

## SUBSTANTIAL RESOURCE UPDATE FOR JASONS DEPOSIT

### Highlights

- Combined Honeymoon Project resource increased to 43.5 Mt @ 660 ppm eU<sub>3</sub>O<sub>8</sub> (for 63.3 Mlb eU<sub>3</sub>O<sub>8</sub>) - a 10% increase in total metal endowment
- Updated Inferred Resource at Jasons Deposit of 6.2 Mt @ 790 ppm eU<sub>3</sub>O<sub>8</sub> (for 10.7 Mlb eU<sub>3</sub>O<sub>8</sub>) – a 107% increase in metal endowment
  - Only 3 km drilled out of the 12 km prospective trend
  - Further exploration potential to be realised in future drill programs
- Promising potential for resource expansion over Combined Honeymoon Project

Boss's Chief Executive Officer, Mr Duncan Craib, said: *"The 107% increase of the Jasons resource confirms our interpretation of high prospectivity of the Yarramba palaeochannel. This program provides us with further confidence that targeted drilling can extend the uranium endowment in this region and that of our larger tenement holdings."*

**Boss Resources Limited (ASX: BOE)** is pleased to announce an updated JORC 2012 Mineral Resource at the Jasons Deposit located in the northern end of the Yarramba palaeochannel, which hosts the Honeymoon Deposit (Figure 1). The 2017 Inferred Resource update shows an endowment of 6.2 Mt with an average grade of 790 ppm eU<sub>3</sub>O<sub>8</sub> for 10.7 Mlb (4.9 Kt) of contained U<sub>3</sub>O<sub>8</sub> reported using a 250ppm U<sub>3</sub>O<sub>8</sub> lower cut-off. This represents a 107% increase in metal endowment to the 2016 resource. The global resourced for the combined eastern and western tenement holdings now totals 43.5Mt @ 650ppm eU<sub>3</sub>O<sub>8</sub> for 63.3Mlb of contained U<sub>3</sub>O<sub>8</sub> - representing a 10% increase in metal to previous estimates.

The increase to the Jasons Resource is a result of the 77 hole maiden exploration program undertaken in December 2016 and January 2017 (75 mud rotary holes and 2 sonic holes for 8,882m). This program focussed on the central portion of the Jasons Deposit, and assessed continuity of mineralisation trends as well as verifying historical grade data. The program covered 3km of the 12km trend that makes up the Jasons region on a nominal 200 x 100 drill pattern, which locally was tighter.

In addition, the Jasons region has a further Exploration Target of between 1.5 to 6Mt at between 600 to 1,500ppm eU<sub>3</sub>O<sub>8</sub> for between 7 to 18Mlb of contained U<sub>3</sub>O<sub>8</sub> (see announcement 8 December, 2015), which forms part of a combined Exploration Target in excess 100Mlbs. The Exploration Target is conceptual in nature and there is insufficient exploration to estimate a Mineral resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

The Resource is based on all available drillhole data including the results of drilling by the Boss Resources undertaken during December 2016 – January 2017. The database used for estimation of the 2017 Jasons Resource consists of 274 drillholes, including 77 new drillholes which were analysed using either the PFN tool (69 drillholes) or by natural gamma (8 drillholes) and 197 historical drillholes which were analysed by a combination of natural gamma (191 drillholes) or PFN (6 drillholes).

Table 1: Jasons Deposit 2017 Resource

(Ordinary Kriged estimate reported using a 250 ppm eU<sub>3</sub>O<sub>8</sub> as a lower cut-off and density of 1.75 t/m<sup>3</sup>. Other deposits included in the Honeymoon Project are shown for reference)

Classification	Million tonnes	eU <sub>3</sub> O <sub>8</sub> (ppm)	Contained metal (U <sub>3</sub> O <sub>8</sub> , K t)	Contained metal (U <sub>3</sub> O <sub>8</sub> , M lb)
<b>Jasons (March 2017)</b>				
<b>Inferred</b>	<b>6.2</b>	<b>790</b>	<b>4.9</b>	<b>10.7</b>
<b>Goulds Dam (April 2016)</b>				
Indicated	4.4	650	2.9	6.3
Inferred	17.7	480	8.5	18.7
<b>TOTAL</b>	<b>22.1</b>	<b>510</b>	<b>11.3</b>	<b>25.0</b>
<b>Honeymoon* (January 2016)</b>				
Measured	1.7	1720	3.0	6.5
Indicated	1.5	1270	1.9	4.2
Inferred	12.0	640	7.6	16.8
<b>TOTAL</b>	<b>15.2</b>	<b>820</b>	<b>12.5</b>	<b>27.6</b>
<b>Project Total (All deposits)</b>				
Measured	1.7	1720	2.95	6.5
Indicated	5.9	810	4.80	10.6
Inferred	35.9	586	21.0	46.7
<b>GRAND TOTAL</b>	<b>43.5</b>	<b>660</b>	<b>28.8</b>	<b>63.3</b>

\* Quoted resources have been adjusted to exclude previous production of approximately 335t of U<sub>3</sub>O<sub>8</sub>. Note: Figures have been rounded

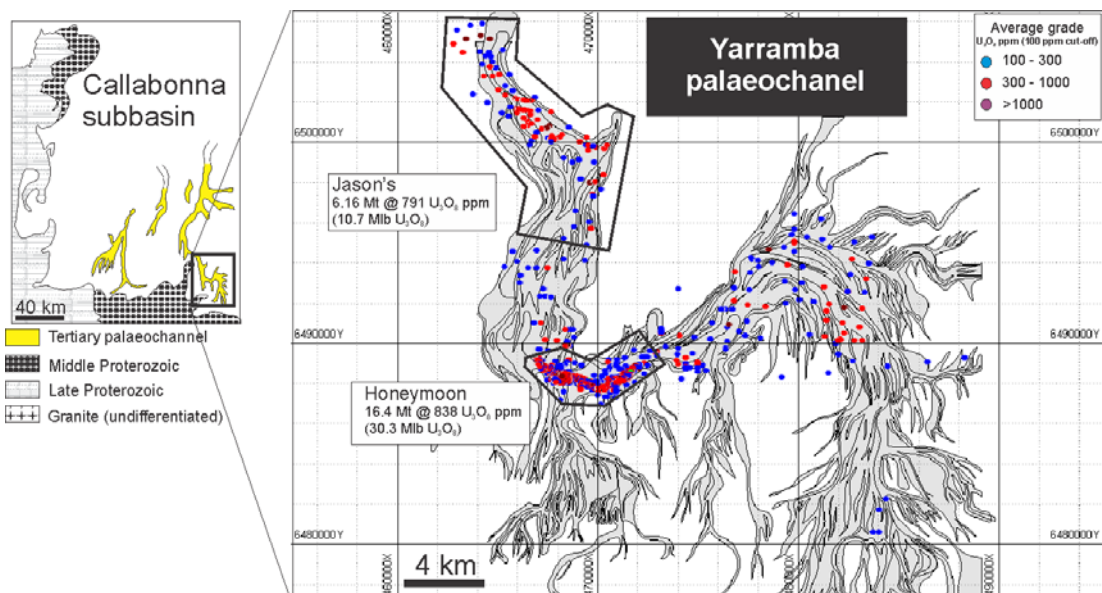


Figure 1: Location of the Jasons Deposit within the Yarramba palaeochannel. Coloured dots are the average grades of the drillhole intercepts estimated using 100 ppm U<sub>3</sub>O<sub>8</sub> as a lower cut-off.

## DETAIL ON THE RESOURCE ESTIMATE

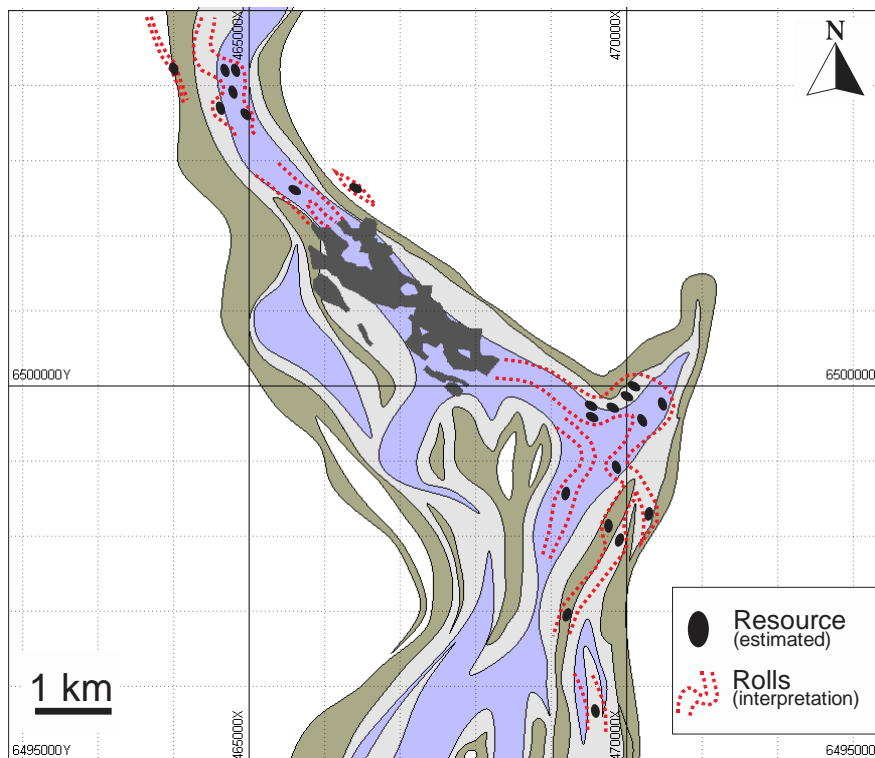
### Prospect Geology and Exploration Model

The Jasons Deposit is located in South Australia, in the southern part of the Callabonna sub-basin where it is hosted by the Yarramba palaeochannel which also hosts the Honeymoon uranium deposit and several smaller prospects (Figure 1). The Jasons Deposit is interpreted to occur as palaeochannel-hosted sandstone-type uranium mineralisation with mineralisation consisting as a series of roll-fronts and tabular bodies elongated along the strike of palaeochannel (Figure 2). The total reported resource encompasses an area approximately 12 km long and 1.5 km wide (Figures 1 & 2). The palaeochannel itself consist of fluvial sediments, mainly sandstones and siltstones intercalated with clay beds, of the Tertiary aged Eyre Formation.

This type of mineralisation is formed by movement of oxidised, uranium-bearing fluid through a largely reduced aquifer, with mineralisation occurring at the redox front of the fluid. A geochemical zonation is associated with the roll front, including oxidation of the sands upstream (orange and yellow limonite) and abundance of pyrite/marcasites and organic matter downstream. Mineralisation is associated with discreet accumulations of organic matter and pyrite within the palaeovalley sequence.

Distribution of the uranium accumulations within the palaeochannels is controlled by fluid pathways that have transported the dissolved uranium and the distribution of organic matter which served as reductants causing precipitation of uranium. Interplay of these two main factors has created a stacked geometry of the “uranium rolls” (Figure 3).

The mineralised bodies, when delineated using 150 ppm  $U_3O_8$  as a nominal lower cut-off, are several hundreds metres long and tens to hundred of metres wide (Figure 3). Their thickness varies from 0.5 to 7.75m, average 1.36 m (Figure 4a) and grade from 105 to 3,981 ppm e  $U_3O_8$ , and average 785 (Figure 4b). Accumulated metal (grade x thickness) of the intersections ranges from 105 to 9075 ppm\*m, and average 1062ppm\*m (Figure 4c). There is no correlation between grade and thickness (Figure 4d).



**Figure 2:** Map of the Jasons prospect showing Resources of the Jasons Deposit and current interpretation of the uranium roll-fronts. Background map is AEM image where the shaded areas denote conductive sedimentary packages

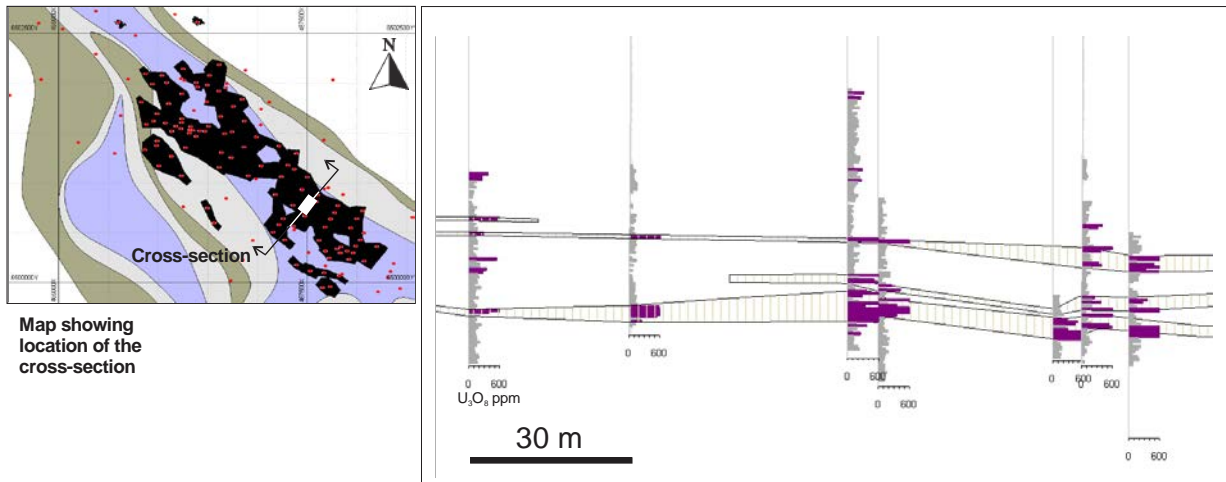


Figure 3: Cross-section through the Jasons Deposit showing a multi-layered (staked) geometry of mineralisation

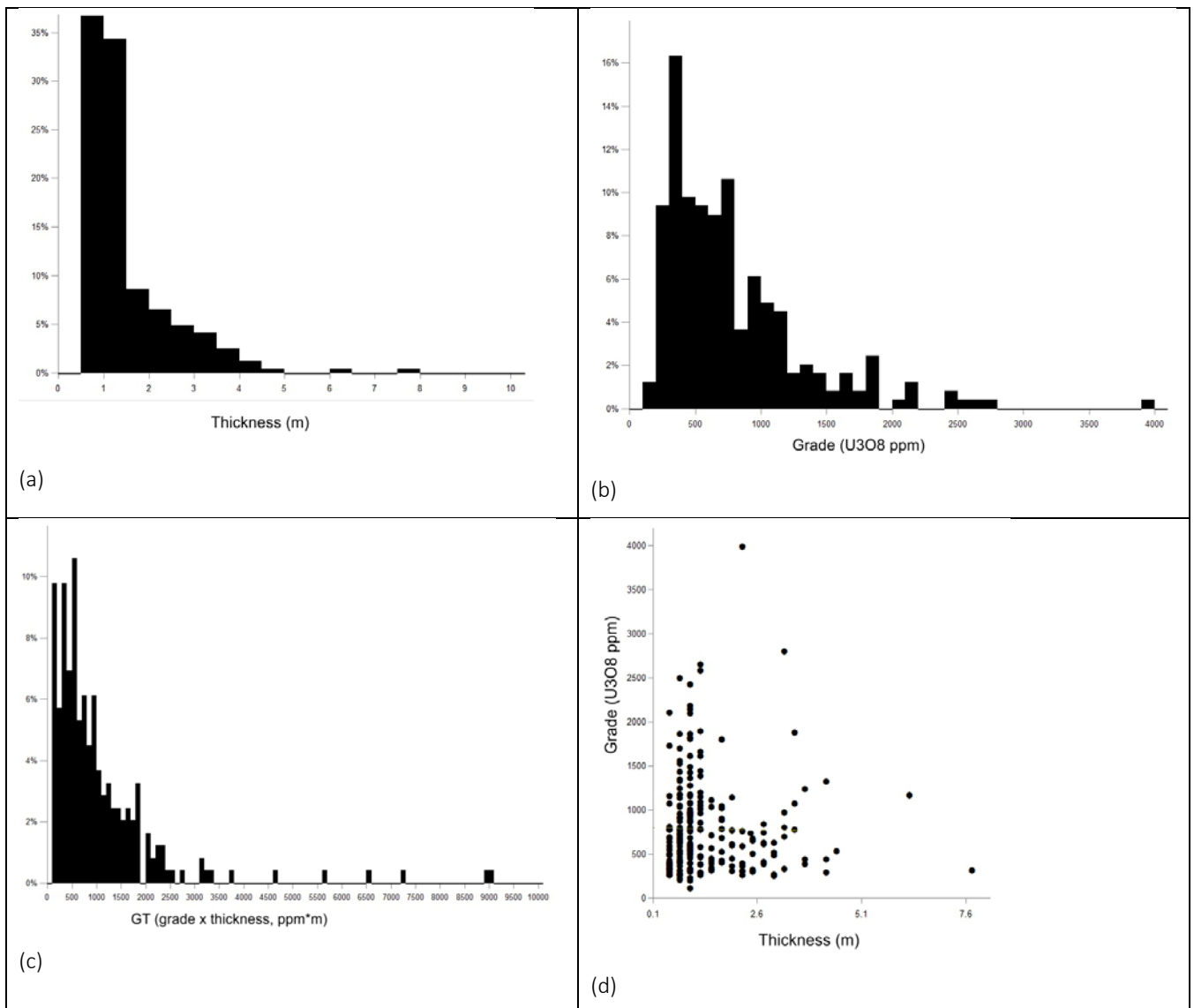


Figure 4: Thickness and grade of the uranium mineralisation at the Jasons Deposit, estimated from the drillhole intersections: (a) thickness, average 1.36m; (b) grade, U<sub>3</sub>O<sub>8</sub>, average 785 ppm; (c) metal accumulations (GT), average 1062 U<sub>3</sub>O<sub>8</sub> ppm \* m; ; (d) scatter-diagram of the grade vs. thickness

## Data

The Resource estimate for the Deposit included 274 drillholes. This includes 2 sonic core holes and 75 new rotary-mud drillholes drilled by Boss in 2016 – 2017 and surveyed by either Boss’ PFN tools or Borehole Wirelines natural gamma tool and 197 historic drillholes, that were drilled by the previous project owners and were surveyed by natural gamma-probe to provide  $eU_3O_8$  grades. The total drilled length was 31,844.7 m.

The geophysical tools utilised by Boss were maintained by specialised borehole geophysical companies in Adelaide, including Borehole Wireline, GeoData Instruments, and CIRA Pty Ltd. Data quality assurance has included a regular calibration of the all instruments which was made using calibration pits at the Honeymoon plant site and externally, at the government certified calibration facilities at Glenside, Conyngham st, Adelaide.

During the recent exploration program two different in-hole geophysical assaying technique were applied with PFN and natural gamma-probes used in parallel to determine the uranium anomalies. The two Boss PFN and natural gamma tools were initially tested and calibrated by Geodata instruments at the Glenside calibration pits. The PFN tools were additionally calibrated to the project specific conditions using the calibration pits at the Honeymoon plant site. Additionally, the calibration used for the Resource included grade information derived from 4 sonic holes drilled in 2017 at the Honeymoon and Jasons Prospects. The grade data used in the resource grade was determined by a combination of Boss’s own PFN tools ( $pU_3O_8$ ), conventional natural gamma-probe ( $eU_3O_8$ ) which was made by external geophysical contractor (Borehole Wireline), or by Boss’s own natural gamma tools ( $eU_3O_8$ ). As a QAQC measure, the PFN grade data was only used in the resource where there was a coincident gamma and PFN anomaly. When determining the downhole uranium grade, preference was given to PFN instruments, as the accuracy of the natural gamma-probe techniques can be marred by isotopic disequilibrium.

Comparison of the PFN ( $pU_3O_8$ ) and natural gamma-probe ( $eU_3O_8$ ) results has revealed a strong negative bias of the natural gamma grades (Figure 5), this is also supported by the chemical assaying of 4 sonic holes in 2017. This comparison also suggests that the current estimate could be conservative when estimating the high grade roll-front intersections due to high radioactive disequilibrium effects (Figure 5) which would not be identified in the historical natural-gamma  $eU_3O_8$  grade data. It is noted that the current resource uses only 77 drillholes assayed by the PFN instrument and 197 drillholes where uranium grade was estimated by a natural gamma-probe.

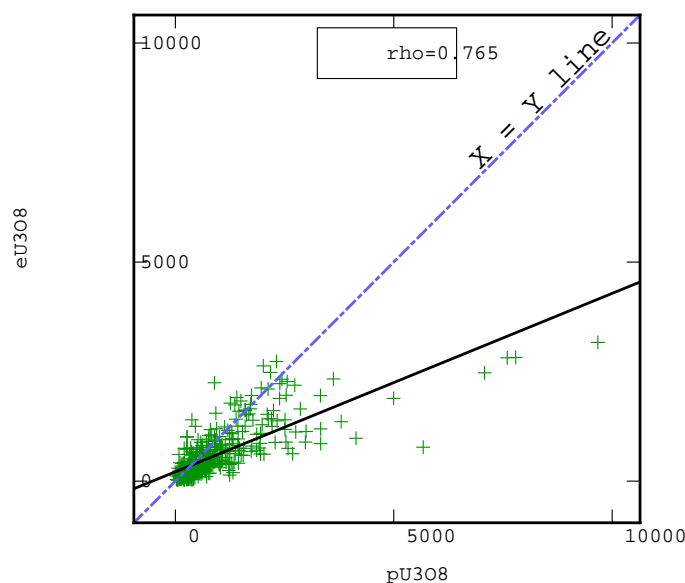


Figure 5: Scatter-diagram of  $pU_3O_8$  vs  $eU_3O_8$  grades

Capturing of the digital data was undertaken using standard industry procedures for geophysical logging of the drill holes and utilising experienced operators. The conversion of the geophysical logs to  $eU_3O_8$  (from the gamma-ray logs) and to  $pU_3O_8$  (from the PFN tools) was undertaken by experienced technicians, and in the case of the PFN tools, grade data was reviewed by an independent expert. Based upon an assessment of chemical assaying of 4 sonic holes in 2017, a -10% adjustment was made to the previously reported PFN grade data for use in the Resource estimate to allow for an appropriate match to the sonic core assays. Industry standard drilling and logging procedures were utilised by Boss Resources during the recent drilling.

### Dry Bulk Density

The in situ dry bulk density (ISDBD) applied to the Resource was based upon 8 density samples taken during the sonic core program from the Jasons region. The average density of the samples is 1.75 t/m<sup>3</sup>; which also correlated with readings from the density tool operated by Borehole Wireline.

### Resource Estimation Methodology

The palaeochannel in the deposit region has been mapped using an aerial EM survey and down-hole electric survey, which has allowed for a detailed litho-stratigraphic interpretation of the sedimentary sequences which infill the palaeochannel (Figure 2). This data was used to generate an overarching stratigraphic model which was used to control the grade model.

The resources for the deposit were estimated using a 3D block model after the mineralisation was constrained by 3D wireframes that were constructed using a nominal 150 ppm  $U_3O_8$  lower-cutoff (Figure 3). Based on the current interpretation uranium mineralisation at the Jasons prospect is distributed between 6 layers hosted by Lower (layers 1-1, 1-2 and 1-3) and Middle (layers 2-1, 2-2 and 2-3) members of the Eyre Formation (Figure 6). Units 2-3 layer are partially located in the Upper Eyre member of the Eyre Formation. The roll-fronts are interpreted to occur with a tabular and ribbon-like geometry elongated along the paleochannel trend.

Prior to estimation, the modelled mineralisation was unfolded in order to facilitate application of the geostatistical methods (Figure 7). The drillhole data and the block model was unfolded and all geostatistical studies were undertaken in unfolded 3D space. After completion of the estimates the estimated blocks were returned (back-transformed) into the actual location. The unfolding was applied for each layer separately (Figure 6).

Drill spacing is approximately 200 x 160m to 200x80m and locally denser. The  $U_3O_8$  grade was estimated into parent blocks of 50m x 20m x 0.5m using the Ordinary Kriging technique (blocks were discretised to 5x5x1 points). The grade estimation was made in passes:

- First pass, estimation is made using a search ellipsoid of 140x60x0.5m
 

Angular sectors	6
Optimal number of samples per sector	2
Minimum number of samples	4
- Second pass, estimation is made using a search ellipsoid of 250x100x1m containing 4 – 8 composites.
 

Angular sectors	1
Optimal number of samples per sector	20
Minimum number of samples	2

The search radius was deduced from the variogram parameters shown in Figure ). In order to prevent grade smearing of the high-grade samples the  $U_3O_8$  values of the 0.5m long composites were cut to 4,000 ppm  $U_3O_8$ . The top cut was applied for estimating blocks located at the distance of not less than 60m from the sample.

The estimated Resources are reported at a 250 ppm  $U_3O_8$  cut-off and include only blocks located within the distance of 140m (along strike of mineralisation) x 60m (across strike of mineralisation) from the nearest drillhole. At least 2 samples (composites) were used for estimation of the uranium grade. The estimated blocks that comply with the given criteria were classified as an Inferred Mineral Resource.

A 250 ppm  $eU_3O_8$  reporting cut-off was based on a comparative analysis of the cut-off grades at other ISL-uranium projects both in Australia and worldwide. It is noted that this cut-off is conservative when compared to those used in Kazakhstan where a cut-off of 100 ppm  $eU_3O_8$  is commonly used.

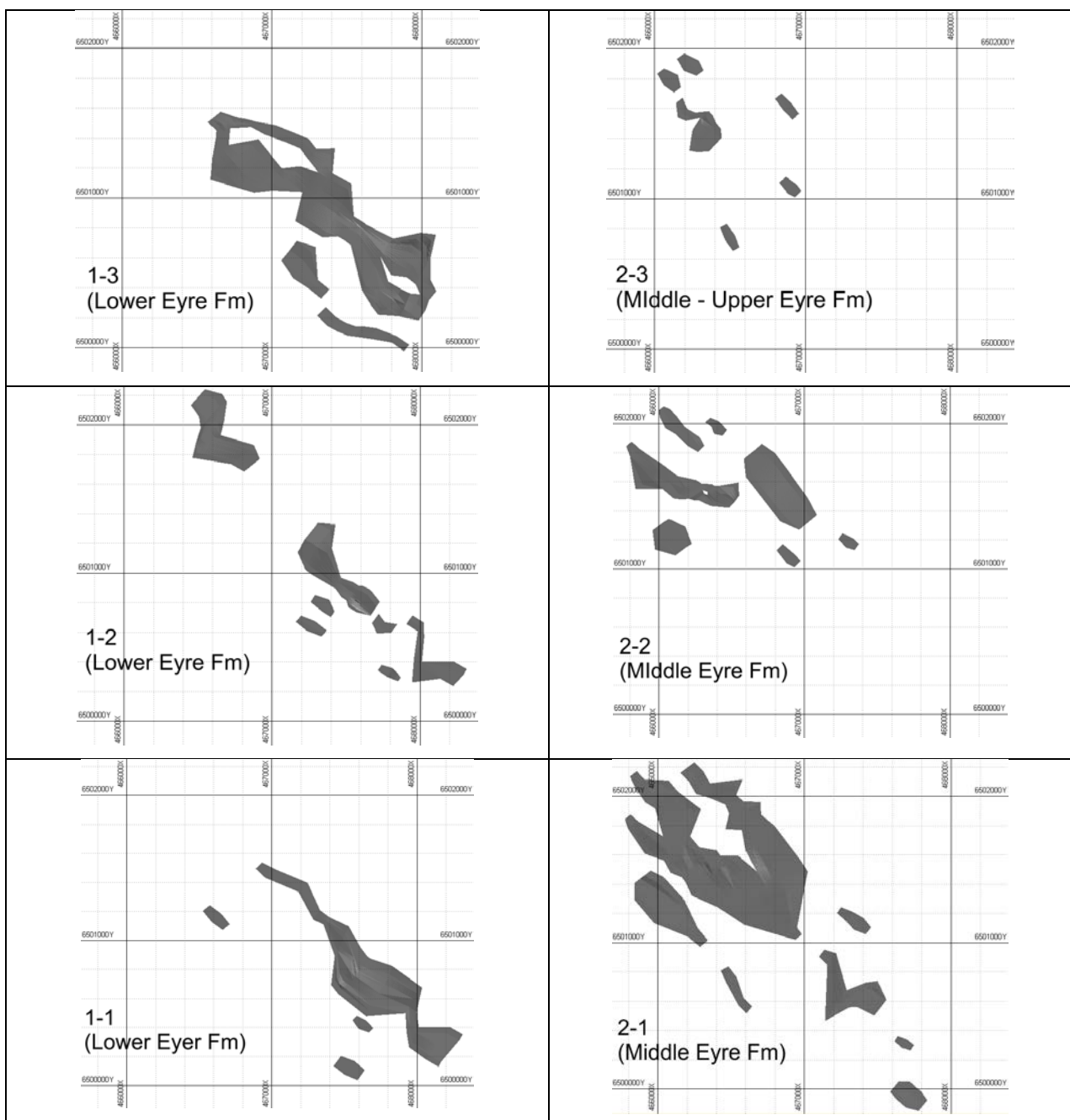


Figure 6: Map of the uranium “rolls” grouped into the layers.

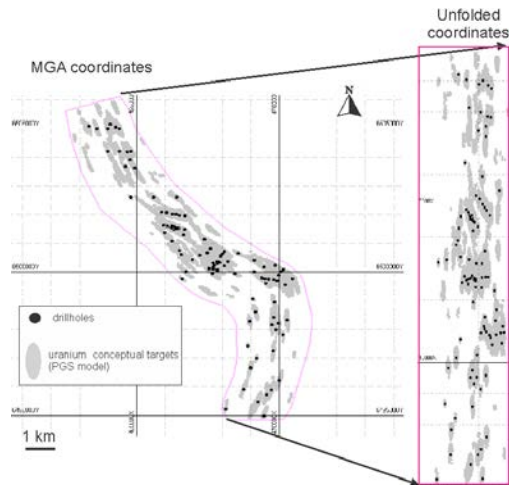


Figure 7: Map of the Jasons prospect in the MGA coordinates and the unfolded space.

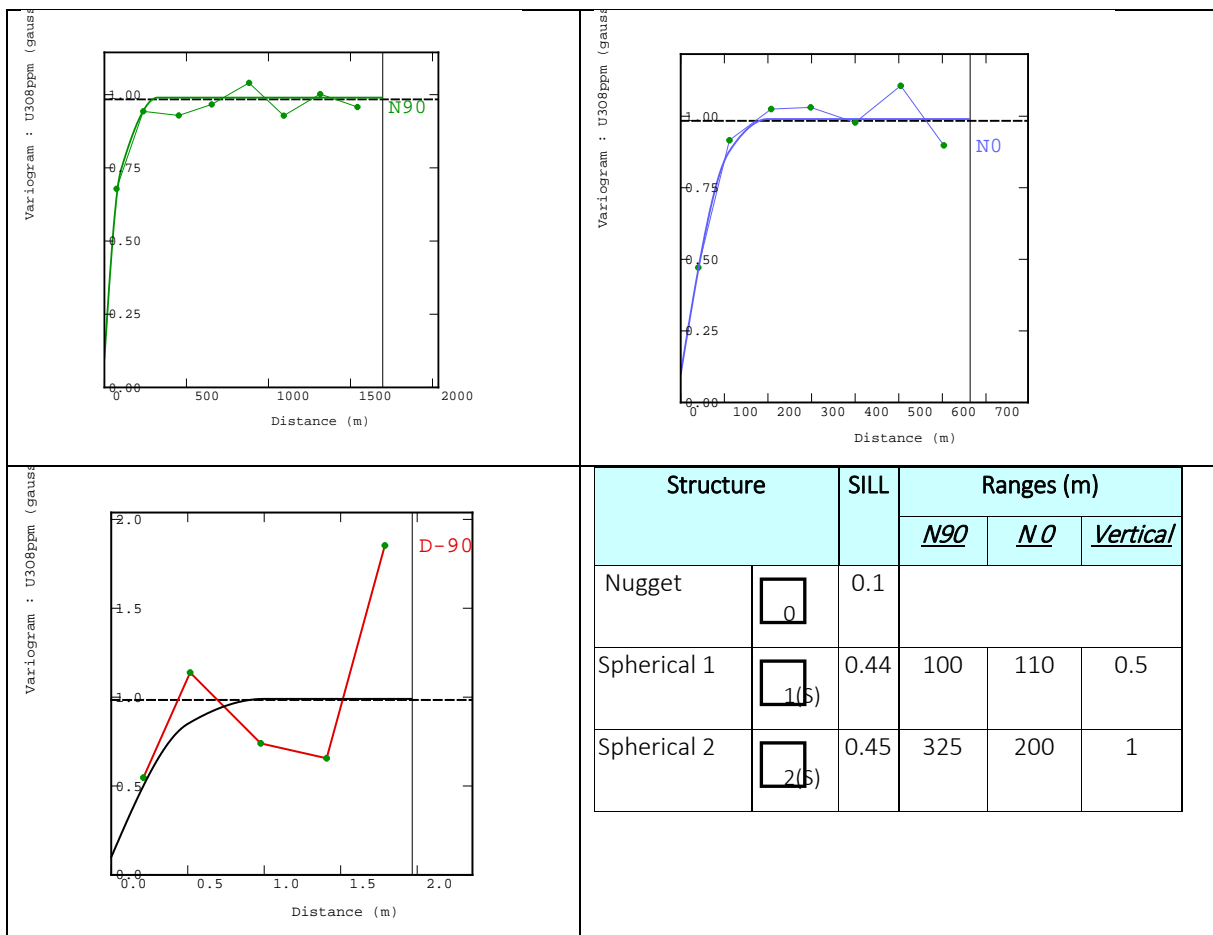


Figure 8: Variograms of the uranium mineralisation, layer 2-1. In order to enhance the variograms the grade values were transformed into the Gaussian variable



## Resource Details

Table 1 contains the 2017 Mineral Resource estimate for the Jasons prospect which totals 6.16 Mt at an average grade of 790 ppm eU<sub>3</sub>O<sub>8</sub> for 10.7 Mlb (4.9 Kt) of contained U<sub>3</sub>O<sub>8</sub> reported using a 250ppm eU<sub>3</sub>O<sub>8</sub> lower cut-off. The Jasons resources have significantly increased in comparison with the maiden Resources estimated in 2016 which was based upon historical grade data (ASX: 14 June 2016). The previous estimate totalled 2.8 Mt at the average grade of 840 ppm eU<sub>3</sub>O<sub>8</sub> for 5.2 Mlb of contained U<sub>3</sub>O<sub>8</sub>. The 2016/2017 drilling program as resulted in the addition of 5.5 Mlb of contained U<sub>3</sub>O<sub>8</sub> to the Resource, which is an 106% increase from the maiden Resource estimate.

It is important to note that the prospect contains high grade mineralisation located at the lower part of the Eyre formation where uranium minerals are interpreted to be hosted by non-consolidated coarse grained quartz – feldspar sands. These are layers 1-1 and 1-2 on the Figure 6. The two high-grade zones total 1.51 Mt at an average grade of 1,030 ppm eU<sub>3</sub>O<sub>8</sub> for 3.4 Mlb of contained U<sub>3</sub>O<sub>8</sub>.

Some mineralisation in the northern regions of the deposit is associated with sand and silts of the Middle Eyre Formation and may be close to or on the contact of major clay units; further infill drilling and core drilling is required to confirm which regions are optimal for future possible extraction.

The March 2017 Resources for the Jasons prospect are presented along with the previous resource estimates for the Honeymoon project region announced by the Boss Resources. The JORC Code 2012 reporting criteria and input parameters used for the resource estimate are shown in Appendix 1.

## Exploration Targets

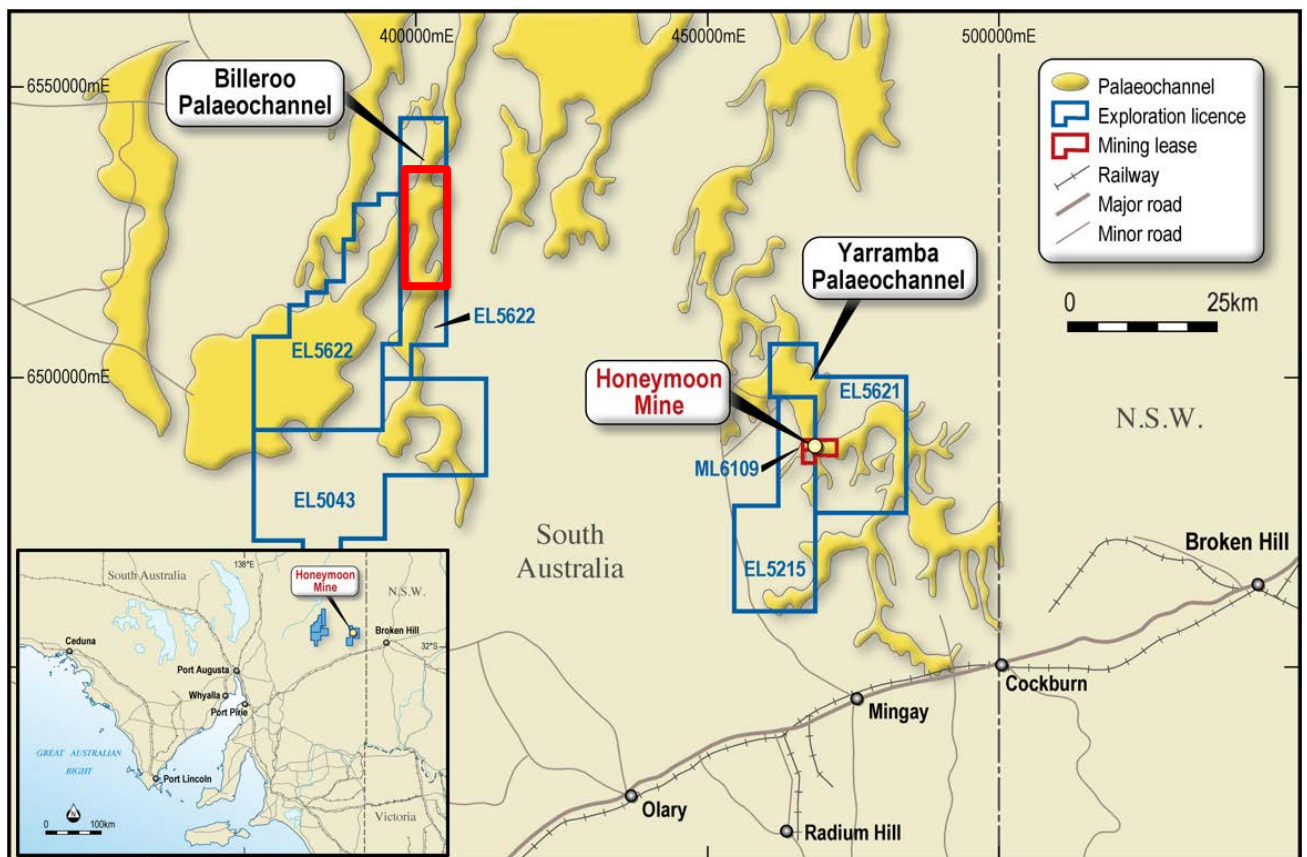
Analysis of the drilling and revised geological interpretation at the Jasons prospect indicate good potential for further increasing the prospect's endowment. There are high grade intersections of uranium mineralisation approximately 1 km to the south from the currently drilled area (Figure 3) suggesting that uranium roll-fronts occur in this region. Large distances between the drillholes drilled in this part of the palaeochannel do not allow for adequate delineation of the mineralisation, thus the area remains a high-priority exploration target.

Similarly, clusters of the high grade intersections are also present toward the north from the drilled area (Figure 3), suggesting that mineralisation can be also extended to the north.

## About the Honeymoon Uranium Project

The Honeymoon Uranium Project (Figure 3) is located in South Australia, approximately 80km north-west from the town of Broken Hill near the SA / NSW border. The Project consists of 1 granted Mining Lease, 5 granted Exploration Licences, 8 Retention Leases and 2 Miscellaneous Purposes Licences.

There are 2 main exploration regions: the Eastern Region (ELs 5215 and 5621) which hosts the Honeymoon, Brooks Dam and East Kalkaroo Resources; and the Western Region (ELs 5043, 5623 and 5622) which hosts the Goulds Dam and Billeroo deposits.



**Figure 5: Honeymoon Uranium Project.** The yellow shaded regions represent palaeodrainage channels which have potential to host uranium mineralisation and are the focus of exploration efforts. Goulds Dam Resource Area shown in red rectangle

## Exploration Team

### Dr Marat Abzalov

Dr Abzalov graduated with High Distinction from the Kazan University in Russia in 1983 and obtained his PhD (Geology) in 1987 from St. Petersburg University, Russia, completing a thesis on magmatic nickel sulphide near the western Russian border with Finland. He has undertaken post-graduate studies in Applied Mathematics at Murdoch University, Perth, and Geostatistics at the Centre of Geostatistique, Fontainebleau, France.

With over 30 years of post-graduate experience in geology, Dr Abzalov's work experience includes the Russian Academy of Sciences, WMC Resources where his last role was Geology Manager – Projects, and Rio Tinto, where he

held the roles of Manager – Geostatistical Consultant and Exploration Manager – New Opportunities (Eurasia) AND where he predominantly reviewed ISL uranium projects in Kazakhstan and the USA.

During his professional career, Dr Abzalov has worked on 12 uranium projects worldwide, notably:

- Rossing (Namibia) - resource model for a long term mine plan
- Olympic Dam (Australia) - pre-feasibility study
- Ranger (Australia) - resource definition drilling programme
- Khan (Jordan) – technical director responsible for all aspects from conceptual exploration model to resource definition drilling
- Budenovskoe (Kazakhstan) - identified acquisition opportunity for Rio Tinto
- Sweetwater (USA) - development of a new geochemical exploration approach

### Mr Neil Inwood

Neil Inwood is a professional geologist with over 20 years' multi-commodity project and consulting experience in Australia, Africa, USA, Europe, South America and Central Asia. Neil has a BSc in Geology from Curtin University, an MSc in Geology from the University of Western Australia and has studied geostatistics at Edith Cowen University.

Neil is also the Geology Manager for Cradle Resources and was a Principal Consultant with the international mining consultancy group, Coffey Mining, and was the Competent Person (ASX) / Qualified Person (TSX) for a variety of international uranium, gold, nickel, base metal and iron ore projects. Neil has consulted on uranium projects in Australia, Czech Republic, Columbia, Hungary, Namibia and the USA and was the lead resource consultant on the world-class Husab uranium deposit in Namibia. Other uranium projects include:

- Extract Resources - the Husab Uranium project in Namibia
- Bannerman Resources - Etango Uranium Project in Namibia
- Deep Yellow - Namibia and Australian Projects
- Energia - Nyang ISL Project in Western Australia
- Wildhorse Energy Ltd - Pecs Uranium project in Hungary
- U3O8 Corp - Argentine and Brazilian U Projects (Berlin Project)
- Atom Energy - Utah Projects

### For further information, contact:

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### Competent Persons' Statements

*The information in this report that relates to the Mineral Resources is based on information compiled by Dr. M. Abzalov, who is a Competent Person according to the JORC 2012 Code. Dr. M. Abzalov is a Fellow of Australasian Institute of Mining and Metallurgy. He has sufficient experience in estimation Resources of uranium mineralisation, and have a strong expertise in the all aspects of the data collection, interpretation and geostatistical analysis to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Dr. M.Abzalov is employed as a director of BOSS Resources and also working as independent consultant and Director of 'MASSA Geoservices (Australia). M. Abzalov consent to the inclusion in the report of the matters based on their information in the form and context in which it appears. M.Abzalov has shares in Boss Resources.*

*The information in this document that relates to the Exploration Data and grade data for the Jasons Prospect used in the Resource estimation is based on information provided by Mr. Neil Inwood, who is a Fellow of the AUSIMM. Mr Inwood is a consulting geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr. Inwood has consented to the inclusion of this information in this document in the form and context in which it appears. An entity associated with Mr Inwood has shares in Boss Resources.*

## Appendix 1.

### Resource Statement and JORC Code Reporting Criteria Follows

*Reporting criteria presented in the Section 1 of the JORC Table 1 (Sampling techniques and data)*

Criteria of JORC Code 2012	Reference to the Current Report
	Comments / Findings
(1.1.) Sampling techniques	<p>The Resource estimate for the prospect included 274 drillholes. This includes 2 sonic core holes and 75 new rotary-mud drillholes drilled by Boss in 2016 – 2017 and surveyed by either Boss’ PFN tools or Borehole Wirelines natural gamma tool and 199 historic drillholes, that were drilled by the previous project owners and were surveyed by natural gamma-probe to provide eU<sub>3</sub>O<sub>8</sub> grades. The total drilled length was 31,844.7 m.</p> <p>Resources are estimated using pU<sub>3</sub>O<sub>8</sub> data obtained using down-hole PFN instrument (75 drill holes) and eU<sub>3</sub>O<sub>8</sub> data obtained using down-hole gamma logs (199 drill holes).</p> <p>The drill-holes surveyed by PFN instruments were also surveyed by the gamma-probes.</p> <p>All tools were maintained by specialised electronic companies in Adelaide, including Geoscience Australia Pty Ltd. And CIRA Pty Ltd.</p> <p>Calibration was regularly undertaken using in-house equipment (calibration pits) available at the Honeymoon operation (plant) site and externally, at the certified calibration facilities at Glenside, Conyngham str., Adelaide</p> <p>Standard industry procedures were used for geophysical logging of the drill holes and recalculation the geophysical logs to eU<sub>3</sub>O<sub>8</sub> (from the gamma-ray logs).</p> <p>The most recent drilling, undertaken in 2016-2017 by BOSS Resources using the drillhole radiometric uranium grade data was initially determined by Borehole Wireline with eU<sub>3</sub>O<sub>8</sub> estimates made from the down-hole natural gamma-logs. Additionally Boss utilised 2 separate PFN tools to obtain pU<sub>3</sub>O<sub>8</sub> grades which when properly calibrated reduce the effect of radioactive disequilibrium.</p> <p>All BOSS’s tools were maintained by specialised electronic companies and technicians based in Adelaide. Calibration for the PFN tool was regularly undertaken using on-site calibration pits available at the Honeymoon Project and for the gamma tools externally, at the certified calibration facilities at Glenside, Conyngham St, Adelaide. For the 2017 resource data, the PFN calibration was additionally adjusted to reflect chemical analysis from 4 sonic core holes, with a net -10% adjustment applied to that obtained from the original pit calibration data.</p> <p>Standard industry procedures were used for geophysical logging of the drill holes and estimation from the geophysical logs for the eU<sub>3</sub>O<sub>8</sub> (from the gamma-ray logs) and pU<sub>3</sub>O<sub>8</sub> (from the PFN instruments) grades. Sonic core samples were sampled using quartered core, with an allowance for ½ core to be used for future metallurgical testwork. Samples were analysed by Bureau Veritas in South Australia. The samples were crushed, dried and pulverised to a nominal -75 microns. Analysis was undertaken using Lithium Borate fusion with an ICP-MS finish. Check samples were analysed using XRF finish.</p>
Drilling techniques (1.2.)	<p>Resources of the studied deposit were developed mainly by using rotary mud drilling (100 mm to 228 mm in diameter) which were geophysically logged for determining the uranium grade.</p> <p>Several drilling campaigns were undertaken to explore the northern part of the Yarramba paleochannel and delineate uranium rolls. Initially, the prospect was drilled in 1970s. Another drilling campaign has started in 1999, which continued in 2002, 2004 and 2012 (Table A1-1; Figure A1-1).</p> <p>The recent drilling, which is a basis for the current update of the Resources, has started in late 2016 and continued to early 2017 (Table A1-1; Figure A1-1).</p>

Drilling undertaken by BOSS Resources (2016-2017) was made using the mud rotary holes drilled by Watsons Drilling. The typical hole diameter is 14.5cm. The sonic core holes were drilled by Star Drilling.

Table A1-1: Drilling at the Jasons prospect by years

Year of Drilling	Number of Drillholes	Total Length (m)
1970	47	5904.9
1971	21	2481.9
1972	31	3443.9
1977	26	2947.6
1979	2	214.0
1999	16	2113.0
2002	19	2180.9
2004	13	1374.0
2012	22	2302.0
2016	54	6262.0
2017	23	2620.5
<b>TOTAL</b>	<b>274</b>	<b>31844.7</b>

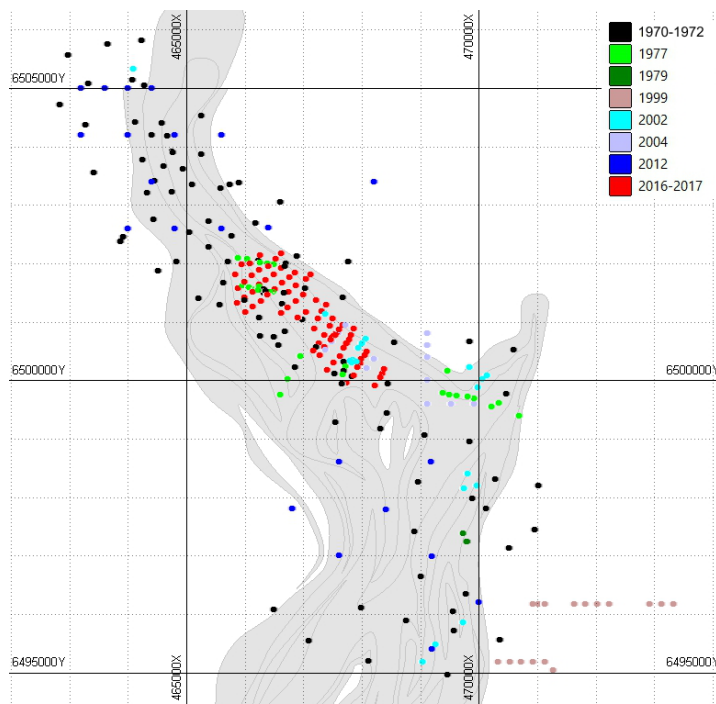


Fig. A1-1: distribution of the drillholes at the Jasons prospect by the drilling campaign

*Drill sample recovery (1.3.)*

This criterion is not directly applicable because the prospect’s resources were estimated using the grade values deduced from the down-hole geophysical logs.

Drill cuttings of the rotary-mud drilling were collected to assist the lithological interpretation. They were collected at 2 m intervals, geologically logged and preserved as a physical record of the hole.

During the 2016-2017 drilling 100% recovery is achieved in the 2 sonic holes drilled at the Jasons Prospect. Depth corrections utilising gamma peaks applied to core during the sampling process to allow for expansion of retrieved material during the sonic coring process. Calliper readings indicate that mud-rotary hole size diameters are predominantly consistent.

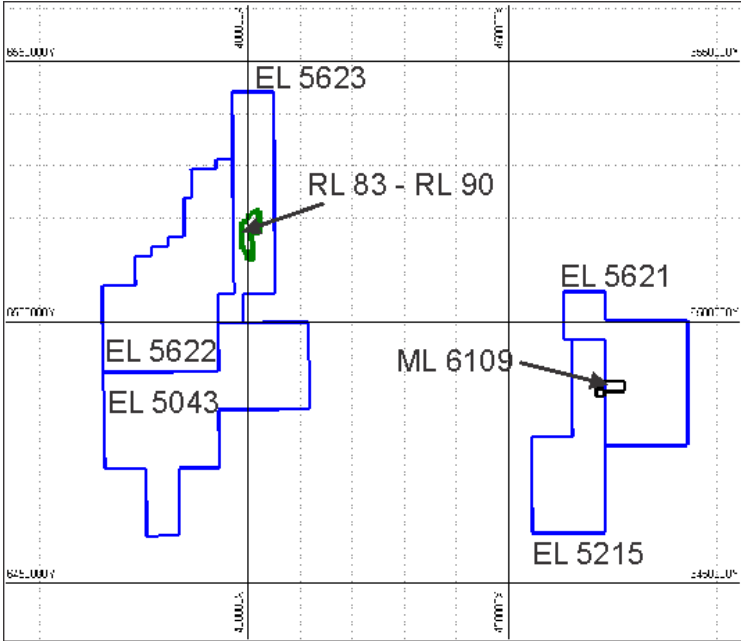
	Accurately calibrated geophysical instruments are the industry standards. This approach was used for definition resources of the Goulds Dam deposit.
<i>Logging (1.4.)</i>	Chip samples, collected at 2m intervals, have been photographed and geologically logged. Documentation has included colour, grain size, texture, sorting, alteration and oxidation state.
	Downhole electric logs (resistivity and conductivity) were systematically used through the palaeochannel.
	All mineralised intervals (100% logged) were geologically logged and the logging standards were compliant with the industry standards
<i>Sub-sampling techniques and sample preparation (1.5.)</i>	QAQC of the geophysical data has included systematic control of the depth logged and control of the recorded U <sub>3</sub> O <sub>8</sub> grade values.
	Geophysical tools estimate uranium content at the large volumes, approximately 25 to 40 cm radius. The volume is sufficiently large allowing to obtain accurate measure of the grade
<i>Quality of assay data and laboratory tests (1.6.)</i>	Company Geophysical tools used to collect data include: <ul style="list-style-type: none"> <li>• Auslog Gamma (with Guard) S422</li> <li>• Prompt Fission Neutron tool PFN#27</li> <li>• Prompt Fission Neutron tool PFN#32</li> <li>• Gamma combined with guard S058</li> <li>• Auslog 3 arm calliper A326</li> </ul> Borehole wireline tools used to collect data include: Natural gamma, Induction, SP, Density, Spectral Gamma, deviation and 3 arm calliper. <p>Holes were logged in down and up directions, which provided a good control of logging consistency. All geophysical tools were regularly calibrated, using in-house facilities and the certified laboratories in Adelaide. Borehole wireline data compared to Boss data on a continual basis to ascertain any depth correction factors. Multiple depth calibration runs performed on Boss tools.</p> QA/QC of the geophysical data has included systematic control of the depth logged and control of the recorded eU <sub>3</sub> O <sub>8</sub> grade values. The winches in the logging truck have their depth calibration checked periodically. This is made by running out approximately 100m of cable and measuring the rewinding cable against a tape measure. In addition, markers are placed on the cables which are checked on the computer at 50 and 100 metres. Since each individual tool run measures gamma, post logging depth matching is undertaken within WellCad® so each For the sonic core , blanks and standards were inserted at a rate of approximately 1:20 into the sample stream and then checked.
	The past data (historical data) obtained from the previous owners was digitized and validated by Southern Cross Resources in 2002, along with all the relevant metadata (gamma tool serial number, operator and calibration factors) and compiled into a database. Holes were logged in both the down and up direction for depth check comparisons, with the up-run data used for final grade calculations. <ul style="list-style-type: none"> <li>• Logging data is transferred from logging truck computers to the geological office as industry standard .LAS files.</li> <li>• Geological logs were both made on paper logs and later transferred to Excel spreadsheets, and directly into dedicated Excel geological logging templates.</li> <li>• Borehole logging was carried out by Southern Cross Resources/Uranium One Australia staff using purpose-built logging trucks between 2004-2010, while Borehole Wireline Pty Ltd was commissioned to carry out the borehole logging for the 2011-2012 drilling programs.</li> <li>• Company site geologists subsequently verify significant intersections from wireline logging during depth checking in WellCad software.</li> </ul>

	<ul style="list-style-type: none"> <li>Copies of the primary LAS files, geological logs, chip tray photos and final interpretive WellCad logs are stored on the main server at the Honeymoon Mine site.</li> </ul> <p>In the past, a special QAQC study was undertaken to validate the PFN data (Lawie, 2006). The study included comparison of the PFN results with XRF assays of quarter core (Lawie, 2006). The conclusion of the study was:</p> <p>“the volume of rock ‘measured’ by the PFN is 630 times that of ¼ core, which must improve the representivity of the sample, and hence lower the field sampling error.”</p> <p>A similar study was undertaken during the recent drilling of the Boss Resources. Sonic drill core was sampled and assayed in order to compare with the PFN data. The comparison was used for correcting the calibration parameters of the PFN tools.</p>
<i>Verification of sampling and assaying (1.7.)</i>	<ul style="list-style-type: none"> <li>The site geologists supervising the drilling have routinely verified significant intersections from wireline logging during depth checking in WellCad software.</li> </ul> <p>Twin hole comparisons were available at the location of 2 sonic holes (BSC001 and BSC002) at the Jasons prospect. Chemical analysis of these holes either supported or exceeded the mineralisation seen in the adjoining mud-rotary drillholes.</p> <p>During the drilling in 2002-2012 the logging procedure was as follows:</p> <ul style="list-style-type: none"> <li>The logging data were transferred from logging truck computers to servers in geological office as LAS files (an industry standard log file format)</li> <li>Geological logs are entered on paper then transcribed on to an excel spreadsheet. Logging was carried out by either in house U1A loggers or external logging contractors (Borehole Wireline Pty. Ltd. and Independent Logging services). Significant intersections were then checked and verified by U1A site geologists.</li> <li>Primary data is recorded directly to computer hard disk in the logging truck and transferred to a server at the end of the days logging. Each log is reviewed by the logger and a copy of the raw data file and the prepared log were then handed over to the site geologist. The site geologist will make any depth corrections required and then use the log to interpret geology.</li> <li>Copies of raw LAS files, geological logs of chip cuttings and final WellCad Logs are kept on the server</li> <li>The site geologist make the depth corrections required and then use the log to interpret geology</li> </ul> <p>This procedure was followed by BOSS Resources during its recent drilling undertaken during 2016-2017.</p> <p>In addition to the standard QAQC procedures, the gamma-log data were validated against the PFN logs. PFN grade data was only reported where there was a good correlation between PFN and gamma anomalies; and where PFN tool readings were considered to be robust. Select core assay samples were reanalysed using an alternative assay method (XRF) and provided consistent results</p>
<i>Location of data points (1.8.)</i>	<p>The collars positions of the drill holes, drilled in 2002 and more recently, including the 2016-2017 drilling, were set out using a Garmin handheld GPS. In the past, after drilling, locations of some holes (mainly the Honeymoon deposit area) were picked up with a differential GPS system that is coupled to the Omnistar augmentation system to improve accuracy. Location of the earlier drilled holes is taken from the database.</p> <p>The projection adopted for surveying is GDA 94, MGA zone 54 with AHD elevation. All surveys were tied to the existing registered base stations</p> <p>Topographic control was improved by Aerometrx Pty. Ltd flying 10cm pixel aerial photography which was rectified using registered survey points installed at site before plant construction began.</p>
<i>Data spacing and distribution (1.9.)</i>	<p>Drill holes on the Jasons prospect are spaced approximately 200 x 80 m (Figure A1-1).</p> <p>Physical compositing of the samples was not used.</p> <p>Uranium grade deduced from the down-hole gamma-logs were composited to 0.5 m composites.</p>
	<p>All holes are drilled vertically which provides an accurate intersection of the flat lying mineralised bodies</p>

<i>Orientation of data in relation to geological structure (1.10.)</i>	Vertical drill holes were used due to the predominantly flat-lying mineralisation present throughout the prospect, with drill hole intercepts considered to be an accurate reflection of true vertical width.
<i>Sample security (1.11.)</i>	Down-hole logging data and deduced uranium grades are saved in the company database which securely stored on the company's server. All data transfer between logging truck and the database was made by authorized company personnel.
<i>Audits or reviews (1.12.)</i>	<p>PFN and Gamma-log data of the Honeymoon Project (which includes Jasons Prospect) have been audited several times by independent consultants. The most recent reports are as follows:</p> <ul style="list-style-type: none"> <li>• Lawie, D, 2006 (ioGlobal)</li> <li>• Bampton, 2006 (ORES)</li> <li>• Skidmore, 2006 (Uranium One)</li> <li>• Jankowski, 2006 (SRK)</li> <li>• Valliant and Bergen, 2012 (RPA)</li> </ul> <p>All consultants have confirmed that data are of a good quality and suitable for estimation mineral resources.</p> <p>In 2016 the PFN calibration routines were checked by an independat geologist (in December, 2016) with the conclusion that the data was suitable for reporting.</p>



Reporting criteria presented in the Section 2 of the JORC Table 1 (Reporting of Exploration Results)

Criteria of JORC Code 2012	Reference to the Current Report
<p><i>Mineral tenement and land tenure status (2.1)</i></p>	<p>Comments / Findings</p> <p>The entire project of the BOSS Resources consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 8 Retention Leases and 2 Miscellaneous Purposes Licenses (Fig. A2-1).</p>  <p>Fig. A2-1: Location of the leases hold by BOSS Resources in the Collabonna uranium sub-basin</p> <p>Resources of the Jasons prospect that are estimated in the current study and reported here are covered by the Exploration Licenses EL5621 which is due for renewal in May, 2017 (Fig. A2-1).</p>
<p><i>Exploration done by other parties (2.2)</i></p>	<p>The northern part of the Yarramba palaeochannel which includes Jasons prospect has been explored through the 1970s when most of the exploration drilling was undertaken (Figure A1-1; Table 1-1). A detailed airborne electro-magnetic survey was conducted in 2002 which has allowed to accurately delineate palaeochannels in the project area. Additional drilling was undertaken in 1999, 2002, 2004 and 2012.</p>
<p><i>Geology (2.3)</i></p>	<p>The Jasons prospect is located approximately 6 km to the north from confined to the Yarramba Palaeochannel which is composed by a Tertiary aged sequence of inter-bedded sand, silt and clay up.</p> <p>The sequence was deposited as a result of a relative fall in the base level during the Early Eocene which was related to a global tectonic subsidence commencing in the late Palaeocene. The Frome Embayment (also called the Callabonna Sub-basin) forms the southern portion of the Lake Eyre Basin within South Australia. The generalised stratigraphy of the Lake Eyre Basin is subdivided into three units: the late Palaeocene to middle Eocene Eyre Formation, the late Oligocene to Miocene Namba Formation and Pliocene- Quaternary sediments.</p> <p>The exploration model applicable to the prospect is palaeochannel-hosted sandstone-type uranium mineralisation, which is associated with typically discrete accumulations of organic material (and subsequent pyrite formation) within the early Tertiary Eyre Formation fluvial sediments.</p>

Recent work by Uranium One Australia suggests the locations of these organic matter accumulations within the palaeochannel sequence appear to be closely associated with palaeotopographic basement features, such as basement “highs” or “ridges”, which helped create relatively complex flow environments during deposition of the lower Eyre Formation. The formation of bar deposits and areas of stagnation within these complex flow environments provided the opportunity for organic material to accumulate (and for the subsequent formation of pyrite), which in turn creates ideal redox conditions for uranium mineralisation.

*Drill hole Information (2.4)* Resource database contains 274 drill holes and is too large for being included in this table

The prospect is approximately 1.5 km wide and 12 km long and covers the area of approximately 33 km<sup>2</sup>. It is hosted by meandering palaeochannel distributed within the area from approximately 6,494,840 mN to 6,506,000 mN and from 462,000mE to 472,000mE (Figure A1-1)

The area is flat with an average RL of 97m

All holes were drilled vertically

Thickness of the uranium rolls change in the range of 0.5 - 9.0 m with an average 1.4 m (Figs. A2-2). All rolls are hosted by the Eyre Formation at the depth of 70 to 110m below surface (Fig. A2-3)

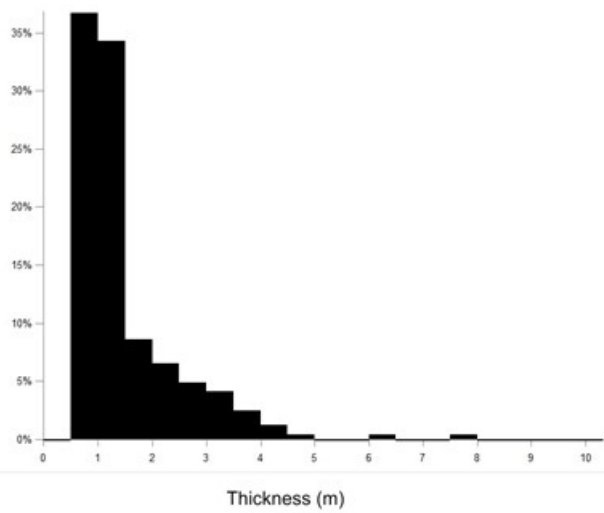


Fig. A2-2: Thicknesses of the rolls delineated and constrained as 3D wireframes using 100 ppm U<sub>3</sub>O<sub>8</sub> cut-off. Average 1.36m

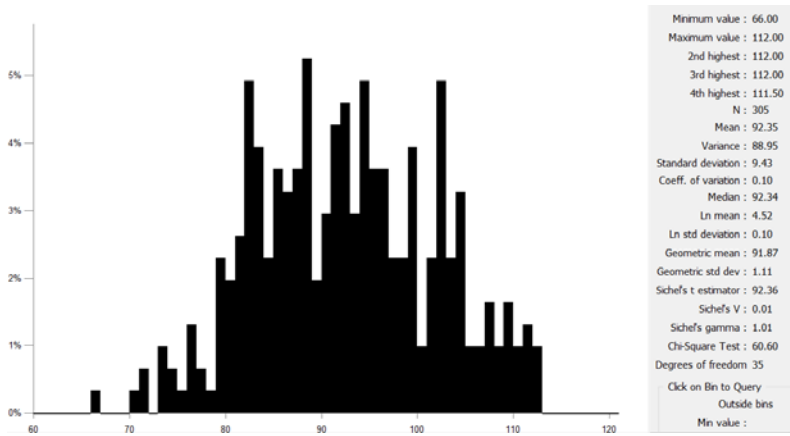


Fig. A2-3: Histogram of the depth below surface of the mineralised bodies intersected by the drillholes

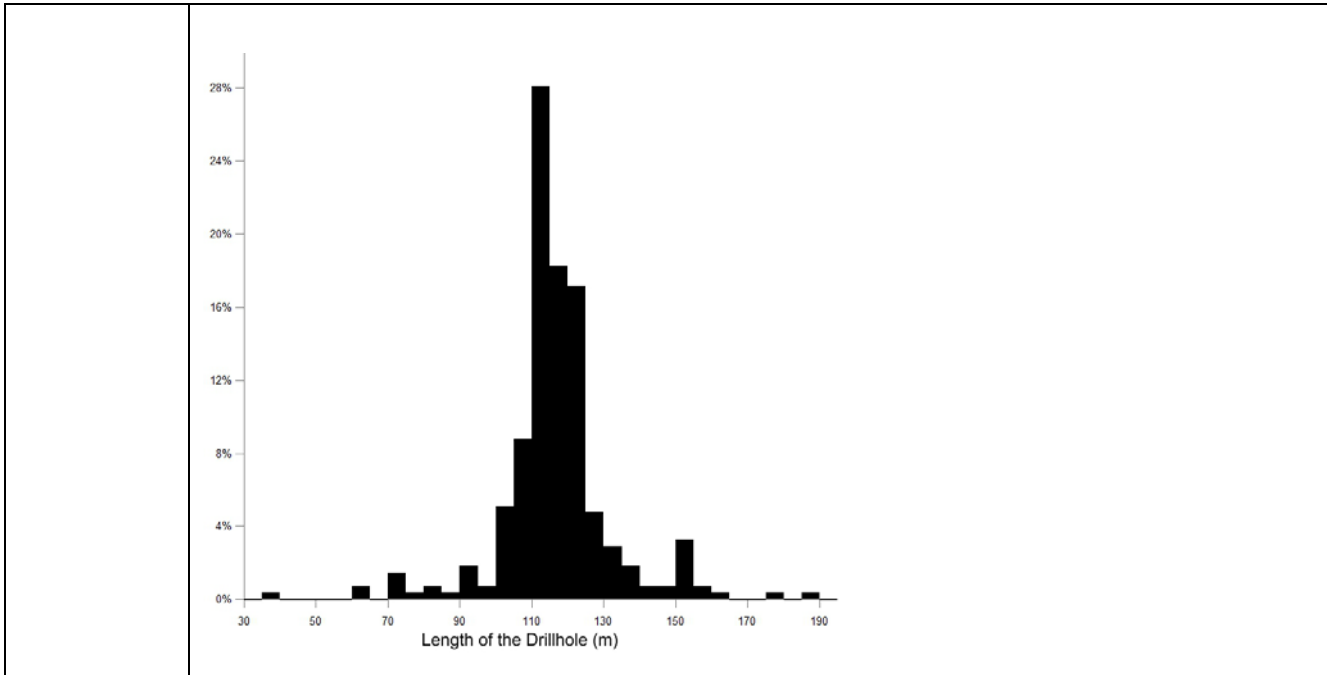


Fig A2-4: Histogram of the drill hole lengths. Average 116m

*Data aggregation methods (2.5)* Raw Gamma-log and PFN data were composited into 0.5m long composites for estimation.

*Relationship between mineralisation widths and intercept lengths (2.6)* Most of the drill traverses are oriented at right angle across the palaeochannel strike (Figure A1-1) Holes are drilled vertically down which is optimal for drilling horizontal lenses of uranium mineralisation

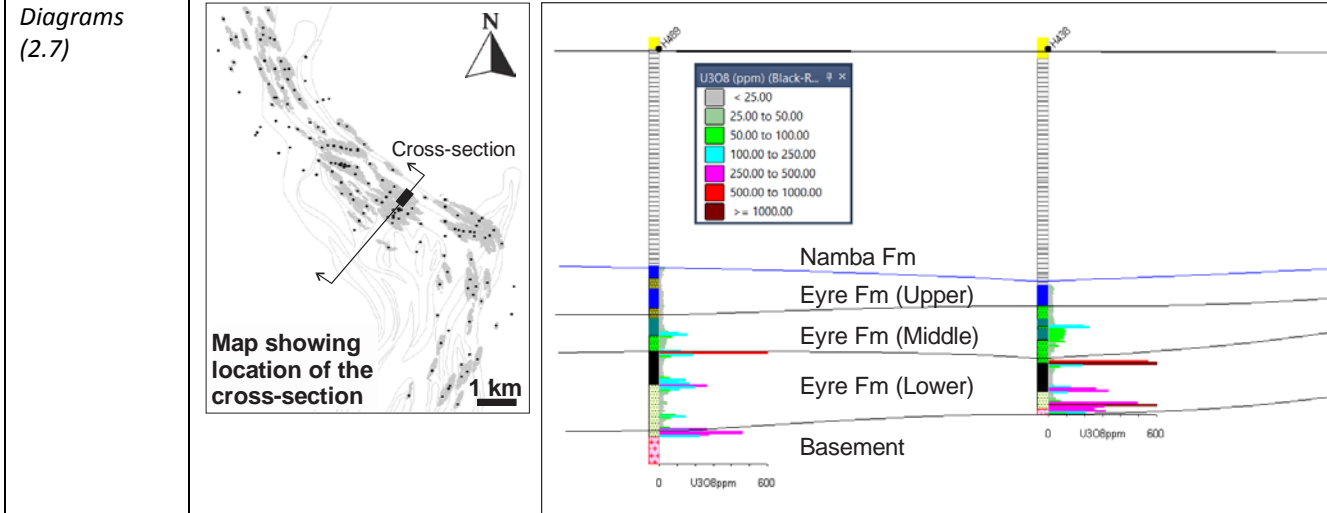


Fig. A2-5: Representative cross-section of the uranium mineralisation intersected by the exploration drill holes

<i>Balanced reporting (2.8)</i>	<p>Balanced reporting has been adhered to. See previous exploration announcements. Reporting of results have stated both gamma <math>eU_3O_8</math> grade data and PFN <math>pU_3O_8</math> grade data pending validation of the PFN analysis through sonic core assaying.</p>
<i>Other substantive exploration data (2.9)</i>	<p>Adelaide Microscopy (University of Adelaide) has carried out Scanning Electron Microscope (SEM) analysis on sonic core samples from the sonic drillholes drilled at the Yarramba and Billeroo palaeochannels in 2011. The mineralogical study has shown that</p> <ul style="list-style-type: none"> <li>• Uranium mineralisation is commonly associated with pyrite, often forming either very fine (<math>\leq 20\mu\text{m}</math>) disseminated alteration “halos” around remnant pyrite grains or more pervasive alteration “patches” within the silty sand matrix. The extent of uranium “replacement” of pyrite ranges from partial to pervasive, and the uranium mineral species is likely to be either uraninite or coffinite.</li> <li>• In some cases, multiple generations of pyrite can be observed, ranging from early framboidal grains to subhedral, almost flaky looking grains. In the example discussed within this report, the early framboidal pyrite was subjected to uranium “alteration” while the latter pyrite was essentially unaltered. This suggests that some pyrite has formed after the main uranium mineralisation event and as a result is not directly associated with uranium.</li> </ul> <p>Very fine grained to “nodule” sized uranium is also found disseminated throughout organic-rich matrix silts. The extent of mineralisation can range from scattered to quite pervasive, and x-ray spectrum tests suggest the uranium species is either uraninite or coffinite.</p> <p>Geological data shows that mineralisation is currently open along the trend of the domain. Airborne geophysical data indicates that the Jasons region has a prospective total trend of approximately 12km, with historical drilling indicating the presence of uranium mineralisation throughout this trend.</p>

Further work  
(2.10)

The current study focused on estimation resources of the Jasons prospect using both recent and historical drillhole data.

Estimated Inferred resources are currently constrained by the available drill hole spacing and does not represent an actual termination of the uranium rolls. Thus, it is likely that mineralisation can be further extended by additional drilling along the strike of the delineated rolls (Figure A2-6).

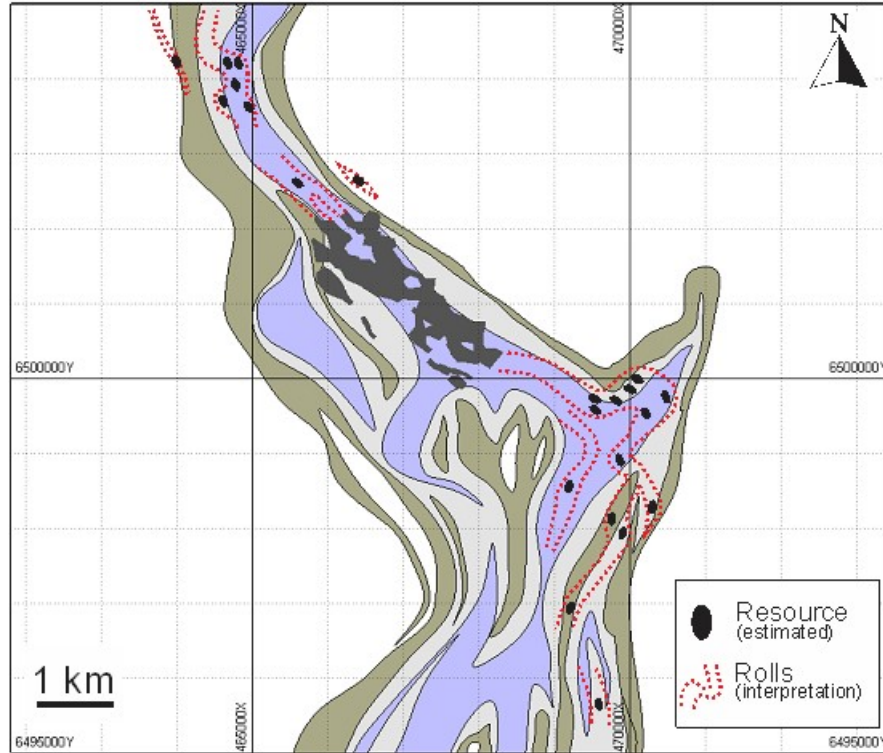


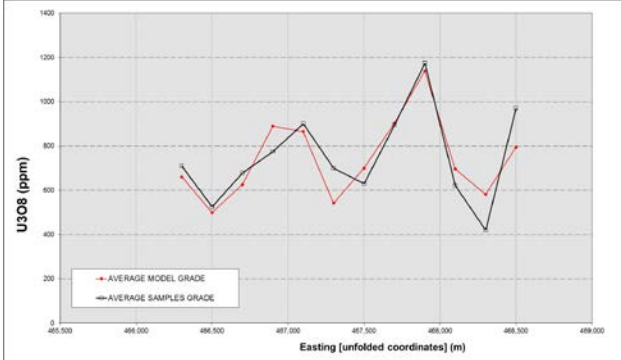
Figure A2-6: Map of the Jasons prospect showing the estimated resources and the possible extents of the uranium rolls (exploration targets). Shaded areas on the background denote conductive sedimentary packages.

Additional sonic holes will be planned to enable a fuller understanding of practical disequilibrium and sedimentological conditions within the deposit. Further work is required (particularly in the northern portion of the deposit) to quantify the leachability characteristics of the sand units. Chemical analysis of core will be a continuing important step in validating the observed PFN grades and disequilibrium effect for use of the radiometric data in resource estimation. Boss intends to construct additional PFN test pits on site to aid in the determination of optimal calibration curves for the PFN tools.

**Reporting criteria presented in the Section 3 of the JORC Table 1 (Estimation and Reporting of Mineral Resources)**

Criteria of JORC Code 2012	Reference to the Current Report						
	Comments / Findings						
<i>Database integrity (3.1)</i>	<ul style="list-style-type: none"> <li>Historic logging was collected onto paper via analog chart. The analog charts were digitised during the late 1990's. The library of the analog charts was kept by U1A and has been sighted by the CP.</li> <li>Geological logs were handwritten onto paper forms and later transcribed into digital form via input into spreadsheet, the original handwritten logs form part of the library.</li> <li>Downhole Logging data for all recent drilling has been in digital format directly into industry standard LAS files stored on servers.</li> <li>Geological logging was done on paper, then entered into Excel spreadsheets or entered directly into Excel.</li> </ul> <p>All downhole logging data was loaded into a Microsoft Access database and a series of checks undertaken where no serious transcription errors have been found.</p> <p>Queries have been run on the data set to check for missing intervals, extreme values (high-low), logging speed too high and any suspect data has been checked or removed if needed.</p>						
<i>Site visits (3.2)</i>	M.Abzalov has visited the site as part of the technical due diligence of the project carried by BOSS Resources in 2015 and has visited the drilling at Jasons prospect in 2016. N.Inwood has frequently visited site in 2016 and was managing the site activities during the drilling I 2016 – 2017.						
<i>Geological interpretation (3.3)</i>	<p>Palaeochannel type uranium mineralisation is confidently interpreted from the available data. The density of the drilling is sufficient for accurate interpretation and constraining the uranium rolls</p> <p>The data includes geological and geophysical drill hole logs and EM survey of the area that has allowed to create an accurate map of the palaeochannel.</p> <p>The EM image of the palaeochannel was presented in the previous section (Fig. A2-6)</p> <p>The current interpretation of the geometry of the mineralisation estimated as Mineral Resource is based on cross-sectional interpretation of the uranium rolls which were correlated between cross-sections and joined into the 3D wireframes.</p> <p>Uranium mineralisation at the Jasons prospect is distributed mainly within the Lower and Middle Members of the Eyre formation.</p>						
<i>Dimensions (3.4)</i>	<p>This was presented in the previous section (Figs A2-2 and A2-6).</p> <p>Strike length of the prospect measured along the palaeochannel is approximately 13,000 metres. Width of mineralisation measured across the strike is in the range of 1,000 - 2,000 m.</p>						
<i>Estimation and modelling techniques (3.5)</i>	<p>The resources of the prospect were estimated as 3D block model after mineralisation was constrained by 3D wireframes that were constructed using 100 ppm U<sub>3</sub>O<sub>8</sub> as a lower-cutoff. The “rolls” have a shape of a tabular and ribbon-like bodies elongated along the paleochannel.</p> <p>Prior to estimation, shape of the palaeochannel was straightened (unfolded) in order to facilitate application of the geostatistical methods. The U<sub>3</sub>O<sub>8</sub> grade was estimated (in the unfolded space) into the blocks of 50m x 20m x 0.5m using the Ordinary Kriging technique (blocks were discretised to 5x5x1 points). Estimation was made at two steps:</p> <ul style="list-style-type: none"> <li>First pass, estimationis made using the search ellipsoid of 140x60x0.5m</li> </ul> <table border="0" style="margin-left: 40px;"> <tr> <td>Angular sectors -</td> <td style="text-align: right;">6</td> </tr> <tr> <td>Optimal number of samples per sector-</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Minimum number of samples</td> <td style="text-align: right;">- 4</td> </tr> </table>	Angular sectors -	6	Optimal number of samples per sector-	2	Minimum number of samples	- 4
Angular sectors -	6						
Optimal number of samples per sector-	2						
Minimum number of samples	- 4						

	<ul style="list-style-type: none"> <li>Second pass, estimation is made using the search ellipsoid of 250x100x1m containing 4 – 8 composites. <ul style="list-style-type: none"> <li>Angular sectors - 1</li> <li>Optimal number of samples per sector - 20</li> <li>Minimum number of samples - 2</li> </ul> </li> </ul> <p>The search radius was deduced from the modeled variogram. In order to prevent smearing of the high-grade samples the U<sub>3</sub>O<sub>8</sub> values of the 0.5m long composites were cut to 4000 ppm U<sub>3</sub>O<sub>8</sub>. The top cut was applied for estimating blocks located at the distance of not less than 60m from the sample.</p> <p>After completion of the estimation the block model was back-folded in to the real coordinate.</p> <p>Resources were reported by applying the block cut-off 250 ppm U<sub>3</sub>O<sub>8</sub> and include only blocks located within the distance of 140m (along strike of mineralisation) x 60m (across strike of mineralisation) from the nearest drillhole that were estimated by not less than 2 samples (composites). The estimated blocks that comply with the given criteria were classified as Inferred resource.</p>															
	<p>Table A3-1: Resources of the Jasons prospect</p> <table border="1"> <thead> <tr> <th>Classification</th> <th>Million tonnes</th> <th>eU3O8 ppm</th> <th>Contained metal (U<sub>3</sub>O<sub>8</sub>, K t)</th> <th>Contained metal (U<sub>3</sub>O<sub>8</sub>, M lb)</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;"><b>Jason's (current announcement)</b></td> </tr> <tr> <td><b>Inferred</b></td> <td><b>6.16</b></td> <td><b>790</b></td> <td><b>4.9</b></td> <td><b>10.7</b></td> </tr> </tbody> </table>	Classification	Million tonnes	eU3O8 ppm	Contained metal (U <sub>3</sub> O <sub>8</sub> , K t)	Contained metal (U <sub>3</sub> O <sub>8</sub> , M lb)	<b>Jason's (current announcement)</b>					<b>Inferred</b>	<b>6.16</b>	<b>790</b>	<b>4.9</b>	<b>10.7</b>
Classification	Million tonnes	eU3O8 ppm	Contained metal (U <sub>3</sub> O <sub>8</sub> , K t)	Contained metal (U <sub>3</sub> O <sub>8</sub> , M lb)												
<b>Jason's (current announcement)</b>																
<b>Inferred</b>	<b>6.16</b>	<b>790</b>	<b>4.9</b>	<b>10.7</b>												
	<p>Recovery by-products not envisaged</p>															
	<p>Potential deleterious components are</p> <ul style="list-style-type: none"> <li>Carbonates (not reported)</li> <li>Sulphides</li> <li>Organic carbon</li> <li>Clay</li> <li>Low permeability siltstones</li> </ul> <p>The impact of the deleterious components was not adequately studied in the past and represents one of the main objectives for future studies by the Boss Resources.</p>															
	<p>Selectivity of the ISL is approximately 40-50 x 40-50 x 1-6m which corresponds to a size of a single leach cell.</p> <p>The model uses 50x20x0.5m blocks, which are comparable with the envisaged mining selectivity and are suitable for estimating the Resources.</p>															
	<p>The current study is focused on estimating of a single variable, U<sub>3</sub>O<sub>8</sub>, therefore correlation between variables was not studied</p>															
	<p>For guiding the resource estimation, the wireframe of the palaeochannel's top and base were generated and also wireframes of the stratigraphic contacts with the palaeochannel. This was additional to the wireframes of the mineralised bodies ("rolls") constrained using 100 ppm U<sub>3</sub>O<sub>8</sub> cut-off.</p> <p>Drill holes were lithologically logged and stratigraphic units interpreted. This was used for interpretation of the mineralised intersections on the cross-sections and delineating the mineralised bodies.</p>															
	<p>The top cut value of 4000 ppm U<sub>3</sub>O<sub>8</sub> was applied for estimating blocks located at the distance of not less than 60m from the sample.</p>															

	<p>Estimated block grades have been compared with the drill hole (data) grades, by grouping the data into 200m thick panels drawn across the deposit. The diagrams, where average block grades are plotted vs. sample grades have shown good correspondence between the estimated grades and the drill holes.</p> 
Moisture (3.6)	Mineralisation is located below the water table and is hosted in the lower aquifer
Cut-off parameters (3.7)	Based on a comparative analysis of the cut-off grades used at the ISL-uranium projects in Australia and in the world a cut-off 250 ppm U <sub>3</sub> O <sub>8</sub> was chosen for reporting resources
Mining factors or assumptions (3.8)	<p>Uranium mineralisation at the Yarramba palaeochannel is amenable for exploitation using in-situ leach (ISL) technologies. It was extensively tested at the nearby located Honeymoon deposit including the pilot production. Findings made at the Honeymoon deposit are fully applicable to Jasons prospect.</p> <p>Mineralisation at the Yarramba palaeochannel is located within the aquifer where it is hosted by highly permeable sands. The estimated porosity of the Lower Eyre Sands, that host uranium mineralisation, is approximately 30%.</p> <p>A moderate depth of mineralisation, and good spatial continuity coupled with the tabular shapes of the rolls are favourable characteristics for exploitation using ISL technologies. This assumption was confirmed by numerous tests including the field leach tests which have confirmed the amenability of mineralisation to ISL extraction.</p> <p>In particular, in-situ leach push-pull tests undertaken in 1979 using sulphuric acid and the range of oxidants including hydrogen peroxide, Caro's acid, and ferric sulphate, has shown that mineralization is amenable for acid leaching and viable pregnant liquor values were obtained.</p>
Metallurgical factors or assumptions (3.9)	<p>Several tests have been undertaken at the Honeymoon deposit. The tests are described in details in the feasibility study report (Valliant and Bergen, 2012) and briefly summarised here.</p> <p>The tests have confirmed that uranium mineralisation distributed in the Honeymoon Domain is amenable for extraction using ISL technologies but has also revealed that the optimal processing conditions are not found and more testings are needed.</p> <p>This results are applicable to the Jasons Prospect which is located in the aquifer and hosted by the Yarramba palaeochannel which also hosts Honeymoon deposit.</p> <p>(See comments to the point 3.8)</p>
Environmental factors or assumptions (3.10)	Studies that supported the Mining License at the Honeymoon deposit included a consideration of environmental, social and legal factors that are applicable to ISL mining. Additionally the Beverly mine operates in the Lake Frome region extracting uranium using the ISL technique. Therefore, it is considered likely that permissions could be obtained for the Jasons prospect.
Bulk density (3.11)	Dry bulk density, 1.75 t/m <sup>3</sup> was determined by measuring the density of the core samples obtained by sonic drilling. This value is similar to that obtained from n-hole probe tools.
	The estimated Resources are reported at a cut-off 250 ppm U <sub>3</sub> O <sub>8</sub> and include only blocks located within the distance of 140m (along strike of mineralisation) x 60m (across strike of mineralisation) from the nearest drillhole.



<p><i>Classification</i> (3.12)</p>	<p>And not less than 2 samples (composites) are used for estimation of the uranium grade. The estimated blocks that comply with the given criteria were classified as Inferred resource.</p> <p>Choice of cut-off 250 ppm is based on a comparative analysis of the cut-off grades at the ISL-uranium projects in Australia and in the world and in general is comparable with the industry practices also its conservative in comparison with the uranium-ISL operations in Kazakhstan where cut-off is 100 ppm U<sub>3</sub>O<sub>8</sub>.</p> <p>Mineralisation, located outside of this area is classified as Exploration Target.</p> <p>M. Abzalov undertook the data analysis, geological interpretation and geostatistical estimates. The obtained results appropriately reflects his view as the projects CP on the deposit and resources.</p>
<p><i>Audits or reviews</i> (3.13)</p>	<p>The recent and historic data, has been independently reviewed and corrected, where it was found appropriate to do, by Inwood. No material issues were found.</p>
<p><i>Discussion of relative accuracy/confidence</i> (3.14)</p>	<p>Classification approach and parameters developed and applied to the Honeymoon project were as follows:</p> <ul style="list-style-type: none"> <li>• Measured resource includes blocks of mineralisation equal to quarterly production which are estimated with an average error of +/-15% (at 0.95 confidence limit);</li> <li>• Indicated resource includes blocks of mineralisation equal to annual production which are estimated with an average error of +/- 15% (at 0.95 confidence limit);</li> <li>• Inferred resources include all material outside of the Measured and Indicated resource. This should be estimated with an error of +/- 15% (at 0.95 confidence limit).</li> </ul> <p>This classification approach and the parameters are commonly used in the industry and currently becomes a preferred classification approach. This approach was applied to all sites included into the Honeymoon project.</p> <p>Conditional simulation was not used for classification resources of the Jasons prospect however findings made at the Honeymoon deposit study were used for classification resources of the Jasons prospect. The rationale of the study made at Honeymoon and Goulds Dam deposits has allowed to classify mineral endowment of the Jasons prospect into Inferred Resource if the estimated blocks are complying with the following criteria:</p> <ul style="list-style-type: none"> <li>• Block grade not less than 250 ppm U<sub>3</sub>O<sub>8</sub></li> <li>• Not less than 2 samples are used for estimation at the distance not less 140m along the paleochannel and 60m across.</li> </ul>
	<p>Resources are estimated using parent blocks of 50 x 20 x 0.5 m. The size of the blocks and estimation methodology provide the good estimate of the local tonnages and grades of the Resources and is in a good accordance with the envisaged mining selectivity assuming that exploitation will be made using the ISL mining methods.</p>
	<p>Production data is not available for reconciliation of the Resources</p>