



ABN 63 111 306 533

QUARTERLY REPORT TO SHAREHOLDERS

for the three months
ended 31 December 2010.

ASX Code - EME

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

www.energymetals.net



HIGHLIGHTS

- * More high grade probe results from Bigrlyi including:

B08063A 5.5m @ 0.37% eU₃O₈

B10024 18.0m @ 0.52% eU₃O₈

- * Encouraging assays received from drilling at Camel Flat (NT) including:

CFD1002 4.0m @ 0.21% U₃O₈

CFRC1004 3.5m @ 0.15% U₃O₈

- * Lake Mason resource increased to 1,689t U₃O₈ with 62% of uranium now in Indicated category

- * Share placement at \$1.02 raises \$19.86M

FINANCIAL

- * Energy Metals had approximately \$29.88M in cash and 153.8M shares on issue at 31 December 2010.

Weidong Xiang
Managing Director
31 January 2011

INTRODUCTION

Energy Metals is a dedicated uranium explorer with nine projects located in the Northern Territory (NT) and Western Australia covering over 4,000 km². Most of the projects contain uranium mineralisation discovered by major companies in the 1970's, including the advanced Bigryli Project (NT).

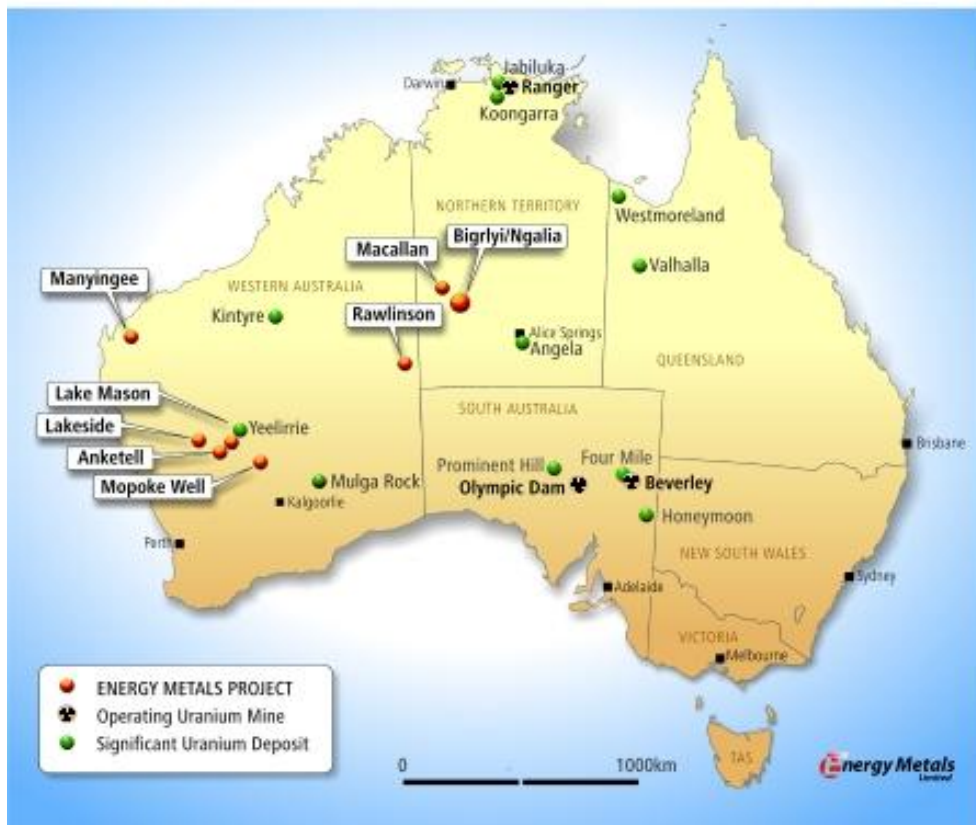


Figure 1 – Location of Energy Metals Project

Australia has significant uranium endowment with the continent containing approximately 36% of the world's low cost uranium resources. With the changing political and public sentiment to uranium mining in Australia and nuclear power playing an increasing role in reducing global carbon emissions Energy Metals is well placed to take advantage of the favourable outlook for the metal.

Furthermore Energy Metals' largest shareholder (with 60.6% of issued capital) is China Uranium Development Co., Limited, a wholly owned subsidiary of major Chinese utility China Guangdong Nuclear Power Holding Company (CGNPC). CGNPC currently has five operating nuclear power stations with existing generation capacity of 5,000 MWe and with more than 20,000 Mwe of capacity currently under construction across various locations around China. CGNPC is one of only two companies authorised by the Chinese government to import and export uranium.

This unique relationship with CGNPC 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 (EME 53.3%)

The Bigrlyi Project comprises 10 granted exploration retention licenses located approximately 350 km northwest of Alice Springs. The project, which is a joint venture with Paladin Energy subsidiary Northern Territory Uranium Pty Ltd (41.7%) and Southern Cross Exploration (5.0%), has been subject to significant exploration activity since discovery in 1983, including over 850 drillholes, metallurgical testwork and mining studies.

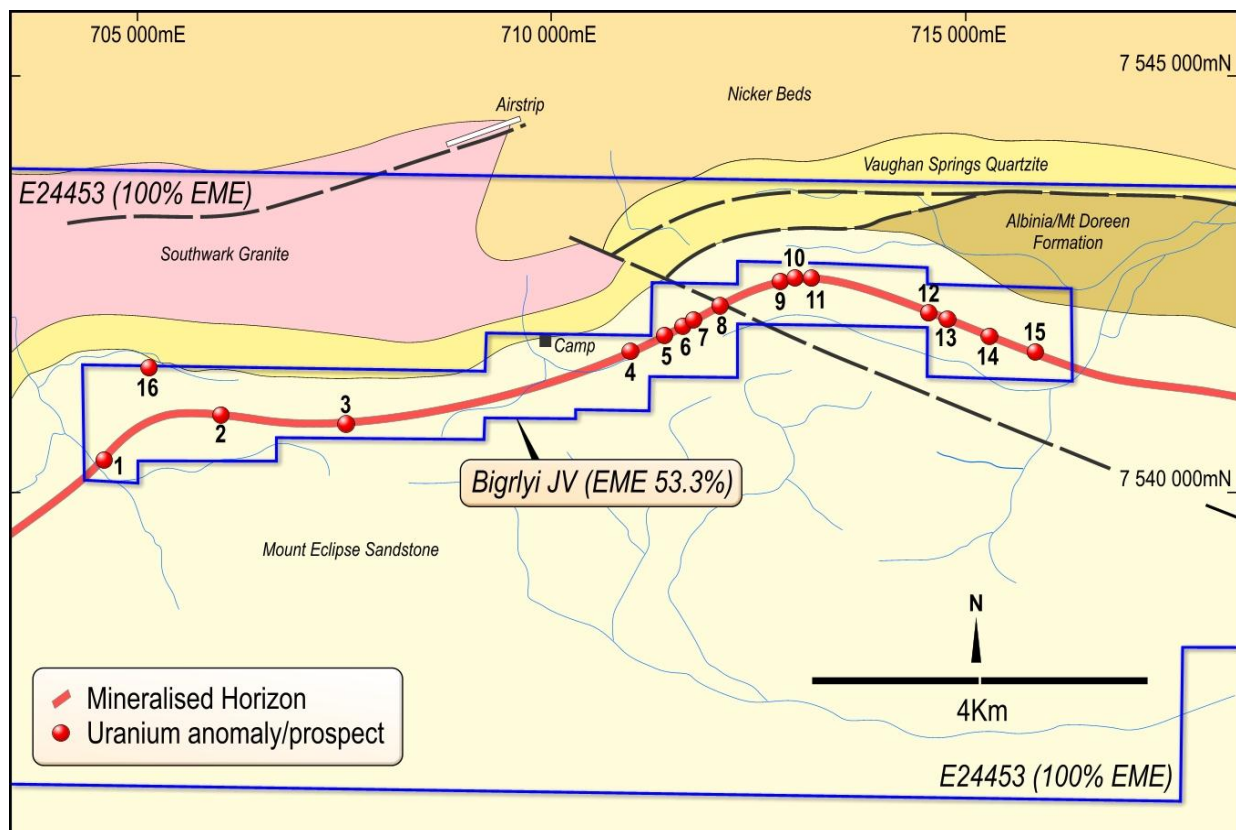


Figure 2 – Bigrlyi Joint Venture Simplified Geology

The Bigrlyi Project is characterised by relatively high uranium grades (with vanadium credits) and excellent metallurgical recoveries. Base case acid leach tests recorded extraction rates of 98% uranium and 59% vanadium, with 94-95% of uranium extracted within 8 hours at optimum leach conditions (pH 1.8, 50°C, ORP=450 mV, coarse grind size).

For further information on metallurgical testwork, resource estimates and economic studies please refer to ASX announcements or the Company's website www.energymetals.net

Activities (December 2010 Quarter)

The drilling programs which commenced in July 2010 were completed by the end of the December quarter, before the onset of seasonal summer rains.

Diamond drilling completed during the quarter was designed to obtain geotechnical information in the location of previous optimised pits at Anomaly 4 and 15 and to obtain a significant volume of material for metallurgical testing, whilst the RC drilling targeted mineralised positions defined late in 2009 and evaluated the groundwater flows from within the previously optimised pits and possible process water sources.

To date downhole calibrated gamma probe (eU_3O_8) results have been received from 26 holes, with some of the better intercepts outlined below:

B08063A	5.50m @ 0.37% eU_3O_8	from 297.0m ^{*1}
B10024	18.0m @ 0.52% eU_3O_8	from 133.5m
B10026	1.0m @ 0.11% eU_3O_8	from 17.5m
B10029	15.0m @ 0.31% eU_3O_8	from 1.0m ^{*2}
B10029	6.0m @ 0.13% eU_3O_8	from 61.0m ^{*2}
B10029A	13.0m @ 0.11% eU_3O_8	from 1.0m ^{*2}
B10030	28.5m @ 0.39% eU_3O_8	from 48.5m ^{*2}
B10031	18.5m @ 0.19% eU_3O_8	from 63.5m ^{*2}

^{*1} extension of previous hole and intersection at the bottom of the hole

^{*2} metallurgical hole drilled down dip to obtain samples for metallurgical testing (not representative of the true thickness of the mineralisation)

It is emphasised that these results are preliminary and subject to confirmation by geochemical assay (refer Table 1 for further details). Also holes B10029 – B10031 are all metallurgical holes drilled down dip and the intersections are not representative of the true thickness of the mineralisation.

Geochemical assays (uranium and vanadium) have been received from 3 of these holes, with good correlation between assay results and grades estimated from gamma probing as summarised below (refer Table 2 for further details):

B10026	1.0m @ 0.07% U_3O_8 + 0.05% V_2O_5	from 18.0m
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Many of the holes that have been probed will not be geochemically assayed as they are either geotechnical or metallurgical holes; the former will be sampled once the required geotechnical information has been received while the metallurgical holes will be used for the ongoing metallurgical studies.

Metallurgical tests continued during the period. Leach testwork is ongoing with detailed testwork expected to be completed in the March 2011 quarter, however results to date suggests that standard tank acidic leaching has significant commercial and environmental advantages compared with other processing routes and this remains the preferred processing methodology.

Initial tests into the viability of radiometric sorting of the ore have also been encouraging however the volume of material required to progress the evaluation of radiometric sorting appears to be a limiting factor in continuing the tests at the initial prefeasibility stage. Pulsed column leach test using a larger sample than previously reported failed to produce the high recoveries of the initial tests and the viability of the CVL process is currently being reviewed.

Collection of data from air quality monitoring equipment installed on site during the previous quarter was completed during the period with the baseline results expected in the March 2011 quarter. Initial flora and fauna baseline surveys and desktop soil, ground water and surface water studies, all part of the ongoing Pre Feasibility Study (PFS), were completed in the June 2010 quarter. The preliminary findings of these studies have been positive with no major impediments to development identified to date.

At the end of the December 2010 quarter all site based technical aspects of the PFS have been completed. Several technical inputs into the PFS are ongoing with reporting expected to be completed in late March 2011.

Ngalia Regional (EME 100%)

The Ngalia Regional project comprises eleven 100% owned exploration licenses (total area 2,840 km²) located in the Ngalia Basin, between 180 and 350 km northwest of Alice Springs in the Northern Territory. Eight of these tenements are contiguous and enclose the Bigrlyi project as well as containing a number of uranium occurrences including the historic Walbiri and Malawiri deposits and the Cappers deposit (Inferred Mineral Resource of 2,720 tonnes U₃O₈ at a grade of 167ppm at 100ppm cut-off). The remaining 3 tenements are located southwest of the Bigrlyi deposits and cover discrete uranium anomalies with no evidence of previous exploration.

Seven of the 11 Ngalia Regional Exploration Licences have been granted. The remaining four applications (EL's 24450, 24462, 24805 and 27169) are located on Aboriginal Freehold land and the consent of the Traditional Owners is required before the tenements can be granted. Energy Metals has been negotiating with the Traditional Owners through the Central Land Council (CLC) and is confident that the Company will eventually gain access to these areas.

Mid July 2010 Energy Metals announced that the first diamond hole (CFD1001) drilled by the Company at the Camel Flat prospect had intersected Bigrlyi style mineralisation masked by shallow sand cover. Initial anomalous downhole probe values from CFD1001 were subsequently confirmed by chemical assay, returning an intercept of 27m @ 2,708ppm U₃O₈ & 755ppm V₂O₅ from 93.0m, including 5.0m @ 13,269ppm (1.33%) U₃O₈ & 2,944ppm V₂O₅.

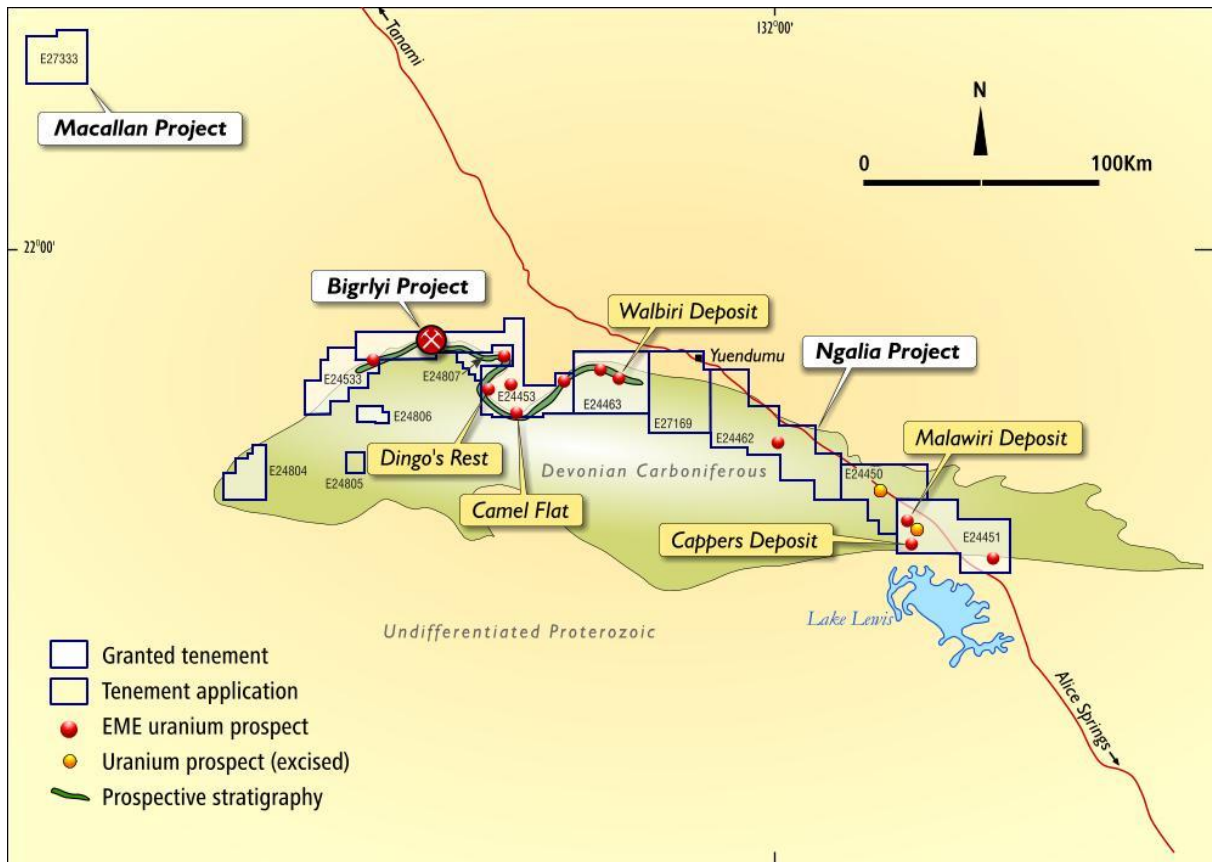


Figure 3 - Ngalia Regional Project showing uranium deposits & occurrences.

Downhole gamma probing of an orientated scissor diamond hole (CFD1002) designed to follow up CFD1001 returned an intercept of 2.55m @ 3,022ppm eU_3O_8 from 137.4m metres down-hole. Chemical assays announced 3 December 2010 confirmed the downhole probe values, recording 4m @ 2,091ppm U_3O_8 & 203ppm V_2O_5 from 137m.

CFD1002 was drilled towards the south to confirm the orientation of the mineralization observed in CFD1001, which was drilled toward the north. This work suggests that the local stratigraphy is dipping steeply to the north and that the true width of the high grade zone intersected by CFD1001 and CFD1002 is approximately 3–4m. Most previous drill holes at Camel Flat were either vertical or near vertical and were probably ineffective in testing the prospective geological units, given the steep dips of the geological units identified from CFD1002.

Energy Metals drilled 17 RC holes (including 3 holes which were abandoned) during the quarter to follow up these encouraging intercepts. Anomalous probe uranium values were recorded from most of the 14 completed holes (results announced 3 December 2010, appended as Table 4). Geochemical assays have now been received for all anomalous intervals and are summarised in Table 3.

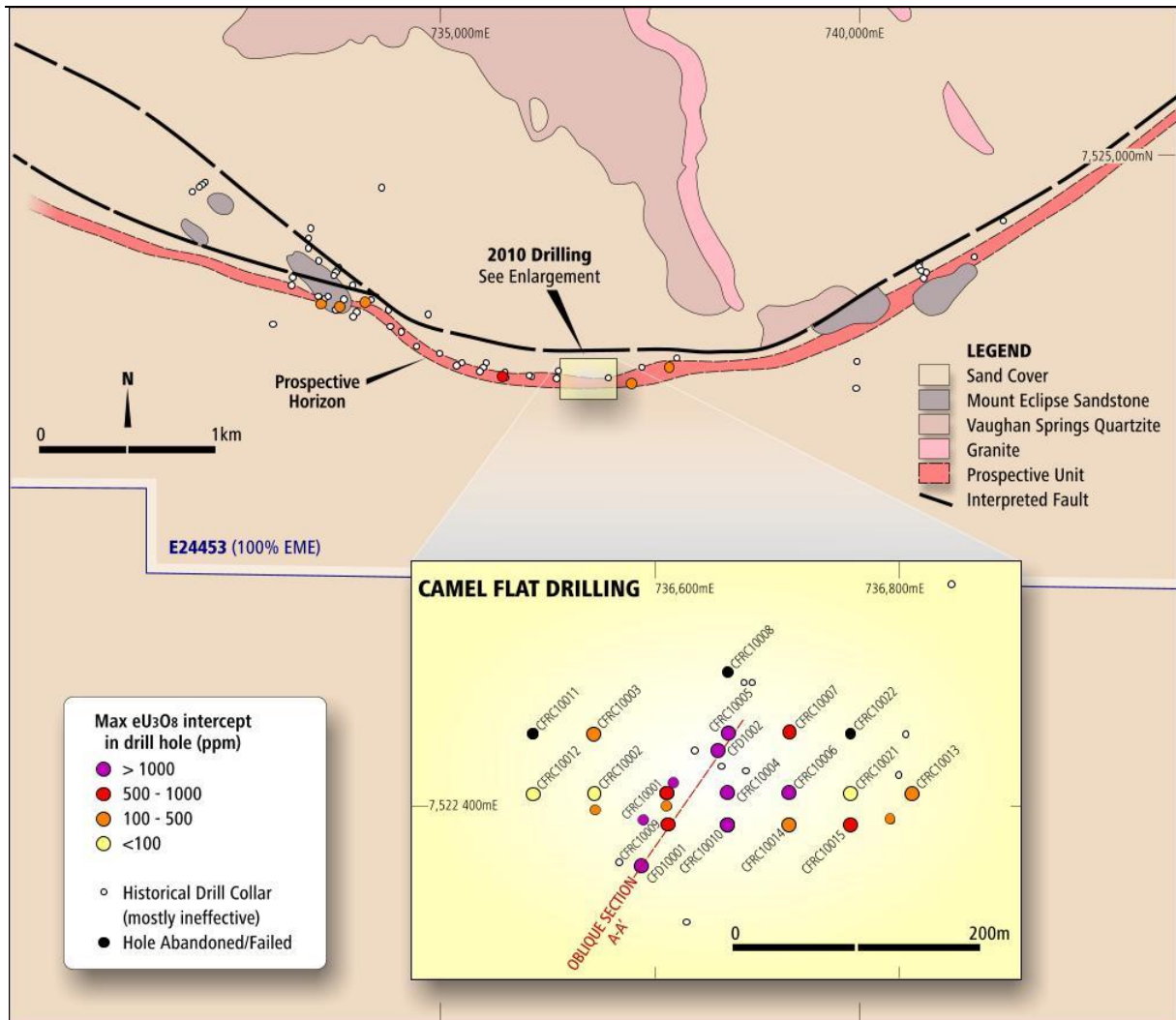


Figure 4 - Simplified plan of the Camel Flat prospect showing prospective horizon interpreted from regional magnetic data and historical drilling, with 2010 Energy Metals drilling in enlargement

Energy Metals is highly encouraged by recent intercepts from Camel Flat, which compare very favourably with early drilling results from Bigrlyi. Furthermore the Company considers the potential for finding more uranium along strike from Camel Flat to be excellent, especially as historic drilling to test under the widespread sand cover appears to have been ineffective. Follow-up drilling designed to outline shallow mineralisation potentially exploitable by open pit mining is currently being planned.

Macallan (EME 100%)

The **Macallan** project (ELA27333) is located 460km northwest of Alice Springs and 140km from Bigrlyi. Newmont Australia's Callie Gold Mine is located a further 140km to the north. The tenement covers a strong 3km long bullseye radiometric anomaly which may indicate the presence of shallow structurally controlled uranium mineralisation.

The application is progressing through the provisions of the Aboriginal Land Rights Act, with further negotiations with the traditional owners expected early 2011.

WESTERN AUSTRALIA

Lake Mason (EME 100%)

This project comprises one granted exploration licence (E 57/590) with an area of 64km² centred 25km NNE of Sandstone and 80km SW of the Yeelirrie deposit. Previous exploration by BP Minerals in the 1970's discovered shallow carnotite mineralisation in valley calcretes associated with the Lake Mason drainage system. In June 2008 Energy Metals announced an initial Inferred Mineral Resource at Lake Mason of 1,343 tonnes (3Mlb) U₃O₈ at a grade of 170ppm (100ppm cut-off).

An infill aircore drill program to increase the level of confidence of this resource was completed in the March 2010 quarter, with 180 vertical holes (1,800m) drilled in higher grade zones. Downhole gamma logging of these holes returned anomalous uranium values from most holes with geochemical assaying confirming these anomalous intercepts.

Mid December 2010 the Company announced that the resource at Lake Mason had been increased to 9.1Mt @ 185ppm U₃O₈ (at 100ppm cut-off) for 1,689 tonnes (3.7Mlb) of uranium, with 62% of the resource now reporting to the Indicated Category (refer Table 1):

Table 1 - Lake Mason Mineral Resource Estimate (100ppm cut-off)

Category	Tonnes (Million)	U ₃ O ₈ ppm	U ₃ O ₈ Tonnes	U ₃ O ₈ Mlbs
Indicated	5.1	204	1,049	2.3
Inferred	4.0	160	640	1.4
Total	9.1	185	1,689	3.7

Tonnes are metric (2204.62 pounds), figures may not total due to rounding. Significant figures do not imply precision.

Please refer to the ASX announcement of 17 December 2010 for further details.

Anketell (EME 100%)

The Anketell project comprises two granted exploration licences (E's 58/289 & 58/292) with a total area of 165km². The tenements contain shallow calcrete hosted mineralisation discovered by Western Mining (WMC) in 1972. The mineralisation is similar in style to the Yeelirrie deposit, also discovered by WMC in the same year and located 150km to the northeast.

Aircore drilling completed by Energy Metals between 2007 and 2009 confirmed the presence of uranium mineralisation in calcrete and calcareous clays with most traverses recording anomalous intercepts at shallow depths (typically within 10m of surface), and in July 2009 Energy Metals announced an Inferred Mineral Resource of 2,720 tonnes (6Mlb) U₃O₈ at a grade of 167ppm (100ppm cut-off) at Anketell.

Anketell is located close to infrastructure, being approximately 90km east by sealed road from the mining town of Mount Magnet and 35km from the gas pipeline at Windimurra. The project is also located approximately 45km to the SW of Energy Metals' Lake Mason project (3.7Mlb resource – see above) and takes Energy Metals' total resources in the area (reportable under JORC) to 9.7Mlb U₃O₈.

Rawlinson (EME 100%)

The Rawlinson Project comprises four exploration licences (total area of 1,450km²) located in the Gibson Desert, approximately 950km northeast of Kalgoorlie and 60km west of the NT border (see plan below). The tenements in this project were granted on 16 November 2009.

The area is part of the Central Australia Aboriginal Reserve and due to the remote location and restricted access the geology of the area is poorly understood. However it appears that the main uranium anomalies are associated with mid Proterozoic age metasediments unconformably overlain by younger sedimentary rocks with potential for unconformity and roll-front style uranium deposits, as well as surficial uranium mineralisation. There is no evidence of previous uranium exploration in the area.

The Rawlinson project provides the Company with a low cost option to control untested outcropping uranium anomalies with the potential to represent a completely new uranium province.

Preliminary consultations with the Ngaanyatjarra Land Council have been positive with Energy Metals expecting access agreements to be finalised early 2011, allowing initial geochemical exploration programs to be undertaken later in the year.

Manyingee (EME 100%)

The Manyingee exploration licence (E 08/1480) is located 85 km south of the port of Onslow. The tenement (total area 86 km²) surrounds the mining leases containing Paladin Energy's Manyingee resource, a stacked series of paleochannel hosted roll front uranium deposits.

A review of airborne EM data and historical exploration in the area has interpreted a number of paleochannels extending into E 08/1480 from the Paladin Manyingee deposit.

An initial heritage survey was undertaken by the Thalanji people following the signing of an access agreement in 2009. This survey covered a proposed aircore drill program (approximately 3,000m) designed to test for extensions to the paleochannel uranium mineralization.

A further site visit and meeting with the traditional owners was undertaken earlier this year and the final s18 report has been received and will be lodged to enable the Department of Indigenous Affairs (DIA) s18 application for approving site access for drilling to proceed. Access is not expected until mid 2011.

CORPORATE

On 30 November 2010 Energy Metals announced that KangDe Investment Group had received all necessary government approvals to subscribe for 19,472,773 shares at \$1.02 per share to raise approximately \$19,862,228. The placement was completed on 1 December 2010.

On 8 December 2010 the Company announced that Mr Zhong, Yu had been appointed a Non-Executive Director and Mr Xiang Weidong had been appointed a Director. Mr Zhong was nominated by KangDe Investment Group and has extensive experience in research and development of new engineering technology. Mr Xiang joins Energy Metals from CGNPC-Uranium Resources Co. Ltd where he was a senior executive with broad experience in uranium exploration. Mr Xiang became the Managing Director of Energy Metals effective 1 January 2011 when Mr Lindsay Dudfield stepped down to become a Non-Executive Director.

On 10 December 2010 Energy Metals that it has elected to change its Financial Year End from 30 June to 31 December to align the financial year with its Parent Company, China Uranium Development Company Ltd (“CUD”). The change of financial year will save the costs of preparing additional financial information required by CUD to produce consolidated accounts. The Company will produce an annual report for the six months ending 31 December 2010 and will produce its annual financial statements on a 12-month basis from 1 January 2011.

The 2010 Annual General Meeting of Energy Metals was held in Perth on 24 November 2010, with all resolutions carried on a show of hands.

TABLE 1 – Significant Gamma Probe (eU₃O₈) intercepts from Bigryli

Hole	Easting	Northing	Azi	Dip	From (m)	Interval (m)	eU ₃ O ₈ (ppm)
B08063A	710,800	7,541,844	155	-60	297	5.5	3,694
B10003	710,239	7,541,227	330	-60	344	2	516
B10003	710,239	7,541,227	330	-60	394	2	561
B10024	715,100	7,542,100	024	-70	133.5	18	5,118
B10026	713,214	7,542,534	005	-60	17.5	1	1,134
B10029	710,782	7,541,793	152	-65	1	15	3,074
B10029	710,782	7,541,793	152	-65	44	9.5	630
B10029	710,782	7,541,793	152	-65	61	6	1,307
B10029A	710,784	7,541,795	152	-65	1	13	1,123
B10030	715,575	7,541,698	000	-90	48.5	28.5	3,922
B10031A	715,426	7,541,734	205	-70	63.5	18.5	1,868

Determined using a 100ppm cutoff and intersections >500ppm listed

TABLE 2 – Significant Chemical Intercepts from Bigryli

Hole	East	North	Azi	Dip	From (m)	Interval (m)	U ₃ O ₈ (ppm)	V ₂ O ₅ (ppm)
B10026	713,214	7,542,534	5	-60	18	1	662	540

Determined using a 100ppm U₃O₈ cutoff and intersections >500ppm U₃O₈ listed

Table 3: Chemical Assay Results from 2010 Drilling at Camel Flat

Hole	Easting	Northing	Azi (mag)	Dip	From (m)	Intercept (m)	U ₃ O ₈ (ppm)	V ₂ O ₅ (ppm)
CFD1001*	736,589	7,522,351	030	-75	93.0	27.0	2,708	755
				incl.	93.0	5.0	13,269	2,944
CFD1002*	736,652	7,722,431	212	-60	137.0	4.0	2,091	203
CFRC1001*	736,610	7,522,410	176	-60	85.0	4.0	311	241
CFRC1002*	736,550	7,522,410	176	-60	NSR			
CFRC1003*	736,550	7,522,460	176	-60	NSR			
CFRC1004*	736,660	7,522,410	176	-60	84.0	1.0	379	161
				and	94.0	2.0	1,232	232
CFRC1005*	736,660	7,522,460	176	-60	149.0	2.0	988	1,009
CFRC1006	736,710	7,522,410	176	-60	63	4	865	100
CFRC1007	736,710	7,522,460	176	-60	109	12	1,117	69
CFRC1009	736,610	7,522,385	176	-60	65	2	590	365
					70	1	1005	550
CFRC1010	736,660	7,522,385	176	-60	31	1	554	40
					64		797	300
CFRC1014	736,710	7,522,385	176	-60	45	1	700	220
CFRC1016	736,760	7,522,410	176	-60	66	1	384	110

Note: Intersections calculated at 100ppm U₃O₈ cut-off, using assays received from ALS Laboratories and determined by XRF. Vanadium was determined by XRF and is considered only semi quantitative. A minimum thickness of 1m and a maximum internal dilution of 3m were used, no external dilution was allowed. Assays from RC holes (Prefixed CFRC10*) are from 1m RC samples collected via a cone splitter; assays from Diamond holes (Prefixed CFD10*) are from ½ core cut on site and sampled at 0.5m intervals.

NSR= no significant results; *reported 14th October or 3rd December 2010

Table 4: RC Drill Gamma Probe Intercepts (eU₃O₈) from Camel Flat – Released 3rd December 2010

Hole	Easting	Northing	Azi (mag)	Dip	From (m)	Intercept (m)	eU ₃ O ₈ (ppm)
CFRC10001	736,610	7,522,410	176	-60	29.0	2.0	138
				and	43.0	1.0	124
				and	84.5	4.5	750
CFRC10002	736,550	7,522,410	176	-60	NSR		
CFRC10003	736,550	7,522,460	176	-60	1.0	1.5	169
				and	62.0	8.5	104
CFRC10004	736,660	7,522,410	176	-60	84.5	1.0	268
				and	93.0	2.5	1,080
CFRC10005	736,660	7,522,460	176	-60	1.0	1.5	151
					148.5	2.0	1,237
CFRC10006	736,710	7,522,410	176	-60	61.5	3.5	1,514
CFRC10007	736,710	7,522,460	176	-60	108.0	8.5	808
CFRC10008	736,660	7,522,510	176	-60	Failed		
CFRC10009	736,610	7,522,385	176	-60	1.0	8.0	121
				and	65.0	5.0	294
CFRC10010	736,660	7,522,385	176	-60	1.0	2.5	138
				and	23.5	2.5	101
				and	30.0	4.0	136
				and	63.5	1.0	1,811
CFRC10011	736,500	7,522,460	176	-60	Failed		
CFRC10012	736,500	7,522,410	176	-60	NSR		
CFRC10013	736,810	7,522,410	176	-60	11.5	2.5	102
CFRC10014	736,710	7,522,385	176	-60	1.0	5.0	160
				and	44.0	1.5	322
CFRC10015	736,760	7,522,385	176	-60	1.0	2.5	140
				and	28.0	3.0	865
CFRC10016	736,760	7,522,410	176	-60	NSR		
CFRC10017	736,760	7,522,460	176	-60	Failed		

Note: Intersections calculated using de-convoluted gamma probe intersections composited over 50cm at a 100ppm eU₃O₈ cut-off, a minimum thickness of 1m and a maximum of 3m of internal dilution, no external dilution was allowed

NSR= no significant results

Failed = failed to drill to target depth

Information in this report relating to exploration results, data and cut off grades is based on information compiled by Mr Paul Dunbar and Mr Lindsay Dudfield. Both Mr Dunbar and Mr Dudfield are members of the AusIMM and the AIG. Mr Dunbar is a full time employee of Energy Metals and 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 he is 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 (2004)”. Mr Dunbar and Mr Dudfield both consent to the inclusion of the information in the report in the form and context in which it appears.

* Uranium mineralisation grades through this report are annotated with a sub-prefix ‘e’ because they have been reported as uranium equivalent grades derived from down-hole gamma ray logging results and should be regarded as approximations only.

Gamma logging or “total count gamma logging” (the method used by Energy Metals) is a common method used to estimate uranium grade where the radiation contribution from thorium and potassium is very small. Sandstone and calcrete hosted deposits are usually of this type. Gamma logging does not account for energy derived from thorium and potassium (as does spectral gamma logging) and thus the result is expressed as an equivalent value or eU_3O_8 .

The gamma radiation from potassium, uranium and thorium is dominated by gamma rays at specific energy levels. These energy levels are sufficiently well separated such that they can be measured independently of each other. They are typically measured as narrow energy bands that contain the specific energy levels. Bands are used because the measuring systems do not have the resolution to target a specific energy wavelength.

There is some scattering of higher energy gamma radiation, e.g. thorium, into lower energy radiation, e.g. uranium and potassium. This scattered radiation can be calculated from suitable calibration procedures and removed from the lower energy level measurements. This method is commonly termed spectral gamma logging.

Energy Metals uses gamma probes which are initially calibrated at the PIRSA (Primary Industry & Resources South Australia) test pits and then subjected to annual recalibration to ensure the integrity of the probe instrument. Furthermore, Energy Metals runs regular checks to validate the accuracy of probe data using calibrated test holes located on site.