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18 December 2008

Company Announcements Office Australian Stock Exchange Limited Exchange Centre Level 4, 20 Bridge Street Sydney NSW 2000

Via electronic lodgement

Dear Sir/Madam,

Please find the following announcement for immediate release to the market. This announcement is made on behalf of the Bigrlyi Joint Venture partners being Energy Metals Limited with 53.7%, Valhalla Uranium Limited (a subsidiary of Paladin Resources Limited) with 42.1% and Southern Cross Exploration NL with 4.2%.

Yours faithfully,

LINDSAY DUDFIELD **Executive Director** 

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Via electronic lodgment

## MORE SIGNIFICANT URANIUM INTERCEPTS FROM BIGRLYI

Energy Metals, as manager of the Bigrlyi Joint Venture, is pleased to advise that follow-up geochemical sampling has confirmed previously announced downhole gamma probe intercepts with significant uranium (and vanadium) intercepts including:

B08004 **6m @ 0.26% U<sub>3</sub>O<sub>8</sub> & 0.79% V<sub>2</sub>O<sub>5</sub>** from 37m

B08008 5m @  $0.48\% U_3O_8 \& 0.50\% V_2O_5$  from 80m

B08021 **4m** @ **0.44% U**<sub>3</sub>**O**<sub>8</sub> & **1.22% V**<sub>2</sub>**O**<sub>5</sub> from 114m

## **Discussion**

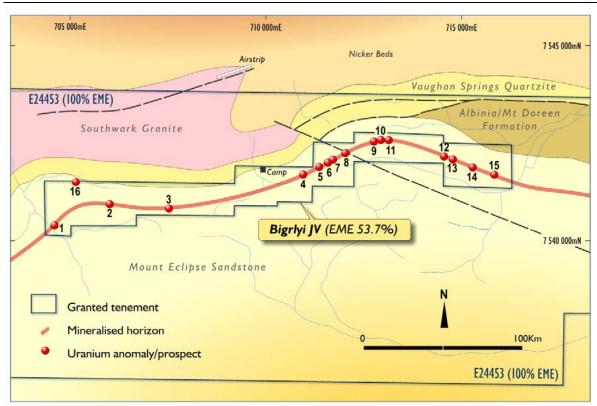
An Updated Scoping Study based on current resources at Bigrlyi (23.4 M lbs  $U_3O_8$  & 43.7M lbs of  $V_2O_5$ ) was announced in July 2008 and indicated that the Bigrlyi project has the potential to produce 16.2M lbs  $U_3O_8$  and 14.5M lbs of  $V_2O_5$  over a mine life of 12 years. This study also identified excellent potential to delineate additional resources which would further enhance project economics.

An RC and diamond drill program (total 89 holes) designed to extend shallow resource positions at the A4 and A15 deposits commenced in early September 2008 and was completed in mid December 2008. Geochemical assays have now been received for the initial 38 RC holes from this program, with 31 holes intersecting anomalous uranium values (>100ppm  $U_3O_8$ ). Geochemical assays from the remaining 51 holes are expected early in the January 2009 quarter.

An initial review of the follow-up geochemical sampling indicates that results compare favourably with the previously announced downhole gamma logging probe values. Minor radiometric disequilibrium, as noted in the previous announcements, occurs at near surface levels.

The following table (Table 1) compares significant uranium assays (>0.1% U<sub>3</sub>O<sub>8</sub>) received recently with downhole gamma logging results previously announced to ASX.





Further downhole probe results and follow up geochemical assays will be released as they become available.

LINDSAY DUDFIELD Executive Director.

Note: The information in this report relating to Exploration Results is based on information compiled by Nick Burn BSc(Hons), MAIG. The information in this report relating to mineral resources is based on information compiled by Nick Burn who has more than five years relevant experience in estimation of mineral resources and the mineral commodity uranium. Mr Burn is a full time employee of Energy Metals Limited and takes responsibility for the quality of the data and geological interpretations. Mr Burn has sufficient experience relevant to the assessment of this style of mineralisation 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". Mr Burn consents 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.



## TABLE 1 - SIGNIFICANT INTERCEPTS (>0.1% U<sub>3</sub>O<sub>8</sub>) FROM BIGRLYI

DEPOSIT	HOLE	FROM (m)	INTERCEPT (m)	U <sub>3</sub> O <sub>8</sub> (%)	U <sub>3</sub> O <sub>8</sub> (lb/t)	V <sub>2</sub> O <sub>5</sub> (%)	eU₃O <sub>8</sub> intercept (%)
A4	B08004	37	6	0.26	5.83	0.79	3.0m @ 0.23 from 36.1m
	Incl.	39	3	0.44	9.73	1.06	2.75m @ 0.61 from 39.15m
	B08005	109	3	0.18	4.06	0.68	6.35m @ 0.08 from 103.2m
	B08006	43	1	0.28	6.16	0.39	3.15m @ 0.17 from 41.7m
	B08007	37	3	0.14	3.00	0.06	
	Incl.	37	1	0.39	8.49	0.15	1.60m @ 0.17 from 34.12m
	B08008	80	5	0.48	10.45	0.50	5.3m @ 0.52 from 77.65m
	Incl.	81	1	1.58	34.76	0.13	
	B08010	54	2	0.11	2.52	0.11	1.55m @ 0.05 from 49.9m
	B08011	220	3	0.18	4.01	0.69	3.1m @ 0.21 from 217.4m
	B08012	10	3	0.19	4.26	0.46	11.1m @ 0.10 from 2.1m*
	B08014	98	2	0.13	2.78	0.03	2.55m @ 0.08 from 96.4m
		104	1	0.12	2.65	0.09	1.55m @ 0.10 from 102.55m
	B08015	104	2	0.14	2.98	0.15	2.4m @0.08 from 102.55m
	B08017	121	1	0.10	2.12	0.38	0.95m @ 0.07 from 120.5m
	B08018	135	2	0.15	3.37	0.06	1.8m @ 0.26 from 134.35m
	B08019	87	2	0.18	3.92	0.36	2.9m @ 0.18 from 85.5m
	B08020	97	2	0.12	2.70	0.16	2.2m @ 0.19 from 96.3m
	B08021	114	4	0.44	9.64	1.22	3.7m @ 0.50 from 113.1m
	Incl.	115	2	0.73	15.95	1.86	
		189	8	0.37	8.07	1.21	7.05m @ 0.48 from 188.15m
	Incl.	190	3	0.73	16.09	2.32	
	B08031	148	1	0.18	3.95	0.07	2.0m @ 0.09 from 147m

Note: Intervals marked with (\*) denote that it is likely significant radiometric disequilibrium exists as the intercept is in the near surface environment. All preliminary radiometric assays are checked against chemically derived assays prior to their use in resource compilation. All intercepts are estimated to approximate true width.

Assays based on RC chips sampled at 1m intervals and analysed by ALS Chemex (Brisbane). U analysed by XRF (ME-XRF05); V by XRF (ME-XRF05, for values <1000 ppm) and ICP (ME-ICP61, for values >1000 ppm).