**ASX Release 16 August 2023**

## Honeymoon Uranium Project, South Australia

# High-grade drilling results point to growth in mine life and production rates

### Strong results pave way for an increase and upgrade in the Resource at Gould's Dam deposit within the Honeymoon project

## Highlights

- **Highly successful start to new drilling program at Gould's Dam, with all 21 holes drilled to date intersecting mineralisation**
- **Exceptional Infill Drilling Results include (PFN results, ppm $pU_3O_8$):**
  - 5.25m @ 3,744ppm $pU_3O_8$ — GT 19,658 — (WRM0013 from 102.5m)
    - *plus* 3.25m @ 1,150ppm $pU_3O_8$ — GT 3,737 — (WRM0013 from 110.25m)
  - 2.75m @ 3,693ppm $pU_3O_8$ — GT 10,154 — (WRM0020 from 113.25m)
    - *plus* 1.25m @ 2,277ppm $pU_3O_8$ — GT 2,847 — (WRM0020 from 117.75m)
  - 4.25m @ 1,094ppm $pU_3O_8$ — GT 4,651 — (WRM0007 from 121.00m)
- **In addition, Twin Hole Validation drilling confirms an overall upgrade of historical drill results**
- **The current life-of-mine plan at Honeymoon is based on just 50% of the existing JORC Resource**
- **The combination of the substantial Resource which sits outside the mine plan and these latest drilling results highlights the potential to grow the production rate and mine life at Honeymoon**
- **A further ~40 holes still to be drilled as part of the Gould's Dam program; Upon completion of this program, resource infill drilling will start at the Jason's satellite deposit**
- **Boss' exploration strategy has already been highly successful, increasing the JORC Resource at Honeymoon from 16.57Mlbs to 71.67Mlbs (~433% increase) since project acquisition in December 2015[1]**
- ***"We have a two-pronged strategy for creating shareholder value. This involves the start of production and cashflow, which will make Boss Australia's next uranium producer, and growing the uranium inventory, which will enable us to increase the mine life and production rates." – Boss MD Duncan Craib***

**Boss Energy Limited** (ASX: BOE; OTCQX: BQSSF) is pleased to announce high-grade results from Resource extension and infill drilling at the Gould's Dam satellite deposit at its Honeymoon uranium project in South Australia.

[1] *Refer to ASX: BOE announcement dated 25 February 2019. Refer Appendix 1 for Honeymoon JORC 2012 Resource.*


FOR FURTHER INFORMATION PLEASE CONTACT:

**Boss Energy Limited**
ABN 38 116 834 336

Level 1, 420 Hay Street, Subiaco
Western Australia 6008

**Duncan Craib** - Managing Director/ CEO
+61 (08) 6263 4494

**Paul Armstrong** – Public Relations
+61 (08) 9388 1474

ASX: BOE
OTCQX: BQSSF

www.bossenergy.com
@Boss_Energy

Boss Managing Director Duncan Craib said: "*These strong drilling results are in line with our strategy to increase the inventory at Honeymoon. This will in turn enable us to grow the mine life and production rate, increasing cashflow and leveraging our existing infrastructure.*

*"The results from new drill holes within the resource surpass our expectations in both grade and thickness of the mineralisation. This is demonstrated by the exceptional results from WRM0013 including 5.25m width @ 3,744ppm $pU_3O_8$ (19,658 GT).*

*"To put it into perspective, our cut-off grade is 250ppm and while we could mine at lower grades, there are numerous cost and operational benefits to leaching higher grade material from continuous thicknesses. Primarily, less ore has to be leached to extract the same amount of contained uranium, which typically results in lower operating costs and increased operating margins.*

*"The data also enables us to improve our exploration models for the region and strongly suggests that future exploration programs have the potential to add to the existing Mineral Resource".*

**New Drill Intercepts**

Drill hole WRM0013 was completed as a replacement for historic hole GLD004, which was drilled in 2004 but collapsed before any uranium grade data could be obtained. This hole produced exceptional results with respect to both uranium grade and intercept thickness, with the following uranium mineralization intercepts (PFN results, ppm $pU_3O_8$):

- **5.25m @ 3,744ppm $pU_3O_8$** **GT 19,658** (WRM0013 from 102.5m)
  - ***plus* 3.25m @ 1,150ppm $pU_3O_8$** **GT 3,737** (WRM0013 from 110.25m)

New drill hole WRM0020 was completed centrally between two historic holes GLD247 and GLD248 – both of which were drilled in 2009 and spaced ~40m apart. The purpose of hole WRM0020 was to establish the geological controls on mineralisation in these two historic holes, which returned very solid intercepts including 2.50m @ 1,876ppm $pU_3O_8$ from 115.75m (GT 4,690 m.ppm, GLD247) and 3.50m @ 1,321ppm $pU_3O_8$ from 110.50m (GT 4,624 m.ppm, GLD248). The results from WRM0020 also exceeded expectation, with the following uranium mineralization intercepts (PFN results, ppm $pU_3O_8$):

- **2.75m @ 3,693ppm $pU_3O_8$** **GT 10,154** (WRM0020 from 113.25m)
  - ***plus* 1.25m @ 2,277ppm $pU_3O_8$** **GT 2,847** (WRM0020 from 117.75m)

Drill hole WRM0007 was also drilled as a replacement for historic hole GLD284, which was drilled in 2009 but due to technical issues at the time did not have any uranium grade data available. Hole WRM0007 produced several uranium intercepts, with the best result comprising (PFN results, ppm $pU_3O_8$):

- **4.25m @ 1,094ppm $pU_3O_8$** **GT 4,651** (WRM0007 from 121.00m)

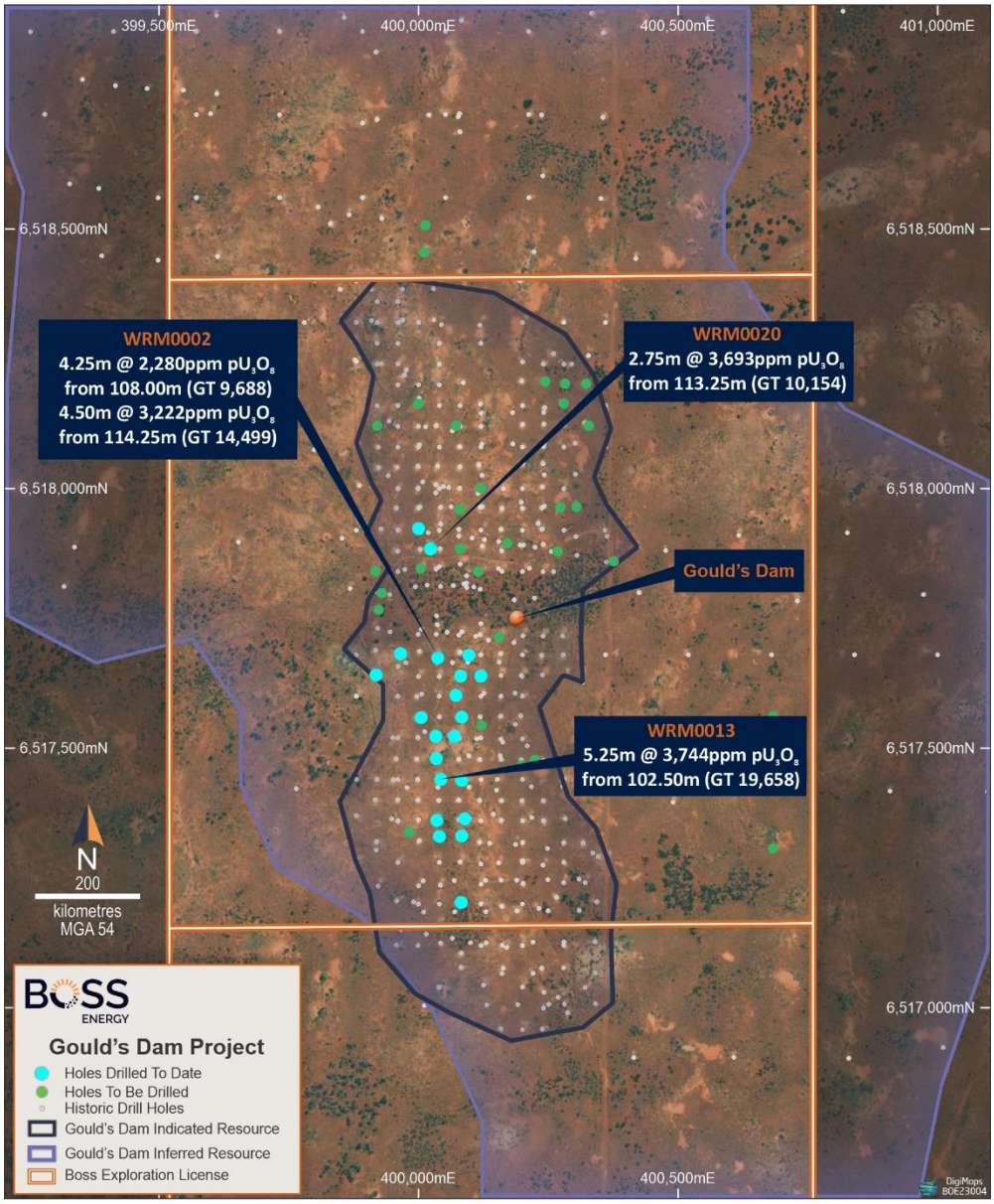


***Figure 1:*** *Gould's Dam drill campaign overview*

**Twin Hole Validation**

Several twin drill holes from the current program have also produced excellent results.

Drill hole WRM0002 was completed as a twin of historic hole GLD007 (completed in 2004) in order to obtain modern geophysical logs to help constrain the geological setting of the mineralization. The historic hole identified significant uranium mineralization including 6.75m @ 2,314ppm $pU_3O_8$ from 112.00m (GT 15,620) and 4.75m @ 769ppm $pU_3O_8$ from 121.75m (GT 3,653). The results from twin hole WRM0002 – drilled within ~7m of GLD007 – produced some exceptional uranium intercepts, including (PFN results, ppm $pU_3O_8$):

- **4.25m @ 2,280ppm $pU_3O_8$** **GT 9,688** (WRM0002 from 108.00m)
  - **plus; 4.50m @ 3,222ppm $pU_3O_8$** **GT 14,499** (WRM0002 from 114.25m)
  - **plus; 4.25m @ 405ppm $pU_3O_8$** **GT 1,722** (WRM0002 from 121.00m)

Hole WRM0016 was drilled as a twin to historic hole BW 73, which was drilled in April 1975. Available uranium equivalent grade data (derived from digitized paper logs of downhole gamma data) returned 3.60m @ 1,436ppm $eU_3O_8$ from 111.50m (GT 5,170). Hole WRM0016 was drilled within ~10m of the historic collar, and despite being unable to acquire PFN data for this particular hole, the calibrated gamma tool returned a very similar uranium intercept to that from BW 73. This important result suggests old drill holes within the project area should provide a relatively reliable indication of likely uranium mineralization present. Hole WRM0016 returned the following intercept (calibrated gamma result, ppm $eU_3O_8$):

- **3.25m @ 1,226ppm $eU_3O_8$** **GT 3,985** (WRM0016 from 111.75m)

***Figure 2***: *Exploration drilling on Gould's Dam*

**Gould's Dam Deposit**

The Gould's Dam deposit is located ~80km northwest of the Honeymoon Mine and currently contains a JORC-compliant resource (Table 1) of 4.4Mt @ 650ppm $U_3O_8$ for 6.3Mlbs contained $U_3O_8$ (Indicated) and 17.7Mt @ 480ppm $U_3O_8$ for 18.7Mlbs contained $U_3O_8$ (Inferred).

The current drilling program at Gould's Dam continues, with further twin/infill drilling planned within the Indicated resource area, as well as investigative drilling of promising areas peripheral to the current Indicated resource.

Once the current work at Gould's Dam is completed, a resource infill drilling program will commence at the Jason's satellite deposit.

**Table 1: Summary of Mineral Resource for satellite deposit of Gould's Dam**

| Resource Classification | Tonnage (Million Tonnes) | Average Grade (ppm $U_3O_8$) | Contained Metal (Kt, $U_3O_8$) | Contained Metal (Mlb, $U_3O_8$) |
|---|---|---|---|---|
| **Gould's Dam (April 2016)[2]** | | | | |
| Indicated | 4.4 | 650 | 2.9 | **6.3** |
| Inferred | 17.7 | 480 | 8.5 | **18.7** |

**About Boss Energy**

Honeymoon is on track for first production in the December quarter, 2023. The mine is increasing the production profile to 2.45 Mlb/annum over a plus-10 year mine life but utilising only 36Mlbs of the Project's global JORC Resource of 71.6Mlbs. This means there is substantial scope to extend the mine life and increase the EFS production nameplate capacity of 2.45Mlb/annum from the remaining identified JORC Resource. There are also significant resource growth opportunities from the Company's satellite deposits and significant defined Exploration Target[3].

The Company anticipates the satellite resources to allow both an increase in the overall production profile with minimal disturbance to operations and extend the mine life of the Honeymoon Project. Boss holds high expectations that its exploration activities will continue to deliver increase Resources. The Company has grown the global JORC resource from 16.6Mlbs to 71.6Mlbs (~331% increase) since acquiring Honeymoon in December 2015.

This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

**For further information, contact:**
Duncan Craib
Chief Executive Officer
P: +61 (8) 6263 4494
E: boss@bossenergy.com

**For media enquiries, contact:**
Paul Armstrong
Read Corporate
P: +61 (8) 9388 1474
E: info@readcorporate.com

[2] Refer to ASX: BOE Announcement dated 8 April 2016

[3] *Refer ASX announcement dated 25 March 2019.*

*Competent Person's Statement*

The information contained in this announcement that relates to exploration results is provided by Mr Jason Cherry, who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Cherry has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person, as defined in the JORC 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Cherry has 17 years' experience and is a full-time employee as Geology Manager for Boss Energy Ltd. Mr Cherry consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

*Reference to previous ASX announcements*

In relation to the results of the Feasibility Study announced 21 January 2020, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed. Nothing in this announcement pre-empts the findings of the Enhanced Feasibility Study currently being undertaken.

In relation to the Mineral Resource announced on 8 April 2016, 25 February 2019 and the Exploration Targets announced on 25 March 2019, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in that market announcement continue to apply and have not materially changed.

*Forward-Looking Statements*

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties, and other factors, many of which are outside the control of Boss Energy, which could cause actual results to differ materially from such statements. Boss Energy makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.

## APPENDIX 1 – Historical Drill Results

In accordance with ASX Listing Rule 5.7.2, the Company provides the following information:

**Table 1: Summary of historical drill holes listed within this report. All holes were drilled vertically (-90˚ inclination and 0˚ azimuth).**

| Hole ID | Easting | Northing | RL | EOH | From | To | Width | $pU_3O_8$ | GT |
|---|---|---|---|---|---|---|---|---|---|
| | MGA94, z54 | | (m) | (m) | (m) | (m) | (m) | (ppm) | (m.ppm) |
| GLD004 | 400040 | 6517440 | 79 | 76 | *Hole collapsed, could not be logged* | | | | |
| GLD007 | 400040 | 6517680 | 78 | 137 | 106.50 | 109.25 | 2.75 | 294 | 809 |
| *plus* | | | | | 112.00 | 118.75 | 6.75 | 2,314 | 15,620 |
| *plus* | | | | | 121.75 | 126.50 | 4.75 | 769 | 3,653 |
| GLD247 | 400003 | 6517883 | 77 | 144 | 109.50 | 112.50 | 3.00 | 489 | 1,467 |
| *plus* | | | | | 115.75 | 118.25 | 2.50 | 1,876 | 4,690 |
| GLD248 | 400041 | 6517885 | 77 | 144 | 110.50 | 114.00 | 3.50 | 1,321 | 4,624 |
| *plus* | | | | | 117.75 | 119.00 | 1.25 | 491 | 614 |
| GLD284 | 400078 | 6517560 | 78 | 138 | *No uranium grade data available* | | | | |
| BW 73* | 400037 | 6517332 | 78 | 130.5 | 105.24 | 108.44 | 3.20 | 345 | 1,104 |
| *plus* | | | | | 111.54 | 115.14 | 3.60 | 1,436 | 5,170 |

Historical $eU_3O_8$ grade data derived for hole BW 73 from calibrated gamma tool data sampled historically at the time of drilling these holes. All other results reported as PFN-derived $pU_3O_8$.

Values are reported above the nominal 250ppm $eU_3O_8$ cutoff grade, 0.5m minimum interval thickness and maximum 1m internal dilution.

**Table 2: Summary of results to date from the Gould's Dam drilling program. All holes were drilled vertically (-90˚ inclination and 0˚ azimuth).**

| Hole ID | Easting | Northing | RL | EOH | From | To | Width | $pU_3O_8$ | Grade Thickness |
|---|---|---|---|---|---|---|---|---|---|
| | MGA94, z54 | | (m) | (m) | (m) | (m) | (m) | (ppm) | (m.ppm) |
| WRM0001 | 399,965 | 6,517,682 | 77.4 | 137 | Hole collapsed - no logs obtained | | | | |
| WRM0002 | 400,037 | 6,517,674 | 77.8 | 138 | 108.00 | 112.25 | 4.25 | 2,280 | 9,688 |
| *plus* | | | | | 114.25 | 118.75 | 4.50 | 3,222 | 14,499 |
| *plus* | | | | | 121.00 | 125.25 | 4.25 | 405 | 1,722 |
| WRM0003 | 400,097 | 6,517,679 | 77.7 | 132 | 108.00 | 108.75 | 0.75 | 691 | 518 |
| *plus* | | | | | 112.00 | 114.25 | 2.25 | 891 | 2,004 |
| *plus* | | | | | 120.50 | 127.50 | 7.00 | 686 | 4,802 |
| WRM0004 | 400,120 | 6,517,639 | 78.4 | 133 | 104.75 | 107.00 | 2.25 | 424 | 954 |
| *plus* | | | | | 115.75 | 116.50 | 0.75 | 1,766 | 1,325 |
| WRM0005 | 400,081 | 6,517,639 | 78.3 | 133 | 105.25 | 108.75 | 3.50 | 299 | 1,048 |
| *plus* | | | | | 109.50 | 111.75 | 2.25 | 707 | 1,592 |
| *plus* | | | | | 113.25 | 114.50 | 1.25 | 1,357 | 1,696 |
| *plus* | | | | | 125.50 | 127.50 | 2.00 | 1,006 | 2,012 |
| WRM0006 | 400,072 | 6,517,602 | 78.4 | 139 | 106.75 | 108.50 | 1.75 | 612 | 1,070 |
| *plus* | | | | | 110.00 | 116.25 | 6.25 | 738 | 4,614 |
| *plus* | | | | | 120.00 | 124.50 | 4.50 | 843 | 3,794 |

| Hole ID | Easting | Northing | RL | EOH | From | To | Width | $pU_3O_8$ | Grade Thickness |
|---|---|---|---|---|---|---|---|---|---|
| | MGA94, z54 | | (m) | (m) | (m) | (m) | (m) | (ppm) | (m.ppm) |
| WRM0007 | 400,083 | 6,517,560 | 78.6 | 139 | 108.50 | 109.00 | 0.50 | 1,321 | 661 |
| *plus* | | | | | 110.75 | 112.50 | 1.75 | 902 | 1,579 |
| *plus* | | | | | 114.25 | 116.50 | 2.25 | 401 | 902 |
| *plus* | | | | | 117.75 | 119.75 | 2.00 | 977 | 1,954 |
| *plus* | | | | | 121.00 | 125.25 | 4.25 | 1,094 | 4,651 |
| WRM0008 | 400,069 | 6,517,523 | 78.5 | 133 | 104.00 | 107.50 | 3.50 | 367 | 1,285 |
| *plus* | | | | | 109.00 | 112.25 | 3.25 | 1,140 | 3,704 |
| *plus* | | | | | 115.75 | 119.50 | 3.75 | 511 | 1,915 |
| WRM0009 | 400,005 | 6,517,559 | 79.1 | 132 | 111.50 | 112.50 | 1.00 | 497 | 497 |
| *plus* | | | | | 116.50 | 119.75 | 3.25 | 455 | 1,478 |
| WRM0010 | 400,033 | 6,517,523 | 77.8 | 133 | 103.25 | 107.25 | 4.00 | 498 | 1,992 |
| *plus* | | | | | 109.75 | 110.50 | 0.75 | 1,232 | 924 |
| *plus* | | | | | 115.75 | 116.50 | 0.75 | 801 | 601 |
| WRM0011 | 400,034 | 6,517,480 | 78.6 | 133 | 103.75 | 107.75 | 4.00 | 622 | 2,488 |
| *plus* | | | | | 110.25 | 113.75 | 3.50 | 924 | 3,232 |
| *plus* | | | | | 115.00 | 116.00 | 1.00 | 2,198 | 2,198 |
| WRM0012 | 400,083 | 6,517,438 | 78.1 | 133 | 103.50 | 104.50 | 1.00 | 651 | 651 |
| *plus* | | | | | 111.00 | 111.75 | 0.75 | 1,317 | 987 |
| *plus* | | | | | 114.25 | 115.00 | 0.75 | 1,048 | 786 |
| WRM0013 | 400,043 | 6,517,440 | 79.0 | 133 | 102.50 | 107.75 | 5.25 | 3,744 | 19,658 |
| *plus* | | | | | 110.25 | 113.50 | 3.25 | 1,150 | 3,737 |
| *plus* | | | | | 116.50 | 117.50 | 1.00 | 589 | 589 |
| WRM0014 | 400,082 | 6,517,203 | 79.4 | 133 | 104.25 | 106.25 | 2.00 | 598 | 1,196 |
| *plus* | | | | | 111.75 | 114.25 | 2.50 | 904 | 2,259 |
| WRM0015 | 400,083 | 6,517,331 | 78.6 | 127 | 103.00 | 105.75 | 2.75 | 610 | 1,677 |
| *plus* | | | | | 110.00 | 111.00 | 1.00 | 1,920 | 1,920 |
| WRM0016 | 400,040 | 6,517,330 | 80.0 | 127 | 104.12 | 107.14 | 3.02 | 715 | 2,160 |
| *plus* | | | | | 111.75 | 115.00 | 3.25 | 1,290 | 4,192 |
| WRM0017 | 400,035 | 6,517,361 | 80.1 | 127 | 108.25 | 109.00 | 0.75 | 1,012 | 759 |
| *plus* | | | | | 110.50 | 111.75 | 1.25 | 2,343 | 2,928 |
| WRM0018 | 400,089 | 6,517,364 | 78.3 | 127 | 103.25 | 105.50 | 2.25 | 635 | 1,428 |
| *plus* | | | | | 112.75 | 114.50 | 1.75 | 819 | 1,433 |
| WRM0019 | 399,918 | 6,517,641 | 77.2 | 133 | 114.50 | 115.75 | 1.25 | 391 | 489 |
| WRM0020 | 400,023 | 6,517,884 | 76.8 | 133 | 108.50 | 110.75 | 2.25 | 477 | 1,072 |
| *plus* | | | | | 113.25 | 116.00 | 2.75 | 3,693 | 10,154 |
| *plus* | | | | | 117.75 | 119.00 | 1.25 | 2,277 | 2,847 |
| WRM0021 | 400,000 | 6,517,923 | 76.7 | 133 | 112.50 | 114.25 | 1.75 | 1,752 | 3,066 |

Drill holes WRM0016, WRM0017 & WRM0018 could not be logged with the PFN tool and are therefore reported as calibrated gamma derived equivalent $U_3O_8$ ($eU_3O_8$).

Results for all other holes are derived from calibrated Prompt Fission Neutron (PFN) tools ($pU_3O_8$).

Values are reported above the nominal 250ppm $pU_3O_8$ cutoff grade, 0.5m minimum interval thickness and maximum 1m internal dilution.

## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (eg '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.* | • The latest WRM series drill holes have been geophysically logged upon completion with a combination of Prompt Fission Neutron (PFN), Borehole Magnetic Resonance (BMR), calibrated natural gamma, neutron porosity, formation density, induction and magnetic deviation tools. Data is collected at 1cm intervals and incorporated in the Boss Energy drilling database. All gamma and PFN tools used were calibrated at the PIRSA calibration facility in Adelaide by both Boss Energy and logging contractor Borehole Wireline prior to the program commencing.<br>• Historic drilling from 2004 & 2009 was logged with calibrated PFN and natural gamma tools.<br>• Given the historic nature of drilling from the 1970's, it is not possible to comment on the accuracy or quality of any calibration systems or methods used to produce the historical results. |
| *Drilling techniques* | • *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).* | • The drilling technique used for all holes was the Rotary Mud, with the 2023 drilling completed by highly experienced contractor Watson Drilling. Drill cuttings were collected at 1m intervals for geological logging. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure* | • Drill chips were collected for geological logging purposes only, with good to very good sample recoveries. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *representative nature of the samples.*<br>• *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.* | |
| *Logging* | • *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • All WRM series drill holes have been geologically logged and incorporated into the Boss Energy database. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • The PFN tool has a depth of investigation radius of approximately 25-40 cm around the borehole. This provides an accurate measurement of epithermal/thermal neutron ratios for the calculation of $pU_3O_8$.<br>• No assay sampling was carried out for the drill holes in question. |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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* | • All PFN and gamma tools being used as part of the current drilling campaign have been calibrated at the PIRSA calibration facility in Adelaide by both Boss Energy and logging contractor Borehole Wireline prior to the program commencing. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *their derivation, etc.*<br>• *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.* | |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • A number of twin holes are being drilled as part of the current campaign. The PFN and calibrated gamma results from this drilling will be used to verify previous PFN results and also to verify/upgrade the historic gamma logging from the 1970's/1980's.<br>• Natural gamma logs are used to depth match all geophysical tool runs to ensure accuracy. |
| *Location of data points* | • *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • The current WRM series drill holes have been pegged using a Trimble TDC600 high accuracy DGPS with a nominal accuracy of ~0.1m. Coordinates are cited in MGA94 grid, z54. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The Competent Person has reviewed all available data and, based on their knowledge and experience with the various exploration techniques employed, is satisfied that the historical drilling data included here is of sufficient quality and accuracy to provide a reasonable, if indicative, basis for the mineralisation reported herein.<br>• The current WRM series drill hole spacing ranges from 40m to ~200m within the Indicated portion of the deposit.<br>• All PFN and gamma-derived $eU_3O_8$ data (both new and historic) has been composited to 25cm intervals. |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have* | • All new & historical holes were drilled vertically which provides an accurate intersection of the flat laying mineralised bodies. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *introduced a sampling bias, this should be assessed and reported if material.* | |
| *Sample security* | • *The measures taken to ensure sample security.* | • All new data from the current campaign is processed and verified on site and then incorporated directly into the Boss Energy database. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • All information and data used in this report have been reviewed by the Boss Energy Competent Person. Multiple PFN tools are being run on several of the new WRM series holes for validation and comparison purposes. |

## 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* | • *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.*<br>• *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.* | • The Project consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 3 Retention Leases and 2 Miscellaneous Purpose Licenses. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • The Gould's Dam region and surrounding areas of the Billeroo and Curnamona Palaeovalley's have been systematically explored and drilled starting from 1969. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | Palaeovalley-type, sand-hosted, tabular style uranium of the following model:<br>• Narrower, mineralised, palaeochannels within a broader palaeovalley system,<br>• Underlying basement faults reactivated sporadically, greatly influencing the shape and formation of the overlying fluvial system, creating uplifted ridges of basement and the meandering narrow palaeochannels described above;<br>• REDOX interfaces from the vertical and lateral movement of uraniferous (oxidised) fluids from south (granitic source rocks in the Olary Ranges) to north (towards Lake Frome);<br>• Organic/sulphide-rich horizons and possible hydrocarbon fluids, the latter seeping upwards along the basement faults. Organic- and sulphide-rich material formed within shallow channel embankments and ledges. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Drill hole Information* | • *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:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  ○ *dip and azimuth of the hole*<br>  ○ *down hole length and interception depth*<br>  ○ *hole length.*<br>• *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.* | • Please refer to Appendix 1, Table 1 for drill collar information. |
| *Data aggregation methods* | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • Mineralised intervals were chosen based upon a nominal 250ppm $U_3O_8$ cutoff, 0.50 m minimum interval thickness and maximum 1m internal dilution for reporting. Where available, Prompt Fission Neutron (PFN) data is used which is designated $pU_3O_8$. For historical drilling or in instances during modern drilling where the PFN tool data was unavailable, gamma toll derived data is used which is designated $eU_3O_8$ and may be affected by radiometric disequilibrium. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | • Historic drill traverses were oriented at oblique angles across the strike of the palaeovalley as per the historical interpretation current at the time of drilling.<br>• Modern drill traverses are often oriented at right angle across the domain strike, although this can vary depending on the interpreted geological setting of each area. |
| *Diagrams* | • *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.* | • Appropriate and relevant diagrams have been included in the announcement. |
| *Balanced reporting* | • *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.* | • Balanced reporting has been adhered to. See previous exploration announcements. |
| *Other substantive exploration data* | • *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.* | • Not applicable. |
| *Further work* | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Further work will involve a combination of twinning historical drill holes (to verify grade data) and if justified step-out drilling of these holes to test for continuity of mineralisation.<br>• All results will be used to update the resource model upon the completion of drilling. |