

Date: 27th February 2023

ASX Code: NFL

#### **Capital Structure**

Ordinary Shares: 33,000,000 Unlisted Options: 9,490,000 Performance Shares: 1,400,000 Current Share Price: 18.0c Market Capitalisation: \$5.94m Cash: \$3.73m (Dec 22 Quarter) Debt: Nil

Directors
Ben Phillips

Executive Chairman

Leo Pilapil Technical Director

Patrick Holywell Non-Executive Director

Arron Canicais
Company Secretary

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# **Uranium confirmed at Orroroo Project**

- Norfolk Metals Limited succeeds in confirming uranium occurrences at three targets tested (via PFN or Spectral Gamma) in the Walloway Basin providing important proof of concept for the prospectivity of the Walloway Basin for sediment hosted uranium deposits.
- These early results are considered significant and demonstrate the potential to **unlock a new uranium province in South Australia**, a leading jurisdiction for the discovery and development of world-class sandstone hosted uranium deposits (e.g. Beverley, Four Mile and Honeymoon).
- The downhole geophysical survey in historical exploration wells (undertaken by Linc Energy) returned a peak uranium reading of 650ppm pU<sub>3</sub>O<sub>8</sub> within an interval of 192ppm pU<sub>3</sub>O<sub>8</sub> over 0.5m from 112.59m via PFN survey in well 7P3.
- Depths of confirmed uranium occurrences at 100-113m are potentially suitable for proven in-situ recovery methods<sup>1</sup>.
- Confirmed uranium occurrences are located over 5km apart with remainder of the basin untested for uranium (well 15P1 to 7P3). The Company's previous understanding of the extent of uranium occurrences, is limited to historical drilling by Linc Energy.
- The Walloway Basin has never been explored for uranium despite being the same age as sediments of the Frome Embayment which is host to Beverley, Four Mile and Honeymoon uranium resources.
- Norfolk Metals is a first-mover in the Walloway Basin and controls 100% interest in two exploration licences covering 659 square kilometres.
- The Company plans to accelerate exploration to a campaign of geophysics and roadside drilling to rapidly follow up on these initial results and target potential roll-front style uranium mineralisation.

Commenting on Orroroo results, Executive Chairman Ben Phillips states: "We are excited by the results of the downhole geophysical survey and cannot understate the implications this has for the potential of a greenfields discovery in the Walloway basin. Typically, sandstone uranium mineralisation is hosted in flat and planar tabular bodies close to surface, and as a consequence, the best discoveries typically occur early in the life cycle of defining a new fertile sedimentary basin. We have rapidly and successfully confirmed the potential of the Walloway via the novel

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<sup>&</sup>lt;sup>1</sup>Per page 16 of CSA Global's ISR Project presentation located at: <a href="https://www.csaglobal.com/wp-content/uploads/2019/11/ATA-2017">https://www.csaglobal.com/wp-content/uploads/2019/11/ATA-2017</a> ISR-Projects-Issues-and-Potential Maxim-Seredkin May 2017.pdf



approach of reviewing gamma anomalies in historical wells drilled by the oil and gas industry, and overlooked by the minerals industry. Norfolk have 100% ownership of a very large basin area in Australia's leading uranium resource state. Norfolk has presented favourable uranium occurrences at depths potentially suitable for in-situ extraction technology. We look forward to working with our stakeholders to accelerate our exploration efforts, leveraging modern geophysics for rapid delineation of potential paleochannels followed by high-impact drilling."

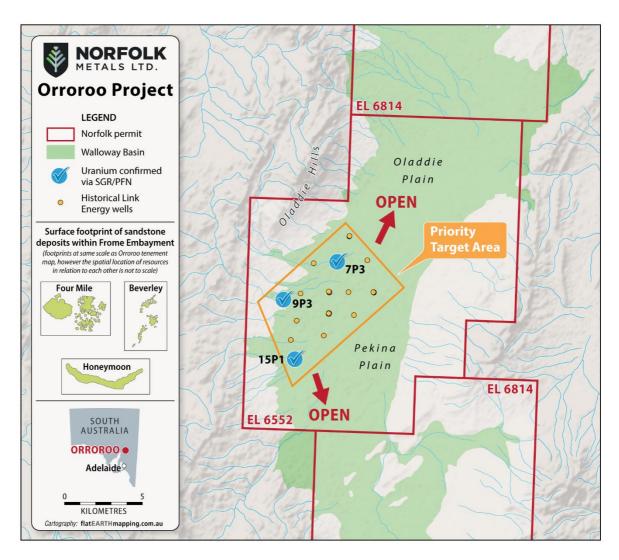


Figure 1. Norfolk 100% owned EL6552 and EL6814 overlayed on the Walloway Basin sediments showing the initial target area, Linc Energy historical wells and recently confirmed uranium occurrences. The legend also shows the surface footprint of three (3) resources from the Frome Embayment at the same scale as the Walloway Basin e.g. the length of Honeymoon versus Norfolk's Priority Target Area. This image will assist in giving context to the scale of this opportunity to define a new uranium province of which Norfolk owns 100%.



## **Orroroo Exploration**

### **Downhole Geophysical Survey Summary**

Norfolk is pleased to report the downhole geophysical survey conducted at the Orroroo Project has been completed. Spectral Gamma and Prompt Fission Neutron (PFN) well logs recorded during the survey will be utilised for further exploration planning; however, at this stage the program is considered successful having confirmed the following;

- Uranium occurrences in all three target zones (wells) of which the depths are potentially suitable for proven in-situ recovery methods (refer to reference 1. on page 1 of this announcement)
- 2. Uranium peak reported at 650ppm pU<sub>3</sub>O<sub>8</sub> within an interval of 192ppm pU<sub>3</sub>O<sub>8</sub> over 0.5m from 112.59m via PFN in well 7P3; and,
- 3. Uranium recorded from this survey at expected target depths obtained from historical holes supports the proposed "oxidised tails or interface zones" of roll-front uranium style mineralisation theory proposed by the Norfolk geology team.

| Project | Hole ID | Drilling<br>Method | Easting<br>(mE) | Northing<br>(mN) | RL<br>(m) | Dip<br>(°) | Azimuth<br>(°) | Depth<br>(m) |
|---------|---------|--------------------|-----------------|------------------|-----------|------------|----------------|--------------|
| Orroroo | 7P3     | Rotary             | 279119          | 6388670          | 368       | -90        | 0              | 190          |
| Orroroo | 15P1    | Rotary             | 276695          | 6382334          | 382       | -90        | 0              | 194          |
| Orroroo | 9P3-2   | Rotary             | 275794          | 6386118          | 398       | -90        | 0              | 283          |

Table 1. Survey Hole ID's undertaken at historical drill holes showing historical drill hole information and status (GDA94/Zone54 Datum)

It is worth referring to the below excerpt from the company's recent announcement on the 17<sup>th</sup> of February 2023 in relation to the intention and expectation of the program which has exceeded expectations.

"The purpose of the geophysical program is two-fold: firstly, the program will provide direct detection of uranium in the host rock environment and determine the source of gamma anomalies in historical Linc Energy wells (e.g. Orroroo target wells 7 and 15). Secondly, stepout wells are prioritised to infill the survey grid to less than 3 kilometre spacing which is considered appropriate in the reconnaissance stage of exploration for defining the surface footprint of known sandstone-hosted uranium deposits. At this spacing, minor downhole intervals of elevated uranium will be highly encouraging and be the impetus for further downhole geophysics and infill drilling."

The potential of the Walloway Basin to contain uranium mineralization has been confirmed. The geological team at Norfolk are working to contract the most suitable geophysical method to delineate the paleo channels within the Walloway basin. Current geophysical considerations include but are not limited to gravity, passive seismic and ground penetrating radar. Once defined; the paleo channels will enable a maiden drill program to be executed with a focus on quickly accessible and cheaper roadside drilling in the early stages.



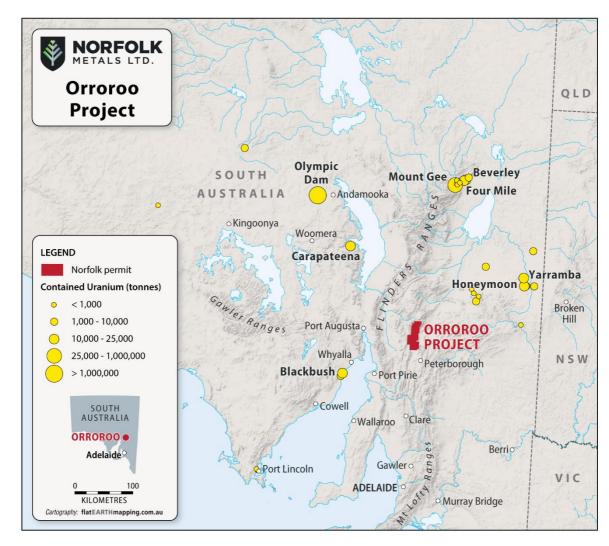


Figure 2. South Australia Uranium Districts showing Norfolk Orroroo Project and known uranium deposits

#### **Background and Initial Studies**

The Walloway Basin was initially identified as a basin of interest after analysing underexplored basins for time equivalent depositional environments; the basin is located adjacent to the highly uranium fertile Frome Embayment. The Walloway Basin was under explored until 2009, when Linc Energy drilled a series of wells, targeting coal-seam gas. Linc Energy were unsuccessful in discovering commercial hydrocarbons during this campaign. However, the now publicly available wireline logs contained five (5) wells with significant gamma anomalies, above background gamma radiation, in the top 150m. The gamma anomalies straddled lithological boundaries. Gamma peaks exhibited geometries that are consistent with roll-front, sandstone hosted uranium occurrences.



The following is a brief summary of key uranium elements in the Walloway Basin:

- Reservoir Tertiary aged fluvio-lacustrine sedimentary packages, including riverine sand packages.
- **Seal** Fining upwards sequences and channel abandonments, as well as flood plains and lacustrine mudstones are present and are excellent seals.
- Trap Uranium mineralisation may rely on chemical traps by requiring reducing materials, such as lignite, sulphides (pyrite), and possibly small amounts of organic and inorganic gases.
- Source and migration This was the key risk element for the Walloway Basin. There have been no drillhole penetrations of granites. However, the Adelaide Geosyncline and surrounding areas has many proven granitoid bodies with elevated uranium concentrations. Possible sources could be buried under the basin, with faults acting as conduits, or sediments in the basin were sourced from granitoids (provenance). This is supported by the evidence of quartzose sands.

Importantly, there are many time-equivalent analogues in near-by basins. These include, but are not limited to, the producing Beverley / Four Mile Uranium Projects, in the northern portion of the fold belt, the Honeymoon Uranium Project to the east, the Curnamona Province with many discovered uranium occurrences and the Samphire Uranium Project, west of the Adelaide Fold Belt.

#### **Testing Methods**

Norfolk Metals was able to take advantage of the Orroroo series Linc Energy wells, which were cased and completed as water wells. This was attractive for uranium exploration, as it negated the need to redrill, thus significantly reducing costs. Five (5) wells were elected for survey and with three (3) wells entered this reconnaissance logging program; Orroroo 7P3, Orroroo 9P3 and Orroroo 15P1. Geosensor Wireline, a local wireline logging company, were able to source PFN and Spectral Gamma tools with a qualified licenced operator. **PFN's are the only in situ logging tool that can assay uranium directly.** Gamma based tools only measure gamma radiation emitted from daughter elements of uranium.



### **APPENDIX**

#### Results

It is noted that when re-entering existing agricultural water wells with casings of polyvinyl chloride (PVC) and concrete over 10 years old there are obstacles in relation to accessing the well, the well head pressure and potential fluctuating bore hole parameters. The outcomes of the survey conducted are limited to the access of the wells at the time of survey and therefore not all wells were able to be accessed or assessed with exactly the same procedures and tools. It is important to note that any geophysical survey tool is not as accurate as fresh rock geochemical analysis from a Certified laboratory.

#### Well 7P3

- Well targeted zone successfully logged with PFN
- The PFN tool reported a peak of 650ppm  $pU_3O_8$  within an interval of 192ppm  $pU_3O_8$  over 0.5m from 112.59m
- Epithermal neutrons detected by the PFN only come from the fission of the U235 atoms, therefore proving uranium presence
- For a more accurate assessment of uranium concentration at the location of 7P3; a
  follow up drill program and logging with PFN in an uncased bore along with
  geochemical analysis is required.

|                  | From<br>(mMD) | To (mMD) | Thickness<br>(m) | pU <sub>3</sub> O <sub>8</sub> PFN<br>(ppm) |
|------------------|---------------|----------|------------------|---|
| Highest Reding   | 112.97        | 112.99   | 0.02             | 650   |
| Average Interval |               |          |                  |   |
| Reading          | 112.59        | 113.09   | 0.50             | 192   |

#### **Well 15P1**

- Well targeted zone logged with Spectral Gamma and PFN
- The Spectral Gamma tool provided reading of  $pU_3O_8$  up to 53ppm at 102.35m MD
- The PFN log was not successful, possibly due to direct result of neutron attenuation by the PVC casing, or tool failure itself.
- This zone has possibly been re-oxidised whereby immobile daughter products have been left behind as mobile uranium migrates.
- The survey of this well is a qualitative assessment only that uranium is present. Additional exploration work will be needed to define accurate grade.



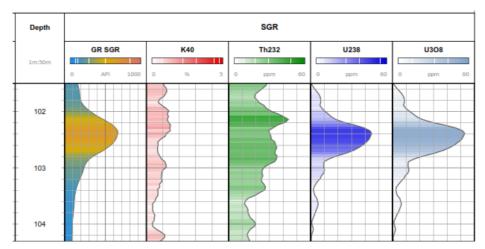


Figure 3. Spectral Gamma log of 15P1

#### Well 9P3

Well 9P3 targeted zone was logged with Spectral Gamma only. The peak reading of the Spectral Gamma log was recorded as 38ppm pU $_3$ O $_8$  at 147.88m depth. Similar to well 15P1 the survey of this well is a qualitative assessment that uranium is present and only additional exploration will define accurate grade.

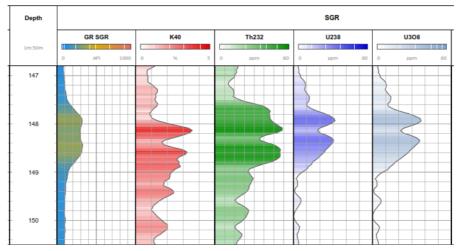


Figure 4. Spectral Gamma log of 9P3

#### **Summary**

This reconnaissance programme was a technical success in proving uranium occurences in the Walloway Basin. Norfolk Metals has discovered an area previously overlooked for uranium with a robust concept, and near-by analogues in adjacent time-equivalent basins, all flanking the Adelaide Fold Belt (Mount Lofty Ranges, Flinders Ranges and Gammon Ranges). Direct Uranium Indicators have been discovered, proven by epithermal neutron detected by the PFN tool from the activation of fissile U235 atoms. Further work needs to be done to quantify accurate uranium concentrations, in situ.



## **Reported Survey Data**

## Well 7P3

| DEPT[M] | GR PFN  | PFN U308 |
|---------|---------|----------|
| 112.59  | 16.0606 | 399.695  |
| 112.61  | 14.55   | 400.153  |
| 112.63  | 18.29   | 99.9618  |
| 112.65  | 23.045  | 150      |
| 112.67  | 23.18   | 50.0381  |
| 112.69  | 22.5002 | 0        |
| 112.71  | 26.365  | 0        |
| 112.73  | 29.5252 | 0        |
| 112.75  | 27.0242 | 0        |
| 112.77  | 26.63   | 49.9618  |
| 112.79  | 29.565  | 150      |
| 112.81  | 28.351  | 100.076  |
| 112.83  | 29.7915 | 0        |
| 112.85  | 30.355  | 199.924  |
| 112.87  | 28.6957 | 300      |
| 112.89  | 27.9391 | 200      |
| 112.91  | 29.63   | 100.114  |
| 112.93  | 27.99   | 249.905  |
| 112.95  | 25.1339 | 350.114  |
| 112.97  | 25.0889 | 399.924  |
| 112.99  | 24.3    | 649.981  |
| 113.01  | 23.7139 | 350      |
| 113.03  | 20.4548 | 149.886  |
| 113.05  | 20.2252 | 150.057  |
| 113.07  | 20.875  | 249.905  |
| 113.09  | 22.0147 | 250.191  |



## **Well 15P1**

| DEDTIAAL | K40      | 11220   | TUOSO   | CD SCD  | SC B 11200 |
|----------|----------|---------|---------|---------|------------|
| DEPT[M]  |          | U238    | TH232   | GR_SGR  | SGR U308   |
| 102.147  | 1.4181   | 18.4474 | 43.4964 | 485.35  | 21.7187    |
| 102.168  | 1.26463  | 21.2983 | 43.0717 | 511.363 | 25.0752    |
| 102.188  | 1.11121  | 24.1482 | 42.6472 | 537.367 | 28.4304    |
| 102.208  | 1.24366  | 27.0108 | 41.1741 | 558.555 | 31.8006    |
| 102.228  | 1.40083  | 29.8733 | 39.6108 | 579.318 | 35.1707    |
| 102.247  | 1.55063  | 33.0664 | 36.6948 | 598.302 | 38.9301    |
| 102.268  | 1.6903   | 36.7182 | 31.9066 | 614.832 | 43.2295    |
| 102.287  | 1.82991  | 40.3686 | 27.1203 | 631.356 | 47.5272    |
| 102.308  | 1.53005  | 42.3333 | 28.7088 | 641.668 | 49.8403    |
| 102.327  | 1.19146  | 44.1481 | 30.8603 | 651.429 | 51.9769    |
| 102.348  | 1.08214  | 45.0991 | 31.6752 | 656.75  | 53.0966    |
| 102.368  | 1.29114  | 44.8503 | 30.6339 | 655.902 | 52.8037    |
| 102.388  | 1.50022  | 44.6015 | 29.5923 | 655.055 | 52.5107    |
| 102.408  | 1.39165  | 44.5977 | 29.2345 | 651.544 | 52.5062    |
| 102.427  | 1.2547   | 44.6158 | 28.9377 | 647.796 | 52.5275    |
| 102.448  | 1.10177  | 44.2869 | 29.7272 | 642.738 | 52.1403    |
| 102.467  | 0.926676 | 43.4746 | 32.031  | 635.86  | 51.1839    |
| 102.488  | 0.75152  | 42.6619 | 34.3356 | 628.978 | 50.2272    |
| 102.507  | 0.727165 | 42.2226 | 33.0205 | 620.961 | 49.71      |
| 102.528  | 0.71648  | 41.817  | 31.3765 | 612.837 | 49.2324    |
| 102.548  | 0.698579 | 41.0985 | 31.4366 | 602.742 | 48.3865    |
| 102.568  | 0.67056  | 39.9411 | 33.8828 | 589.879 | 47.0238    |
| 102.588  | 0.642552 | 38.7842 | 36.3282 | 577.02  | 45.6618    |
| 102.607  | 0.697307 | 37.5264 | 36.4634 | 561.754 | 44.1809    |
| 102.628  | 0.759708 | 36.2588 | 36.3858 | 546.261 | 42.6886    |
| 102.647  | 0.762672 | 35.0147 | 35.7846 | 527.206 | 41.2239    |
| 102.668  | 0.682023 | 33.8026 | 34.4459 | 503.12  | 39.7969    |
| 102.688  | 0.601405 | 32.591  | 33.1078 | 479.043 | 38.3704    |
| 102.708  | 0.626483 | 30.3661 | 33.2743 | 454.968 | 35.751     |
| 102.728  | 0.661423 | 28.0476 | 33.5812 | 430.902 | 33.0212    |
| 102.747  | 0.713708 | 25.3622 | 33.9848 | 406.576 | 29.8597    |
| 102.768  | 0.790538 | 22.1572 | 34.5252 | 381.871 | 26.0863    |
| 102.787  | 0.867339 | 18.9534 | 35.0654 | 357.175 | 22.3144    |

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## Well 9P3

| DEPT[M] | K40      | U238    | TH232   | GR_SGR  | SGR U3O8 |
|---------|----------|---------|---------|---------|----------|
| 147.74  | 0.60527  | 20.1077 | 53.4896 | 241.85  | 23.5244  |
| 147.76  | 0.890946 | 20.8388 | 55.1649 | 248.877 | 24.3844  |
| 147.78  | 1.17662  | 21.5699 | 56.8401 | 255.48  | 25.2452  |
| 147.8   | 1.14262  | 23.6758 | 56.8536 | 266.711 | 27.3066  |
| 147.82  | 0.953809 | 26.4461 | 56.0622 | 284.213 | 30.5681  |
| 147.84  | 0.796363 | 28.9913 | 55.3652 | 301.728 | 33.8346  |
| 147.86  | 0.789371 | 30.4521 | 55.1222 | 313.167 | 35.5531  |
| 147.88  | 0.782384 | 31.9117 | 54.8793 | 324.101 | 37.2715  |
| 147.9   | 0.988353 | 32.0982 | 55.5494 | 327.55  | 37.8788  |
| 147.92  | 1.2979   | 31.6649 | 56.6638 | 320.885 | 37.3685  |
| 147.94  | 1.57414  | 31.2553 | 57.7471 | 314.221 | 36.8582  |
| 147.96  | 1.69119  | 30.9592 | 58.6818 | 315.269 | 36.5098  |
| 147.98  | 1.80833  | 30.663  | 59.6171 | 316.928 | 36.1611  |
| 148     | 2.00873  | 29.185  | 61.1608 | 317.367 | 34.7803  |
| 148.02  | 2.24948  | 27.1342 | 62.9993 | 316.176 | 32.3658  |
| 148.04  | 2.52566  | 25.0052 | 64.823  | 314.985 | 29.9513  |
| 148.06  | 2.97205  | 22.4939 | 66.5845 | 307.752 | 26.9969  |
| 148.08  | 3.41844  | 19.9826 | 68.3459 | 300.052 | 24.0403  |
| 148.1   | 3.66847  | 18.2007 | 69.7929 | 294.55  | 21.721   |
| 148.12  | 3.8235   | 16.7707 | 71.089  | 291.953 | 20.0375  |
| 148.14  | 3.90168  | 15.8803 | 71.5668 | 289.356 | 18.3526  |
| 148.16  | 3.61295  | 17.5665 | 68.1376 | 287.759 | 20.3369  |
| 148.18  | 3.32443  | 19.2514 | 64.711  | 286.239 | 22.3212  |
| 148.2   | 3.18034  | 21.1071 | 60.7785 | 290.453 | 24.4546  |
| 148.22  | 3.10661  | 23.0454 | 56.6011 | 302.243 | 26.7358  |
| 148.24  | 3.01867  | 25.0292 | 52.1841 | 314.023 | 29.0171  |
| 148.26  | 2.86253  | 27.2393 | 46.6044 | 304.98  | 31.6171  |
| 148.28  | 2.70639  | 29.4494 | 41.0246 | 294.419 | 34.2192  |
| 148.3   | 2.37208  | 30.4521 | 40.9303 | 287.967 | 35.7667  |
| 148.32  | 1.95174  | 30.8693 | 43.4929 | 286.89  | 36.2579  |
| 148.34  | 1.58669  | 31.144  | 46.0943 | 285.812 | 36.7498  |
| 148.36  | 1.4872   | 30.7367 | 48.872  | 303.382 | 36.2706  |
| 148.38  | 1.38778  | 30.3297 | 51.6476 | 322.247 | 35.7915  |
| 148.4   | 1.51126  | 29.7414 | 54.1433 | 332.661 | 35.1538  |
| 148.42  | 1.7432   | 29.0651 | 56.502  | 332.072 | 34.3574  |
| 148.44  | 1.94742  | 28.2996 | 59.207  | 331.483 | 33.5609  |
| 148.46  | 2.01928  | 27.1089 | 63.5626 | 326.996 | 32.1595  |
| 148.48  | 2.0912   | 25.9173 | 67.9215 | 322.239 | 30.757   |
| 148.5   | 2.33979  | 25.4707 | 68.4529 | 319.362 | 30.0049  |
| 148.52  | 2.67402  | 25.3852 | 67.129  | 318.905 | 29.9042  |



| 148.54 | 3.01529 | 25.125  | 65.9833 | 318.448 | 29.8035 |
|--------|---------|---------|---------|---------|---------|
| 148.56 | 3.3916  | 24.0304 | 65.6821 | 315.808 | 28.5158 |
| 148.58 | 3.76792 | 22.9357 | 65.381  | 313.022 | 27.2271 |
| 148.6  | 3.63193 | 22.4696 | 65.4725 | 311.68  | 26.4873 |
| 148.62 | 3.24718 | 22.308  | 65.7546 | 312.182 | 26.2969 |
| 148.64 | 2.90458 | 21.9645 | 66.1138 | 312.683 | 26.1065 |
| 148.66 | 2.76326 | 20.7527 | 66.841  | 295.897 | 24.6804 |
| 148.68 | 2.62205 | 19.5418 | 67.5676 | 278.015 | 23.2544 |
| 148.7  | 2.6283  | 18.5537 | 66.8775 | 265.032 | 22.0232 |
| 148.72 | 2.70632 | 17.6745 | 65.4982 | 258.297 | 20.9885 |

## **Roger River Update**

Norfolk Metals intends to commence the now approved additional geochemistry and IP survey within EL20/2020. The final assay results from 22RRD-001 and 22RRD-003 will be reported when the Company has received and interpreted all assays from the laboratory which is expected within March 2023.

**END** 

This announcement has been authorized by the board of directors of Norfolk.

#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results for the Orroroo Uranium Project, is based on, and fairly represents, information and supporting documentation prepared by Mr Leo Pilapil, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Pilapil has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pilapil is a related party of the Company, being the Technical Director, and holds securities in the Company. Mr Pilapil has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Exploration Results which have been previously reported are extracted from ASX announcements made by NFL on 18 March 2022 and 17 November 2022 which are available to view of the Company's website: www.norfolkmetals.com.au. NFL confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. NFL confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



#### **About Norfolk Metals**

The Roger River Project comprises two granted exploration licenses, EL20/2020, and EL17/2021, which together cover 261km2, located 410km northwest of the capital city of Hobart, Tasmania. The Project is prospective for gold and copper as indicated by the intense silicification, argillisation and diatreme breccias in close proximity to the Roger River Fault along with carbonate-rich host rocks.

The Orroroo Uranium Project comprises two granted exploration licenses, EL6552, and EL6814, which together cover 659km2, located approximately 274km northwest of the capital city of Adelaide, South Australia within the Walloway Basin, which is an elongate Tertiary Basin approximately 50km long and up to 15km wide. It consists of Tertiary and Quaternary sediments unconformably underlain by Adelaidian basement.

For further information please visit www.norfolkmetals.com.au.



# JORC Code, 2012 Edition – Table 1 Report Template

## Section 1 Sampling Techniques and Data

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

| Criteria               | JORC Code Explanation   | Commentary   |
|------------------------|---|--|
| Sampling               | Nature and quality of sampling (e.g. cut channels, random chips, or   | Orroroo Uranium Project:   |
| techniques             | 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.  | Historical Linc Energy holes lined with PVC casing and currently used as water wells were used in the geophysical investigation.   |
|                        | <ul> <li>Include reference to measures taken to ensure sample representivity</li> </ul>   | <ul> <li>Drill hole vary in size from open hole 14" to 8 1/2".</li> </ul>  |
|                        | <ul> <li>and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (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</li> </ul> | <ul> <li>Downhole wireline geophysical logging using Spectral Gamma (QL40-SGR2G) and Prompt Fission Neutron (PFN - ThermoFisher 14 MeV neutron generator tube) tools were used to calculate pU3O8 from the ratio of epithermal and thermal neutrons.</li> <li>The PFN used in this program was calibrated using Industry Standard procedures at the P22 Glenside Calibration Facility (Adelaide).</li> </ul> |
| Datur -                | information.  | Owen a Harrison Buria da   |
| Drilling<br>techniques | <ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary<br/>air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter,</li> </ul>   | Orroroo Uranium Project:   |
| reeningoes             | triple or standard tube, depth of diamond tails, face-sampling bit or   | Linc Energy (Historical)   |
|                        | other type, whether core is oriented and if so, by what method, etc).   | <ul> <li>The drilling was conducted by Thompson Drilling<br/>Company using the Bourne 1250 drill rig. The holes were<br/>rotary mud open holes using Drag Bit and Step Blade<br/>(14" to 8 ½").</li> </ul>   |
|                        |   | All holes were vertical.   |
|                        |   |  |

| Criteria  | JORC Code Explanation  | Commentary   |
|---|--|--|
| Drill sample<br>recovery                            | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul> | Orroroo Uranium Project:  Downhole caliper logs were not collected during this geophysical survey. Historical Linc Energy holes are grouted and cased with PVC.  |
| Logging   | Whether core and chip samples have been geologically and   | Orroroo Uranium Project:   |
|   | geotechnically logged to a level of detail to support appropriate<br>Mineral Resource estimation, mining studies and metallurgical<br>studies.   | <ul> <li>No mud or chip samples were collected during this survey</li> </ul>   |
|   | <ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>  | Linc Energy (historical)   |
|   |  | <ul> <li>Chip/mud samples were collected 2m in non-target<br/>areas and then 1m in the zones of interest (i.e. the<br/>target Kanaka Beds).</li> </ul>   |
|   |  | <ul> <li>All samples are geologically logged compliant with<br/>industry standards which included lithology, mineralogy,<br/>grain size/rounding/sorting, colour,</li> </ul>   |
|   |  | <ul> <li>All samples were photographed using a high-resolution<br/>camera.</li> </ul>  |
| Sub-  | If core, whether cut or sawn and whether quarter, half or all core   | Orroroo Uranium Project:   |
| sampling<br>techniques<br>and sample<br>preparation | <ul> <li>taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>  | <ul> <li>The depth of investigation of the PFN tool approximately<br/>25-40 cm radius around the borehole to allow for<br/>accurate measurement of the ratio of<br/>epithermal/thermal neutrons for pU3O8 calculations.</li> </ul> |
|   | <ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the</li> </ul>   | <ul> <li>QA/QC of pU3O8 data included repeatability checks<br/>and to ensure sufficient assay data in the target zone to<br/>compare/calibrate PFN data.</li> </ul>  |

in situ material collected, including for instance results for field

| (    | Criteria              | JORC Code Explanation   | Commentary   |
|------|-----------------------|---|--|
|      |                       | <ul> <li>duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>  | <ul> <li>Neutrons are emitted from the logging tool by a<br/>pulsed neutron generator tube. The number of<br/>neutrons detected is proportional to the amount<br/>of Uranium in the formation.</li> </ul>  |
|      |                       |   | <ul> <li>pU3O8 grade measured by the PFN tool is<br/>determined by plotting a calibration curve from<br/>results recorded in three pits of known grade.</li> </ul>   |
|      |                       |   | <ul> <li>PFN pU3O8 grade = slope x (epithermal<br/>neutrons/thermal neutrons ratio) + offset x Bore<br/>Hole Correction Factor</li> </ul>  |
|      | ality of              | The nature, quality and appropriateness of the assaying and   | Orroroo Uranium Project:   |
| asso | ay data<br>I          | laboratory procedures used and whether the technique is considered partial or total.  | Two geophysical tools were used:   |
|      | oratory               | <ul> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks,</li> </ul> | <ul> <li>Prompt Fission Neutron Tool (PFN) manufactured by<br/>Geoinstruments Inc, Nacogdoches, Texas, Instruments<br/>And Articles UN2911 under Colorado Device Registry<br/>CO-1012-D-101-S. Neutron generator 78-80kV, logging at<br/>0.5m/minute across the target zoe.</li> </ul>   |
|      |                       | duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.  | <ul> <li>Spectral Gamma Ray QL40-SGR2G. The Full Spectrum<br/>Analysis (FSA) is developed by Medusa Systems BV in<br/>collaboration with the Nuclear Physics Institute of the<br/>University of Groningen (Netherlands). The sensor is a<br/>Scintillation crystal BGO (Bismuth Germanium Oxyde).<br/>Logging Speed is 2m/minute.</li> </ul> |
|      | ification             | The verification of significant intersections by either independent or  | Orroroo Uranium Project:   |
| and  | ampling<br>I<br>aying | <ul> <li>alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul> <li>The PFN was used to measure total Gamma log, which<br/>independently confirmed the anomalous zone obtained<br/>from the Spectral Gamma tool.</li> </ul>   |

| Criteria   | JORC Code Explanation  | Commentary   |
|--|--|--|
| Location of  | <ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and</li> </ul>   | Orroroo Uranium Project:   |
| data points  | down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.   | Linc Energy (Historical)   |
|  | <ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>   | <ul> <li>Two x Leica SR 530 Dual Frequency GPS sensors were<br/>used to collect data and processing was done using<br/>Leica Geo Office software.</li> </ul>   |
|  |  | <ul> <li>Height Datum was taken from Bench mark 6632/ 1059<br/>(BM 3526) with a check taken on Bench mark 6632/<br/>1057 (BM 877).</li> </ul>  |
|  |  | <ul> <li>Auspos post processing was used as a second check<br/>and for accurate coordinates.</li> </ul>  |
| Data   | <ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>   | Orroroo Uranium Project:   |
| spacing and<br>distribution                          | <ul> <li>Whether the data spacing and distribution is sufficient to establish<br/>the degree of geological and grade continuity appropriate for the<br/>Mineral Resource and Ore Reserve estimation procedure(s) and</li> </ul>  | <ul> <li>Drill spacings chosen for the investigation were up to<br/>kms apart (see Figure 1 of the Announcement).</li> </ul>   |
|  | classifications applied.  • Whether sample compositing has been applied.   | <ul> <li>Intercepts from the geophysics tools have been<br/>reported for intervals &gt;0.02m downhole thickness with<br/>an average of &gt;100ppm pU308 for the PFN tool and an<br/>average of &gt;20ppm pU308 for the Spectral Gamma<br/>tool.</li> </ul> |
|  |  | <ul> <li>The same parameters have been applied for the<br/>aggregate intercepts. Internal dilution of continuous<br/>zero readings no greater than 0.1m in downhole length<br/>has been included in the composite calculations.</li> </ul>                 |
| Orientation  | Whether the orientation of sampling achieves unbiased sampling of  | Orroroo Uranium Project:   |
| of data in<br>relation to<br>geological<br>structure | <ul> <li>possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul> | The mineralisation is interpreted to be contained in horizontal to sub-horizontal sequence of sediments and underlying weathered granite. This interpretation is derived from the significant historic drilling and geological interpretation of the area. |

| Criteria  | JORC Code Explanation   | Commentary   |
|-----------|---|--|
|           |   | <ul> <li>All drillholes are vertical which is appropriate for the<br/>orientation of the mineralisation.</li> </ul>  |
| Sample    | The measures taken to ensure sample security.   | Orroroo Uranium Project:   |
| security  |   | Linc Energy (Historical)   |
|           |   | <ul> <li>Representative rotary mud/chip samples are stored in<br/>the South Australia Tonsley core storage facility.</li> </ul>  |
| Audits or | <ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul> | Orroroo Uranium Project:   |
| reviews   |   | <ul> <li>Data collected and analytical results of the geophysics<br/>survey were reviewed by the Managing Director of<br/>Geosensor Wireline and company's Uranium Consulting<br/>Geologists.</li> </ul> |

## **Section 2 Reporting of Exploration Results**

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

| Criteria   | JORC Code Explanation  | Commentary   |
|--|--|--|
| Mineral<br>tenement and<br>land tenure<br>status | <ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul> | <ul> <li>Orroroo Uranium Project:</li> <li>The Orroroo Project is located on exploration licenses EL6552 and EL6814 which are held 100% by Norfolk</li> <li>Continual engagement with the Department of Mining and Energy in South Australia, local heritage groups and stake holders is required and overseen by Norfolk contract geologist.</li> </ul> |
| Exploration<br>done by other<br>parties          | <ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>  | <ul> <li>Orroroo Uranium Project:</li> <li>Linc Energy drilled a series of wells exploring for coal and gas in the Walloway Basin (EL6552). The company used downhole wireline gamma spectrometry to determine</li> </ul>  |

| Criteria                  | JORC Code Explanation   | Commentary  |
|---------------------------|---|---|
|                           |   | locations of possible hydrocarbon traps.  |
| Geology                   | Deposit type, geological setting and style of mineralisation.   | Orroroo Uranium Project:  |
|                           |   | <ul> <li>Walloway Basin, which is an elongate Tertiary Basin<br/>approximately 50km long and up to 15km wide. It<br/>consists of Tertiary and Quaternary sediments<br/>unconformably underlain by Adelaidian basement.</li> </ul>   |
|                           |   | <ul> <li>Within the Tertiary two lithological units have been<br/>recognised, a lower interbedded fluvial sand, silt and<br/>clay, and an upper, more extensive and continuous<br/>lacustrine unit of grey, brown and black clay. Both<br/>consist of unconsolidated sediments and multiple<br/>aquifers, one of which may be artesian. The lower unit<br/>contains a known coal seam (Walloway Seam) of Lignite<br/>B rank.</li> </ul> |
|                           |   | <ul> <li>The Walloway basin has no known uranium source<br/>defined in the nearby ranges and outcrops. However,<br/>the Walloway basin is underlain by granitic basement<br/>rocks which could possibly be the source of mobilized<br/>uranium.</li> </ul>  |
| Drill hole<br>Information | <ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should</li> </ul> | Orroroo Uranium Project:  |
|                           |   | Historical drill hole information used in the geophysics survey is shown in Table 1 of this announcement.   |

| Criteria                                | JORC Code Explanation   | Commentary   |
|---|---|--|
|   | clearly explain why this is the case.   |  |
| Data<br>aggregation<br>methods          | <ul> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | Orroroo Uranium Project:   |
|   |   | <ul> <li>Intercepts from the geophysics tools have been<br/>reported for intervals &gt;0.02m downhole thickness with an<br/>average of &gt;100ppm pU308 for the PFN tool and an<br/>average of &gt;20ppm pU308 for the Spectral Gamma<br/>tool.</li> </ul>     |
|   |   | <ul> <li>The same parameters have been applied for the<br/>aggregate intercepts. Internal dilution of continuous<br/>zero readings no greater than 0.1m in downhole length<br/>has been included in the composite calculations.</li> </ul>                     |
|   |   | <ul> <li>The pU308 readings from the PFN and Spectrum Gamma<br/>tools have been included in the Appendix of the<br/>announcement.</li> </ul>   |
| Relationship                            | Exploration Results.  • If the geometry of the mineralisation with respect to the drill hole  | Orroroo Uranium Project:   |
| between<br>mineralisation<br>widths and |   | <ul> <li>For the historical Linc Energy drilling, no drilling intercepts<br/>reported</li> </ul>   |
| intercept<br>lengths                    |   | <ul> <li>For the PFN and Spectral Gamma surveys, the uranium<br/>occurrence widths are considered close to true widths<br/>due to the generally flat lying orientation of the<br/>mineralisation and the use of perpendicular vertical<br/>drilling</li> </ul> |
| Diagrams                                | <ul> <li>Appropriate maps and sections (with scales) and tabulations of<br/>intercepts should be included for any significant discovery being<br/>reported These should include, but not be limited to a plan view of<br/>drill hole collar locations and appropriate sectional views.</li> </ul>   | Orroroo Uranium Project:   |
|   |   | <ul> <li>Drill hole locations regarding the geophysics survey is<br/>shown in Figure 1 of this announcement.</li> </ul>  |
| Balanced                                | <ul> <li>Where comprehensive reporting of all Exploration Results is not<br/>practicable, representative reporting of both low and high grades<br/>and/or widths should be practised to avoid misleading reporting</li> </ul>   | Orroroo Uranium Project:   |
| reporting                               |   | The accompanying document is a balanced report with  |

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| Criteria                           | JORC Code Explanation   | Commentary  |
|------------------------------------|---|---|
|                                    | of Exploration Results.   | a suitable cautionary note.   |
| Other                              | Other exploration data, if meaningful and material, should be   | Orroroo Uranium Project:  |
| substantive<br>exploration<br>data | 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.   | All meaningful information provided.  |
| Further work                       | <ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul> | Orroroo Uranium Project:  |
|                                    |   | <ul> <li>Further geophysics investigation will map out the<br/>paleochannels possibly containing uranium<br/>mineralization.</li> </ul> |
|                                    |   | Subsequent drilling will test for possible uranium 'roll front' mineralization.   |