

# ASX Announcement

12 February 2014

## Energia on track for new Carley Bore Scoping Study after delivering significant uranium resource upgrade

*In-fill drilling elevates 5Mlbs U<sub>3</sub>O<sub>8</sub> to Indicated Resource paving the way for the next phase of development studies*

### Key Points

- Maiden Indicated Resource of 5.4Mt grading 420ppm U<sub>3</sub>O<sub>8</sub> (5Mlb of contained U<sub>3</sub>O<sub>8</sub>) for Carley Bore uranium deposit, potentially available for conversion to Ore Reserves.
- Total JORC Compliant Mineral Resource Estimate of 22.8Mt @ 310ppm U<sub>3</sub>O<sub>8</sub> for 15.6Mlbs of contained U<sub>3</sub>O<sub>8</sub>.
- Very robust resource incorporating results from 239 holes drilled within the resource boundary.
- Porosities for mineralised intervals in recent aircore drill holes averaging 32% determined from down-hole logging and sonic core analysis.
- Updated Scoping Study to be completed in March 2014 is expected to increase the value of the Carley Bore Project significantly.
- Resource remains open in several areas and is expected to expand, with further aircore and mud drilling planned to be carried out during the 2014 field season.
- Site for field leaching trial expected to be selected following the 2014 drilling program.

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### Board of Directors

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Australian uranium company Energia Minerals Limited (ASX:EMX) is pleased to advise that it is poised to complete an updated Scoping Study for its flagship 100%-owned **Carley Bore uranium deposit** in Western Australia after delivering a significant upgrade to the Mineral Resource Estimate.



The new Mineral Resource Estimate, which follows a successful in-fill program completed late last year, has paved the way for the next key phase of evaluation of the Carley Bore deposit including an updated Scoping Study followed by a field leaching trial anticipated to commence later this year. This study is expected to deliver significant improvements to the May 2013 Scoping Study outcomes.

The most important outcome of the in-fill drilling program has been to elevate 5Mlb of the previously announced Inferred Resource Estimate to **Indicated status** (see Figure 2), with this Indicated Resource Estimate, subject to future positive feasibility study outcomes, now available for conversion to Ore Reserves.

The re-classification is due to a number of factors including an increase in the drilling density, confirmation of the hydrogeological amenability of Carley Bore to In Situ Recovery (ISR) extraction, the now well established continuity of mineralisation and the use of geochemical assays in preference to less accurate gamma log results.

Recent work has significantly enhanced the Company's understanding of mineralisation, geology, porosity, density, sediment characteristics and the hydrogeological environment of the Carley Bore deposit and this knowledge will feed into development of a detailed hydrogeological model to be commissioned shortly.

While the updated global Mineral Resource Estimate has seen a slight reduction in contained metal (15.6Mlb of contained  $U_3O_8$  compared with 16.7Mlb previously), this is partially due to a reduction in the calculated density of the mineralized zones (1.70 compared with 1.73 previously). This accounted for around 40% of the shortfall with the remainder due to a 3% reduction in grade. Importantly also, there was a slight increase to 3.5Mlb in contained  $U_3O_8$  within Zone 6, 97% of which is now in the Indicated Mineral Resource category.

The continuity of the mineralisation at Carley Bore has been further confirmed in the only twin hole drilled (LYAC0494) during the recent program, which assayed **5m at 1,011ppm  $U_3O_8$  from 55m** compared with LYAC0224 (**5m at 661ppm  $U_3O_8$  from 56m**) drilled in 2011.

Using a preferred 150ppm  $U_3O_8$  cut-off, the total Indicated and Inferred Resource Estimate calculated by Coffey Mining Pty Ltd is **22.8 million tonnes grading 310ppm  $U_3O_8$  for 15.6Mlb** of contained  $U_3O_8$  at a preferred cutoff of 150ppm  $U_3O_8$  as set out in Table 1 below:

<p align="center"><b>Table 1</b>  <b>Nyang Uranium Project Summary Table – Carley Bore In situ Mineral Resource</b>  <b>February 2014 Ordinary Kriged Estimate</b>  <b>Reported using (variable) cutoffs; (preferred cutoff for reporting purposes 150ppm)</b>  <b>Uranium Grade tonnage distributions subdivided by JORC Code 2012 Resource Categories</b>  <b>Note figures are ROUNDED</b></p>													
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Lower Cutoff Grade $U_3O_8$ (ppm)	Indicated				Inferred				Total (Indicated + Inferred)			
	Tonnes (Mt)	Grade $U_3O_8$ (ppm)	Contained Metal		Tonnes (Mt)	Grade $U_3O_8$ (ppm)	Contained Metal		Tonnes (Mt)	Grade $U_3O_8$ (ppm)	Contained Metal	
			MKg $U_3O_8$	Mlb $U_3O_8$			MKg $U_3O_8$	Mlb $U_3O_8$			MKg $U_3O_8$	Mlb $U_3O_8$
100	5.5	420	2.3	5.0	17.8	270	4.8	10.7	23.3	310	7.1	15.7
<b>150</b>	<b>5.4</b>	<b>420</b>	<b>2.3</b>	<b>5.0</b>	<b>17.4</b>	<b>280</b>	<b>4.8</b>	<b>10.6</b>	<b>22.8</b>	<b>310</b>	<b>7.1</b>	<b>15.6</b>
200	5.1	430	2.2	4.9	15.1	290	4.4	9.6	20.2	330	6.6	14.6
250	4.8	450	2.2	4.7	9.4	330	3.1	6.8	14.2	370	5.2	11.5
300	4.1	480	2.0	4.3	5.1	380	1.9	4.2	9.2	420	3.9	8.6

The resource is very robust with a resource database of 425 drill holes, including five sonic core holes, being used to calculate the Mineral Resource Estimate with 239 holes drilled within the resource boundary. A further four diamond and 12 rotary mud holes have also been drilled within the resource boundary to date but have not been used in the calculation because of low recoveries and contamination issues associated with diamond and rotary mud drilling techniques in this environment.

Although conventional gamma log assay data has been collected from the diamond and mud drilling programs together with 25 of the aircore holes from the recent drilling program, these have not been used in the resource calculation as there remain concerns about the reliability of the technique within this section of the Carnarvon Basin.

At Carley Bore, although both positive and negative disequilibrium occurs, the deconvolved gamma results in the majority of drill holes overestimate grades, particularly at lower grade times thickness (GT) levels, and the thickness of mineralisation is invariably overstated.

Porosities calculated from measurements on diamond and sonic core from mineralised and unmineralised samples ranged from 18 to 45 % with an average value of 30%. Given that the range of porosities expected from sandstone is 10-35%, then the average porosity value of 30% is in the higher range of expected porosities and falls within the range expected from variable grain size sands. When these measurements are correlated to gamma-gamma density data from the 2013 aircore drilling data and porosities calculated from this, average mineralised zone porosities return a value of 32%, adding further confidence in the application of ISR leaching techniques at Carley Bore.

For future modeling, the 150ppm  $U_3O_8$  lower cut-off has been selected as the preferred cut-off, reflecting Energia's increasing understanding of the expected operating parameters of an ISR mine operating at a shallow depth. In the upcoming Scoping Study it is expected that this will vary to some extent from ore zone to ore zone.

Following the success of the last drilling program, it is now planned to carry out an additional aircore and mud drilling program during 2014. This will be focused on further expanding the currently outlined resource to the north and south, as well as defining a suitable area to carry out a field leach trial within Zone 6 at Carley Bore.

This program will also provide better definition of high grade "roll fronts" within the deposit and will also include 13 regional drill holes co-funded with a grant from the WA government along the 90km of largely untested ground within Energia's tenement holding at Nyang.

Energia's Managing Director, Mr Kim Robinson, said: "This resource upgrade represents a strong outcome and marks another very important step forward for this high quality project. Amongst other things, this reflects the remarkable continuity of the Carley Bore mineralisation. We are now able to move forward with our scoping studies and work towards a field leaching trial later in the year with a great degree of confidence."

"Importantly, the recent drilling program has also clearly shown the potential for further growth in the resource, which remains open. This potential will be further tested when we commence our 2014 field activities."

"We plan to commence work on an updated Scoping Study which we are aiming to complete by the end of March to define the parameters for a potential new, low-cost ISR operation at Carley Bore."



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**Competent Person Statement:**

The information in this report that relates to Exploration Results and Mineral Resources at Carley Bore is based on information compiled by Mr Kim Robinson and Mr David Andreazza, who are both full time employees of Energia Minerals Limited; and Ms Ellen Maidens, who is employed by Coffey Mining Limited. Mr Robinson and Mr Andreazza are the Competent Persons responsible for the drilling assay database, QA/QC validation and density measurements. Ms Maidens is the Competent Person responsible for the resource estimation and classification. Ms Maidens, Mr Robinson and Mr Andreazza are all Members the Australian Institute of Geoscientists. Mr Robinson, Mr Andreazza and Ms Maidens have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Robinson, Mr Andreazza and Ms Maidens consent to the inclusion in this release of the matters based on their information in the form and context as it appears.

**Figure One: Nyang Project with Carley Bore Location**

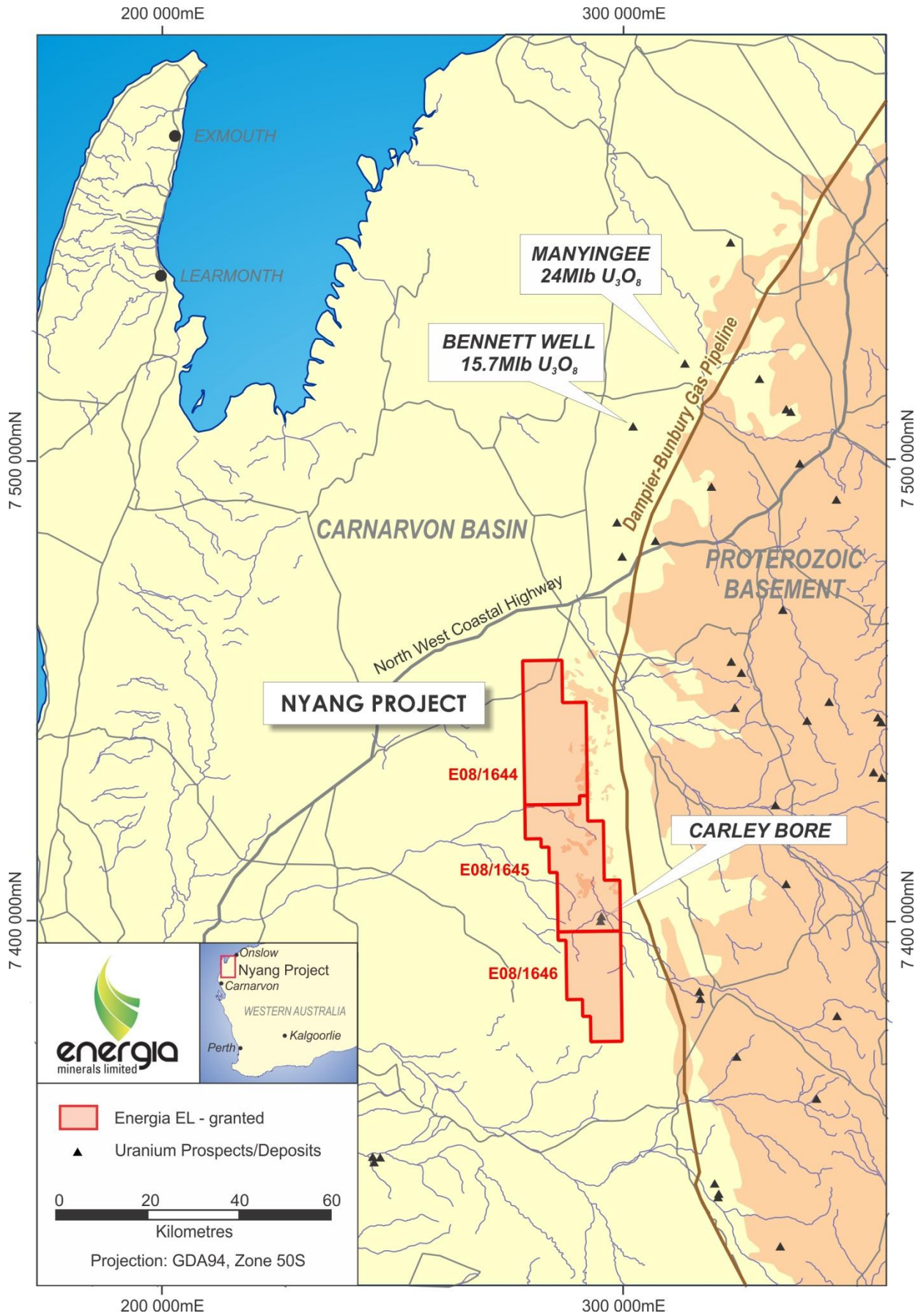
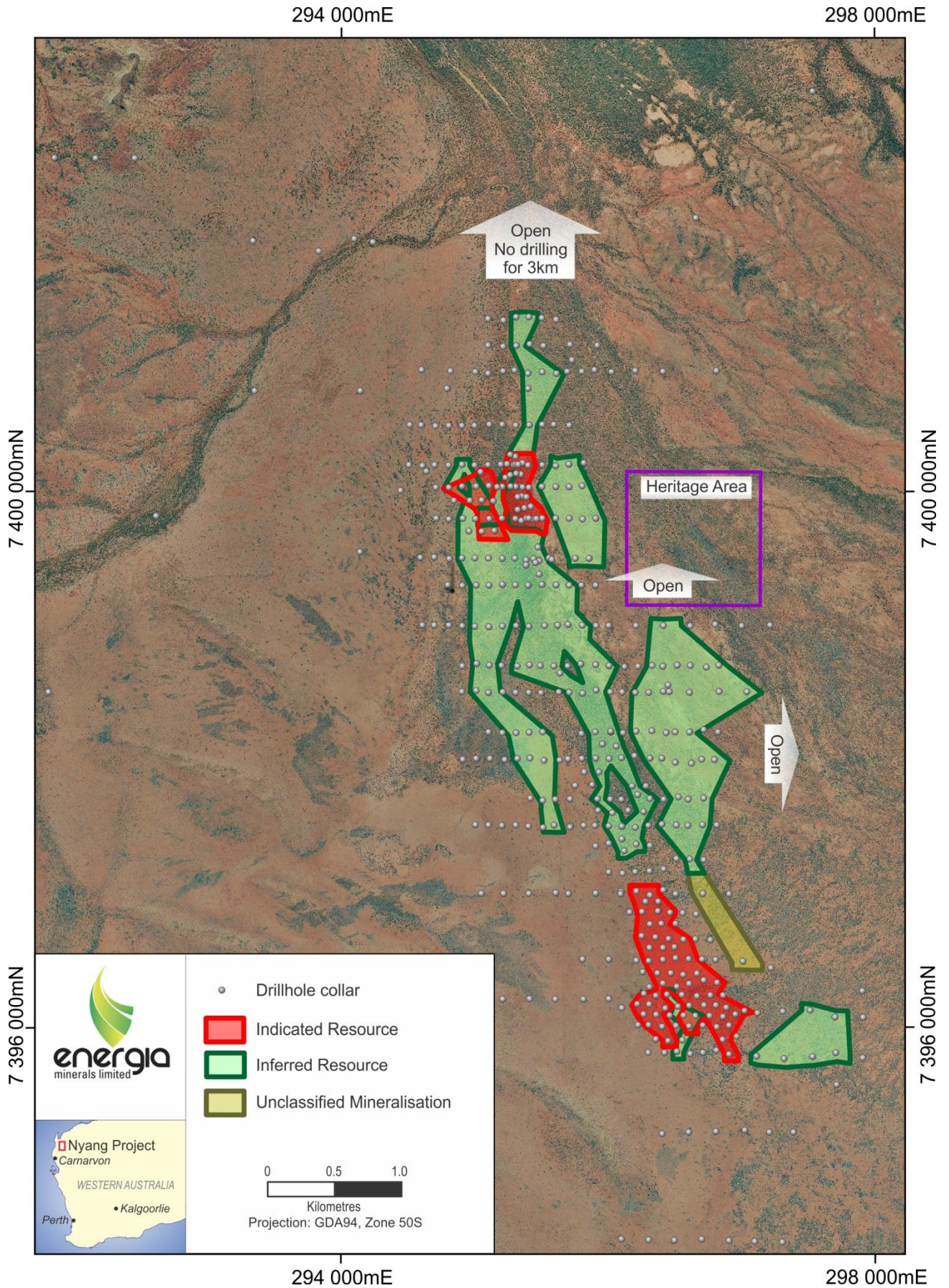




Figure Two: Collar Plan and Resource Outlines at Carley Bore





<b>Table 2</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0001	294796.7	7400030.8	168.00	71
LYAC0002	295199	7400037.1	167.00	111
LYAC0003	295298.5	7400038	167.00	96
LYAC0004	295494.9	7400036.9	167.00	82
LYAC0005	294801.6	7399499	170.00	86
LYAC0006	294995.9	7399505	169.06	85
LYAC0007	295201.1	7399501.4	168.00	99
LYAC0008	295434.7	7399498	168.00	79
LYAC0009	295478	7399483	168.00	67
LYAC0010	295850	7399500	168.08	77
LYAC0017	294999.8	7397506.5	176.17	86
LYAC0018	295396.3	7397496.9	173.34	91
LYAC0019	296601.8	7398497.1	170.09	58
LYAC0020	296197.9	7397488.7	170.30	59
LYAC0021	295810.2	7397501.8	171.10	77
LYAC0022	295627.3	7397996.8	169.62	62
LYAC0023	295622.9	7398504.9	169.00	50
LYAC0024	294601.7	7399003.6	170.57	65
LYAC0025	294903.9	7398998.8	170.58	71
LYAC0026	295200.3	7398993.9	168.63	116
LYAC0027	296000	7399000	169.00	51
LYAC0028	295616.3	7399001.3	168.00	82
LYAC0029	295518.5	7398998.9	168.00	80
LYAC0030	295398.6	7398990.2	168.05	110
LYAC0031	294900	7400040	167.38	63
LYAC0032	295000.6	7400040.5	167.37	71
LYAC0033	295098.4	7400045.1	167.02	74
LYAC0043	294501.7	7400503.5	168.00	76
LYAC0044	294801.2	7400495	167.00	80
LYAC0045	295104.2	7400502	166.00	107
LYAC0046	295401.5	7400499.1	166.07	71
LYAC0047	295703.9	7400499.5	167.00	72
LYAC0055	295399.6	7400035.9	167.00	72
LYAC0056	294597.8	7400497.4	168.00	78
LYAC0057	294698	7400495	167.01	68
LYAC0058	294903.9	7400492.9	167.00	78
LYAC0059	294995.8	7400496.6	167.00	77
LYAC0060	295201.9	7400502.1	166.00	103
LYAC0061	295300.6	7400501.2	166.06	73
LYAC0062	295501.2	7400503.9	166.94	77
LYAC0063	295591.4	7400504.9	167.00	92
LYAC0064	294502.7	7400202.1	168.53	83
LYAC0065	294601.1	7400199.4	167.99	84
LYAC0066	294696.1	7400200.5	167.58	76
LYAC0067	294799.7	7400199.6	167.57	70
LYAC0068	294898.9	7400203.6	167.01	71

<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0069	294990.6	7400198.8	167.00	81
LYAC0070	295095.9	7400202.2	166.59	105
LYAC0071	295195.5	7400204.9	166.55	116
LYAC0072	295297.5	7400203.4	166.97	91
LYAC0073	295395.6	7400199.6	167.00	104
LYAC0074	295499.8	7400201.8	167.00	74
LYAC0075	295597.3	7400192.6	167.00	60
LYAC0076	294702.1	7400037.2	168.00	103
LYAC0077	294701.1	7399801.5	168.57	105
LYAC0078	294799.8	7399800.1	168.58	74
LYAC0079	294902.1	7399799.6	168.57	63
LYAC0080	295001.7	7399797.1	168.00	72
LYAC0081	295105.1	7399798.4	167.57	84
LYAC0082	295200.3	7399800.1	167.02	112
LYAC0083	295299.9	7399798.8	167.00	108
LYAC0084	295400.3	7399802	167.00	80
LYAC0085	295499.2	7399800.4	167.53	74
LYAC0086	295599.7	7399801.4	167.57	73
LYAC0087	295700	7399800	167.58	71
LYAC0088	295800	7399800	167.96	71
LYAC0089	294899.1	7399504	170.00	68
LYAC0090	295094.9	7399501.6	168.08	71
LYAC0091	295296.4	7399503.3	167.15	129
LYAC0092	295550	7399500	168.00	84
LYAC0093	294796.5	7399303.6	170.06	101
LYAC0094	294902.9	7399298.8	169.99	74
LYAC0095	295003.1	7399300	169.07	88
LYAC0096	295099.9	7399299.1	168.12	83
LYAC0097	295200.1	7399303.9	168.00	79
LYAC0098	295300.37	7399302.8	168.00	88
LYAC0099	295395.3	7399299.7	168.00	86
LYAC0100	295495.8	7399303.9	168.00	65
LYAC0101	295603	7399301.3	168.00	79
LYAC0102	295700.5	7399300.9	168.00	75
LYAC0103	295797.8	7399300.7	168.88	75
LYAC0104	295900	7399300	169.00	65
LYAC0105	295302.4	7398997.3	168.60	127
LYAC0106	295694.9	7399006.3	168.00	104
LYAC0107	295796.5	7398999.2	168.86	98
LYAC0108	295901.1	7398996.6	169.00	77
LYAC0109	295203.2	7398500.3	170.00	70
LYAC0110	295903.9	7398515.4	169.00	77
LYAC0111	296305.9	7398004.5	170.00	61
LYAC0112	296002.6	7398004.6	170.00	61
LYAC0113	295746.9	7399503.1	168.02	74
LYAC0114	295600.7	7400037.2	167.00	92



<p><b>Table 2 (Cont.)</b></p> <p><b>Nyang Uranium Project</b></p> <p><b>Collar Coordinates for Drillholes used in the Resources</b></p>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0115	295700.2	7400036.6	167.00	71
LYAC0116	295796	7400042.2	167.31	63
LYAC0117	295701.7	7400206.1	167.00	70
LYAC0118	295812.9	7400219.1	167.00	59
LYAC0119	295900	7399800	168.00	59
LYAC0120	294689	7398999	170.59	68
LYAC0121	294798	7398997	170.99	94
LYAC0122	294997	7398992	170.03	76
LYAC0123	295098	7398988	169.05	85
LYAC0124	295400	7398498	169.10	96
LYAC0125	295699	7398498	169.00	64
LYAC0126	296007	7398504	169.07	78
LYAC0127	296098	7398502	169.86	79
LYAC0128	296196	7398497	170.00	72
LYAC0129	296299	7398498	170.00	67
LYAC0130	295407	7398006	171.56	102
LYAC0131	295695	7398003	169.59	68
LYAC0132	295900	7398005	170.00	63
LYAC0133	296095	7398010	170.00	53
LYAC0134	296395	7398004	170.46	63
LYAC0135	296496	7397973	170.94	59
LYAC0136	296616	7397970	171.00	61
LYAC0137	296789	7397994	171.00	67
LYAC0138	296693	7397997	171.00	52
LYAC0139	296190	7398024	170.00	75
LYAC0140	295590	7397505	172.20	102
LYAC0141	295896	7397503	171.01	52
LYAC0142	296098	7397496	171.00	55
LYAC0143	296295	7397501	170.82	62
LYAC0144	296501	7397505	171.00	58
LYAC0145	296698	7397506	171.00	61
LYAC0146	296801	7397508	171.00	52
LYAC0147	296588	7397501	171.00	57.5
LYAC0148	295698	7396992	172.76	85
LYAC0149	295899	7396996	172.08	59
LYAC0150	296091	7396998	171.71	36
LYAC0151	296302	7396981	171.00	64
LYAC0152	296500	7396993	171.65	57
LYAC0153	296701	7396991	172.00	56
LYAC0154	296903	7396986	172.00	60
LYAC0155	296405	7397021	171.45	61
LYAC0156	296203	7397013	171.06	49
LYAC0157	295800	7396500	175.03	64
LYAC0158	295992	7396498	174.13	44
LYAC0159	296199	7396494	172.30	56
LYAC0160	296400	7396498	172.97	65

<p><b>Table 2 (Cont.)</b></p> <p><b>Nyang Uranium Project</b></p> <p><b>Collar Coordinates for Drillholes used in the Resources</b></p>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0161	296593	7396505	173.02	60
LYAC0162	296801	7396497	173.00	52
LYAC0163	297002	7396483	173.20	54
LYAC0164	297212	7396436	173.05	40
LYAC0165	296497	7396509	173.07	64
LYAC0166	296697	7396505	173.00	57
LYAC0167	296295	7396488	172.18	49
LYAC0168	296404	7398505	170.00	57
LYAC0169	295802	7398492	169.00	55
LYAC0170	295798	7398006	169.95	65
LYAC0171	295998	7397498	171.00	60
LYAC0172	296395	7397510	171.00	62
LYAC0179	296300	7397500	170.87	72
LYAC0180	295893	7397504	171.02	78
LYAC0181	296305	7397353	170.98	63
LYAC0182	296203	7397363	170.82	78
LYAC0183	296113	7397310	171.00	67
LYAC0184	295997	7397367	171.00	75
LYAC0185	295898	7397347	171.11	75
LYAC0186	296408	7397174	171.00	63
LYAC0187	296307	7397165	171.00	78
LYAC0188	296198	7397154	171.00	75
LYAC0189	296103	7397144	171.09	75
LYAC0190	295998	7397151	171.85	69
LYAC0191	296204	7397010	171.06	66
LYAC0192	296091	7396999	171.70	81
LYAC0193	296650	7396842	172.00	61
LYAC0194	296551	7396850	172.00	56
LYAC0195	296457	7396849	172.00	72
LYAC0196	296367	7396862	171.66	73
LYAC0197	296249	7396857	171.33	78
LYAC0198	296153	7396855	171.74	65
LYAC0199	296759	7396649	172.37	67
LYAC0200	296647	7396654	172.35	60
LYAC0201	296557	7396648	172.38	60
LYAC0202	296446	7396652	172.36	60
LYAC0203	296344	7396665	172.08	63
LYAC0204	296246	7396677	172.00	62
LYAC0205	296794	7396498	173.00	54
LYAC0206	296704	7396500	173.00	58
LYAC0207	296809	7396325	173.00	56
LYAC0208	296707	7396344	173.00	58
LYAC0209	296597	7396318	173.24	57
LYAC0210	296504	7396297	174.13	63
LYAC0211	296403	7396320	173.89	69
LYAC0212	296303	7396293	173.16	60

<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0213	296880	7396140	173.97	58
LYAC0214	296799	7396155	173.85	60
LYAC0215	296706	7396158	173.83	61
LYAC0216	296601	7396154	174.02	64
LYAC0217	296515	7396146	174.89	65
LYAC0218	296416	7396134	174.95	70
LYAC0219	296300	7396164	173.80	63
LYAC0220	296212	7396166	173.81	61
LYAC0221	296896	7396005	174.60	57
LYAC0222	296803	7395994	174.65	63
LYAC0223	296701	7396004	174.60	62
LYAC0224	296600	7396000	174.80	66
LYAC0225	296500	7396004	175.60	72
LYAC0226	296398	7395996	175.46	66
LYAC0227	296297	7396009	174.58	63
LYAC0234	296896	7395789	175.00	57
LYAC0235	296805	7395816	175.00	66
LYAC0236	296704	7395805	175.00	60
LYAC0237	296605	7395791	175.13	63
LYAC0238	296507	7395808	176.00	66
LYAC0239	296413	7395802	175.99	70
LYAC0240	296291	7395801	175.62	84
LYAC0241	297382	7395207	176.00	57
LYAC0242	297197	7395208	176.16	60
LYAC0243	297014	7395219	176.54	57
LYAC0244	296801	7395210	177.25	59
LYAC0245	296595	7395208	177.73	55
LYAC0246	296401	7395194	178.61	57
LYAC0254	295302	7400265	166.98	69
LYAC0255	295261	7400277	166.64	78
LYAC0256	295353	7400216	167.00	69
LYAC0257	295319	7400205	167.00	81
LYAC0258	295282	7400200	166.90	72
LYAC0259	295238	7400208	166.69	87
LYAC0260	295339	7400130	167.00	66
LYAC0261	295306	7400137	167.00	72
LYAC0262	295255	7400124	166.98	84
LYAC0263	295222	7400104	167.00	84
LYAC0264	295354	7400035	167.00	72
LYAC0265	295322	7400039	167.00	78
LYAC0266	296093	7396139	175.13	63
LYAC0267	296214	7396009	174.58	61
LYAC0268	297015	7396113	174.06	62
LYAC0269	297301	7396109	174.00	56
LYAC0270	297506	7396118	174.79	57
LYAC0271	297108	7396101	174.12	57



<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0272	297692	7396068	175.00	58
LYAC0273	297698	7395799	175.43	56
LYAC0274	297523	7395770	174.99	57
LYAC0275	297310	7395755	174.85	57
LYAC0276	297104	7395773	175.00	54
LYAC0277	296009	7398206	169.99	63
LYAC0278	295899	7398203	169.58	66
LYAC0279	295797	7398194	169.54	60
LYAC0280	295999	7398697	169.00	60
LYAC0281	295899	7398705	169.00	60
LYAC0282	295788	7398709	169.00	60
LYAC0283	295691	7398699	168.84	60
LYAC0284	295586	7398694	168.32	60
LYAC0285	296200	7398207	170.00	63
LYAC0286	296101	7398200	170.00	60
LYAC0287	296303	7397704	170.07	60
LYAC0288	296214	7397731	170.00	60
LYAC0289	296095	7397701	170.10	55
LYAC0290	296009	7397702	170.09	60
LYAC0291	295910	7397699	170.12	60
LYAC0292	295379	7399960	167.00	72
LYAC0293	295344	7399966	167.00	78
LYAC0294	295314	7399960	167.00	87
LYAC0295	295415	7399890	167.01	69
LYAC0296	295366	7399878	167.00	75
LYAC0297	295319	7399869	167.00	75
LYAC0298	295456	7399798	167.29	72
LYAC0299	295420	7399793	167.08	74
LYAC0300	295378	7399799	167.00	81
LYAC0301	295342	7399784	167.00	81
LYAC0302	297898	7396066	175.29	54
LYAC0303	297893	7396266	175.00	54
LYAC0304	295998	7396206	175.59	95
LYAC0305	295808	7396202	176.61	89
LYAC0306	295598	7396204	177.97	68
LYAC0307	295405	7396207	184.22	72
LYAC0308	295204	7396202	193.63	53
LYAC0309	297205	7399000	170.00	58
LYAC0310	296996	7398997	170.00	55
LYAC0311	296794	7399007	169.55	64
LYAC0312	296605	7399000	169.59	58
LYAC0313	296404	7398998	169.52	54
LYAC0314	296203	7398999	169.00	57
LYAC0315	296729	7398687	170.00	51
LYAC0316	296511	7398701	170.00	55
LYAC0317	296606	7398699	170.00	52

<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0318	296405	7398694	170.00	62
LYAC0319	296320	7398699	170.00	56
LYAC0320	296218	7398696	169.14	57
LYAC0321	296115	7398693	169.99	63
LYAC0322	296595	7397699	171.00	58
LYAC0323	296604	7397250	171.31	55
LYAC0324	297700	7395562	175.95	56
LYAC0325	297900	7395765	176.00	53
LYAC0326	296194	7400910	167.00	64
LYAC0327	296020	7400901	167.00	59
LYAC0328	295797	7400898	166.07	68
LYAC0329	295606	7400884	166.00	73
LYAC0330	295396	7400887	166.00	77
LYAC0331	295208	7400904	166.00	86
LYAC0332	295000	7400900	166.09	67
LYAC0333	294807	7400899	167.00	76
LYAC0334	294596	7400915	167.02	77
LYAC0335	295096	7400888	166.01	98
LYAC0336	295293	7400910	166.00	70
LYAC0337	295498	7400897	166.00	69
LYAC0338	295687	7400897	166.00	65
LYAC0339	295892	7400913	166.00	60
LYAC0340	295914	7401094	166.00	59
LYAC0341	295709	7401100	166.00	68
LYAC0342	295507	7401092	166.00	75
LYAC0343	295306	7401094	165.10	85
LYAC0344	295211	7401086	165.13	75
LYAC0345	295099	7401094	166.00	98
LYAC0346	295407	7401100	166.00	65
LYAC0347	296405	7400897	167.07	57
LYAC0348	296803	7400908	168.00	51
LYAC0349	296820	7398700	170.00	60
LYAC0350	297032	7398502	171.00	53
LYAC0351	296822	7398504	170.07	56
LYAC0352	296494	7398201	170.46	57
LYAC0353	295096	7401301	165.12	94
LYAC0354	295210	7401282	165.00	71
LYAC0355	295301	7401306	165.00	73
LYAC0372	295400	7401309	165.01	77
LYAC0373	295493	7401304	165.87	78
LYAC0374	295602	7401291	165.16	61
LYAC0375	295099	7398497	170.19	109
LYAC0376	295304	7398500	169.10	100
LYAC0377	295488	7398501	169.02	77
LYAC0378	295197	7398499	170.01	51
LYAC0379	295000	7398511	172.00	86

<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0380	294897	7398502	172.13	89
LYAC0381	295045	7396995	181.10	78
LYAC0382	295207	7396994	177.29	71
LYAC0383	295403	7396996	176.66	66
LYAC0384	295597	7396997	173.85	84
LYAC0385	294895	7397999	175.23	99
LYAC0386	295098	7398005	172.68	100
LYAC0387	294996	7398007	174.60	77
LYAC0388	295209	7397997	171.66	62
LYAC0389	295310	7398002	172.54	118
LYAC0390	295102	7397506	175.09	69
LYAC0391	295201	7397504	175.00	87
LYAC0392	295303	7397505	174.18	56
LYAC0393	294905	7398698	171.10	81
LYAC0394	295008	7398713	170.97	66
LYAC0395	295102	7398701	170.01	95
LYAC0396	295197	7398700	169.16	84
LYAC0397	295311	7398694	169.00	92
LYAC0398	295406	7398705	169.00	89
LYAC0399	295486	7398699	169.00	75
LYAC0400	295399	7398198	170.65	107
LYAC0401	295303	7398195	171.23	119
LYAC0402	295501	7398201	169.65	98
LYAC0403	295515	7397990	170.57	90
LYAC0404	295505	7397691	172.17	95
LYAC0405	295600	7397700	171.18	80
LYAC0406	295707	7397702	170.12	70
LYAC0407	295708	7397494	171.15	60
LYAC0408	295509	7397489	173.14	63
LYAC0409	296709	7398217	170.56	56
LYAC0410	296810	7398201	170.96	35
LYAC0411	296603	7398200	170.94	57
LYAC0412	296425	7398195	170.05	58
LYAC0413	296319	7398210	170.00	58
LYAC0414	296708	7397705	171.00	55
LYAC0415	295102	7398204	171.60	108
LYAC0416	295205	7398199	170.61	106
LYAC0417	295714	7397501	171.10	94
LYAC0418	295413	7397709	172.94	113
LYAC0419	296514	7397714	171.00	63
LYAC0420	296407	7397699	170.92	62
LYAC0421	296503	7397256	171.00	60
LYAC0422	296700	7397248	171.37	55
LYAC0442	295042.20	7400145.11	166.99	78
LYAC0443	296948.84	7395906.10	174.26	54
LYAC0444	296545.21	7395897.90	174.85	54



<p><b>Table 2 (Cont.)</b></p> <p><b>Nyang Uranium Project</b></p> <p><b>Collar Coordinates for Drillholes used in the Resources</b></p>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0445	296445.41	7395899.92	175.27	64
LYAC0446	296849.70	7395905.95	174.24	57
LYAC0447	296945.02	7396087.21	173.85	59
LYAC0448	296845.90	7396077.05	173.88	57
LYAC0449	296747.74	7396075.67	174.14	54
LYAC0450	296646.08	7396074.25	174.58	56
LYAC0451	296553.79	7396089.96	175.09	56
LYAC0452	296446.62	7396088.58	175.61	54
LYAC0453	296344.65	7396091.81	175.11	56
LYAC0454	296246.98	7396091.29	174.79	62
LYAC0455	296844.48	7396220.81	173.41	54
LYAC0456	296752.99	7396234.16	173.46	56
LYAC0457	296652.95	7396231.77	173.93	54
LYAC0458	296540.00	7396237.00	174.00	55
LYAC0459	296431.05	7396232.97	175.14	54
LYAC0460	296352.00	7396227.00	174.00	54
LYAC0461	296262.44	7396235.60	174.05	59
LYAC0462	296356.69	7396387.36	173.24	59
LYAC0463	296456.52	7396389.11	172.92	56
LYAC0464	296557.36	7396387.21	172.90	53
LYAC0465	296651.25	7396389.11	172.93	53
LYAC0466	296303.88	7396585.87	172.29	52
LYAC0467	296405.41	7396585.61	172.13	54
LYAC0468	296492.32	7396588.52	172.02	54
LYAC0469	296495.28	7396769.42	171.63	54
LYAC0470	296394.41	7396766.88	171.62	58
LYAC0471	296297.62	7396767.19	171.70	51
LYAC0472	296370.85	7396925.89	171.35	59
LYAC0473	296272.92	7396930.55	171.33	55
LYAC0474	296091.83	7397404.85	170.51	59
LYAC0475	296248.63	7397598.19	170.28	59
LYAC0476	295925.65	7397598.32	170.29	59
LYAC0477	296025.66	7397597.84	170.26	60
LYAC0478	296147.16	7397603.08	170.24	61
LYAC0479	296171.29	7397807.64	170.01	55
LYAC0480	296270.34	7397797.80	170.16	59
LYAC0481	295876.15	7397811.02	169.95	54
LYAC0482	296048.67	7398103.20	169.56	57
LYAC0483	295946.43	7398105.97	169.36	58
LYAC0484	295752.28	7397803.70	170.42	59
LYAC0485	295921.02	7397902.16	169.56	55
LYAC0486	295809.74	7397902.03	169.84	57
LYAC0487	295138.29	7399709.83	167.81	81
LYAC0488	295043.08	7399698.00	168.20	87
LYAC0489	294944.69	7399695.91	168.52	77
LYAC0490	295137.68	7399921.09	167.19	103

<b>Table 2 (Cont.)</b> <b>Nyang Uranium Project</b> <b>Collar Coordinates for Drillholes used in the Resources</b>				
<b>HOLE ID</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>RL</b>	<b>TOTAL DEPTH (m)</b>
LYAC0491	295043.86	7399937.61	167.41	84
LYAC0492	294953.94	7399931.84	167.49	68
LYAC0493	294844.71	7399932.42	167.81	64
LYAC0494	296600.52	7395997.51	174.60	65
LYAC0495	296340.99	7395897.74	175.48	54
LYAC0496	296257.41	7396397.98	173.21	60
LYMB001	293351	7400750	160.39	70.6
LYMB002	296009.90	7398203.32	169.99	59.5
LYMB003	296392.20	7396001.28	175.34	60
LYMB004	296366.75	7396860.74	171.67	58
LYMB005	295260.56	7400039.07	167.00	79

For details on mineralised intercepts for LYAC0120-LYAC496, and LYMB002-LYMB006 please refer to Energia Minerals ASX announcements dated: 21<sup>st</sup> December 2010, 10<sup>th</sup> January 2011, 14<sup>th</sup> July 2011, 5<sup>th</sup> October 2011, 11<sup>th</sup> December 2013, 17<sup>th</sup> January 2013. [www.energiaminerals.com/investor-centre/asx-announcements.html](http://www.energiaminerals.com/investor-centre/asx-announcements.html)

For details on mineralised intercepts for LYAC0001-LYAC0055 please refer to Metex Resources ASX announcements dated: 13<sup>th</sup> December 2007. [www.carbonenergy.com.au/irm/archive/asx-media-announcements.aspx](http://www.carbonenergy.com.au/irm/archive/asx-media-announcements.aspx)

For details on mineralised intercepts for LYAC0056-LYAC0119 please refer to Carbon Energy ASX announcements dated: 24<sup>th</sup> December 2008. [www.carbonenergy.com.au/irm/archive/asx-media-announcements.aspx](http://www.carbonenergy.com.au/irm/archive/asx-media-announcements.aspx)

A supplementary resource statement from Coffey Mining regarding the Mineral Resource is also available on the Energia website.

# JORC Table 1

## SECTION 1 SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections).

Criteria	JORC Code Explanation	Commentary	Competent Person
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The Carley Bore Deposit has been sampled using air core holes (AC) on a nominal 100m x 250m grid spacing, and twin holes including 6 Sonic Core (SC), and 4 Diamond Core (DC). The Mineral Resource estimate is based on a total of 425 drill holes that have been drilled for 29,664.6m within the resource outlines. Holes were drilled through the alluvial profile, then the Muderong shale, then through the Birdrong Sandstone which hosts the mineralisation, and where possible into the underlying Devonian sediments. Wet chemical assays only have been used to calculate the resource. All holes were vertical.</li> <li>AC samples were collected via a cone splitter in 1m intervals with all sample collected and contained in poly-weave or plastic bags. SC and DC samples were contained in appropriately sized core trays for transport and storage. All sampling was carried out under Energia's sampling protocols and QA/QC procedures as per industry best practice.</li> <li>AC sampling was completed on either a 1m interval (mineralised) or 4m composite (unmineralised) basis, with all samples being taken with a weight of at least 1.5 -2kg where possible. The 2013 drilling programme collected samples for assay as a direct subsample off the cone splitter. For composites, the 1m samples were put through a 50:50 riffle splitter. Previous programmes collected samples for assay using spear sampling. DC and SC sampling was done on a geological interval (mineralised) or 0.5m basis (unmineralised). All samples collected were then dried, crushed to minus 2mm, and the complete pulverized to minus 75µm before undergoing ICP-MS analysis using a 0.15g-0.25g aliquot subsample (detection limit of 0.05ppm U). Typically the following elements were reported: Ca, Fe, K, Mo, P, Pb, S, Se, Th, Ti, U, V.</li> </ul>	
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>127 NQ AC holes for 9076m have been drilled at Carley Bore: <ul style="list-style-type: none"> <li>NQ blade bit</li> <li>Using either a RA150 drill rig with 300psi x 500cfm compressor, a Bostech Drillboss 250-300psi x 600cfm compressor, or a KLV350RC rig 350psi x 1100cfm compressor.</li> </ul> </li> <li>55 Custom sized AC holes for 330m were drilled at Carley Bore using: <ul style="list-style-type: none"> <li>5 ½ inch blade bit</li> </ul> </li> </ul>	



Criteria	JORC Code Explanation	Commentary	Competent Person
		<ul style="list-style-type: none"> <li>○ 4 ½ inch rod string</li> <li>○ KLW350RC rig supporting a 350psi 1100cfm compressor</li> <li>○ Holes were cased with 50mm PVC pipe</li> <li>▪ 4 DC holes for 281.2m have been drilled as twin holes (not used in resource calculation): <ul style="list-style-type: none"> <li>○ PQ diamond core</li> <li>○ Non oriented core</li> <li>○ Mud roller and coring bit used</li> <li>○ Using a Hydco International 1000</li> </ul> </li> <li>▪ 6 SC holes for 394m have been drilled as twin holes and monitoring bores: <ul style="list-style-type: none"> <li>○ 6 inch sonic core with 7 inch casing override</li> </ul> </li> <li>▪ Using a 660c Sonic drill rig</li> </ul>	
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>▪ <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>▪ <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>▪ <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ For AC holes bulk sample bags are dried and then weighed before sampling. Bit size is then used to calculate volumes, then a standard 100% recovery weight using a determined SG of 1.73. For SC and DC holes core recoveries are calculated from drillers' run blocks. Recovery is then expressed as a percentage and recorded in the database. AC holes LYAC0001-0120 and LYAC0279-LYAC0301 had no bulk sample information collected. AC holes LYAC0121-LYAC0278 had all bulk samples weighed, recorded and the recoveries calculated. AC holes LYAC0302-LYAC0442 had bulk samples from mineralised zones only weighed, recorded and recoveries calculated. AC recoveries are assessed as generally fair to good (in excess of 60% on average), DC recoveries are assessed as poor to fair (as a significant percentage of core loss was from within mineralised intervals), SC recoveries are assessed as excellent with close to 100% recovery attained. Twin hole studies using Diamond Core (DC) and Sonic Core (SC) drill holes support or confirm thickness and tenor of U3O8 mineralisation results obtained from aircore techniques which have incomplete recovery.</li> <li>▪ All AC drilling is subject to industry best practice and Energia QA/QC protocols whereby the hole is cleaned at the end of every metre interval by raising the bit slightly and blowing out the hole before drilling the next metre, and ensuring water ingress into the hole whilst drilling is minimised.</li> <li>▪ No relationship between sample recovery and grade has been observed; studies to date show no correlation exists.</li> </ul>	
<b>Logging</b>	<ul style="list-style-type: none"> <li>▪ <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ All aircore holes have been geologically logged (AC on 1m intervals, and SC and DC on geological intervals) with recording of lithology, grain size and</li> </ul>	

Criteria	JORC Code Explanation	Commentary	Competent Person
	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>▪ <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>▪ <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>distribution, sorting, roundness, alteration, oxidation state, and colour, and stored in the database. All holes were logged to a level of detail sufficient to support mineral resource estimation, scoping studies, and metallurgical investigations. No geotechnical or structural data has been logged or recorded as the host lithology consists of unconsolidated sands.</p> <ul style="list-style-type: none"> <li>▪ Oxidation, colour, alteration, roundness, sorting, sphericity, alteration and mineralisation are logged qualitatively. All other values are logged quantitatively. All holes (core and chips) have been photographed and stored in a database. All photographs are of wet samples only.</li> <li>▪ All AC holes have been logged over their entire length (100%) including any mineralised intersections. All of the DC core was logged, where recoveries permitted, with core loss totalling 14.5%, half of which was within mineralised intersections (20.65 metres of core was not recovered from mineralised intervals in total). The five SC holes (LYMB002-LYMB005) were only logged over the mineralised interval as they twinned a previously logged aircore hole.</li> </ul>	
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>▪ <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>▪ <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>▪ <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>▪ <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>▪ <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>▪ <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ All sampling was carried out using Energia sampling protocols and QA/QC procedures as per industry best practice.</li> </ul> <p><b>AIR CORE NQ BIT</b></p> <p>Physical Sampling for NQ bit AC was divided into two methodologies:</p> <ul style="list-style-type: none"> <li>▪ Unmineralised: Samples within the host Birdrong Formation reporting less than 250cps using a handheld scintillometer were composited in 4m intervals using a 50mm PVC spear corner to corner across the bulk sample bag and then placed into numbered calico bags.</li> <li>▪ Mineralised: <ul style="list-style-type: none"> <li>▫ LYAC0001-LYAC0119; Samples reporting more than 250cps using a handheld scintillometer were grabbed sampled from a sample pile placed on the ground and then placed into numbered calico bags.</li> <li>▫ LYAC0120-LYAC0441; Samples reporting more than 250cps using a handheld scintillometer were placed on a clean rubberised mat, disaggregated, mixed and then sampled using the wedge method and then placed into numbered calico bags. Bulk sample weights were recorded for all mineralised samples.</li> </ul> </li> </ul> <p><b>AIR CORE 5 ½ INCH BIT</b></p> <p>Physical Sampling for 5½ inch bit AC (LYAC0442-LYAC0496) was divided into two methodologies:</p> <ul style="list-style-type: none"> <li>▪ Unmineralised: Samples within the host Birdrong Formation surrounding</li> </ul>	

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		<p>mineralised zones reporting less than 250cps using a handheld scintillometer were composited in 4m intervals using a 50mm PVC spear corner to corner across the bulk sample bag and then placed into numbered calico bags.</p> <ul style="list-style-type: none"> <li>Mineralised: Samples reporting more than 250cps using a handheld scintillometer were collected by taking the 1m split sample from the cone splitter on the rig where the weights were appropriate; if the split sample was too light then it was recombined with the bulk sample and resplit with a riffle splitter; if the split sample was too heavy then it was further split in the riffle splitter.</li> </ul> <p>All AC samples were weighed, had moisture content noted (wet /moist/dry), labeled, and then inserted into poly-weave bags in consecutive groups of five.</p> <p><b>DIAMOND AND SONIC CORE</b></p> <p>Sampled by cutting the soft sediments with either a knife or a trowel, or a hammer and chisel. In rare cases cut with a small core saw. All core samples were collected from the same side of the core. DC Half core samples were taken and placed in numbered calico bags. SC Quarter core samples were taken in quarter cut core using a trowel and placed in numbered calico bags.</p> <ul style="list-style-type: none"> <li>Significant use of duplicate samples has been made at Carley Bore such that more than 1 in 20 samples have a field duplicate pair. Examination of results shows that for the majority of duplicates the difference from the mean is +/-30% and that as the grade increases there is generally a reduction in the mean difference. Examination of assays returned from metallurgical test work and standard lab assays also show good correlation.</li> <li>Sample sizes for all drilling types are thought to be well in excess of what is required. The largest noted uranium particle to date is 0.326mm from QEM scan and the average is 0.017mm. Using the maximum particle size an appropriate minimum sample size of 100g is required to allow adequate representation of assay. The average sample size collected is 1.59kg or more than 15 times the theoretical minimum sample size.</li> </ul>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors</i></li> </ul>	<ul style="list-style-type: none"> <li>A prepared sample (0.15-0.25g) is digested with perchloric, nitric and hydrofluoric acids, the temperature and time of digestion is controlled until the aliquot is near dry. The residue is leached and diluted to a set volume with dilute hydrochloric acid. The digest is deemed a near total digest. It is then analysed by inductively coupled plasma-atomic emission spectrometry (ICP-OES) and inductively coupled plasma-mass</li> </ul>	

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	<p><i>applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li>▪ <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<p>spectrometry (ICP-MS). Results are corrected for spectral inter-element interferences. All laboratories used are appropriately accredited as per industry best practice standards.</p> <p>NOTE:</p> <ol style="list-style-type: none"> <li>1) Four acid digestions are able to dissolve most minerals; however, although the term “near-total” is used, depending on the sample matrix, all elements may not be quantitatively extracted.</li> <li>2) Because hydrofluoric acid dissolves silicate minerals, these digestions are preferred methods for dissolution of coffinite (a silicate mineral) which is the dominant uranium mineral species observed at Carley Bore to date.</li> </ol> <ul style="list-style-type: none"> <li>▪ Handheld spectrometers and portable XRF units are used to identify anomalous samples to be assayed only; these are factory calibrated on a regular basis (minimum frequency yearly). Energia’s quality control procedures require the regular insertion of blanks, field duplicates, and certified standards in all batches. QA/QC samples account for 1 in 20 samples in non-mineralised intervals and better than 1 in 10 samples throughout mineralised intersections. Once assays are returned each batch is then subject to a standard QA/QC examination and report, with check assays made if any unusual results noted. All data must pass the QA/QC checks before it can be utilized in the Energia database. Throughout the range of concentrations of assays observed at Carley Bore the level of precision and accuracy observed is acceptable. Laboratory repeats have demonstrated that the technique used produces repeatable results and confirm the accurate and precise nature of results. In addition to this Energia has had 29 samples analysed using an independent umpire laboratory applying XRF techniques, and 270 samples analysed using ICP-MS techniques. These umpire assays returned results that supported the appropriateness of both the ICP-MS techniques and the results reported from these.</li> </ul>	
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>▪ <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>▪ <i>The use of twinned holes.</i></li> <li>▪ <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>▪ <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Significant intersections have been checked by both Energia Minerals personnel, and independently by Coffey Mining personnel in April 2010 and October 2013.</li> <li>▪ Currently Energia has twinned 9 AC holes with either SC or DC drilling techniques, and one hole with AC techniques. Results obtained from all twin holes either confirm or support the previous results obtained with AC, though do show there is significant short range variability within the deposit.</li> </ul>	

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		<ul style="list-style-type: none"> <li>All geological, sampling, and spatial data that is generated and captured in the field is immediately entered into a field notebook computer on standard Excel templates. These templates are then validated each night in Micromine. This information is then sent to Energia's in house database manager for further validation. If corrections need to be made they are corrected the following day by the person responsible for generating the data. Once complete and validated the data is then compiled into a SQL database server.</li> <li>Assay data has been adjusted from U ppm as reported by the lab to <math>U_3O_8</math> ppm in line with industry reporting standards. This is achieved by multiplying U ppm by a factor of 1.1792.</li> </ul>	
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Collar locations for AC holes LYAC0001-LYAC0119, and LYAC0442-LYAC0496 were surveyed using a differential GPS unit, accuracy in easting and northing is <math>\pm 0.1</math>m, and accuracy in elevation is expected to be <math>\pm 0.5</math>m. Collar locations for AC holes LYAC0119-LYAC0441 holes were surveyed using a hand held GPS unit with elevation values derived from a Digital Terrain Elevation Model (DTEM) generated from gravity traverses across the deposit. Accuracy in easting and northing for these holes (LYAC0120-0441) is expected to be <math>\pm 4</math>m, and accuracy in elevation is expected to be <math>\pm 2</math>m. Collar locations for LYAC0442-LYAC0496 were surveyed using a differential GPS unit, accuracy expected for easting and northing is <math>\pm 0.01</math>m, and accuracy in elevation is expected to be <math>\pm 0.05</math>m.</li> <li>No down-hole orientation surveys have been completed as the holes are all vertical and generally shallow (<math>&lt;120</math>m).</li> <li>The grid system used at Carley Bore is MGA_GDA94, Zone 51. Easting and Northing are stated in metres.</li> <li>Topographic control is from a DTEM derived from gravity surveys over the project. No material differences were identified when the topographic surface was compared visually to the surveyed RL of the LYAC0001-LYAC0119 and LYAC0442-0496 drill collars, and given the relatively subdued relief in the region the control is adequate.</li> </ul>	
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The resource estimate uses the following nominal drill hole spacing's: <ol style="list-style-type: none"> <li>Indicated resource: 100m along strike x 100m across strike</li> <li>Inferred resource 200-300m along strike x 100m across strike.</li> </ol> </li> <li>The data spacing and distribution is sufficient to establish an appropriate degree of geological and grade continuity appropriate for classification of</li> </ul>	



Criteria	JORC Code Explanation	Commentary	Competent Person
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<p>both the Inferred and Indicated Resources.</p> <ul style="list-style-type: none"> <li>4m composite samples were physically composited for assay purposes. Mathematical compositing has not been applied to any data except for that compiled for reporting in ASX releases to describe intersections.</li> </ul>	
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes are orientated vertically. The mineral resource at Carley Bore is relatively flat across most its areal extent with the exception of mineralisation occurring on the flanks of the main paleo-channels where the interpreted general dip is 12 degrees. The effect of this dip is negligible on the true thickness (increasing a 1m true thickness intercept to a 1.02m intercept). The maximum interpreted dip is 22 degrees on one section for a small part of the mineralised extent (300m wide, with a strike extent of 900m), the effect of this dip on the true thickness is deemed to be not significantly affecting true width (theoretically changing a 1m true width intercept into a 1.08m intercept).</li> <li>Key mineralised structures are generally flat-lying permeable strata that allow ingress of oxidized fluids. These structures are generally continuous and parallel or sub parallel to the strata. Current results indicate that no sampling bias exists in relation to drilling direction.</li> </ul>	
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are placed in a numbered poly-weave or plastic bag which are individually sealed, and then in placed in a sealed bulka bag for transport. Samples for LYAC0001-LYAC0441 and LYMB001-LYMB005 were then taken by Energia personnel to Carnarvon and then shipped, generally within 12-24 hours from drop off. Sample for LYAC0442-LYAC0496 were placed in a sealed bulka bag for transport. These bulka bags remained on site for the program duration in a secure sample yard. Once the program was complete they were transported directly to the laboratory by Energia personnel.</li> </ul>	
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>In June 2010 Coffey Mining conducted a review of sampling techniques and data acquisition with changes being made to Energia's sampling protocol after this. In October 2013 a further review was completed by Coffey Mining with further changes and improvements recommended and implemented by Energia.</li> </ul>	

## SECTION 2 REPORTING OF EXPLORATION RESULTS

(Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code Explanation	Commentary	Competent Person
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Carley Bore deposit lies within, and is a part of the Nyang Project. The Nyang Project is made up of three (3) tenements: E08/1644, E08/1645 and E08/1646. These leases are 100% owned and operated by Energia minerals. The leases are subject to two Native title claims (WC 97/028 Gnulli and WC 04/05 Budina), and one determination (WC 97/95 Thudgari). The titles are current at the time of the Resource estimation. The tenements overlap parts of five pastoral leases.</li> <li>All tenements are in good standing and no impediments to operating are currently known to exist.</li> </ul>	
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Minatome Australia Pty Ltd (later in joint venture agreement with Urangesellschaft Australia Ltd and Aquitane Australia Minerals Pty Ltd) began exploration in the Nyang area in September 1978. Total Mining Australia Pty Ltd continued this exploration until 1984. The main objective of the exploration program was to define the extent of the Birdrong Sandstone and to locate Redox boundaries within it, with which roll-front mineralisation might be associated.</li> </ul> <p>Significant works included:</p> <ul style="list-style-type: none"> <li>Regional aeromagnetics.</li> <li>Gravity surveys.</li> <li>Transient EM (TEM) survey.</li> <li>Rotary mud drilling 57 holes (LYNR001 – 057).</li> <li>Down-hole gamma and electrical logging.</li> <li>Diamond drilling, LYND037 (7399490N 295470E) intersected 0.9m at 2,358ppm U<sub>3</sub>O<sub>8</sub> in the Birdrong Sandstone at 60m depth close to a Redox boundary.</li> <li>Metex Resource Ltd (Later Carbon Energy Ltd) acquired the tenements in 2006 after recommendation by Metex personnel who had been involved in the Minatome/Total exploration programs. The tenement package was initially larger and extended further to the west. E08/1428 was explored under option, and E08/1648 direct. The option was then terminated and E08/1648 was surrendered on 17 December 2007. Voluntary partial relinquishments were made on the remaining tenements at the same time.</li> </ul> <p>Significant works included:</p> <ul style="list-style-type: none"> <li>Completed approximately 1,030 line km of airborne EM (AEM) on</li> </ul>	

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		<p>200m and 400m line spacing, and processed and interpreted all acquired data.</p> <ul style="list-style-type: none"> <li>▫ Acquired regional geophysical datasets</li> <li>▫ During two programs in 2007 and 2008 completed a total of 119 aircore holes for 9,111m. These programs defined the pre Maiden Resource estimate mineralisation.</li> <li>▫ Completed a detailed ground gravity geophysical program on 200m x 50m centres covering an area of 16km<sup>2</sup>.</li> </ul> <ul style="list-style-type: none"> <li>▪ The results of these programs produced encouraging results over a strike length of 3km at the Carley Bore prospect. Mineralisation was noted to be open along strike to the south and associated with redox boundaries.</li> <li>▪ Energia assumed ownership and operation of the project in March 2010.</li> </ul>	
<b>Geology</b>	<ul style="list-style-type: none"> <li>▪ <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ The Nyang Project (which includes the Carley Bore Deposit) is located in the Carnarvon Basin, an elongated sedimentary basin some 6,500km long and up to 250km wide. The basin extends north-south along the coast of Western Australia between Geraldton in the south and the Exmouth Gulf in the north, and east-west from the basement rocks forming its eastern margin to offshore areas that host significant gas fields. Similar to other deposits in the Carnarvon Basin, the main host unit for uranium mineralisation at Carley Bore is the Birdrong Sandstone, a unit of the Cretaceous Winning group. The Cretaceous sediments are locally thickened in paleo-channels which at Carley Bore incise into Devonian limestones, sandstones and mudstones elsewhere in the region they incise directly into the Proterozoic basement. The Carnarvon Basin is adjacent to granites, gneisses and schists of Proterozoic age lying to the east. These granites are enriched in leachable uranium. Over time, uranium has been leached from these granites and dissolved in groundwater that eventually flows into the Cretaceous and Tertiary strata flanking the eastern margin of the basin. Chemical conditions affecting this groundwater can change as the groundwater moves from oxidized to reducing environments, resulting in the deposition of uranium mineralisation. Uranium mineralisation is associated with Reduction-Oxidation (redox) boundaries within the permeable sand units caused by progressive oxidation of the sediment due to the passage of oxidized groundwater containing dissolved uranium. These zones are marked visually by the disappearance of pyrite in dark grey sediments, which is replaced by hematite and goethite in brown to white oxidized zones. Some of these deposits are called roll-front deposits while others are tabular in form. There is a strong association</li> </ul>	

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		between these redox sandstone deposits and thickened sand units called paleo-channels. Therefore, exploration for these systems involves defining paleo-channels containing porous and permeable sands and then locating within them the critical redox boundaries.	
<b>Drillhole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The purpose of the drilling at Carley Bore was to provide support for the resource classification upgrade from Inferred Resource to Indicated Resource. All drill holes used in calculating the resource are reported in Table 2.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>A low cutoff grade of 100ppm has been selected to differentiate mineralised material from un-mineralised material. This then formed the basis for the creation of mineralised envelopes and wireframes. No high grade cut was used in the reporting of mineralisation results.</li> <li>Aggregate intercepts have not been used to generate the resource estimate, aggregation of results was undertaken for reporting to the ASX, and they were calculated as un-weighted averages (all samples being of equal length) allowing only 1m of internal dilution to be included.</li> <li>No metal equivalents are used.</li> </ul>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes are oriented vertically. The mineral resource at Carley Bore is relatively flat across most of its extent with the exception of mineralisation occurring on the flanks of the main paleo-channels where the interpreted general dip is 12 degrees. The effect of this dip is negligible on the true thickness (increasing a 1m true thickness intercept to a 1.02m intercept). The maximum interpreted dip is 22 degrees on one section for a small part of the mineralised extent (300m across a strike extent of 900m), the effect of this dip on the true thickness is deemed to be not significantly affecting true width (changing a 1m true width intercept into a 1.08m intercept at a 22° dip).</li> </ul>	

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<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Please refer to Figures 1 to Figure 3 for this information. Sections have not been included as the detail is not warranted for vertical holes with composite intersections.</li> </ul>	
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive reporting is provided in Table 2 for all drill holes used in estimating the resource. Holes excluded from the resource database include historic rotary mud holes as confidence in the data is lacking, the 4 diamond holes drilled by Energia as the core recovery was poor, one SC drillhole which was not assayed, and two recent AC holes (LYAC0458A and LYAC0460A) which did not reach target depth and were not assayed. Both of these recent holes were replaced by drillholes a short distance away from the original hole.</li> </ul>	
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Hydrogeology: In September 2010 Rockwater Pty. Ltd. completed a preliminary desktop investigation/review of the hydrogeology operating at Nyang implemented in August 2011 with the drilling of the sonic core program. Initial plans were to drill up to the first recommended stage of hydrogeological investigations during the 2011 field season by drilling up to seven test bores and one production bore. Five monitoring bores (LYMB001 to 005) and a test production bore (LYPB001) were eventually drilled. Bores were then developed and an aquifer testing programme undertaken. The aquifer is generally well confined by the Muderong Shale. The upper Birdrong is generally siltier, contains finer sand, and is less oxidised. It is separated from the middle Birdrong, locally, by a layer of dark siltstone to clay. The middle Birdrong is medium to coarse grained and unconsolidated. The middle Birdrong appears to be locally incompletely saturated around the test production bore but is fully saturated at the other sites. The Birdrong Lower Sandstone appears to be a reasonably good aquifer in the Carley Bore area, despite the proportion of fine sediments in the sandstone. The groundwater levels in the project area are at about 134.4 m to 135.0 m AHD and slope downwards to the north at low gradient. However, accurate elevations for the monitoring bores are not presently available. Analysis of the pump test data allowed calculation of the hydraulic conductivity of the aquifer of 4m/day. Water analysis results of samples collected following bore development and after test pumping at LYPB006 show that the water is brackish to slightly saline; with TDS ranging from 2,050mg/L to 5,280mg/L. The water is slightly alkaline; with pH values from 8.18 to 8.56. The water is of sodium-chloride type and has uranium concentrations of up to 3.08mg/L. In November</li> </ul>	



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		<p>2013 Energia acquire air lift yields and slug test data from 7 holes. In addition to this sieve sizing of samples from holes was gathered to correlate to geological logging and down-hole logging data. Following this Rock water studied slug test, airlift yields, sieve sizing, and geophysical logs to determine the applicability of ISR techniques for use in zones drilled for upgrading to indicated status. No impediments were recognized, and the Birdrong sandstone was deemed amenable in these zones. Further work such as a field trial will be required to confirm this.</p> <ul style="list-style-type: none"> <li>▪ Metallurgy: First pass metallurgical sighter testwork completed in December 2010 used 6 selected composite samples taken from diamond twin holes for bottle roll testing. The bottle roll testing was conducted by an accredited laboratory (AMDEL) under the supervision of qualified METS personnel. This work concluded that Carley Bore showed positive indications that the uranium mineralisation can be leached quite rapidly, using standard reagents, with good recoveries and low consumption of reagents. Furthermore the QEMSCAN study identified that the grain size and gangue host minerals do not result in significant locking of uranium mineralisation, except possibly in several low-grade samples. These results, while positive, represent only a small number of samples and hence additional bulk samples are required to further define the metallurgical characteristics of the mineralisation. Results obtained included: <ul style="list-style-type: none"> <li>▫ the Carley Bore deposit is amenable to acid leaching;</li> <li>▫ very low acid consumption in the range of 5-10kg, and</li> <li>▫ the uranium extraction obtained from the Carley Bore deposit compares favourably to other operational or potentially-economic ISR projects in Australia.</li> </ul> </li> <li>▪ In March 2012 further studies on the metallurgy and mineralogy commenced using composite samples obtained from the sonic core drilling program. The work was undertaken at ALS Amtec laboratories in Perth under supervision by the experienced consultancy group Tetra Tech Australia Pty Ltd. It involved: <ul style="list-style-type: none"> <li>▪ Preparation of five bulk composites from sonic core samples covering a range of uranium concentration and ore types.</li> <li>▪ Leach variability tests on one geologically “average” sample were used to determine the optimal acidity (pH: 1.0) and oxidation (eH: 500 millivolts) conditions.</li> <li>▪ Bottle roll leach tests on each composite under the chosen optimum</li> </ul> </li> </ul>	

Criteria	JORC Code Explanation	Commentary	Competent Person
		<p>conditions.</p> <ul style="list-style-type: none"> <li>Further bottle roll tests on individual high-grade samples comprising one “high grade” composite that initially showed poor extraction.</li> <li>Mineralogical assessment using the QEMSCAN technique on seven samples to indicate the uranium mineralogy, grain size and distribution as well as gangue (host rock) mineralogy.</li> <li>Successful outcomes from these tests included: <ul style="list-style-type: none"> <li>9 of 10 samples leached at greater than 80% uranium recovery in bottle roll tests and all samples averaged 90% uranium recovery over 48 hours with most extraction achieved in the first 12-24 hours;</li> <li>Acid consumption was generally very low with an average of 8kg/t.</li> </ul> </li> <li>QEMSCAN mineralogy confirmed the limited tests completed on diamond core in 2010 in showing that the dominant uranium minerals are readily-leachable species including coffinite (though with more mineral variability than seen previously).</li> <li>Identification of a refractory mineral species, and resolution of parameters that allow for leaching of this species.</li> <li>When viewed together with the positive results from the test-pumping, this latest metallurgy and mineralogy test work provides a good technical basis for the recovery of uranium from the Carley Bore deposit using the ISR processing method. However, any further substantiation of this would likely require a column leach tests and a field leach trial at a later stage of project development</li> </ul>	
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Resource drilling to date has covered a small proportion of the potentially mineralised strike extent in the Nyang project region. It is proposed to further test this prospective strike extent with step out drilling to the north and south of the defined mineralisation. In addition to this further infill drilling is planned to specifically target the higher grade leading edges of “roll fronts” which may not have sufficient drilling density to fully define.</li> <li>Later in 2014 further AC drilling is planned at Carley Bore to test for extensions, and rotary mud exploration drilling will be completed to test regional exploration targets. In addition further hydrogeological drilling and testwork may be carried out to help establish a field trial site. These plans are forecasts and may be changed or scaled on review.</li> </ul>	DA

### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in section 1, and where relevant in section 2, also apply to this section).

Criteria	JORC Code Explanation	Commentary	Competent Person
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>All data provided by Energia to Coffey Mining (Resource Estimation Consultant) had already passed QA/QC procedures and protocols in the field, and again before upload into the company's database. Coffey Mining further validated the data prior to any estimation work. Transcription errors are minimized via Excel spreadsheets with data validation rules preset to allow only values that matched Energia logging codes, and 1 in 10 checks are made on manually entered numerical data.</li> <li>All assay data has been validated with 10% of all data subject to cross checks between supplied digital and hardcopy file format. Once the data has been validated, it is imported into the company's database.</li> </ul>	EM
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Numerous site visits by Competent Persons from Energia have occurred during exploration activity, these visits ensured compliance with Energia exploration drilling protocols. Energia's Competent Persons spent significant time on site, participating in and managing all exploration programs whilst they were being executed. Mr. Neil Inwood from Coffey Mining (Competent Persons for pre 2012 resource estimates) visited site in June 2010, and Mr. Chris Salt from Coffey Mining visited site in September 2013. All site visits involved the vetting of procedures in place and recommendations for further works.</li> </ul>	CS
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation of Carley Bore is considered good. The local and regional systems are relatively uncomplicated and reasonable well understood. The behaviour of the redox front conforms to geological observations from lithology, hydraulic gradients, and source of fluids. Mineralisation position also conforms to the interpreted and observed redox front.</li> <li>Data used is primarily drilling data with complimentary down hole geophysical logging. No assumptions have been made other than interpretation and interpolation between adjacent holes and lines.</li> <li>Alternate interpretations may have an effect on the Mineral Resource estimations by either: <ul style="list-style-type: none"> <li>Increasing the number and complexity of the redox/roll-front system. If this is proved to be the case it is felt that this would probably have the effect of increasing rather than decreasing the resource, and increase the complexity of geological model.</li> <li>Increasing the interpreted effect of faulting on displacement of ore zones. This may affect continuity of mineralised zones, however</li> </ul> </li> </ul>	DA/EM

Criteria	JORC Code Explanation	Commentary	Competent Person						
		<p>effects should be limited to local changes in individual extraction/injection bore hole and borehole pattern design to suit offsets.</p> <ul style="list-style-type: none"><li>Geology has been used to constrain the Mineral Resource to zones that should be amenable to in-situ leach techniques. Lithology's have been broadly defined as amenable (sands, conglomerates, silty sands), possibly amenable (sandy silts, conglomeratic silts), and non-amenable (silts and clays). These domains were then overlain on the block model and non-amenable units were excluded from the resource, and possibly amenable units were limited to an inferred category. Only amenable units were allowed to contribute to an Indicated Resource.</li><li>Continuity of grade and geology is interpreted to be good. Faulting is noted at Carley Bore in the basement topography of the underlying Devonian sediments. However the last major fault reactivation in the region is noted as Triassic in age, well before the Cretaceous sediments were emplaced. Given the mostly unconsolidated nature of the host (Birdrong Sandstone) it is expected that it should behave in a predominantly ductile manner (slumping, folding, roll over anticlines, etc.) rather than a brittle manner which should reduce both the severity, and displacement of fault offsets.</li></ul>							
Dimensions	<ul style="list-style-type: none"><li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li></ul>	<ul style="list-style-type: none"><li>The Mineral Resource averages 4m in thickness and ranges from 100m to 1,000m wide, and 700 to 4,100m in length. The average depth to mineralisation below topography is 57m, ranging from 35m to 110m.</li></ul>	EM						
Estimation and modelling techniques	<ul style="list-style-type: none"><li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li><li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li><li>The assumptions made regarding recovery of by-products.</li><li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li><li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li></ul>	<ul style="list-style-type: none"><li>Estimation of the resource is based on statistical analysis with adequate correlation between model grades and input data. Block models were constrained by a wireframe generated from strings defined by a 100ppm U<sub>3</sub>O<sub>8</sub> mineralisation cut-off grade and a minimum 1 metre thickness. Where appropriate, minor internal dilution was allowed to maximize continuity. Infill drilling has allowed for a re-interpretation of the mineralised zones from five main tabular bodies to now comprising eleven bodies of various strike length and grade distribution. Seven of these make up the main mineralised bodies. Four areas have been re-interpreted as flat lying zones generally 10-20m above the main mineralised zones. Top cuts were applied to the 1m composite data after examination of the distribution statistics to reducing smearing of the few high grade outliers.</li></ul>	EM						
<table><tr><th>Zone</th><th>Top Cut</th><th>Number of</th></tr><tr><td></td><td></td><td></td></tr></table>				Zone	Top Cut	Number of			
Zone	Top Cut	Number of							

Criteria	JORC Code Explanation	Commentary			Competent Person
	<ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> </ul>		(U <sub>3</sub> O <sub>8</sub> ppm)	Samples Cut	
		11	1,500	6	
		14	1000		
	<ul style="list-style-type: none"> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	2	450	1	
	<ul style="list-style-type: none"> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	3	1,000	3	
		60	2,000	5	
	<ul style="list-style-type: none"> <li>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</li> </ul>	62	1500	6	
		7	1,000	1	

Variography was conducted on the top cut 1m composites for what was zone 1 (now subdivided into zones 11 to 15), what was zone 6 (now subdivided into zones 60 to 62), and for all mineralised zones. The variography from zone 6 was applied to all mineralised zones as it was derived from a 100m x 100m offset grid, giving much denser and more consistent sample coverage than in any other zone. The model comprises a nugget of 0.2 (20%) and is isotropic in the horizontal plane with a range of 280m.

The block model was constructed in Vulcan mining software using parent block sizes of 50m (X) by 50m (Y) by 5m (Z) with subblocks to 10m (X) by 10m (Y) by 1m (Z). Blocks were coded for topography, rock type, and density as well as the mineralised zones. This is the first time rock type has been included into the block model for Carley Bore. In the past year Energia's geological staff have re-logged old drill holes and produced a consistently sound geological interpretation of the deposit. DXF files of 3D wireframes were provided for basement (Devonian limestones), sandstone (Birdrong sandstone), sandy muds and mud (Mudrong shale). Of note, 9% of the mineralisation occurs within blocks flagged as Devonian basement.

U<sub>3</sub>O<sub>8</sub> was estimated using Ordinary Kriging (OK) utilising the top-cut 1m composites in Vulcan mining software. Grade estimation was constrained to blocks inside the mineralisation wireframes with hard boundaries applied.

- Four previous estimates have been made at Carley Bore, all by Coffey Mining. All of these used a different wireframe to describe the mineralisation before block modeling. These estimates were used as a check on assumptions made and results obtained from the new resource estimate.
- The previous estimate (25 February 2013) was an Inferred Mineral Resource with 24 Mt at 320ppm U<sub>3</sub>O<sub>8</sub> at a 100ppm cut off. The current



Criteria	JORC Code Explanation	Commentary	Competent Person
		<p>estimate, after infill drilling and a remodeling of the mineralisation, includes Indicated and Inferred Mineral Resources with a total resource of 23Mt at 310ppm U<sub>3</sub>O<sub>8</sub> at a 100ppm cut off.</p> <ul style="list-style-type: none"> <li>No assumptions have been made regarding recovery of by-products.</li> <li>Two studies targeting carbonate content and organic carbon levels have been completed to date. Molybdenum assays were routinely reported. Deleterious elements appear to be occurring at low levels within the Birdrong host unit. Carbonate does occur but levels are usually very low within the Birdrong but are higher in the underlying Devonian units, Molybdenum levels are low throughout the extent of the deposit, and total organic carbon levels are also low. Pyrite in high levels can be deleterious to the ISR process and does occur in high levels in certain parts of Carley Bore, however these areas are almost exclusively limited to non-mineralised zones.</li> </ul>	
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are estimated using average insitu bulk density values as described in the section on Bulk Density below.</li> </ul>	EM
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Cut-off grades in a range from 100ppm to 500ppm have been used for resource reporting. Energia's preferred cut-off (150ppm U<sub>3</sub>O<sub>8</sub>) has been selected to allow full resolution of mineralised intervals within the deposit that may be amenable to in-situ leach mining. Contained metal within a mineralised body is a function of volume, density, and grade. In-situ recovery is a non-selective mining technique as the lixiviate moves from injection well to extraction well in a manner targeted only by screen depth, screen interval, permeability variables, and bore-field design. All blocks amenable to leaching that are contained within a fluid pathway will be leached and contribute to metal contained in the pregnant liquor extracted. Future preferred cut off grades may vary as further studies are done (such as field trials, scoping studies, prefeasibility studies, etc.), or within the deposit itself (zonal). Final mining cut off grades would be determined using more detailed economic factors.</li> </ul>	DA
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always</li> </ul>	<ul style="list-style-type: none"> <li>The assumed mining method is in-situ leaching using an acidic lixiviate. Assumptions made in regard to mining method are: <ol style="list-style-type: none"> <li>The mineralisation is hosted in a unit permeable enough to be leached – hydrogeological studies completed to date indicate that the uranium deposit is contained predominantly in sandstones with hydraulic conductivities in the range of 3 to 10m/d, well within the range considered to be suitable for in-situ leach mining.</li> </ol> </li> </ul>	DA

Criteria	JORC Code Explanation	Commentary	Competent Person
	<i>be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	<p>2) The mineralisation is not occluded or locked in non-leachable grains – the first round of metallurgical testwork (2010) identified two composite samples out of six that did not leach as well as the majority of samples, and it was postulated that the mineralisation may be occluded. Further testwork (2011-2012) addressed this and concluded that the majority of the mineralisation was not occluded and identified new uranium species (including brannerite) which required slightly different leach parameters to successfully liberate the uranium.</p> <p>3) Carbonate amounts in the host rocks are low. Carbonates are noted at Carley Bore, in both the Birdrong Sandstone and the Devonian basement rocks. Studies completed to date (metallurgy, petrology, and assaying) suggest that carbonate content in host lithologies is low.</p> <p>4) Metallurgical benchtop studies are representative of in field leach parameters - this is largely an unknown until field trials commence. The results obtained from benchtop studies are generally very good with results from individual samples have low variability from the overall average results.</p>	
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Mineral recovery is proposed using in-situ leach methods with an acidic lixiviate. Two independent metallurgical test work programs have been undertaken and both observed good recovery of uranium with low acid consumption in the majority of samples. These studies are preliminary and further work must be undertaken to establish the geochemistry of the mineralisation and host before metallurgical amenability is conclusively established (these works will include column leach tests and field leach trials).</li> </ul>	DA
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No environmental impact assessments have been completed to date, however an independent scoping study and desktop environmental study have outlined the following considerations: <ul style="list-style-type: none"> <li>In-situ leach mining is a mining method that has the potential to affect groundwater (including geochemistry, flow, dynamics, potentiometric surfaces, etc), local aquifer quality (including hydraulic conductivity, porosity, aquifer thickness, etc), mineralogy of the host unit, and fauna within the host formation.</li> <li>The project is located within the Pilbara Surface Water Proclamation area, and is associated with the Pilbara and Gascoyne Groundwater Proclamation Area. The Birdrong Sandstone aquifer is a regional aquifer and is likely to be deemed as a key environmental factor.</li> </ul> </li> </ul>	DA

Criteria	JORC Code Explanation	Commentary	Competent Person
		<ul style="list-style-type: none"> <li>▫ The Lyndon river drainage system encroaches on the north eastern side of the deposit and dominates the landforms in the area.</li> <li>▫ Radiological impacts to groundwater, surface water, air quality, non-human biota and bush tucker.</li> <li>▫ Effects of type and frequency of transport.</li> <li>▫ Mine closure and rehabilitation process.</li> <li>▫ Effects on surface water and erosion.</li> <li>▫ Impacts on Flora and identification of threatened/rare species.</li> <li>▫ Impacts on Fauna and identification of threatened/rare species.</li> <li>▫ Aboriginal heritage and land use.</li> </ul>	
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>▪ <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>▪ <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>▪ <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ The figure used for density at Carley Bore has been determined from testing 77 samples. 60 of these samples were tested by Energia, and 17 by an independent laboratory. Samples were tested using the wax immersion method. Down-hole geophysical logging (sonic and density logs) was completed on holes LYAC0442-LYAC0497 and data gathered supports the use of the following in-situ dry bulk densities: Mineralised Birdrong sands: 1.70t/m<sup>3</sup>, Un-mineralised Birdrong sands: 1.430t/m<sup>3</sup>, Un-mineralised Devonian Basement: 2.0t/m<sup>3</sup>, Mineralised Devonian Basement: 1.8t/m<sup>3</sup> (based on the assumption that only weathered or porous basement would allow sufficient fluid flow to enable mineralisation).</li> <li>▪ The bulk densities used at Carley Bore are representative of unconsolidated sands as an average figure.</li> <li>▪ Bulk density has been calculated dry, this is appropriate as the uranium assays are by chemical analysis after moisture removal. The bulk density was calculated using the wax immersion method on a dry consolidated core sample which accounts for contribution from vugs and porosity. Mineralisation precedes the alteration front and should not reduce the bulk density of mineralised zones. Bulk density will change with lithology. Characterization has been completed using geophysical logging utilising sonic and density logs to appropriately define density on a lithological basis.</li> </ul>	
<b>Classification</b>	<ul style="list-style-type: none"> <li>▪ <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>▪ <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>▪ <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Resource classification was developed from the confidence levels of key criteria including drilling methods, geological understanding and interpretation, sampling, data density and location, grade estimation and quality of the estimates.</li> <li>▪ Appropriate account of relevant factors have been made to allow classification of the resource in appropriate categories as follows: <ul style="list-style-type: none"> <li>▫ No quantification of disequilibrium or calibration factors are required as all data used to calculate the resource is from wet chemical assays.</li> </ul> </li> </ul>	

Criteria	JORC Code Explanation	Commentary	Competent Person
		<ul style="list-style-type: none"> <li>▫ The sample footprint of wet chemical assay data is smaller than that of gamma logging equivalents and this may result in a decrease in the representivity of the assay result when compared to gamma results.</li> <li>▫ Input data has been validated and evaluated to be of a high standard.</li> <li>▫ Confidence and continuity of geological and metal values is well established from the two stages of infill drilling and drillhole twinning programs.</li> <li>▫ The quality, quantity, and distribution of data is assessed as being adequate for classification of resources.</li> <li>▪ The result reflects the Competent Persons view of the deposit based on all currently available information.</li> </ul>	
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>▪ <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ No independent audits or reviews have been undertaken of Mineral Resource estimates have been completed to date. Further upgrades to the resource or commencement of field trials may warrant these reviews.</li> </ul>	
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>▪ <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>▪ <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>▪ <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ The grade estimate is based on the assumption that in-situ leach mining methods will be employed. There is high confidence in the Mineral Resource estimate as a global resource. Twin drill holes and the variography conducted on the 1m composites show there also is an inherent short-range grade variability within the deposit. However, in areas classified as Indicated Resource, there is reasonable confidence in the tenor, thickness and continuity of the globally modelled in-situ resource. This is important given the planned mining method because in-situ leach mining will extract the global in-situ mineral resource depending on overall metallurgical recovery and not extract a portion of the resource based on a selective mining basis.</li> </ul>	