



ASX Announcement

6 February 2015

ANNUAL STATEMENT OF RESERVES AND RESOURCES

Energy Resources of Australia Ltd (ERA) has completed its annual assessment and reconciliation of reserves and resources for both Ranger and Jabiluka. The results are set out on the attached page.

Ranger Reserves and Resources

The Ranger Ore Reserves and Mineral Resource are reported under the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (**JORC 2012 code**).

During 2014, the Proved and Probable Ore Reserves for Ranger decreased from 6,756 tonnes of uranium oxide to 6,206 tonnes as a consequence of depletion by processing (1,444 tonnes of uranium oxide). The depletion was partially offset by a favourable variance in the recovery of uranium oxide (894 tonnes of uranium oxide) from stockpiled ores relative to the uranium oxide forecast by the stockpile resource model. During the reporting period, all processed ore was sourced from either run of mine stocks or reclaimed from low grade stockpiles.

For the same period, Ranger Mineral Resources decreased from 56,333 tonnes of uranium oxide to 52,711 tonnes of uranium oxide. This decrease (3,622 tonnes of uranium oxide) was mainly attributable to the placement of low grade material in Pit 3 as part of the construction of the tailings and brine disposal process.

The table below sets out the reconciliation of Ranger Ore Reserves:

Ranger Reconciliation	Contained U ₃ O ₈ - tonnes
Ore Reserves as at 1 January 2014	6,756
Ore Reserves depleted by processing	(1,444)
Other adjustments	
See Explanatory Notes	894
Ore Reserves as at 31 December 2014	6,206
Explanatory Notes	
Favourable Stockpile Model Variance in Primary ores	736
Favourable Stockpile Model Variance in Laterite ores	158

Jabiluka Reserves and Resources

The Ore Reserves and Mineral Resources for Jabiluka are reported under the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (**JORC 2004 code**) and remained unchanged at 67,700 tonnes and 73,940 tonnes of contained uranium oxide respectively.



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ERA 2014 Ore Reserves & Mineral Resources	CUT-OFF GRADE – STOCKPILE ORE 0.08% U₃O₈			CUT-OFF GRADE – STOCKPILE ORE 0.08% U₃O₈		
	As at 31 December 2014			As at 31 December 2013		
	Ore (MT)	% U₃O₈	t U₃O₈	Ore (MT)	% U₃O₈	t U₃O₈
Ranger ore reserves						
Current Stockpiles	5.05	0.123	6,206	5.47	0.123	6,756
Ranger No. 3 Pit						
In situ						
Proved	-	-	-	-	-	-
Probable	-	-	-	-	-	-
Sub-total Proved and Probable Reserves	5.05	0.123	6,206	5.47	0.123	6,756
Total Ranger No. 3 Stockpiles, Proved and Probable Reserves	5.05	0.123	6,206	5.47	0.123	6,756
<i>Ranger mineral resources IN ADDITION TO THE ABOVE RESERVE</i>	CUT-OFF GRADE – STOCKPILE RESOURCE 0.02% U₃O₈ UNDERGROUND INSITU RESOURCE 0.15% U₃O₈			CUT-OFF GRADE – OPEN PIT IN SITU RESOURCE 0.02% U₃O₈ UNDERGROUND INSITU RESOURCE 0.15% U₃O₈		
Current Mineralised Stockpiles	38.29	0.05	17,844	49.89	0.05	23,037
In situ resource (R3 Deeps)						
Measured	2.78	0.32	8,922	-	-	-
Indicated	6.30	0.28	17,366	0.32	30,820	30,820
Sub-total Measured and Indicated Resources	47.37	0.09	44,128	59.38	0.09	53,857
Inferred Resources	3.50	0.25	8,579	0.65	0.38	2,477
Total Resources	50.87	0.10	52,711	60.03	0.09	56,334
	As At 31 December 2014 CUT-OFF GRADE 0.20% U₃O₈			As At 31 December 2013 CUT-OFF GRADE 0.20% U₃O₈		
	Ore (MT)	% U₃O₈	t U₃O₈	Ore (MT)	% U₃O₈	t U₃O₈
Jabiluka ore reserves						
Proved	-	-	-	-	-	-
Probable	13.80	0.49	67,700	13.80	0.49	67,700
Total Proved and Probable Reserves	13.80	0.49	67,700	13.80	0.49	67,700
Jabiluka mineral resources IN ADDITION TO THE ABOVE RESERVE						
Measured	0.24	0.48	1,140	0.24	0.48	1,140
Indicated	4.30	0.36	15,330	4.30	0.36	15,300
Sub-total Measured and Indicated	4.54	0.36	16,440	4.54	0.36	16,440
Inferred Resources	10.90	0.53	57,500	10.90	0.53	57,500
Total Resources	15.44	0.48	73,940	15.44	0.48	73,940

Rounding differences may occur.



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Competent persons

As required by the Australian Securities Exchange, the above tables also contain details of other mineralisation that has a reasonable prospect of being economically extracted in the future but which is not yet classified as Proven or Probable Reserves. This material is defined as Mineral Resources under the JORC 2012 code and the JORC 2004 code. Estimates of such material are based largely on geological information with only preliminary consideration of mining, economic and other factors. While in the judgment of the Competent Person there are realistic expectations that all or part of the Mineral Resources will eventually become Proven or Probable Reserves, there is no guarantee that this will occur as the result depends on further technical and economic studies and prevailing economic conditions in the future.

The information in this announcement that relates to Ranger and Jabiluka Mineral Resources is based on information compiled by geologists Greg Rogers (a full time employee of ERA) and Stephen Pevely (a full time employee of ERA). The information in this announcement that relates to Ranger and Jabiluka Ore Reserves is based on information compiled by Mining Engineer John Murphy (a full time employee of ERA). Greg Rogers, Stephen Pevely and John Murphy are all members of the Australasian Institute of Mining & Metallurgy and have sufficient experience which is relevant to the style of mineralisation and the type of deposit under consideration, and to the activity which they are undertaking, to qualify as Competent Persons as defined in the JORC 2012 code and the JORC 2004 code. Greg Rogers, Stephen Pevely and John Murphy consent to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

About Energy Resources of Australia Ltd

Energy Resources of Australia Ltd (ERA) is one of the nation's largest uranium producers and Australia's longest continually operating uranium mine.

ERA has an excellent track record of reliably supplying customers. Uranium has been mined at Ranger for three decades. Ranger mine is one of only three mines in the world to produce in excess of 110,000 tonnes of uranium oxide.

ERA's Ranger mine is located eight kilometres east of Jabiru and 260 kilometres east of Darwin, located in Australia's Northern Territory.

ERA is a major employer in the Northern Territory and the Alligator Rivers Region.

Located on the 79 square kilometre Ranger Project Area, Ranger mine is surrounded by, but separate from, the World Heritage listed Kakadu National Park.

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JORC Code, 2012 Edition – Table 1 – Mineral Resource update Ranger 3 Deeps

Section 1- Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. 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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> Three primary sampling techniques are utilised, geophysical gamma logging, geochemical assaying and specific gravity by pycnometry testing, all of which are set as 1 metre intervals. During the drilling phase a down hole geophysics gamma sonde is deployed during both the in rod and open hole drill runs (where possible according to ground conditions). Geophysical sampling is recorded every 0.05 metre and composited into 1 metre intervals and provides an equivalent U_3O_8 result (referred to as eU_3O_8). The gamma sonde undertakes a daily calibration test against a standard source, and also undertakes a yearly calibration to verify the dead-time and K-Factor conversion variables used to convert observed and true gamma counts into an eU_3O_8 reading. All downhole geophysical tools are run down a verification drillhole (R3PD13) and a technical report produced monthly. The selection of samples for geochemical assaying is initially defined by the results from the down hole geophysics 1 metre eU_3O_8 composites. Intervals that have gamma results above 0.08% eU_3O_8 are automatically assigned for assaying, plus the two samples above and below the triggered interval. In zones where the down hole geophysics were unable to reach and no gamma data was obtained the entire interval is selected for assay. The current suite of geochemical analyses consists of 48 major and trace elements which is analysed by ICPMS and ICPOES. All elements are reported in parts per million (ppm), except for U, which is reported as the weight percent oxide U_3O_8. Every tenth sample is also assigned for SG testing, and is conducted on the pulverized material by gas pycnometer at the analytical laboratory.



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). 	<ul style="list-style-type: none"> All current drilling has been a combination of HQ3 and NQ/NQ3 Diamond core. Core orientation is conducted by a reflex digital orientation tool and the low side markup is made at the drilling rig upon core retrieval. The remaining core orientation lines are completed by the field team at the core logging facility.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> Sample recovery is logged according to geotechnical intervals, with interval length and total recovered metres logged for the entire drill hole. All exclusion intervals are also recorded (due to core loss) to provide a total sample recovery percentage for every drill hole. The diamond core is processed in the ERA Jabiru East core yard where each metre is checked, measured and marked before the core is geologically and geotechnically logged. Every discrepancy between the measured length of the core and the driller's length marked on the core blocks is investigated. Discrepancies are resolved by ERA field staff, geologists and drilling personnel prior to cutting and sampling. Triple tube drilling has been selected to increase core recovery in the mineralised zone.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All diamond core is oriented and geologically logged to a detailed system that is constructed around the specific style of geological model/mineralisation under evaluation. Emphasis is placed upon the association of stratigraphy, lithology, structure and brecciation intensity. Similarly, the same core is geotechnically logged to a system that is specifically adopted to derive a Tunneling Quality Index (Q) for geotechnical stope span support criteria. 100 per cent of the core is logged in this manner. All core is photographed under consistent lighting conditions and the digital images stored on an internal shared drive.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> Individual metres of diamond core that have been selected for geochemical analysis are cut in half by diamond saw, with each half of each metre representing a single sample. Core is cut along a line through the centre of the axis of symmetry as defined by the dominant fabric in the rock (or the mineralised structures), i.e. the line which passes through the apex of the foliation ellipsoid. Upon receipt at the analytical laboratory, samples are dried at 105 degrees Celsius to remove sample moisture. Samples undergo a primary crushing stage to take the entire sample to <2 millimetres. On occasions, at this stage a sample may be rotary split off for additional metallurgical testing. The remaining sample undergoes a secondary drying phase at 80 degrees Celsius to remove any additional moisture that may have resulted from the high humidity conditions in the Northern Territory. A rotary split is conducted on up to 3 kilograms of crushed material to a 300 gram result, which then undergoes a final pulverise stage to take the entire sample to 95%<75µm. The final pulverised sample undergoes a 4-acid near total digestion and submitted to ICPMS and ICPOES analysis.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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 applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> The down hole gamma sonde is a Geovista 38 millimetres Total Count Gamma Probe and there are currently three in cyclical use, 3348, 3498 and 3540. All three probes were calibrated on the Adelaide Models (AM1, AM2, AM3 and AM7) on 6 June 2013 in order to derive the Deadtime and K Factor for each probe. The derivation of these variables and the drilling diameter correction factors are all documented in a technical report provided by Borehole Wireline Pty Ltd. To ensure quality control measures are in place for geochemical analysis, a uniform quality control process is assigned for each drillhole to be sampled. Field duplicates are taken every 10 metres in the mineralised zone. The five highest eU₃O₈ samples are also assigned as a field duplicate if not already duplicate as per 10 metre intervals. A certified reference standard is inserted at a frequency of every 25th sample.



Criteria	JORC Code explanation	Commentary
		<p>There are 10 certified reference standards available, ranging from 0.03 per cent to 1.68 per cent, all of which have been created from ERA material and are matrix matched. The first standard is selected at random and subsequent standards are incremented from ERA_CRS_1 to ERA_CRS_10.</p> <ul style="list-style-type: none"> • A blank sample (quartz sand) is also inserted at a frequency of every 20th sample. • All drill holes are sent as a single dispatch, whereby they are split up into sets of 88 by the analytical laboratory. An additional 12 check samples are included by the laboratory to conduct 100 sample analyses at a time (Quantity: x4 each of internal laboratory repeats, standards and blanks). • A Quartz flush is also inserted between every sample during the crushing stage to minimise potential contamination of sample preparation equipment.
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • All samples are conducted by a NATA accredited laboratory (Northern Territory Environmental Laboratory, a division of Intertek). All sample results are reported in electronic format and imported directly into acQuire without modification to the original files. All results are saved in CSV and PDF format for future verification if required. • A report of the import process and results is also saved on a shared network drive for archive purposes. • Access to the import process is restricted by three layers of security, AcQuire software, Active Directory and SQL server protocols are implemented to ensure that only trained and qualified staff are physically capable of importing assay results. • The sample approval process also abides by the same level of security, with specific staff permitted to write permissions, all other staff have read-only access to assay results.
Location of data points	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • At present DGPS (Differential Global Positioning System), is used in conjunction with a real time kinematic (RTK) system involving a base/static station radio broadcasting its received satellite telemetry to a moving/rover receiver. Regular QA/QC checks are conducted for the veracity of the GPS system by positioning the GPS rover over known, monumented ground stations with the receivers on a fast static or dynamic mode.



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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Base Station and Mine Grid System – the survey department of the ERA – Ranger mine maintains a base/static station 24/7 at the mine site office and broadcast the satellite telemetry on the local/adopted mine grid system. The relative positions of various features and earth works requirements are instantly available to the roving receivers for both setting-out and as-built surveys.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <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> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> The maximum range of mineralisation continuity as suggested by existing variography studies to achieve some proportion of the “measured” mineral resource confidence category is a maximum of 25 x 25 metres. The goal of the underground drilling program was to reduce the current data spacing of existing surface exploration drilling from 50 x 50 metres to a maximum of 25 x 25 metres. All sampling is conducted on regular 1 metre intervals.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<ul style="list-style-type: none"> All drilling from the underground decline has been oriented to ensure it is 90 degrees to the strike of the known mineralisation and controlling structures. Previous surface drilling was oriented parallel to northing sections which was not 90 degrees to the strike of the known mineralisation and controlling structures. The current drilling orientation for the sampling of the mineralised zone and known controlling structures is considered optimal.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> All post drilling assessments are undertaken within a fully lockable facility located at the Ranger mine. In preparation for dispatch to the laboratory, all bagged cut core samples are packed into 44 gallon drums with tension strapped lids, closed and stored for transport in a fully enclosed, lockable shipping module.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> ERA has internal audit and governance processes in place with respect to the classification and reporting of Mineral Resources.



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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none">• <i>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.</i>• <i>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.</i>	<ul style="list-style-type: none">• ERA holds an authority issued pursuant to section 41 of the <i>Atomic Energy Act 1953</i> (Cth) ('Section 41 Authority') over the Ranger Project Area. This authorises ERA to conduct mining and processing operations on the Ranger Project Area.• The Section 41 Authority permits the conduct of mining and processing operations until 8 January 2021. Following this date, ERA must cease all mining and processing operations and is required to rehabilitate the Ranger Project Area in accordance with the Environmental Requirements annexed to the Section 41 Authority.• The Ranger Project Area is located on Aboriginal land. In January 2013, ERA, the Commonwealth Government, the Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Northern Land Council entered into a suite of agreements governing the conduct of operations on the Ranger Project Area.• ERA's operations are closely supervised and monitored by key statutory bodies including the Northern Territory Department of Mines and Energy, Commonwealth Government's Supervising Scientist, Northern Land Council, Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Commonwealth Department of Industry and Science.
Exploration done by other parties	<ul style="list-style-type: none">• <i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none">• The Ranger 3 Deeps mineralisation is down dip of the Ranger Pit 3 deposit, which was mined from 1997 to 28 November 2012. The Ranger 3 Deeps mineralisation has been defined by a series of successive surface diamond drilling programs from 2005-2009 undertaken by ERA.



Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Ranger mine and the Ranger Project Area lie in the north-easternmost part of the Pine Creek Geosyncline. Ranger 3 Deeps is a structurally controlled U_3O_8 deposit hosted by Paleo-Proterozoic arenites, shales and carbonate sediments of the Cahill formation which have been regionally metamorphosed to psammities, chlorite schists and magnesian marble all of which dip at moderate angles to the east. The deposit sits within the "Deeps Fault Zone", a NNW trending complex upward-soling reverse fault system controlled by the competency structure of the local stratigraphy. This competency contrast of the Ranger package is hypothesised to directly reflect its depositional character. Mineralisation is associated with brecciation and structural overprint adjacent to reverse faulting and is intimately linked to the geochemistry of the chlorite schist host lithology.
Drill hole Information	<ul style="list-style-type: none"> <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i> 	<ul style="list-style-type: none"> The initial azimuth and dip setup of the drill hole is conducted via a Downhole Surveys Azimuth Aligner™, which utilises north seeking gyros with precision to 0.2 degrees azimuth and 0.01 degrees inclination. Down hole surveys are conducted via a Reflex EZ-TRAC™ Survey camera (accuracy 0.35 degrees azimuth and 0.25 degrees inclination), with a single shot recorded every 30 metres during drilling, and multi-shot when retrieving rods as a means of quality control. The Reflex tool measures magnetic north, and therefore a correction factor is applied to convert to True North, taking into account yearly magnetic north drift as defined by Geoscience Australia. Down hole length is recorded both via a daily drill plod and on each core tray blocks to define the start, end and core loss intervals for each drilling run. This is verified by the geologists and field team by cross referencing the drilling contractor measurements with actual core mark-up measurements. Any discrepancies are noted and rectified before any core logging or sampling is conducted. Initial interception depth (as defined by eU_3O_8) is determined by the Geovista Logging unit, which records the wireline depth, speed and cable tension to determine a true down hole depth every five centimetres during the geophysics logging process. A daily wireline calibration check is conducted against known markers on the wireline to ensure the unit is calibrated before each logging



Criteria	JORC Code explanation	Commentary
		<p>run.</p> <ul style="list-style-type: none"> Chemical assaying interception depth is determined by the core samples which are created against the core length markups conducted by the logging geologist.
Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> All significant intersections are reported at a 0.12% U₃O₈ cut-off with a maximum of 2 metres internal dilution below that value. This is considered appropriate for a high grade underground mining project. All reporting of intersections is based on a regular sample length of 1 metre.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> Previous surface drilling was completed on an E-W exploration/mine grid orientation towards 270 degrees. Current and proposed underground drilling is oriented towards 240 degrees which is at right angles to the strike of the structures known to host the mineralisation. This is considered optimal for resource modelling.
Diagrams	<ul style="list-style-type: none"> <i>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 drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> All Appropriate maps and sections (with scales) have been included in previous releases to the mark. There are no new material additions to report.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The associated report is considered to represent a balanced report.



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Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none">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.	<ul style="list-style-type: none">Other exploration data collected is not material to this announcement. Further data and interpretation will be reviewed and reported when considered material.
Further work	<ul style="list-style-type: none">The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul style="list-style-type: none">The drilling program for the Ranger 3 Deeps Project was completed in September 2014.



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
Database integrity	<ul style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> All geology and grade data is stored in the Acquire Database management system, which ensures database integrity using the following measures: All geology logging is by direct entry into the database using real-time wireless connected tough books via logging codes selected from drop down boxes in the Acquire logging object. Logs are reviewed by the Competent Person to ensure the logging matches the geology model and downhole eU_3O_8 gamma results for that hole. All downhole gamma and chemical assays are uploaded into the Acquire database using unique sample ID, hole ID and dispatch no. identifiers. If there is not a match on all three for each sample, then the upload fails and is then reviewed. Each chemical analysis batch is reviewed against the eU_3O_8 gamma data using QA/QC procedures in Acquire to ensure a downhole match between both data sets. If standards and blanks in the batch under consideration do not meet the threshold criteria, then the batch cannot be accepted and is not imported until a re-analysis of relevant samples is completed.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person (CP) and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person visits the site on a weekly basis to ensure that the rigour around the collection of geological data is maintained and to chair weekly geology meetings where discussion is around the evolving interpretation of current drilling sections.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The current geology model which hosts the majority of the resource has been developed with assistance of a structural geology expert and is considered robust and of high confidence within well drilled areas. This model has been developed using historic (post-2005) oriented diamond drilling from surface. There are no credible alternative geological interpretations available. The current geology model is an effective driver of the Mineral Resource



Criteria	JORC Code explanation	Commentary
		<p>estimation, as it effectively explains the location and orientation of controlling structures that influence grade.</p> <p>The majority of uranium mineralisation in Ranger 3 Deeps is hosted by an interconnected network of brecciation developed within and around an upward-soling, brittle reverse fault system, the Deeps Fault Zone (DFZ). The DFZ soling is controlled by the competency contrast of the local Cahill Formation mine stratigraphy. This stratigraphic sequence comprises Lower Mine Sequence (LMS) carbonates and Upper Mine Sequence (UMS) chlorite schists and quartz-chlorite-biotite schists (meta-arenites). The UMS chlorite schist (which hosts the majority of the resource) focusses the soling of the DFZ by acting as the weakest unit of the mine stratigraphy sandwiched between the underlying massive LMS carbonates and the overlying competent meta-arenites. This competency contrast is hypothesised to directly reflect the depositional character of the mine stratigraphy. Structural logging to identify actual faults where movement was evident and quantifying the associated 'damage' zones (where the uraninite is hosted) was also a key element in re-defining the new structural model. The mapping of brecciation intensities and fault locations is now part of the routine logging of drill core generated by the resource definition drilling program. The association of high grade uranium mineralisation and brecciation intensity is now unequivocal. In the core of the DFZ, multiple close-spaced soling fault "strands" coalesce these breccia zones to form the most continuous, highest grade parts of the resource that decreases up-dip as the system attenuates.</p>
Dimensions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Current drilling has the deposit defined as 1.1 kilometres in length, 0.4 kilometres width located between RL approximately -150 metres and ~ -500 metres.



Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> A probabilistic model of +200 parts per million U_3O_8 grade distribution was used in conjunction with detailed structural and geological interpretation and mapping to derive a 'mineralised domain' model that was used to constrain U_3O_8, Ca and secondary grade estimation. Three principal estimation domains are used in the model. The majority of the mineralisation is hosted in UMS chlorite schists. Based on recent structural re-interpretation, this package has been re-domained into "upper" and "lower" domains, separated by a major fault which is known to influence the distribution of UMS mineralisation. The third domain is the LMS carbonates, which comprises both fault-hosted and stratigraphy-hosted mineralisation. Block modelling, compositing and grade estimation within these three domains was performed in VULCAN using Ordinary Kriging estimation parameters derived from Geovariances Isatis v2013 software package. Given the relatively close spaced data configuration compared to earlier estimates, Ordinary Kriging was chosen as the most suitable best linear unbiased estimator for this style of mineralisation. The current estimate is derived from earlier Order of Magnitude estimation modelling and uses the same block size, orientation and estimation techniques as the earlier modelling. There are no material by-products There are 9 non-grade elements that are estimated in the current model. Sulphur is included. The block size in the model is 10x10x5 metres in x, y and z respectively. This compares favourably with the final designed drill data configuration of 25 metres spacing between drill holes. Stope (SMU) sizes have been designed in accordance with the data configuration and geotechnical considerations. Construction of resource domains were strongly influenced by increased orebody knowledge from recent geology and structural studies. This estimate is made using uncut data, and is considered to be a "best case" scenario. A top-cut analysis has been performed on this estimate and the distribution of high grade samples and their effect on the estimate has been



Criteria	JORC Code explanation	Commentary
		<p>documented.</p> <ul style="list-style-type: none"> Validation techniques include 3D visualisation of the block model in different software platforms to ensure spatial integrity with drill hole data, the reporting of local estimates using different software platforms to derive the same results, and the use of swathe plots to comparing the global (i.e. no cut off applied) tonnes, grade and metal of the 10x10x5 metre block grades and 1m composite data for U₃O₈ and Ca in Upper Mine Sequence and Lower Mine Sequence Main domains.
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> All tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> For a comparison with previous model iterations tabulations have been provided using a cut off of 0.15% U₃O₈. This is equivalent to the cut off used for prefeasibility base case studies.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>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 be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i> 	<ul style="list-style-type: none"> The Ranger 3 Deeps resource will be mined by bottom up primary/secondary long-hole open stoping with paste fill. Mining levels would be developed at 15 metre to 30 metre vertical intervals. The ore would be blasted using blast holes drilled from either level and charged with explosives. The blasted ore would be loaded into 60 tonne trucks using load haul dump loaders. The trucks would haul the ore up to surface via the decline ramp. Bulk heads (walls) would be constructed across the entrance to the empty stopes and the void would be back filled with cemented paste. The paste would comprise of de-slimed mill tailings, crushed rock and binders. Adjacent stopes can be mined when the fill has attained a strength of 0.5 MPa (curing time 2-4 weeks). <p>Loss and dilution factors as applied to the Mineable Shape Optimised (MSO) stope shapes as part of the mine scheduling model were:</p> <ul style="list-style-type: none"> Primary Stopes – 98 per cent Secondary Stopes – 90 per cent



Criteria	JORC Code explanation	Commentary
		<p>Dilution applied in the mining model:</p> <ul style="list-style-type: none"> • Floor paste – 0.3 metre • Side wall paste – 0.5 metre • Primary end wall paste – 0.3 metre • Secondary end wall paste – 0.5 metre
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Metallurgical performance of the Ranger 3 Deeps ore body will be processed through the existing processing plant. All test work on drill core composites have resulted in comparable metallurgical performance to the current open pit ore. The addition of a beneficiation process for the removal of excess carbonate prior to the existing process ensures that feed quality will be similar to the existing operation. Pilot scale testing of the ore sorter chosen for this beneficiation has resulted in acceptable rejection of carbonate with minimum loss of uranium.
Environmental factors or assumptions	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • All impacts and aspects are currently under consideration and will form the basis of the Ranger 3 Deeps underground mine Draft Environment Impact Statement.
Bulk density	<ul style="list-style-type: none"> • <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> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> • <i>Discuss assumptions for bulk density estimates used in the</i> 	<ul style="list-style-type: none"> • Dry density of mineralised and non-mineralised rock has been determined using a combination of historical (surface holes) site-based water immersion (WI) and more recent (underground drilling) lab-based pycnometry (PYC) methods. Statistical comparison of these datasets demonstrates that there is <5 per cent variation between the two. For resource modelling, both data sets (a total of 2,453 samples) were combined and the results interpolated into the model using Ordinary Kriging based on robust geostatistical analysis of the dataset.



Criteria	JORC Code explanation	Commentary
	<i>evaluation process of the different materials.</i>	<ul style="list-style-type: none"> All testing was performed on fresh, unweathered rock.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (i.e. 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> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> The resource has been classified into the three confidence classifications on three major estimation domains, Upper Mine Sequence Main, upper and lower and Lower Mine Sequence Main domains. Previous estimates have used the empirical approach of assigning the confidence of a block based on the distance to the nearest samples. Blocks informed by nearby samples were flagged with the highest confidence and blocks furthest away were flagged with the lowest confidence. In the latest modelling, an estimate of the slope of regression between true and estimated block grade is made for each block using the U_3O_8 variogram and data configuration (location of samples, distance from block) and values are written to all estimated blocks. Geological continuity was also considered as a factor in the classification, with the Upper Mine Sequence Main domain considered well constrained, with little uncertainty around the mineralised volume and its geometry, backed up by orebody knowledge. In contrast, the Lower Mine Sequence Main domain has far less drilling, less orebody knowledge and uncertainty around the mineralised volume. The Competent Person is comfortable with this geostatistically informed approach, as it directly reflects the quality of kriging performed on each block and thus the reliability of the estimate in this structurally hosted deposit of a metal that has a skewed distribution.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> The 2009 Order of Magnitude resource model was reviewed in 2012 by an external consultant with no adverse findings. Early iterations of the 2014 modelling were reviewed by two external consultants and their recommendations taken into account in the final resource model.



Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> • <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> • <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> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> • Previous empirical methods of classification have been superseded by the more geostatistically robust approach of an estimate of kriging quality using the slope of regression between the true grade and the estimated grade of individual blocks. The slope of regression provides a measure of conditional bias of the block estimate and this is useful input to resource classification. Slope of regression does not capture or describe any uncertainty that may be associated with the definition of the mineralisation geometry model. This is captured with the geological continuity of domains derived from orebody knowledge studies. • This estimate relates to both global and local estimates. The resource tabulation shows a breakdown of tonnes and grade within the two estimation domains at measured, indicated and inferred classifications. • There is no underground production data with which to compare with.



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JORC Code, 2012 Edition – Table 1 – Mineral Resource update for Ranger low grade stockpiles

Section 1- Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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.</i> 	<ul style="list-style-type: none"> Two primary sampling techniques are utilised; geophysical gamma logging and geochemical assaying all of which are set as 1 metre intervals. During the drilling phase a down hole geophysical gamma sonde is deployed during both the in-rod and open hole drill runs (where possible according to ground conditions). Geophysical sampling is recorded every 0.05 metre and composited into 1 metre intervals and provides an equivalent U_3O_8 result (referred to as eU_3O_8). The gamma sonde undertakes a daily calibration test against a standard source, and also undertakes a yearly calibration to verify the dead-time and K-Factor conversion variables used to convert observed and true gamma counts into an eU_3O_8 reading. All downhole geophysical tools are run down a verification drill hole (R3PD13) and a technical report produced monthly. The selection of samples for geochemical assaying is initially defined by the results from the down hole geophysics 1 metre eU_3O_8 composites. Intervals that have gamma results above 0.08% eU_3O_8 are automatically assigned for assaying, plus the two samples above and below the triggered interval. In zones where the down hole geophysics were unable to reach and no gamma data was obtained the entire interval is selected for assay. The current suite of geochemical analyses consists of 2 major elements (U_3O_8 and Ca) and 43 minor elements which are analysed by ICPMS and ICPOES. All elements are reported in weight percent.



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <i>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).</i> 	<ul style="list-style-type: none"> • The majority of the drilling (98 per cent) has been completed using 5 ½ inch reverse circulation drilling. • The remainder was done by open hole percussion drilling.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <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> 	<ul style="list-style-type: none"> • Sample recovery is calculated by the actual sample weight over the theoretical sample weight. • Extensive stockpile drilling experience by the same crew helped in achieving the right drilling techniques to maximise sample recovery in extremely heterogeneous ground. • Analysis of sample recovery vs grade showed that there is a trend of lower sample weights (recovery) with increasing average grade. This was common to both gamma and chemical assay results.
Logging	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • All chips were sieved, washed and logged on one metre intervals to note lithology and weathering. • Due to the inherent lithological variability of low grade stockpiles, the logging can only be considered qualitative. • All 1 metre samples were logged.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> A riffle splitter was used to achieve an approximate 10 per cent sample split of the total sample weight. Upon receipt at the analytical laboratory, samples are dried at 105 degrees Celsius to remove sample moisture. Samples undergo a primary crushing stage to take the entire sample to <2 millimetres. On occasions, at this stage a sample may be rotary split off for additional metallurgical testing. The remaining sample undergoes a secondary drying phase at 80 degrees Celsius to remove any additional moisture that may have resulted from the high humidity conditions in the NT. A rotary split is conducted on up to 3 kilograms of crushed material to a 300 gram result, which then undergoes a final pulverise stage to take the entire sample to 95%<75µm. The final pulverised sample undergoes a 3 acid near total digestion and submitted to ICP-MS and ICP-AES
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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 applied and their derivation, etc.</i> <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> 	<ul style="list-style-type: none"> The down hole gamma sonde is a Geovista 38 millimetres Total Count Gamma Probe and there are currently five in cyclical use: 3348, 3498, 3540, 4434 and 4705. Probes 3348 and 4705 were calibrated on the Adelaide Models (AM1, AM2, AM3 and AM7) on 25 November 2010 in order to derive the Deadtime and K Factor, 3540 and 4434 on 3 December 2010 and 3498 on 4 January 2011. The derivation of these variables and the drilling diameter correction factors are all documented in a technical report provided by Borehole Wireline Pty Ltd. To ensure quality control measures are in place for geochemical analysis, a uniform quality control process is assigned for each drill hole to be sampled. Field duplicates are taken every 10 metres in the mineralised zone. A certified reference standard is inserted at a frequency of every 25th sample. There are 10 certified reference standards available, ranging from 0.03 per cent to 1.68 per cent, all of which have been created from ERA material and are matrix matched. The first standard is selected at random and subsequent standards are incremented from ERA_CRS_1 to ERA_CRS_10. A blank sample (quartz sand) is also inserted at a frequency of every 20th



Criteria	JORC Code explanation	Commentary
		<p>sample.</p> <ul style="list-style-type: none"> A Quartz flush is also inserted between every sample during the crushing stage to minimise potential contamination of sample preparation equipment.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> All sample analysis is conducted by a NATA accredited laboratory (Northern Territory Environmental Laboratory (a division on Intertek), Australian Laboratory Services (ALS) and Amdel (a division of Bureau VERITAS). All sample results are reported in electronic format and imported directly into acQuire without modification to the original files. All results are saved in CSV and PDF format for future verification if required. A report of the import process and results is also saved on a shared network drive for archive purposes. Access to the import process is restricted by three layers of security, AcQuire software, Active Directory and SQL server protocols are implemented to ensure that only trained and qualified staff are physically capable of importing assay results. The sample approval process also abides by the same level of security, with specific staff permitted to write permissions, all other staff have read-only access to assay results.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> At present DGPS (Differential Global Positioning System) , is used in conjunction with a real time kinematic (RTK) system involving a base/static station radio broadcasting its received satellite telemetry to a moving/rover receiver. Regular QA/QC checks are conducted for the veracity of the GPS system by positioning the GPS rover over known, monumented ground stations with the receivers on a fast static or dynamic mode. Base Station and Mine Grid System – the survey department of the ERA – Ranger mine maintains a base/static station 24/7 at the mine site office and broadcast the satellite telemetry on the local/adopted mine grid system. The relative positions of various features and earth works requirements are instantly available to the roving receivers for both setting-out and as-built surveys.
Data spacing and	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to</i> 	<ul style="list-style-type: none"> The maximum range of mineralisation continuity as suggested by existing variography studies from the stockpile drilling is approximately 50 metres.



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Criteria	JORC Code explanation	Commentary
distribution	<p><i>establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • All stockpile resources are classified as 'Indicated' due to their inherent heterogeneity. • All sample compositing is conducted on regular 1 metre intervals.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The stockpiles have a modified lateral continuity due to the nature of their (man-made) construction. • All drilling is vertical and intersects the stockpile lateral continuity at 90 degrees. This is considered optimal.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • All post drilling assessments are undertaken within a fully lockable facility located at the Ranger mine. • In preparation for dispatch to the laboratory, all bagged samples are packed into 44 gallon drums with tension strapped lids, closed and stored for transport in a fully enclosed, lockable shipping module.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • ERA has internal audit and governance processes in place with respect to the classification and reporting of Mineral Resources. In 2010, the stockpile resources were reviewed by Coffey Mining Ltd and the maximum resource confidence level accorded was set at "Indicated". This remains current.

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none">• <i>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.</i>• <i>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.</i>	<ul style="list-style-type: none">• ERA holds an authority issued pursuant to section 41 of the <i>Atomic Energy Act 1953</i> (Cth) ('Section 41 Authority') over the Ranger Project Area. This authorises ERA to conduct mining and processing operations on the Ranger Project Area.• The Section 41 Authority permits the conduct of mining and processing operations until 8 January 2021. Following this date, ERA must cease all mining and processing operations and is required to rehabilitate the Ranger Project Area in accordance with the Environmental Requirements annexed to the Section 41 Authority.• The Ranger Project Area is located on Aboriginal land. In January 2013, ERA, the Commonwealth Government, the Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Northern Land Council entered into a suite of agreements governing the conduct of operations on the Ranger Project Area.• ERA's operations are closely supervised and monitored by key statutory bodies including the Northern Territory Department of Mines and Energy, Commonwealth Government's Supervising Scientist, Northern Land Council, Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Commonwealth Department of Industry and Science.
Exploration done by other parties	<ul style="list-style-type: none">• <i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none">• All detailed stockpile evaluation has been conducted only by ERA.



Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The insitu source of the Ranger stockpiles are the Ranger 1 and Ranger 3, No.1 deposits (the Ranger Mine) which were mined continuously from 1981 to 2012. The Ranger mine and the Ranger Project Area lie in the north-easternmost part of the Pine Creek Geosyncline. Both these deposits are structurally controlled U_3O_8 deposit hosted by Paleo-Proterozoic arenites, shales and carbonate sediments of the Cahill formation which have been regionally metamorphosed to psammites, chlorite schists and magnesian marble all of which dip at moderate angles to the east. Uranium mineralisation is hosted by an interconnected network of brecciation developed within and around upward-soling, brittle reverse fault system within host chlorite schists.
Drill hole Information	<ul style="list-style-type: none"> <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i> 	<ul style="list-style-type: none"> All drill holes collars were surveyed post-drilling. All surveying uses the mine site Differential Global Positioning System in conjunction with a real time kinematic (RTK) system involving a base/static station radio broadcasting its received satellite telemetry to a moving/rover receiver. Initial interception depth (as defined by eU_3O_8) is determined by the Geovista Logging unit, which records the wireline depth, speed and cable tension to determine a true down hole depth every five centimetres during the geophysics logging process. A daily wireline calibration check is conducted against known markers on the wireline to ensure the unit is calibrated before each logging run. All samples were collected at 1 metre intervals, and all samples were chemically analysed.
Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> All significant intersections are reported at a 0.02% U_3O_8 cut-off with a maximum of 2 metres internal dilution below that value. All data is uncut. All reporting of intersections is based on a regular sample length of 1 metre.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • The stockpiles have a modified lateral continuity due to the nature of their (man-made) construction. • All drilling is vertical and intersects the stockpile lateral continuity at 90 degrees. This is considered optimal.
Diagrams	<ul style="list-style-type: none"> • <i>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 drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • No significant discoveries are being reported in this release.
Balanced reporting	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • The associated report is considered to represent a balanced report.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • There is no other substantive exploration data.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <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> 	<ul style="list-style-type: none"> • The last drilling program for the Ranger Stockpiles was completed in December 2010. • There is no other exploration drilling planned for the Ranger Stockpiles.



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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
Database integrity	<ul style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> All geology and grade data is stored in the AcQuire Database management system, which ensures database integrity using the following measures: <ul style="list-style-type: none"> All geology logging is by direct entry into the database using real-time wireless connected tough books via logging codes selected from drop down boxes in the AcQuire logging object. All downhole gamma and chemical assays are uploaded into the AcQuire database using unique sample ID, hole ID and dispatch no. identifiers. If there is not a match on all three for each sample, then the upload fails and is then reviewed. Each chemical analysis batch is reviewed against the eU_3O_8 gamma data using QA/QC procedures in Acquire to ensure a downhole match between both data sets. If standards and blanks in the batch under consideration do not meet the threshold criteria, then the batch cannot be accepted and is not imported until a re-analysis of relevant samples is completed.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Regular CP visits were conducted during the stockpile drilling to observe sampling methodology and ensure consistency in the process.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The current geology/grade model has been compiled from a range of historical stockpile surveys comprising end of month surveys, annual aerial ortho-photography and mapping and, from 2008 to late 2010, successive programs of reverse circulation drilling to verify the U_3O_8, Ca grade distribution and stockpile shapes. Stockpile resources have been accorded an 'Indicated' level of confidence. There are no credible alternative geological interpretations available.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed 	<ul style="list-style-type: none"> Current drilling have the stockpiles defined as approximately 2.5 kilometres in



Criteria	JORC Code explanation	Commentary
	<i>as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	length, approximately 1 kilometre in width located between RL approximately +20 metres and +95 metres.
Estimation and modelling techniques	<ul style="list-style-type: none"> • 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. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> • Stockpile resource domains were constructed both from broad grade domains from stockpile drilling results, and from primary, transitional and laterite weathering domains from extensive historical research of stockpile evolution. • Block modelling, compositing and grade estimation within these domains was initially performed in Datamine using Ordinary Kriging estimation parameters derived from variography studies of the three most densely sampled stockpile areas. • Ordinary Kriging was chosen as the most suitable best linear unbiased estimator for this modified style of uranium mineralisation given its relatively low coefficient of variation (generally less than 1.00). • There are no material by-products. • Apart from U₃O₈, a number of other elements were estimated for geometallurgical purposes including Ca, Mg, Fe, Al, K, S and P. • The block size in the model is 12.5x12.5x3.33 metres in x, y and z respectively. This compares favourably with the final minimum actual drill data configuration of 25 metres spacing between drill holes for the most densely drilled stockpile and in the use of 10 metre high mining benches. • This estimate is made using uncut data, and is considered to be a “best case” scenario. There was no statistical imperative to consider the use of top cutting. • Validation techniques include 3D visualisation of the block model in different software platforms to ensure spatial integrity with drill hole data, and the reporting of local estimates using different software platforms to derive the same results. • Direct reconciliations with known large volumes of stockpile material from a specific mining stage fed directly to the mill have shown that the block model is able to predict contained metal to within +/- 15 per cent.
Moisture	<ul style="list-style-type: none"> • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> • All tonnages are estimated on a dry basis.



Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> Resources are reported based on a cut-off of 0.02% U₃O₈. This cut-off has been historically used for the reporting of low grade resources from the Ranger 3 pit and has continued to be applied to the reporting of low grade surface stockpiles.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>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 be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i> 	<ul style="list-style-type: none"> Mining of stockpiles is achieved by free-dig mining of 10m benches with a 2500 Komatsu excavator and CAT 785 haul trucks with each truck load passing through the discriminator for selection of dump location. The block size in z of 3.33 metre was chosen as one third of the bench height
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Low grade stockpiles are currently treated by the mill using the same processing circuit as used for the beneficiation of high grade ore at Ranger for the past 30 years.
Environmental factors or assumptions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Material discriminated as <0.02% U₃O₈ is used as backfill for Pit 3 or as final land form material for reclamation planning.



Criteria	JORC Code explanation	Commentary
Bulk density	<ul style="list-style-type: none"> <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> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> Dry density of mineralised and non-mineralised rock has been determined using site-based water immersion (WI) methods. The density factor employed in the model is 2.0 t/m³ for fresh material and 1.5 t/m³ for lateritic material.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (i.e. 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> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> All stockpile resources are considered "Indicated" The Competent Person is comfortable with this approach, as even though the grade variations within individual stockpile domains are not high, there remains the inherent variability of assumptions of accuracy of historic data capture in terms of location, volume and grade, as well as assumptions made with regards to estimations of stockpile grade and density homogeneity.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> As part of an internal audit for Rio Tinto in 2010, Coffey Mining Ltd recommended the down-grading of "Measured" (most densely drilled) sections of the stockpile model to "Indicated".
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <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> <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</i> 	<ul style="list-style-type: none"> Having the overall resource classification as "Indicated" due to the complex history of the stockpiles and the perceived error band in grade determination due to successive re-calibrated discriminator appears a reasonable approach. This remains the overall resource classification for the following reasons: <ul style="list-style-type: none"> no new drilling has taken place since 2010; the ore stockpiles have a complex history of dumping, with the grade being historically determined through the use of several generations of discriminator data; and the overall effect is to diminish confidence in the stockpile metrics; greater variance is to be expected in tonnage and grade, particularly locally and potentially globally.



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Criteria	JORC Code explanation	Commentary
	<p><i>and the procedures used.</i></p> <ul style="list-style-type: none">• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<ul style="list-style-type: none">• Direct reconciliations with known large volumes of stockpile material from a specific mining stage fed directly to the mill have shown that the block model is able to predict contained metal to within +/- 15 per cent.



JORC Code, 2012 Edition – Table 1 – Mineral Reserves update for Ranger low grade stockpiles

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<ul style="list-style-type: none"> The reserve model is a subset of the resource model as described above. The stockpiles have been drilled out on a 50m x 50m to 25m x 25m basis. The holes were chemical assayed on 1m composites. The holes were also gamma logged. An ordinary kriged model was produced with a block size of 12.5m x 12.5m x 3.33m. The mineral resources are reported additional to the ore reserves.
Site visits	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> Regular site visits are undertaken by the Competent Person to review mining practice, ensure that the trucks are being discriminated and that re-handing and stockpile depletion and growth are being tracked properly. Site visits have been undertaken.
Study status	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<ul style="list-style-type: none"> A Life of Mine Plan and A Reserves Only Plan have been used to convert resources to reserves. These plans are updated each year. The stockpile resource model is loaded into XPAC which is then used to schedule a stockpile mine plan. This XPAC mine plan and RR compliant ROM stock balance is fed into the ERA Processing Scheduler to forecast plant performance and consumable usage based on historical plant data and plant budget forecasts. The resulting production schedule is then tested in the ERA Life of Mine cash flow model for viable economics.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> The cut-off grade for primary ore is 0.08% U₃O₈ and laterite ore 0.12% U₃O₈. The grade is based on processing costs and mill recoveries.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> 	<ul style="list-style-type: none"> Mining of stockpiles is achieved by free-dig mining of 10 metre benches with a 2500 Komatsu excavator and CAT785 haul trucks with each truck load passing through the discriminator for dump location.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> <i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> <i>The infrastructure requirements of the selected mining methods.</i> 	<ul style="list-style-type: none"> The equipment had previously been used to complete mining of Pit 3. On completion of the pit in November 2012 the mining fleet commenced stockpile mining. The trucks and excavators are well matched to the stockpile mining. The stockpiles are mined in 10 metre benches, with 37 degree batters and a 5 metre bench at each bench level. No dilution is included in the mining schedule. Recovery is set at 100 per cent. All trucks exiting the stockpile area pass through the truck discriminator which assigns the grade to the trucks load. Minimum mining width is 25 metres. The stockpiles are all indicated with no inferred ore.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> <i>Any assumptions or allowances made for deleterious elements.</i> <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i> <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<ul style="list-style-type: none"> The stockpile reserve is being processed in the existing Ranger processing plant with no change to the process. The process is well tested with over 30 years of operation. Significant met testwork has been undertaken over the years. A Feasibility Study was undertaken for processing of the laterite ore. Processing of the laterite has been undertaken for more than 5 years. The only significant deleterious element is carbonate, which impacts acid consumption in the leach circuit. Ca is modelled in the block model. Mill feed is blended to maintain a Ca level of less than 1 per cent. No bulk sample required. Processing of the low grade stockpiles has been undertaken since the end of open cut mining in November 2012. N/A



Criteria	JORC Code explanation	Commentary
Environmental	<ul style="list-style-type: none"> <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i> 	<ul style="list-style-type: none"> All tailings and mineralised material needs to be buried in a pit or final landform. Processing of the low grade stockpiles reduces that liability. All tailings in the existing TSF and from future processing will be discharged into Pit 3.
Infrastructure	<ul style="list-style-type: none"> <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i> 	<ul style="list-style-type: none"> No new infrastructure is required to treat the stockpiles. Processing continues at the same rate.
Costs	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> <i>Allowances made for the content of deleterious elements.</i> <i>The source of exchange rates used in the study.</i> <i>Derivation of transportation charges.</i> <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> <i>The allowances made for royalties payable, both Government and private.</i> 	<ul style="list-style-type: none"> No capital required to reclaim the stockpiles. Operating costs are based on actual mining and processing costs and 2 year plan budget forecasts for the relevant departments. High Carbonate ore is blended with low carbonate ore to keep Ca to less than 1 per cent. Leach acid consumption and extraction impact is forecast in production schedule which uses Ca driven algorithms. RT Economics supplied exchange rates. Price, exchange rate and oil price assumptions supplied by Rio Tinto Economics. Product transportation costs are based on historical actual costs. Existing royalty agreements in place.
Revenue factors	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i> <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i> 	<ul style="list-style-type: none"> Price, exchange rate and oil price assumptions supplied by Rio Tinto Economics. Product transportation costs are based on historical actual costs. U₃O₈ is sold to Rio Tinto Uranium for on sale to third party purchasers. Rio Tinto Uranium's sales pricing strategy focuses on long term contracting using a variety of pricing mechanisms.
Market assessment	<ul style="list-style-type: none"> <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i> <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> 	<ul style="list-style-type: none"> Uranium sales schedules arranged by Rio Tinto Uranium. There are no problems in selling the scheduled production from the Ranger stockpiles.



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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	
Economic	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> Rio Tinto Economics is the source of assumptions on inflation and discount rate and also supplies sensitivity upside/downside ranges for price, foreign exchange, oil and cost flex parameters.
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> A new mining agreement was signed with the traditional owners in January 2013. The current mining lease requires ERA to cease mining and processing operations by 8 January 2021. ERA maintains a good working relationship with all stakeholders.
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> There are no significant naturally occurring risks to the stockpile reserves. A new mining agreement was signed with the Traditional Owners in 2014. The Ranger mining lease is valid to 8th January, 2021, and the reserves will be depleted before then. Product is sold through RTU. The mining lease expires on 8th January, 2021. The current reserves will be exhausted by then and there are no resolved matters pertaining to the stockpile reserves.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> Stockpile resources are classified as 100 per cent indicated with no measured; this is due to relatively wide spaced drilling and heterogeneity. This then converts into probable reserves. The Competent Person regards the reserves as probable. There are no proven reserves.
Audits or	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> The stockpile resource model was audited by Coffey Mining Ltd. in



Criteria	JORC Code explanation	Commentary
reviews		September 2010. There were no adverse findings.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. 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. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> The reserve model is a subset of the resource model as described above. The stockpiles have been drilled out on a 50m x 50m to 25m x 25m basis. The holes were chemical assayed on 1m composites. The holes were also gamma logged. An ordinary kriged model was produced with a block size of 12.5m x 12.5m x 3.33m. The reserve model is deemed to be appropriate. Stockpile estimate uses local estimates based on the drilling. Annual production using reclaim from the stockpiles is reconciled to the stockpile resource model. So far there has been a positive reconciliation. All trucks exiting the stockpiles pass through a truck discriminator which assigns a U_3O_8 grade to the load. This process has found considerable ore grade material on sub grade stockpiles. Production from the stockpiles is compared to the resource block model on a monthly basis, and generally the results are in relative agreement.