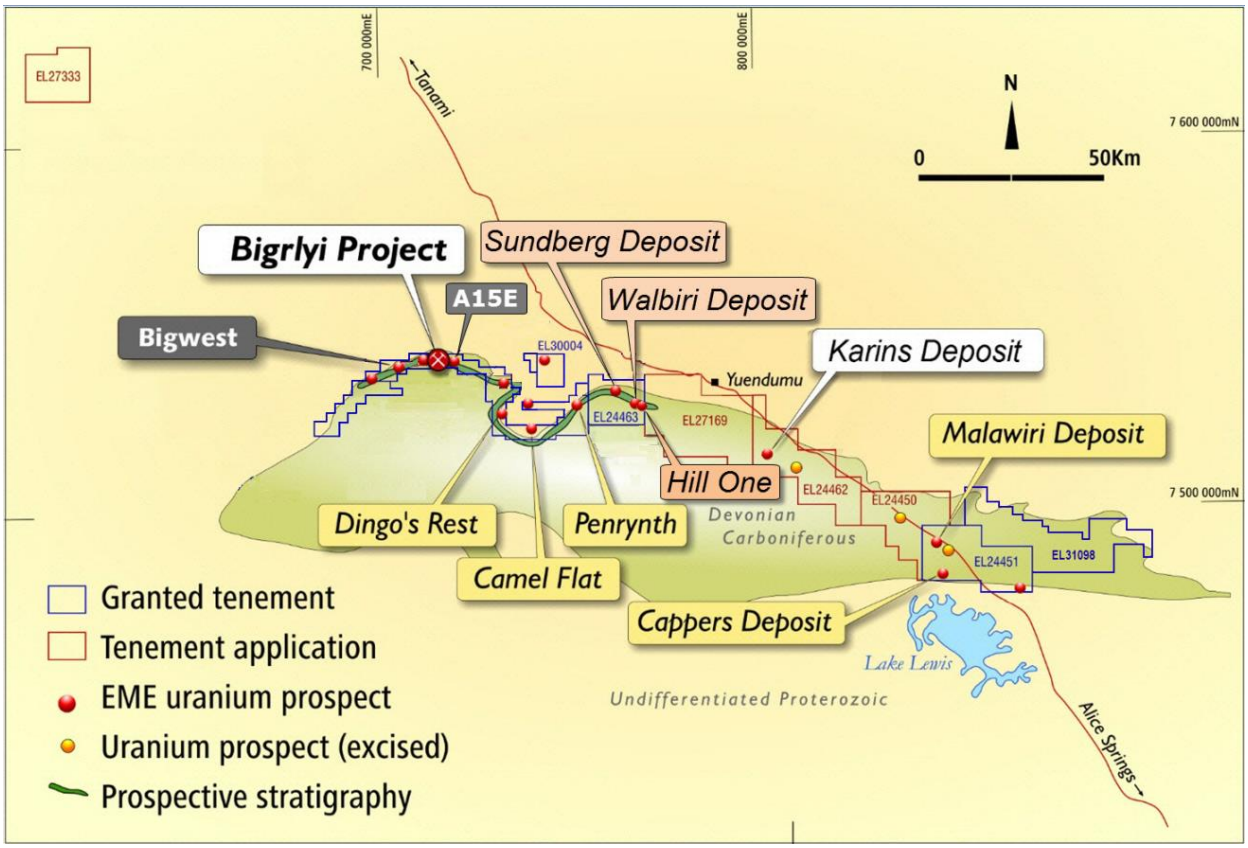

Figure 3 - Uranium deposits, occurrences and exploration target areas in the Ngalia Basin

Walbiri Joint Venture (EME 41.9%)

ELR45, granted in August 2014, covers part of the historical Walbiri deposit and part of the Hill One satellite deposit (Figure 3). The project is a joint venture with Northern Territory Uranium Pty Ltd (58.1%), with EME as the operator. In October 2015 an initial JORC (2012) mineral resource estimate was announced for the Walbiri deposit, confirming Walbiri as the third largest sandstone-hosted uranium deposit in Central Australia after Angela and Bigrlyi.

Malawiri Joint Venture (EME 52.1%)

ELR41, granted in August 2014, covers the historical Malawiri deposit. The project is a joint venture with Northern Territory Uranium Pty Ltd (47.9%) with Energy Metals as the operator. A program of digitisation and reprocessing of historical gamma logs, core re-logging, and historical data compilation and verification was completed in mid-2015 and a small drilling program was completed in September 2016. In late 2017 EME advanced the Malawiri project to JORC-compliant resource status with announcement of a maiden inferred-category mineral resource estimate of 542 tonnes U_3O_8 (for further details see ASX announcements of 27 September 2016 & 14 December 2017).

JV Activities (December 2018 Quarter)

Energy Metals' exploration strategy is to progressively advance its projects toward economic development within current market constraints. For its advanced JV projects, Energy Metals' aim is to ensure that they meet the high standards necessary for any future development to proceed in a timely manner once market conditions improve.

Vanadium Study. Due to the recent rise in vanadium price, the recovery of vanadium is likely to enhance the economics of a uranium mining development at Bigrlyi where vanadium is a significant accessory commodity. During the period Energy Metals continued its program to further investigate vanadium mineralogy and metallurgy at Bigrlyi, including studies on the controls and distribution of vanadium mineralisation in cooperation with CSIRO researchers and external consultants, with some initial results received.

Within uranium resource areas of the Bigrlyi deposit, the V_2O_5 to U_3O_8 ratio is on average about 1.2:1 (by weight) but varies widely. Vanadium distribution is not well defined in parts of the deposit located outside uranium resource cut-offs. Vanadium enriched zones typically occur as 'halos' both stratigraphically above, and less commonly, below U-mineralised intervals, with some areas known to be significantly vanadium enriched (percent level V_2O_5 – see Table 1).

Table 1: Drill Core Assays from Vanadium-rich Zones within Anomaly-15 (Vanadium Study Samples)

Hole Number	Depth from (m)	Depth to (m)	V_2O_5 (%)	U_3O_8 (%)	V_2O_5:U_3O_8	U3O8 (%) calc. from radiogenic Pb
BPD321	132.5	132.55	1.74	0.03	60.8	0.04
BPD321	136.8	136.85	3.00	0.09	32.6	0.16
BPD321	137.1	137.15	2.78	0.09	30.5	0.12
BPD321	137.95	138.00	1.12	0.11	10.6	0.11
BPD321	140.1	140.15	1.47	0.01	118.9	0.02
BPD321	141.6	141.65	2.14	0.08	27.9	0.09
BPD321	144.0	144.05	0.93	0.02	38.3	0.03
BPD321	144.5	144.55	0.74	0.03	26.2	0.04
BPD321	147.0	147.05	1.05	0.29	3.6	0.38
BPD321	148.6	148.65	2.02	0.02	83.0	0.09
BPD321	149.2	149.25	1.77	0.02	98.8	0.09
BPD340	68.40	68.45	0.85	0.15	5.7	0.16
BPD340	69.65	69.70	1.53	0.01	129.6	0.06
BPD340	70.90	70.95	1.53	0.02	65.9	0.08
BPD340	71.45	71.50	3.73	0.03	128.1	0.04
BPD340	71.50	71.55	3.53	0.13	27.2	0.15
BPD340	71.85	71.90	1.15	0.03	41.1	0.06
BPD340	74.50	74.55	1.34	0.04	31.1	0.05

The main vanadium-bearing minerals in the Bigrlyi deposit include various clays, altered layer silicates, and the hydrous oxide mineral montroseite, with the following V_2O_5 contents:

- Montroseite (~44-76% V_2O_5);
- Mixed layer smectite-chlorite or corrensite (~5-20% V_2O_5);

- Iron-rich smectite (~2-12% V_2O_5);
- Vanadiferous illite/muscovite (~2-22% V_2O_5) and
- Vanadiferous, chloritised biotite (~1-10% V_2O_5).

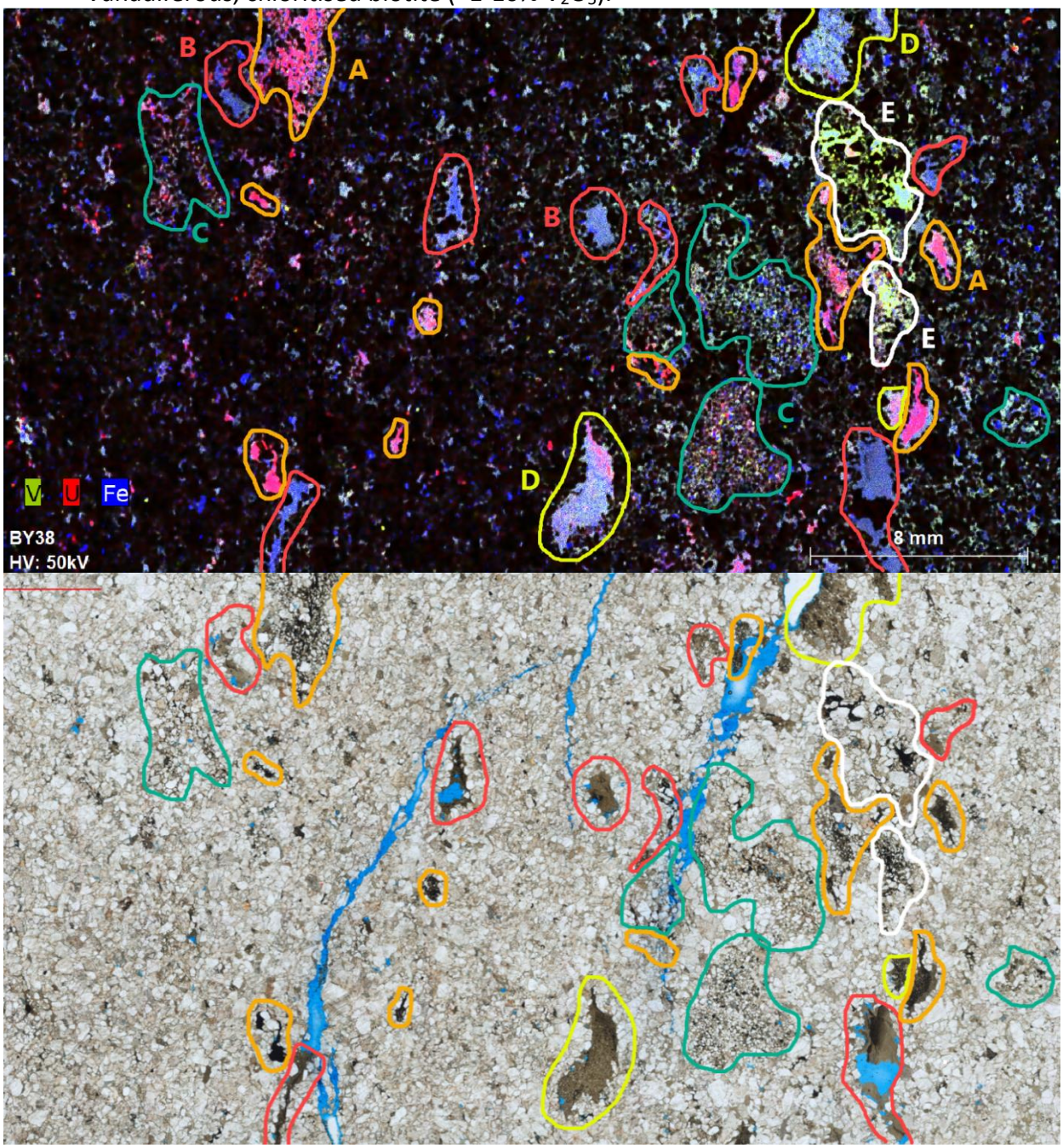

Figure 4: Top. XRF elemental image of a thin section of vanadium-rich core sample B07270-227m (V_2O_5 0.88%, U_3O_8 0.066%) categorised by element showing the V-U-Fe (green-red-blue) characteristics of various kinds of fine-grained rip-up clasts (mudstone, siltstone and clay-rich matrix-supported sandstone) present in the host sandstone. A(orange) – uranium-rich sandstone & mudstone; B(red) - Fe-rich mudstone; C(green) - clay-rich, fine-grained sandstone; D(yellow) - V-U-Fe enriched siltstone; E(white) - V-clay-rich sandstone both coarse & fine. Bottom. Same thin section but imaged under plain light. Blue stained areas are holes in the thin section (where soft, clay-rich material has fallen out during preparation of the section).

Preliminary XRF elemental imaging studies of thin sections of vanadium-rich samples (Figure 4) show that vanadium is not uniformly distributed on the small scale. Vanadium is associated with a distinctive heterogeneous mixture of different kinds of clay-rich, detrital rip-up clasts (including mudstone, siltstone and clay-rich matrix-supported sandstone of various grain sizes), which contain minerals with varying proportions of V, U and Fe (Figure 4 top). Montroseite

typically occurs as blocky grains associated with the clay minerals and altered layer silicates.

As an additional part of the vanadium study, the lead (Pb) isotopic compositions of vanadium-rich intervals from selected drill cores at Bigrlyi were investigated. Because some Pb isotopes such as *Pb-206* are produced from the radioactive decay of uranium, they can be used to trace the history of uranium in the deposit. The results indicate that the V-enriched halos contain more radiogenic Pb than is supported by the present amount of uranium in the samples (refer to U_3O_8 values in Table 1 calculated from measured radiogenic Pb) – this suggests that uranium may have been significantly mobilised out of the halos, i.e. the vanadium-rich parts of the deposit were formed as a result of mobilisation and loss of original U (the calculations suggest up to 80% of the original U was lost). Further investigations are underway.

A final report on the vanadium study is expected in early 2019.

Metallurgical Review. As part of Pre-Feasibility Study (PFS) re-optimisation work, a review of previous metallurgical test-work conducted at Bigrlyi was completed by an external consultant during the quarter. One of the important aims of the review was to investigate processing options that would enhance the co-recovery of uranium and vanadium and therefore support improved economics for the project.

A large number of laboratory acid leach tests and a smaller number of alkaline leach tests have been completed on composite ore samples from Bigrlyi to date. Exceptionally good uranium extractions (>90%) were achieved with both the acid and alkaline approaches. However, vanadium extraction is only 30-40% under either the acid or alkali conditions used in previous tests. Obviously future test-work will need to focus on improving vanadium dissolution levels. For the acid leach route this may require leaching at a lower pH and for the alkaline route, higher temperature and pressure leaches may improve vanadium extractions. A better understanding of vanadium chemistry under leach conditions is also required. Further investigation as to whether acid or alkaline leaching is the most cost-effective process option would follow.

Consideration was also given in the review to the use of new ore sorting technologies such as X-Ray Transmission (XRT) or radiometric sorting. Either technology could be viable as a means of rejecting barren material and upgrading the plant feed. It was considered that sorting technologies could have a positive impact on project economics because they could either halve the size of the processing plant, and reduce the capital outlay accordingly, or they could double the uranium and vanadium production rates so doubling the revenue stream and decreasing the payback period.

Key recommendations of the review, including a small metallurgical test-work program, are planned for implementation in 2019.

Ngalia Regional Project (EME 100%)

The Ngalia Regional project comprises twelve 100% owned exploration licences (total area approximately 3,100 km²) located in the Ngalia Basin, between 180km and 350km northwest of Alice Springs in the Northern Territory (Figure 3). The tenements are contiguous and enclose the Bigrlyi project as well as containing a number of uranium occurrences, including part of the historic Walbiri deposit and the Cappers deposit.

Nine of the twelve Ngalia Regional exploration licences have been granted; the three remaining applications (ELs 24450, 24462 and 27169) are located on Aboriginal Freehold (ALRA) land and Energy Metals is negotiating access agreements with the Traditional Owners through the Central Land Council (CLC) (Figure 3).

A number of high priority targets have been identified on the 100% owned tenements and Energy Metals is undertaking a program of systematic evaluation of these prospects, some of which were originally discovered in the 1970s. In February 2014, EME announced maiden resource estimates for the Bigwest, Anomaly-15 East and Camel Flat satellite deposits and in October 2015 EME announced inferred JORC resources for the historical Walbiri, Sundberg and Hill One deposits (Figure 3).

Activities (December 2018 Quarter)

Field work was completed this quarter with a focus on historical uranium prospects. Representative sampling of historic drill cores was also undertaken as part of the vanadium study program (see above). Some results of geochemical assay work from the field studies were received.

Patmungala Uranium Anomaly. An aerial radiometric anomaly known as Anomaly-40, previously identified by Rio Tinto Exploration, was visited during last year's field program on EL31821. The radiometric anomaly, associated with up to 10x background radiation levels, was located on the ground in red, ferruginous sandstone of the basement Patmungala Beds (Figure 5), and a rock-chip sample was submitted for assay. Results received this quarter confirm elevated levels of U (190 ppm) associated with anomalous Cu (201 ppm), As (90 ppm), Ba (2,020 ppm) and P_2O_5 (1.3%). Further field work to define the extent and nature of the anomaly is planned in the 2019 season.

Figure 5. Anomaly-40 radiometric anomaly in red sandstone of the Patmungala Beds (738426E, 7542418N)

Rankins Reward Prospect. Historical drill core from the Rankins Reward prospect, archived in the Bigrlyi coreyard, was re-logged and assayed during the quarter. Rankins Reward consists of a mineralised uranium and base metal enriched gossan and associated alteration system located at the interface between Vaughan Springs quartzite of the Ngalia Basin and basement granite. Historical core drilled into the granite basement shows extensive fluorite + quartz veining, alteration and microfracturing (Figure 6), however, multielement assay results from a number of core samples revealed no significant metal anomalism.

Figure 6. Fluorite+quartz-veined and altered granite drill core from Rankins Reward Prospect hole RR3 47m.

Tenement Review. A prospectivity and tenement review was completed during the quarter with recommendations made for the surrender of non-prospective and fully explored ground. The proposed tenement changes will be implemented progressively during the first half of 2019 as anniversaries fall due. The tenement consolidation will enable Energy Metals to focus its activities on the most prospective ground with savings on both tenement holding costs and exploration commitments.

Macallan (EME 100%)

The Macallan project comprises a single exploration licence application (ELA27333), located 460 km NW of Alice Springs and 140 km from Bigrlyi. The tenement covers a strong 3km-wide bullseye radiometric anomaly. The Macallan anomaly lies within the Wildcat Palaeovalley, an ancient valley system that drains into Lake Mackay to the southwest. The Macallan anomaly most likely represents a surficial accumulation of uranium minerals associated with the Wildcat palaeodrainage system, although other explanations are possible.

ELA27333 lies on land under Aboriginal Freehold title and access is subject to negotiation with the Traditional Owners and the CLC. The negotiation period has been extended until October 2019.

WESTERN AUSTRALIA

Manyingee (EME 100%)

The Manyingee project comprises retention licence application R08/3, underlying tenement E08/1480 and exploration licence application E08/2856, which are located 85 km south of Onslow. The project is located adjacent to mining leases containing Paladin Energy's Manyingee resource, a stacked series of buried, palaeochannel-hosted, roll-front uranium deposits. In November 2016 EME announced an initial JORC (2012) Mineral Resource Estimate for the Manyingee East uranium deposit, which is located up-channel of Paladin's Manyingee deposit.

Law firm Gilbert+Tobin were appointed last quarter to assist Energy Metals with landholder objections to grant of the Manyingee title applications. The objections are expected to proceed to Warden's Court hearings over the coming months.

Mopoke Well (EME 100%)

The Mopoke Well project is located 55km west of Leonora on retention licence R29/1. The project contains two historic uranium prospects (Peninsula and Stakeyard Well) hosted by calcretised sediments associated with the Lake Raeside drainage system. A JORC (2004) mineral resource estimate was released to the ASX in March 2013.

There was no activity during the period.

Lakeside (EME 100%)

The Lakeside project is located in the Murchison district 20km west of Cue on retention licence R21/1. This project was acquired to follow up previously discovered surficial uranium mineralisation at Lake Austin associated with calcrete and saline drainages. Following completion of aircore drilling programs, a JORC (2012) mineral resource estimate was release to the ASX in June 2014.

To save on holding costs, the size of the retention licence was decreased to 789 hectares during the quarter; all the resource areas remain within the boundaries of the reduced licence.

Anketell (EME 100%)

The Anketell project is located 50km west of Sandstone on retention licence R58/2 and comprises surficial calcrete-style mineralisation discovered by Western Mining (WMC) in 1972. Following completion of aircore drilling programs, an initial JORC (2004) mineral resource estimate was released to the ASX in July 2009.

There was no activity during the period.

Lake Mason (EME 100%)

The Lake Mason project is located 25km north of Sandstone on retention licence R57/2 and comprises shallow carnotite mineralisation hosted in calcrete and calcareous sediments associated with the Lake Mason drainage system. A JORC (2004) mineral resource estimate was released to the ASX in December 2010.

There was no activity during the period.

CORPORATE

A change in the beneficial interests of the JV partners in the Bigrlyi project was announced to the ASX on 14 November 2018 (refer to Table 2).

Energy Metals remains in a strong financial position with approximately $18.1 million in cash and bank deposits at the end of the quarter, forming a solid resource for ongoing exploration and project development.

Table 2: Tenement Information as required by listing rule 5.3.3

TENEMENT*	PROJECT	LOCATION	INTEREST	CHANGE IN QUARTER
Northern Territory				
EL24451	Ngalia Regional	Napperby	100%	-
EL24463	Ngalia Regional	Mt Doreen	100%	-
EL31098	Ngalia Regional	Napperby	100%	-
EL31820	Ngalia Regional	Mt Doreen	100%	-
EL31821	Ngalia Regional	Mt Doreen	100%	-
ELR31754	Ngalia Regional	Mt Doreen	100%	-
ELR31755	Ngalia Regional	Mt Doreen	100%	-
ELR31756	Ngalia Regional	Mt Doreen	100%	-
ELR46	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR47	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR48	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR49	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR50	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR51	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR52	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR53	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR54	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR55	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR41	Malawiri Joint Venture	Napperby	52.1%	-
ELR45	Walbiri Joint Venture	Mt Doreen	41.9%	-
EL30004	Ngalia Regional	Mt Doreen	100%	-
ELA27169	Ngalia Regional	Yuendumu	100%	-
EL30144	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELR31319	Bigrlyi Joint Venture	Mt Doreen	72.39%	**Change of % Interest**
ELA24462	Ngalia Regional	Yuendumu	100%	-
ELA24450	Ngalia Regional	Yuendumu	100%	-
ELA27333	Macallan	Tanami	100%	-
MCSA318-328	Bigrlyi Joint Venture	Yuendumu	72.39%	**Change of % Interest**
MLNA1952	Bigrlyi Joint Venture	Yuendumu	72.39%	**Change of % Interest**
Western Australia				
E08/1480	Manyingee	Yanrey	100%	-
E08/2856	Manyingee	Yanrey	100%	-
R08/3	Manyingee	Yanrey	100%	-
R21/1	Lakeside	Cue	100%	**Partial Surrender**
R29/1	Mopoke Well	Leonora	100%	-
R57/2	Lake Mason	Sandstone	100%	-
R58/2	Anketell	Sandstone	100%	-

* EL = Exploration Licence (NT); ELA = Exploration Licence Application (NT); ELR = Exploration Licence in Retention (NT); ELRA = Exploration Licence in Retention Application (NT); MCSA = Mineral Claim (Southern) Application (NT); MLNA = Mineral Lease (Northern) Application (NT); E = Exploration Licence (WA); R = Retention Licence (WA).

Competent Persons Statement

Information in this report relating to exploration results, data and cut-off grades is based on information compiled by Dr Wayne Taylor and Mr Lindsay Dudfield. Mr Dudfield is a member of the AusIMM and the AIG. Dr Taylor is a member of the AIG and is a full time employee of Energy Metals; Mr Dudfield is a consultant to Energy Metals. They both have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Dr Taylor and Mr Dudfield both consent to the inclusion of the information in the report in the form and context in which it appears.

This report references mineral resource estimates and/or related information that was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.