

# ASX Announcement

12 July 2017



## Significant Uranium Resource Upgrade – Mulga Rock cracks 90Mlbs

Key highlights:

- **Mulga Rock Project now at 90.1Mlbs  $U_3O_8$  being 71.2Mt at 570ppm  $U_3O_8$**
- **High-grade at Mulga Rock East comprises 25Mlbs at 1,500ppm  $U_3O_8$**
- **A 30% increase in Mulga Rock East resource since November 2016**
- **50% of the global Mineral Resource is in Measured and Indicated status**

Vimy Resources Limited (“Vimy” ASX: VMY) is pleased to announce the results from a Mineral Resource update at its Mulga Rock Project (**MRP**). This update relates to the entire Mulga Rock Project as a result of recent infill drilling completed in 4Q 2016.

The new global Mineral Resource has increased by 17% to 71.2Mt at 570ppm  $U_3O_8$  for 90.1Mlbs  $U_3O_8$  compared to the November 2016 estimate of 76.8Mlb  $U_3O_8$ . Significantly, the new resource includes 45.4Mlbs  $U_3O_8$  of Measured and Indicated material and it is expected that most of this material will be converted to Proven and Probable Reserves at the completion of the Definitive Feasibility Study (**DFS**).

The Mulga Rock East mining centre, comprising the Princess and Ambassador deposits, will feed the process plant for the first 13 years of production. The Mineral Resource at Mulga Rock East has increased by 30% for a total of 56.4Mlb  $U_3O_8$  at 670ppm  $U_3O_8$  compared to the November 2016 estimate.

### Upgrades expected to significantly improve project economics

Higher grade zones within Ambassador comprise 25Mlb at 0.15% (1,500ppm)  $U_3O_8$ . In mining studies currently underway, it is evident that early mining of much of this high-grade zone will provide significantly improved economics, compared to the PFS, released 16 November 2015, and underpin the initial project payback period.

Managing Director, Mike Young said, “*This resource upgrade highlights the world class scale and economic development potential of the Mulga Rock Project.*”

“*A 30% increase in uranium metal, and definition of the higher grade zone is a great result by the Vimy team, and will lead to a significant improvement in our operating costs in the Definitive Feasibility Study currently underway.*”

“*Vimy is a compelling investment case in any uranium market, and therefore provides maximum leverage to uranium price.*”

Mulga Rock Project  
now



Higher grade within  
**AMBASSADOR**  
contains  
25Mlbs @ 0.15%  $U_3O_8$



Mulga Rock East



Please consider the environment before printing this announcement past Page 6.

## Upcoming activities

On the back of these excellent results, the Company expects to complete the following work over the next two quarters:

- **Assess high-grade mining scenarios and staged capital implementation plans**
- **Complete an updated Ore Reserve using the new resource models**
- **Run financials for the DFS with new metal throughputs, and**
- **Submit remaining secondary permits to ensure the project is construction ready by mid-2018**

These activities feed into the final DFS to be completed in the September 2017 quarter and published thereafter.

## Mulga Rock Project

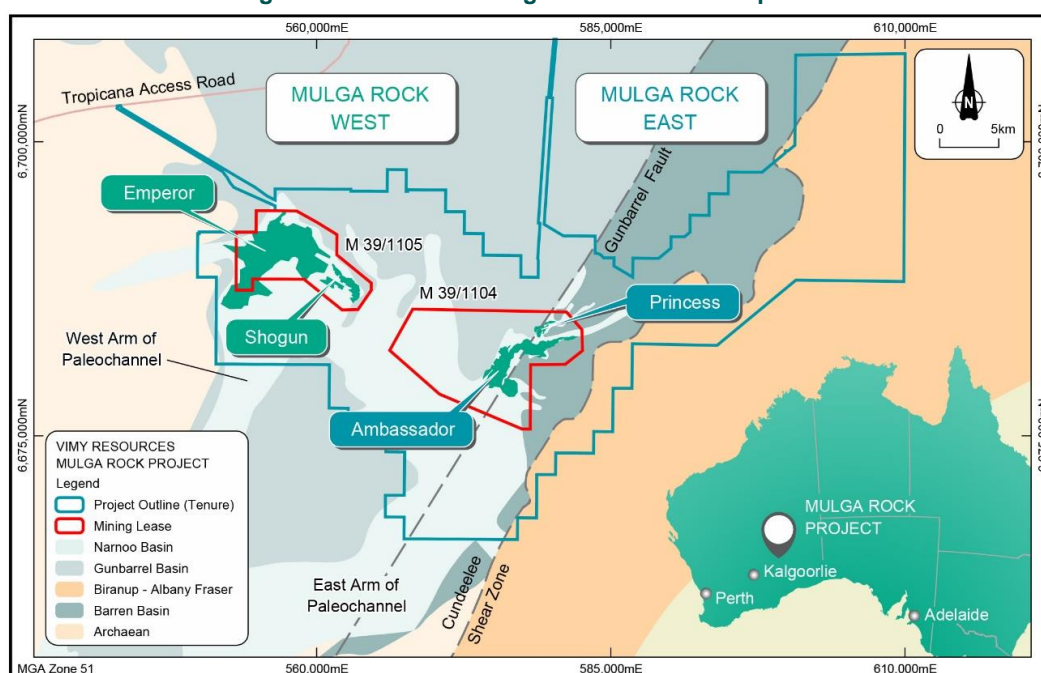
The Mulga Rock Project is 100% owned and operated by Vimy Resources and lies approximately 240km east-northeast of Kalgoorlie, situated on two granted Mining Leases (ML39/1104 and ML39/1105). Vimy holds title to approximately 750 square kilometres of exploration ground across the Mulga Rock Project (Figure 1).

As announced on 26 April and 25 May 2017, the Company identified several areas where the understanding of uranium mineralisation has improved through recent infill drilling and an independent review of the resource model. This new information has led to a material increase in the uranium metal through the following factors:

- **Drill hole density:** Increased drilling density, irrespective of drilling method, increases contained metal (common in supergene deposits)
- **Diamond drilling:** Diamond core shows a slightly thinner ore horizon at much higher uranium grade for similar contained metal when compared to aircore holes
- **In-situ ore bulk densities:** Additional diamond core data has demonstrated an increase in ore densities
- **Twin hole drilling:** Additional twin hole data sets have improved the understanding of disequilibrium factors and allow application by geological domain rather than globally; this has also resulted in an overall increase in the upper cut-off grades applied prior to estimation

The July 2017 Mulga Rock Project Mineral Resource is reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, (JORC Code 2012) and validated by AMC Consultants Pty Ltd.

**Figure 1: Location of Mulga Rock Uranium Deposits**



The July 2017 Mulga Rock Project Uranium Mineral Resource is 71.2Mt at 570ppm U<sub>3</sub>O<sub>8</sub> for 90.1Mlbs U<sub>3</sub>O<sub>8</sub> (see Table 1). This represents an increase of 17% in contained U<sub>3</sub>O<sub>8</sub> metal for the global resource compared to the November 2016 estimate, comprising an increase in tonnage of 5% and an increase in grade of 11%.

**Table 1: Mulga Rock Project Mineral Resource, July 2017 <sup>1,2</sup>**

Deposit / Resource	Classification	Cut-off Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (Mt) <sup>1</sup>	U <sub>3</sub> O <sub>8</sub> (ppm) <sup>2</sup>	U <sub>3</sub> O <sub>8</sub> (Mlbs)
<b>Mulga Rock East</b>					
Princess	Indicated	150	2.0	820	3.6
Princess	Inferred	150	1.3	420	1.2
Ambassador	Measured	150	5.2	1,100	12.6
Ambassador	Indicated	150	14.8	800	26.0
Ambassador	Inferred	150	14.2	420	13.1
<b>Sub-Total</b>			<b>37.4</b>	<b>680</b>	<b>56.4</b>
<b>Mulga Rock West</b>					
Emperor	Inferred	150	30.8	440	29.8
Shogun	Indicated	150	2.2	680	3.2
Shogun	Inferred	150	0.9	290	0.6
<b>Sub-Total</b>			<b>33.8</b>	<b>450</b>	<b>33.6</b>
<b>Total Resource</b>			<b>71.2</b>	<b>570</b>	<b>90.1</b>

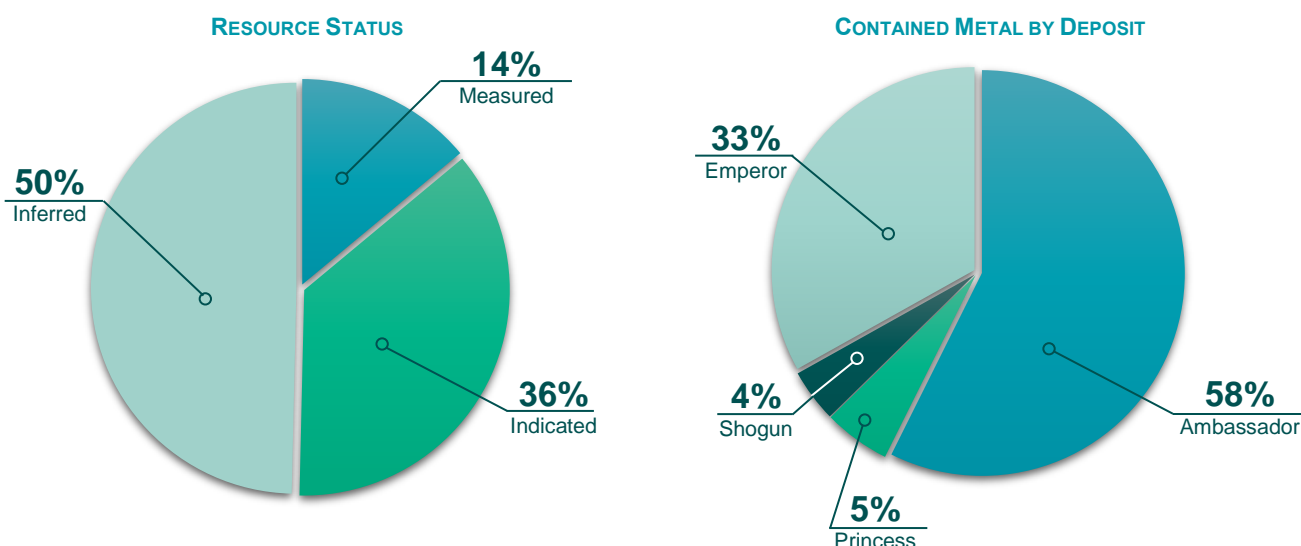
<sup>1</sup> t = metric dry tonnes; Appropriate rounding has been applied, and rounding errors may occur.

<sup>2</sup> Using cut combined U<sub>3</sub>O<sub>8</sub> composites (combined chemical and radiometric grades).

There is 45.4Mlbs U<sub>3</sub>O<sub>8</sub> in Measured and Indicated status representing 50% of the total global resource (Figure 2). It is expected that most of the Measured and Indicated material will convert to Proven and Probable Reserves as a result of the ongoing DFS.

The Mulga Rock East mining centre containing the Princess and Ambassador resources represents 63% of the global resource and will be the focus of initial mine development.

**Figure 2: 2017 Mulga Rock Project Mineral Resource**

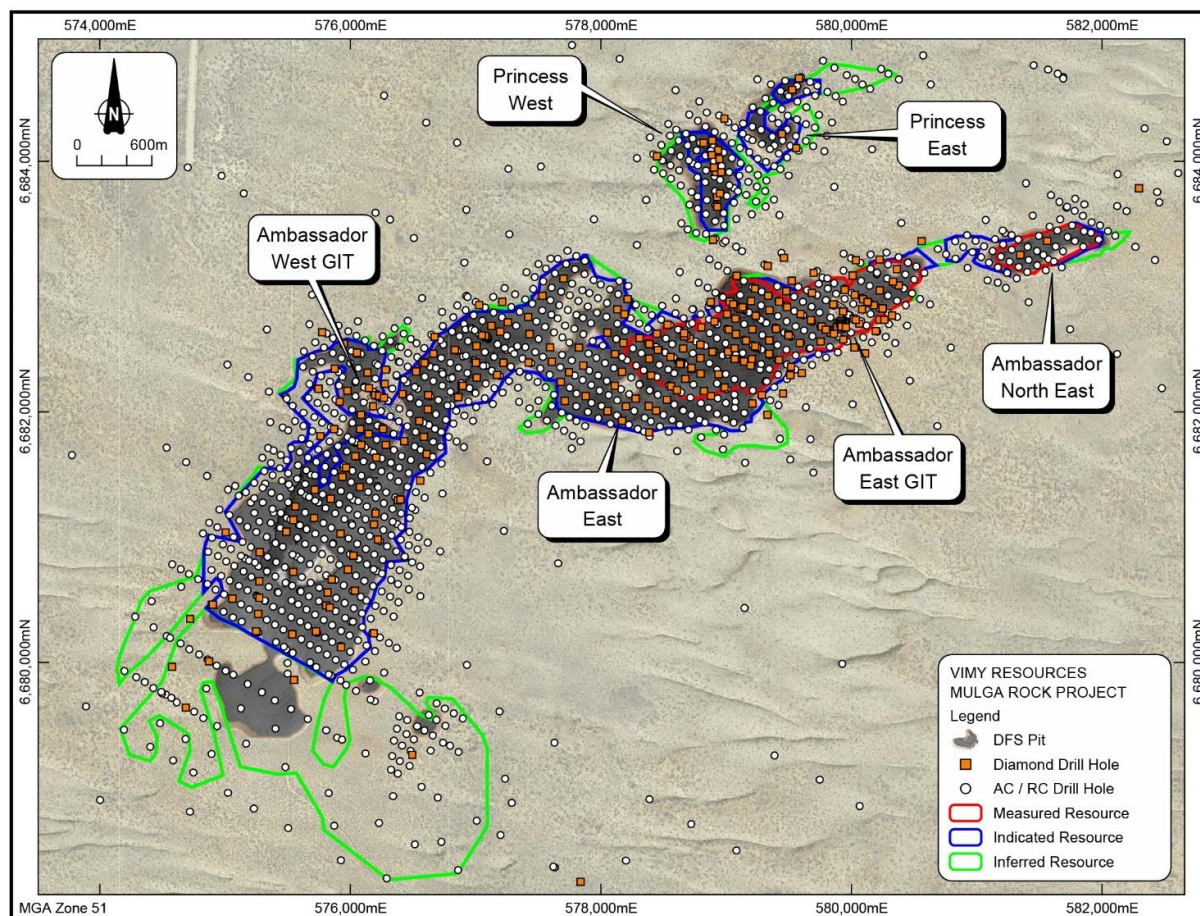




## Resource Estimates at Mulga Rock East

The Mulga Rock East mining centre comprises the Ambassador and Princess resources and will form the first stage of the mine development for the Mulga Rock Project (Figure 1). The Ambassador resource is a large, flat-lying deposit that is approximately 9 kilometres in length and 1 kilometre wide. It has been extensively drilled with 1,606 aircore and reverse circulation (AC and RC) holes completed for a combined total depth of 101,174 metres, and 366 diamond drill holes (DDH) for 20,065 metres (see Figure 3).

**Figure 3: Ambassador and Princess deposits collar location map**



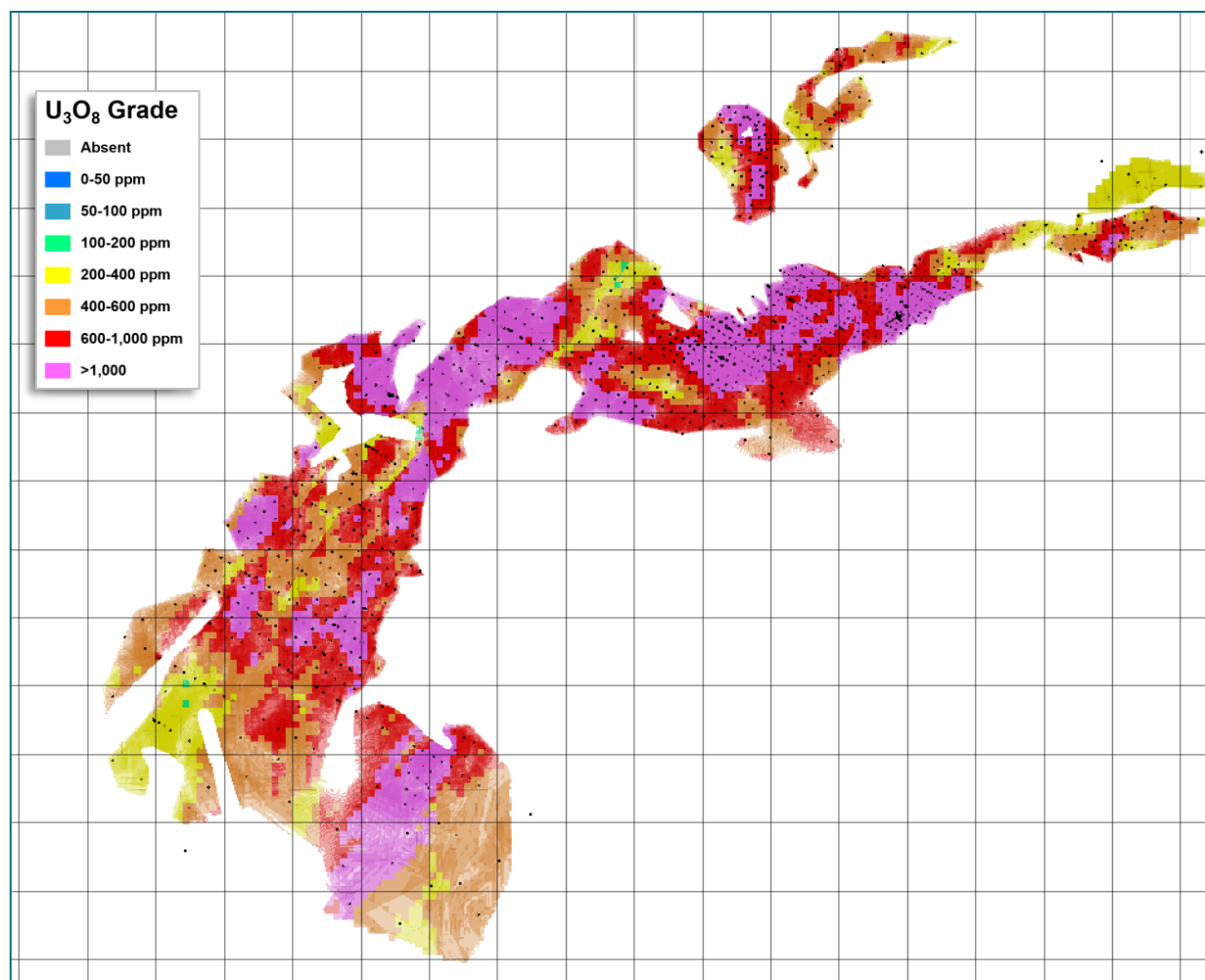
The Princess resource is a more compact deposit approximately 2km long and 0.5km wide. It has been drilled with 204 aircore and reverse circulation (AC and RC) holes completed for a combined total depth of 11,605 metres, and 21 diamond drill holes (DDH) for 1,108 metres.

The Mulga Rock East mining centre will feed the process plant for approximately the first 13 years of production. The Mineral Resource at Mulga Rock East has increased by 30% for a total of 56.4Mlbs  $U_3O_8$  at 680ppm  $U_3O_8$  when compared to the last global resource update in November 2016.

There is a high-grade component within the Ambassador deposit containing 25Mlb at an average uranium grade of 0.15%  $U_3O_8$ , with 91% in Measured and Indicated status. As part of ongoing DFS work, Vimy has identified four major high-grade pit shells that will be the focus of initial mining activities during the project payback period.

Figure 4 shows a uranium grade 'heat map' for the Mulga Rock East area.

**Figure 4: Ambassador and Princess uranium grade heat map**





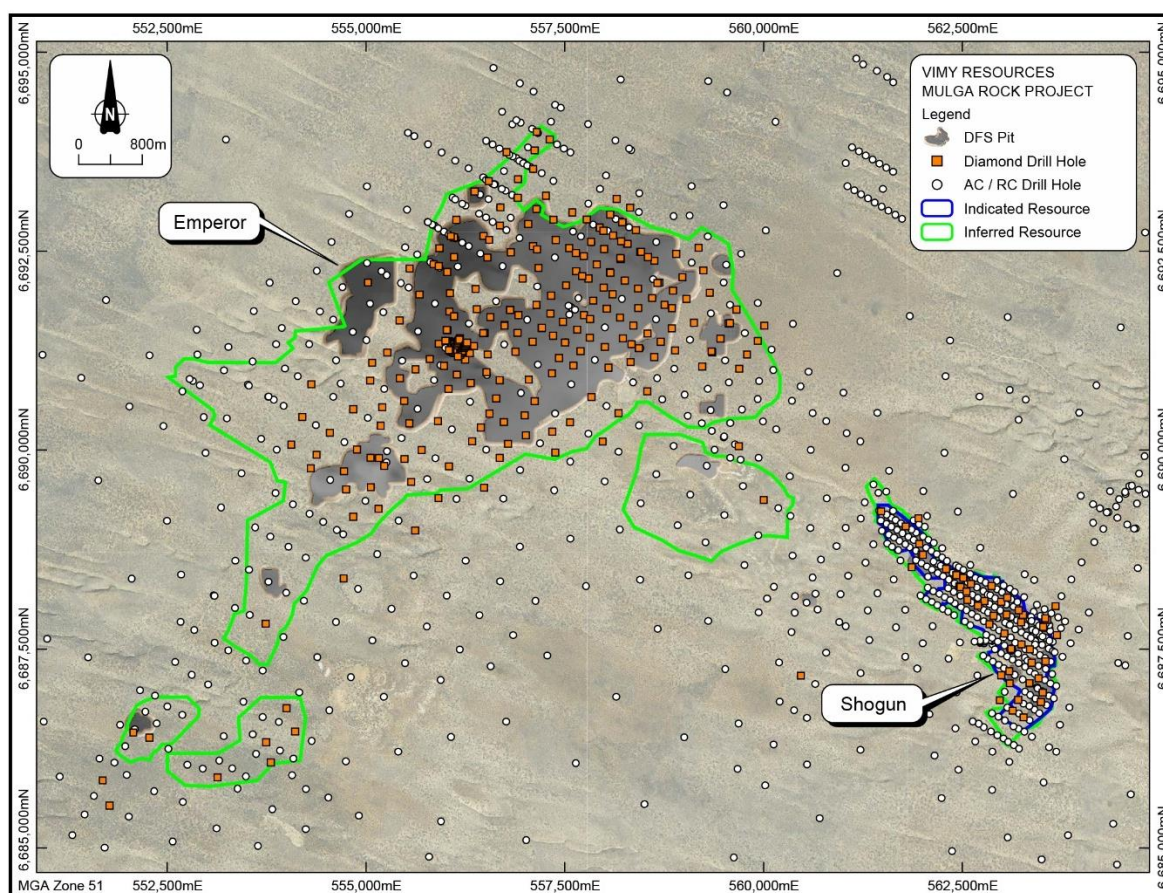
## Resource Estimates at Mulga Rock West

Mulga Rock West mining centre comprises the Shogun and Emperor resources. An update to the Shogun exploration database and correction factors applied to historical radiometric drilling data was completed.

The Shogun Resource Estimate (Table 1) is 3.1Mt at 620ppm  $U_3O_8$  for 3.8Mlbs  $U_3O_8$ , with 85% of the Mineral Resource now classified as Indicated. The Shogun Mineral Resource update shows a 3% increase in tonnage and 1% increase in contained uranium metal compared to the November 2016 estimate.

The overall Mineral Resource for Mulga Rock West now contains 33.8Mt at 450ppm  $U_3O_8$  for 33.6Mlbs  $U_3O_8$  using a 150ppm  $U_3O_8$  cut-off. Figure 5 provides a drill collar map for the Mulga Rock West area.

**Figure 5: Emperor and Shogun deposits collar location map**




**Mike Young**  
**Managing Director and CEO**

Dated: 12 July 2017

*The information in this announcement that relates to the Exploration Results for the Mulga Rock Resource Estimate ( $U_3O_8$ ), are based on information compiled by Xavier Moreau, who is a Member of the Australian Institute of Geoscientists. Mr Moreau is a full-time employee of Vimy Resources. Mr Moreau has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Moreau consents to the inclusion in the 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 the Mulga Rock Mineral Resource estimates ( $U_3O_8$ ) is based on information compiled under the supervision of AMC Consultants as consultants to the Company and reviewed by Ingvar Kirchner an employee of AMC Consultants. Mr Kirchner consents to the inclusion, form and context of the relevant information herein as derived from the original resource reports. Mr Kirchner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.*

## About Vimy Resources

Vimy Resources Limited (ASX: VMY) is a Perth-based resource development company. Vimy's primary focus is the development of the Mulga Rock Project, one of Australia's largest undeveloped uranium resources which is located 240km ENE of Kalgoorlie in the Great Victoria Desert of Western Australia.

The Project comprises 90.1Mlbs of  $U_3O_8$  and will have the capacity to produce 1,360 tonnes per annum of uranium oxide for up to seventeen years. The Project is expected to result in the creation of approximately 490 new jobs in Western Australia and to create payments of around A\$19m per year to the State government in the form of royalty payments and payroll tax. The amount of uranium produced if used in nuclear power plants to displace coal fired electricity would offset more than 50 million tonnes of carbon dioxide equivalent emissions which is around 10% of Australia's total greenhouse gas emissions.

Vimy harnesses science and technology to maintain the environment.

### Directors and Management

The Hon. Cheryl Edwardes AM  
Chairman

Mike Young  
CEO and Managing Director

Julian Tapp  
Executive Director

David Cornell  
Non-Executive Director

Mal James  
Non-Executive

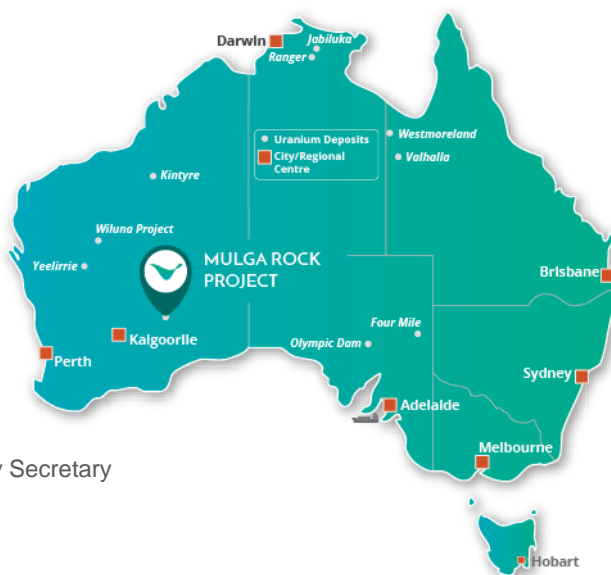
Director

Andy Haslam  
Non-Executive Director

Ron Chamberlain  
Chief Financial Officer and Company Secretary

Tony Chamberlain  
Chief Operating Officer

Xavier Moreau  
General Manager, Geology and Exploration



For a comprehensive view of information that has been lodged on the ASX online lodgement system and the Company website please visit [asx.com.au](http://asx.com.au) and [vimyresources.com.au](http://vimyresources.com.au) respectively.

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THE MULGA ROCK PROJECT  
COMPRISES



$U_3O_8$

CAPACITY TO PRODUCE

**1,360**

tonnes per annum



of uranium oxide for up to  
**seventeen years**



The creation of approximately

**490 new jobs**  
IN WESTERN AUSTRALIA

Royalty and payroll tax  
payments of around

**A\$19m**

PER YEAR TO THE  
STATE GOVERNMENT

The amount of uranium produced  
if used in nuclear power plants to  
displace coal fired electricity would  
offset more than



**50 million tonnes**

of carbon dioxide equivalent  
emissions which is

**around 10%**

of Australia's total greenhouse gas  
emissions.

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## Mulga Rock Project

### Ambassador, Princess and Shogun June 2017 Mineral Resource Updates

#### Executive Summary

Ambassador, Princess and Shogun are three of four uranium deposits comprising the Mulga Rock Project (MRP). The MRP is located approximately 240 km east-northeast of Kalgoorlie in Western Australia. The area of the Ambassador Deposit was subject to uranium exploration by PNC Exploration Australia Pty Ltd (PNC) during 1981 to 1988, which resulted in the discovery of uranium mineralisation. The MRP currently comprises the Emperor, Shogun, Ambassador and Princess uranium deposits which are located within Mining Leases (ML) 39/1104 and 39/1105.

This report documents updated 2017 Mineral Resources for the Ambassador and Princess deposits subsequent to infill drilling in Q4 2016, and an updated 2017 Mineral Resource for the Shogun deposit after receipt of down hole gamma data for selected historic RC drillholes. The estimates were completed by Vimy Resources Ltd (Vimy) under the supervision of AMC Consultants Pty Ltd (AMC). The report complies with disclosure and reporting requirements set forth in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2012 (the JORC Code<sup>1</sup>) as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia (JORC).

A Mineral Resource for Ambassador was completed in January 2009 following a small drilling programme in 2008 aimed at confirming the tenor of mineralisation at MRP. Uranium data only was examined. Subsequently, a material amount of additional infill drilling has been completed in 2009, 2014, 2015, and 2016 at Ambassador, resulting in several iterations of updated Mineral Resource estimates for Ambassador.

A Mineral Resource for Princess was completed in 2012 following drilling carried out in 2011 and 2012. Uranium data only was examined. The Mineral Resource was updated following drilling in 2014, and again in 2017 following drilling in Q4 2016.

A Mineral Resource for Shogun was completed in 2009. It was updated in 2016 following infill drilling in 2015. The 2016 Shogun Mineral Resource has been updated in 2017 to incorporate newly acquired gamma data for selected historic RC holes.

The current Mineral Resources covering Ambassador, Princess, and Shogun are part of a study for the MRP Uranium deposits that will be used in a Definitive Feasibility Study.

The Ambassador, Princess and Shogun deposits are supergene deposits associated with multiple phases of weathering, the most recent of which have occurred within the last 300,000 years. The mineralogy of the MRP is diverse, with over 50 minerals being recognized at the Shogun Deposit in addition to the common rock-forming minerals. The bulk of the uranium occurs as diffuse concentrations, too fine to be

<sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition. Effective 20 December 2012 and mandatory from 1 December 2013. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia (JORC).



resolved by scanning electron microscopy (SEM), and disseminated evenly throughout the organic rich sediments. The major zone of uranium accumulation within each deposit occurs as a sub-horizontal planar body that is strongly correlated with both the unpressurized groundwater surface and fine textured, carbonaceous sediments such as lignites and lignitic clays. It is theorised that uranium (and other base metals within the deposit) were transported laterally from source materials in oxidized form by acidic, meteoric flow. The metals were then concentrated and eventually fixed (reduced) in the anoxic, capillary fringe at the surface of the water table. Uranium reduction and fixation ( $U^{6+}$  to  $U^{4+}$ ) is thought to be largely biogenic (enzymatically catalysed reduction by U-bacteria). The anoxic (reduced) capillary fringe is much thicker in fine textured sediments (such as lignites) than in coarser textured sediments such as carbonaceous sands. As such, most uranium accumulation in the MRP is similarly correlated with organic-matter rich materials at the water table surface. Uranium accumulation does occur at the water table surface in medium to coarse sands, but is generally too thin to be of commercial value. More redox active metals (such as Cu, Ni and Zn) tend to reduce and fix at redox interfaces below the water table surface. Mineralisation, therefore, is controlled by the lithological and geochemical properties of the sediments rather than by stratigraphy. Suitable lithological and geochemical environments for significant metal accumulation occur in both remnant carbonaceous Cretaceous sediments and Eocene palaeochannel sediments.

Eocene palaeochannel sediments primarily host the mineralisation in the deposits. Uranium mineralisation commences at depths ranging typically between 30 m and 50 m at Ambassador, reflecting the combination of a slight dip to the mineralised surface and the topography of the area. Uranium mineralisation at Princess commences at depths ranging from 36-60m, with depths increasing to the east. Uranium mineralisation at Shogun commences at depths ranging from 23-24m.

Vimy is responsible for the drill hole database and geology used in the Mineral Resource, with data compiled in a Datashed database system.

The 2017 Ambassador Mineral Resource, shown in Figure I, contains a total of 1,764 drillholes (totalling 105.2 km of drilling) of which 1,718 holes contained either radiometric or assay data.

The holes comprise a mixture of data including:

- Recent radiometric probe data primarily from aircore (AC) and reverse circulation (RC) holes.
- Historical and recent chemical assay data primarily from diamond core holes (DC).
- Some historical radiometric data for PNC drillholes.

The drillholes within the Ambassador deposit reported here comprise:

- 1,249 AC holes (76,090 m total).
- 357 DC holes (19,019 m total).
- 143 RC holes (9,694 m total).
- 5 Sonic holes (265 m total).
- 10 Geotech holes (51 m total).

Drillholes that were omitted for use in resource estimation tended to lack critical radiometric and/or assay data.

The 2017 Princess Mineral Resource, shown in Figure I, contains a total of 245 drillholes (totalling 12.8 km of drilling) of which 217 holes contained either radiometric or assay data.

The holes comprise a mix of data including:

- Recent radiometric probe data primarily from aircore (AC) holes.
- Historical and recent chemical assay data primarily from diamond core holes (DC).
- Some historical radiometric data for PNC drillholes.

The drillholes within the Princess deposit reported here comprise:

- 180 AC holes (10,372 m total).
- 21 DC holes (1,108 m total).
- 16 RC holes (941 m total).

The 2017 Shogun Mineral Resource, shown in Figure V, contains a total of 478 drillholes (totalling 25.3 km of drilling) of which 446 holes contained either radiometric or assay data.

The holes comprise a mix of data including:

- Recent radiometric probe data primarily from aircore (AC) holes.
- Historical and recent chemical assay data primarily from diamond core holes (DC).
- Some historical radiometric data for PNC drillholes.

The drillholes within the Shogun deposit reported here comprise:

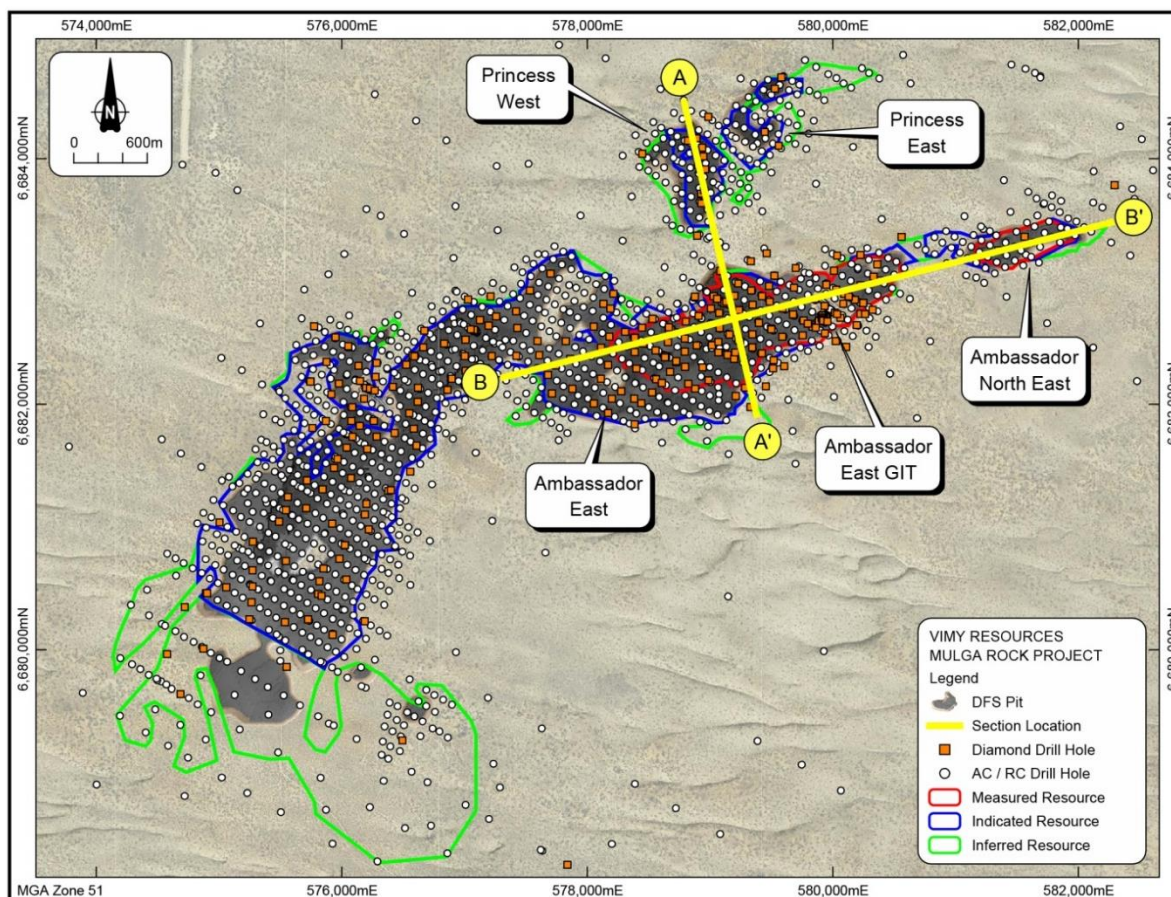
- 235 AC holes (11,097m total).
- 49 DC holes (2,303m total).
- 194 RC holes (11,876m total).

The mineralised zones were defined by interpretation of stratigraphy, geology, and anomalous grades. Using geology and stratigraphic positions, the uranium mineralised zones were defined using a  $eU_3O_8 > 100$  ppm cut-off grade (prior to disequilibrium correction, for percussion drilling) and/or chemical  $U_3O_8 > 100$  ppm cut-off grade (for diamond drilling). A minimum thickness of 0.5 m and maximum 1 m internal dilution was allowed for in definition of the mineralisation domains. This protocol defined multiple stacked mineralised zones at Ambassador, with the majority of the metal contained in Domain 100 zone, being the most laterally extensive and highest in grade. A schematic long section and cross section of the mineralised domains at Ambassador and Princess are shown in Figures II and III. The mineralised zones were further refined and constrained by the use of sub-domains related to geology and palaeochannel controls and limits on the uranium mineralisation. The spatial extent of Domain 100 sub-domains is shown in Figure IV. This represents a significant improvement on previous models.

This domaining protocol also defined stacked mineralised zones at Princess. Domain 100 is split into an eastern and western portion by a roughly north-south feature. Domain 200 underlies the southern portion of the eastern section of domain 100. There is also a mineralised zone at the western paleochannel margin along the base of Eocene material, beneath the western portion of domain 100. A schematic cross section of the Princess mineralisation is shown in Figure II.

The same interpretation protocol defined two uranium mineralised zones at Shogun, of which the north eastern Domain 100 zone is both the most laterally extensive and highest grade. A schematic long section of the Shogun mineralisation is shown in Figure VI.

Figure I Drill hole locations and type at Ambassador and Princess as of June 2017



In order to address potential disequilibrium and sample quality issues, a large number of diamond drillholes and corresponding AC twin drillholes were drilled in the Ambassador deposit. Diamond/AC twin drillholes have also been drilled into the Princess and Shogun deposits. Detailed studies were completed to assess the following aspects:

- Gamma-derived  $eU_3O_8$  between the DC and AC holes. Outcomes were as follows:
  - Global statistical calculations confirmed earlier studies that the gamma-derived  $eU_3O_8$  from the twin DC and AC holes were comparable despite possible variations in drill hole diameters, casing, hole condition etc. Minor variations between twin holes are noted, but are assumed to be caused by short range geological variability—those assumptions were substantiated by other test work.
- Chemical assay-derived  $U_3O_8$  between the DC and AC holes. Outcomes were as follows:
  - Samples derived from the DC holes are typically of good quality.
  - The effects of sample smearing and non-selective interval dilution in the 2016 study are apparent within a number of the AC holes, although there are also examples where this effect is either minimal or absent.
  - As a result,  $U_3O_8$  values derived from AC holes are likely to be biased low in terms of grade and biased high in terms of interval width.
  - For the purposes of resource estimation, gamma-derived factored  $eU_3O_8$  (referred to as  $eU_3O_{8d}$  when corrected for disequilibrium) should be used in preference to  $U_3O_8$  assays for the AC holes. This would also apply to other drilling techniques such as RC and rotary mud, where the likelihood of sample smearing and/or sample contamination is possibly high.



Figure II Ambassador and Princess Mineral Resource – Schematic oblique cross-section – vertical exaggeration 8x

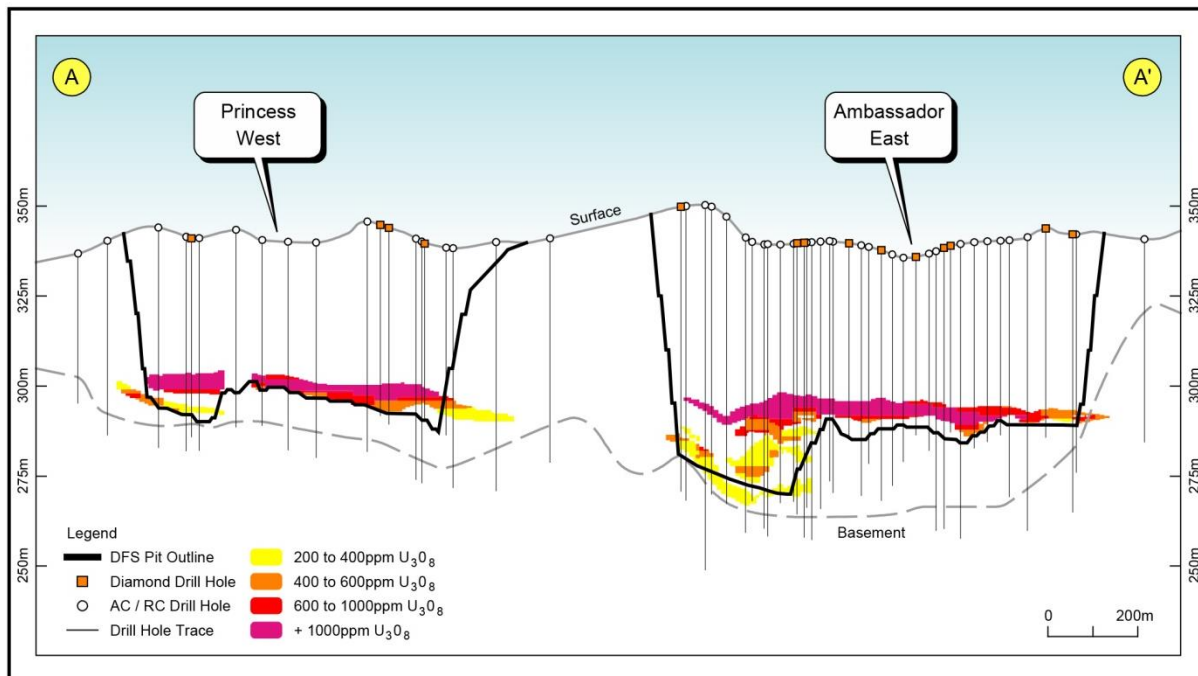


Figure III Ambassador Mineral Resource – Schematic long section – vertical exaggeration 8x

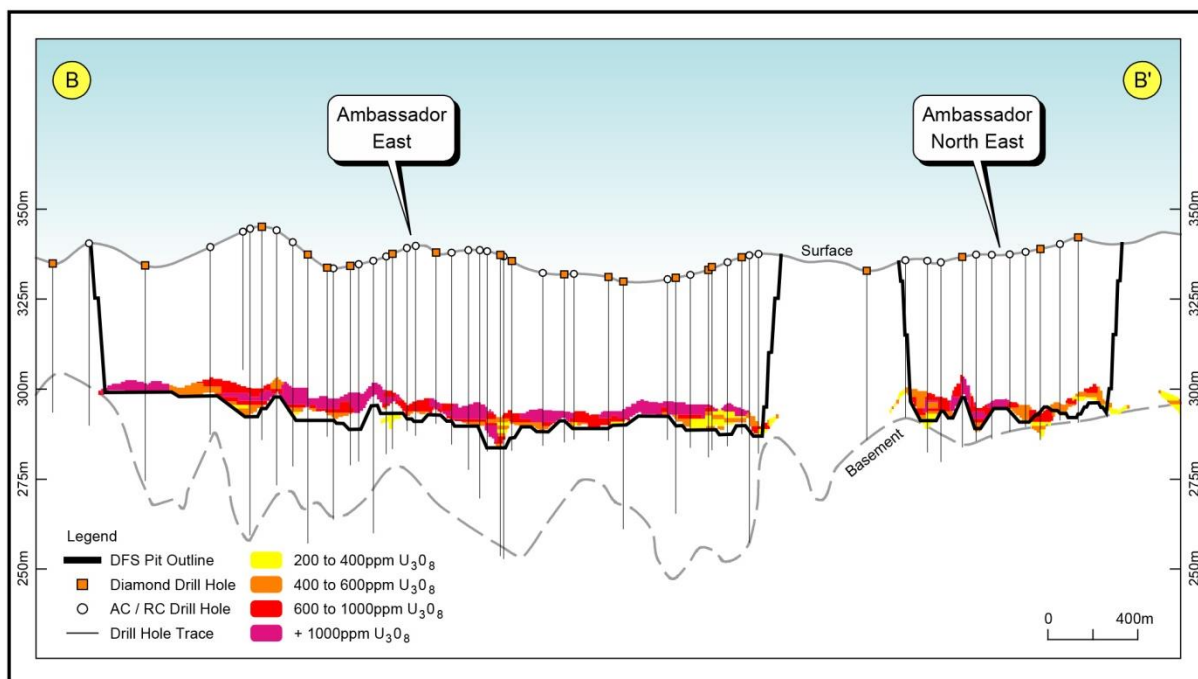


Figure IV Ambassador and Princess domain 100 sub-domains



Figure V Drill hole locations and type at Emperor and Shogun as of June 2017

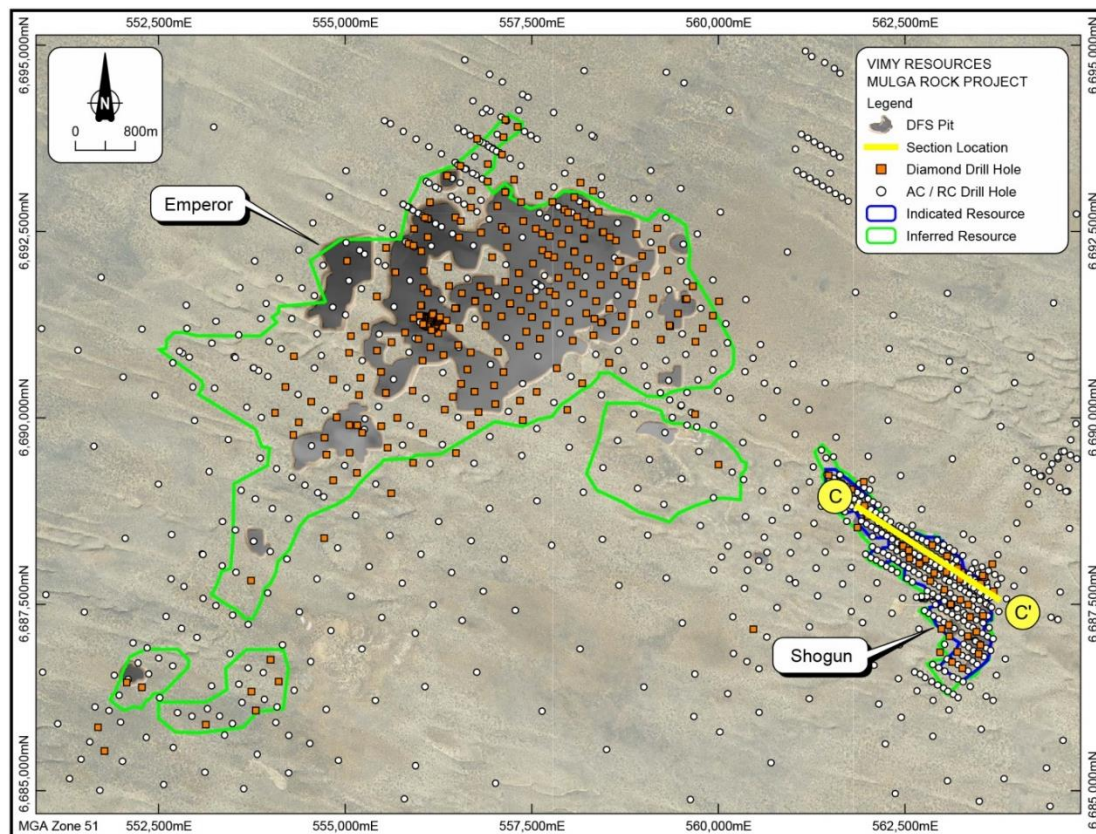
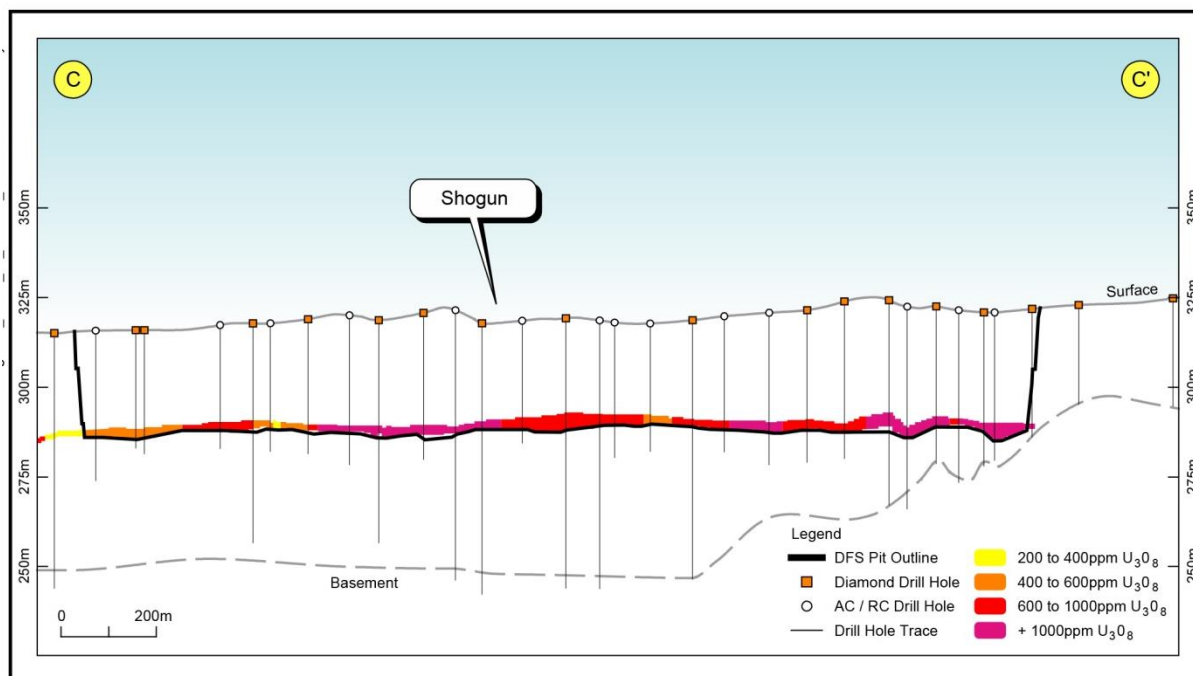


Figure VI Shogun Resource – Schematic cross-section C-C'- vertical exaggeration 8x



The net conclusions from the twin hole study – as it affects the data used for the Mineral Resource – are as follows:

- AC  $eU_3O_8$  data (corrected for disequilibrium) should be used in preference to the AC chemical assay  $U_3O_8$  data due to sample quality/potential smearing issues where possible.
- Chemical  $U_3O_8$  data should be used from the DC holes where possible.
- As radiometric data is comparable between DC and AC twin holes, the disequilibrium corrections derived from DC  $eU_3O_8/U_3O_8$  sample interval pairs are valid to be extrapolated from the DC holes to the AC holes.

As is normal for most young uranium deposits, the radiometric equivalent  $U_3O_8$  ( $eU_3O_8$ ) grades require adjustment for radiometric disequilibrium. This was achieved by using regression equations derived from the comparison of paired assay results with composited radiometric logging from the various phases of DC drilling. In the majority of cases at Ambassador, Princess and Shogun, the radiometric  $eU_3O_8$  grades for similar intervals are lower than the corresponding chemical assays for  $U_3O_8$ , requiring general positive adjustments to the radiometric data to emulate the accurate chemical assay data. To obtain a robust global estimate of the disequilibrium, each of the uranium domains was first split into groups (based on the data type/vintage/domain/subdomain) and then further split into distinct grade bins. These grade bins were determined based on apparent “natural breaks” in the dataset identified in both the statistics and Q-Q plots. Specifically, disequilibrium corrections (regression formulae for the Q-Q data) were derived based on the 0.5 m downhole composite data and within the mineralised domains and sub-domains:



- Ambassador
  - Domain 100 (sub-domains 110, 120,130,140,150,160 and 170) for:
    - PNC data where  $eU_3O_8$  data was derived from digitised logs.
    - PNC data where  $eU_3O_8$  data from recent wireline logs was derived from digitised logs.
    - Vimy data from holes drilled up to and including 2015.
    - Vimy data from holes drilled after 2015.
  - Domain 200, 300, and 400 (sub-domains 200, 210, 300,310, 350, 400 and 410) combined Vimy data from holes drilled between 2014 and 2016 due to limited data.
- Princess
  - Eastern mineralisation (sub-domains 180 and 220) – Vimy data from holes drilled up to and including 2016.
  - Western domain 100 (sub-domain 190) – Vimy data from holes drilled up to and including 2016.
  - Lower Eocene mineralisation (subdomain 390) – Vimy data from holes drilled up to and including 2016.
  - Local corrections for PNC drill hole data could not be derived due to insufficient data. PNC data was therefore corrected using factors applied to PNC holes from Ambassador sub-domain 120 as this material was deemed the closest analogy to Princess material.
- Shogun
  - PNC data from holes drilled up to and including 2007
  - Vimy data from holes drilled between 2008 and 2016.

Any radiometric data below the lower disequilibrium grade range for the Vimy and PNC data within the uranium domains were not corrected, as the material was considered to be internal dilution, and the corrections applied within that grade range were likely to be both minimal and inaccurate. The disequilibrium adjustments were validated by the sub-domains. When compared to the raw  $eU_3O_8$  dataset, the disequilibrium corrected data ( $eU_3O_8d$ ) is statistically similar to the assay-derived  $U_3O_8$  data.

All data was composited to 0.5 m downhole intervals within the mineralised domains and sub-domains. The 0.5 m  $U_3O_8$  composite data (plus any residuals) was also re-composited to the full vertical width of the domains such that a single composite of variable width represents each drill hole. The full width composites were used for parallel accumulation type estimates.

The block model dimensions at Ambassador cover a region of 10.5km x 9 km. Parent block dimensions for the Ambassador block model are 50 mE x 50 mN x 1 mRL with sub-celling down to 10 mE x 10 mN x 0.25 mRL. Estimation for this Ambassador update utilises Ordinary Kriging (OK) and the 0.5 m composite data.

The block dimensions at Princess cover a region of 4km x 2km, occurring at the northern extent of the Ambassador block model. Parent block dimensions for the Princess block model are 50 mE x 50 mN x 1mRL with sub-celling down to 10 mE x 10 mN x 0.25 mRL. Estimation for this Princess update utilises OK and the 0.5m composite data.

The block dimensions at Shogun cover a region of 4.5km x 4.6km. Parent block dimensions for the Shogun block model are 50 mE x 50 mN x 10 mRL with sub-celling down to 10 mE x 10 mN x 0.25 mRL. Estimation for this Shogun utilises an Accumulation Estimation process using OK to estimate the full width composites. The full thickness composite intervals of varying lengths are used to calculate [grade x thickness] accumulation variables; the thickness is expressed as millimetres in order to keep the

thickness roughly the same order of magnitude values as the  $U_3O_8$  grades. Variogram models are generated for the  $U_3O_8$  [grade x thickness] accumulation variable. Estimation of the [grade x thickness] accumulation variable and [thickness] service variable is done using OK and identical search and variogram model parameters. Block grades for  $U_3O_8$  are then back-calculated from the block accumulation and service variables ( $\text{grade} = [\text{grade} \times \text{thickness}] / [\text{thickness}]$ ). The accumulation estimate was run in a parent block utilising an exaggerated height to prevent inadvertent estimation of different parent block estimates in the Z dimension. The resultant blocks were then cut back to the original sub-cells and parent blocks governing the remainder of the model.

Bulk density data (wet, dry, and moisture) was based upon an analysis of immersion bulk density data, wireline density logs for DC holes, and ultimately a hybrid data set coded for the key lithologies (basement, carbonaceous clay, claystone, conglomerate, carbonaceous sandstone, laterite, lignitic clay, sandstone, and siltstone). Use of the wireline density data in conjunction with the Archimedean methods generated a comprehensive data set across the range of lithologies for use in modelling without some of the biases related to selection of competent units of core for weight/volume measurements. Dry bulk density values range from  $0.74 \text{ t/m}^3$  (for lignite-lignitic clay) to  $1.55 \text{ t/m}^3$  (sandstone) in the range of material associated with the uranium mineralisation, excluding basement material ( $1.91 \text{ t/m}^3$ ). Bulk densities at Ambassador and Princess were estimated directly into the block models for the domains and sub-domains using Inverse Distance (Power=1) method, with block densities reflecting the fractions of the main lithologies discussed above, each assigned a specific moisture and wet but density.

Bulk densities at Shogun were applied to the block model using indicator derived fractions for the 9 key lithologies listed above. The indicators were estimated into the block model using Inverse Distance (Power=1) method. The indicator estimates were constrained within Domains 100-200, and then background material separately above and below Domains 100-200. Results between the indicator lithology fields were normalised to 1.0, and a lithology-based bulk density assigned on a majority basis to the blocks. Therefore, bulk density values assigned to blocks can be variable, dependent on variations in lithology and domain constraints.

Average bulk densities and moistures for the classified portions of the Ambassador, Princess and Shogun domains are given in Table I.

**Table I Average density and moisture values for the classified portions of the uranium mineralisation domains at Ambassador, Princess and Shogun**

Deposit	Domain	Bulk density dry ( $\text{t/m}^3$ )	Moisture (% of dry BD)	Bulk density wet ( $\text{t/m}^3$ )
Ambassador	100	1.15	38.9	1.54
	200	1.37	30.2	1.74
	300	1.46	25	1.81
	400	1.46	25.1	1.82
Princess	100	1.42	25.5	1.8
	200	1.53	20.3	1.92
	300	1.50	22.4	1.88
Shogun	100	0.87	67	1.40
	200	0.98	59	1.50

Note: Appropriate rounding has been applied.

Redox boundary, water table, and stratigraphy were flagged in the block model based on interpreted wireframe surfaces provided by Vimy geologists.

The Mineral Resources have been reported in accordance with the guidelines as set out in the JORC Code. Resource classification for each deposit has been assigned based on the confidence of the input data, drill hole spacing, geological interpretation, and grade estimation. The resource classification assumes exploitation by conventional open cut mining methods.

The Ambassador resource estimate has been classified as a combination of Measured, Indicated and Inferred Resource. The Mineral Resource for Ambassador, in Table II, is reported using a lower cut-off grade of 150ppm U<sub>3</sub>O<sub>8</sub>. The model used cut U<sub>3</sub>O<sub>8</sub> 0.5m composite data (combined chemical and disequilibrium corrected radiometric grades) and ordinary kriging as the estimation method.

**Table II Mineral Resource by uranium domain, June 2017 – Ambassador area reported at 150ppm U<sub>3</sub>O<sub>8</sub> lower cut-off grade**

Uranium Domain	June 2017 Mineral Resource— Ambassador											
	Resource Classification									Total		
	Measured			Indicated			Inferred					
	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)
100	5.2	1,100	12.6	10.3	940	21.4	7.0	550	8.6	22.5	860	42.6
200				4.5	470	4.6	0.4	340	0.3	4.9	450	4.9
300							5.4	300	3.6	5.4	300	3.6
400							1.3	210	0.6	1.3	210	0.6
<b>Total</b>	<b>5.2</b>	<b>1,100</b>	<b>12.6</b>	<b>14.8</b>	<b>800</b>	<b>26.0</b>	<b>14.2</b>	<b>420</b>	<b>13.1</b>	<b>34.1</b>	<b>690</b>	<b>51.7</b>

The Princess resource estimate has been classified as a combination of Indicated and Inferred Resource. The Mineral Resource for Princess, in Table III, is reported using a lower cut-off grade of 150ppm U<sub>3</sub>O<sub>8</sub>. The model used cut U<sub>3</sub>O<sub>8</sub> 0.5m composite data (combined chemical and disequilibrium corrected radiometric grades) and ordinary kriging as the estimation method.

**Table III Mineral Resource by uranium domain, June 2017 – Princess area reported at 150ppm U<sub>3</sub>O<sub>8</sub> lower cut-off grade**

Uranium Domain	June 2017 Mineral Resource— Princess											
	Resource Classification									Total		
	Measured			Indicated			Inferred					
	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)
100				2.0	820	3.6	0.7	490	0.8	2.7	730	4.4
200							0.2	320	0.2	0.2	320	0.2
300							0.4	320	0.3	0.4	320	0.3
<b>Total</b>				<b>2.0</b>	<b>820</b>	<b>3.6</b>	<b>1.3</b>	<b>420</b>	<b>1.2</b>	<b>3.3</b>	<b>660</b>	<b>4.8</b>

The Shogun resource estimate has been classified as a combination of Indicated and Inferred Resource. The Mineral Resource for Shogun, in Table IV, is reported using a lower cut-off grade of 150ppm U<sub>3</sub>O<sub>8</sub>. The model used full width composites of cut U<sub>3</sub>O<sub>8</sub> data (combined chemical and disequilibrium corrected radiometric grades) and Accumulation Estimation process using ordinary kriging as the estimation method.



**Table IV Mineral Resource by uranium domain, June 2017 – Shogun area reported at 150ppm U<sub>3</sub>O<sub>8</sub> lower cut-off grade**

June 2017 Mineral Resource— Shogun												
Uranium Domain	Resource Classification									Total		
	Measured			Indicated			Inferred					
	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)	Tonnage (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Metal (Mlb)
100				2.15	685	3.25	0.28	355	0.22	2.43	645	3.45
200							0.59	260	0.34	0.59	260	0.34
Total				2.2	685	3.2	0.9	290	0.56	3.0	570	3.8

Footnotes for Tables II, III, and IV:

- Appropriate rounding has been applied in the tables above, sums may vary slightly.
- The current MRP Ambassador resource drilling database comprises 1764 drillholes. Of these, 357 were diamond holes, 143 were AC, 1249 were AC, 10 were geotechnical holes and five were sonic holes.
- The current MRP Princess resource drilling database comprises 245 drillholes. Of these, 21 were diamond holes, 180 were RC holes and 16 were RC holes.
- The current MRP Shogun resource drilling database comprises 478 drillholes. Of these, 49 were diamond holes, 235 were AC holes and 194 were RC holes.
- Hole types are a mix of diamond core, RC and air core holes. Due to concerns regarding sample collection quality and recovery, the use of AC chemical assays in the 2017 resource estimate is very limited. Radiometric eU<sub>3</sub>O<sub>8</sub> data adjusted for disequilibrium is used in preference for the AC type holes.
- 2008-2016 Vimy and historical PNC chemical data and radiometric data were used in the 2017 resource estimates of U<sub>3</sub>O<sub>8</sub>.
- AMC note that the quality of the PNC assay data ranges from moderate to good, with many of the diamond drillholes chemical assays having been sourced from hard-copy laboratory certificates. However, it also noted that there is a lack of QA/QC data regarding standards and blanks in particular, as well as little information being available regarding exact laboratory analytical procedures. The laboratories used were well regarded at the time and the use of XRF and ICP-MS for uranium analysis is an industry standard process.
- QA/QC of Vimy assay samples since 2008 are of current industry standard and outlined in the JORC Code 2012 Table 1 Section 1. Field duplicates, standards, and blanks were routinely submitted.
- Radiometric logging of the PNC and Vimy drillholes was conducted. Appropriate post-processing was completed on the data for conversion to a standardized eU<sub>3</sub>O<sub>8</sub> value for all drillholes.
- In the majority cases at Ambassador, Princess and Shogun, the radiometric eU<sub>3</sub>O<sub>8</sub> grades for similar intervals are lower than the corresponding chemical assays for U<sub>3</sub>O<sub>8</sub>, requiring positive adjustments to the radiometric data to emulate the accurate chemical assay data. Data was analysed for each of the uranium domains and sub-domains, splitting the data into groups (based on the data type/vintage) and then distinct grade bins as required. These grade bins were determined based on apparent natural breaks in the dataset identified in Q-Q plots and statistics. Specifically, disequilibrium corrections (regression formulae for the Q-Q data) were derived for:

Ambassador:

- Domain 100 for:
  - PNC data where eU<sub>3</sub>O<sub>8</sub> data was derived from digitized logs.
  - PNC data where eU<sub>3</sub>O<sub>8</sub> data from recent wireline logs was derived from digitized logs.
  - Vimy data from holes drilled up to and including 2015.
  - Vimy data from holes drilled after 2015.
- Domain 200, 300, 350 and 400 each combined Vimy data from holes drilled between 2014 and 2016 due to insufficient data.

Princess:

- Sub-domain 180 and 220 combined Vimy data from holes drilled up to and including 2016.
- Sub-domain 190 combined Vimy data from holes drilled up to and including 2016.
- Sub-domain 390 combined Vimy holes drilled up to and including 2016.
- Correction factors from Ambassador sub-domain 120 were applied to data from PNC drillholes.

Shogun:

- Domain 100 and 20 combined Vimy data from holes drilled from 2008.
- In all three deposits, any radiometric data below the lowest disequilibrium grade bin within the uranium domains were not corrected.

- As the assay database consists of both chemical  $\text{U}_3\text{O}_8$  data and radiometric  $\text{eU}_3\text{O}_8$  data, the combined dataset is used with priority given to chemical assay data from the diamond drillholes; otherwise the corrected radiometric data was used.
- Statistical analyses were completed on the raw sample data and the 0.5 m composite data. High-grade cuts were applied as follows:

#### Ambassador

- Sub-domain 110 – 11,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 120 – 9,700 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 130 – 15,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 140 – 5,700 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 150 – 3,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 160 – 800 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 170 – 3,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 200 – 2,100 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 210 – 1,700 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 300 – 1,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 310 – 1,600 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 350 – 1,100 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 400 – 700 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 410 – no top-cut applied due to consistent low-grade and no outliers.

#### Princess

- Sub-domain 180 – 2,500 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 190 – 9,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 220 – 1,000 ppm  $\text{U}_3\text{O}_8$ .
- Sub-domain 390 – 1,000 ppm  $\text{U}_3\text{O}_8$ .

#### Shogun

- Domain 100, 200 – 7,000 ppm  $\text{U}_3\text{O}_8$ .

- Grade variography was generated for the grade estimation by OK. The Ambassador directional variography was moderately well-structured for Domain 100 and 200 (and associated sub-domains), and weakly structured for Domains 300 and 400. The Princess directional variography was moderately well-structured for sub-domain 190 and weakly structured for sub-domain 180. Variography for sub-domains 220 and 390 were borrowed from sub-domain 180 due to lack of data but similar grade trends. The Shogun directional variography was moderately well-structured for Domain 100, and very weakly structured for 200.
- Parent blocks of size 50 m (X) x 50 m (Y) x 1 m (Z) with sub-blocks of size 10 m x 10 m x 0.25 m were used to construct the mineralised domains of the estimates at Ambassador and Princess. Parent blocks of size 50 m (X) x 50 m (Y) x 10 m (Z) with sub-blocks of size 10 m x 10 m x 0.25 m were used to construct the mineralised domains of the estimate at Shogun. The block XY dimensions are approximately half of the nominal drill spacing.
- The X and Y coordinates correspond to UTM Northing and Easting (Grid GDA94 Zone 51) respectively and Z corresponds to Australian Height Datum.
- Grade estimates at Ambassador and Princess were generated by ordinary kriging for all sub-domains, using the sub-domains as hard boundaries. Appropriately cut and composited data were used. Grade estimates at Shogun were generated by Accumulation Method (grade x thickness) via Ordinary Kriging for Domains 100 and 200. Appropriately cut and composited data were used for the various methods utilised.
- Bulk density values were derived from analysis of Archimedean data and selective use of corrected gamma probe data as documented by Vimy. Lithology dry bulk densities range from 0.74 t/m<sup>3</sup> for lignitic clay material to 1.91 t/m<sup>3</sup> for basement material at Ambassador and Princess, and from 0.65 t/m<sup>3</sup> for lignitic clay material to 1.83 t/m<sup>3</sup> for basement at Shogun. The uranium domains contained a mix of lithology types, and the domain average densities and spatial variations present in the model reflect that.
- Bulk density data (dry bulk density, wet bulk density, and moisture) were assigned to the simplified lithologies associated with the 0.5 m composite data and estimated directly in the block model at Ambassador and Princess. Bulk densities were estimated in the Shogun block model using indicator fractions flagging the key rock types present.
- The grade estimates for all zones have been classified as Measured, Indicated and Inferred in accordance the JORC Code 2012 guidelines based on the confidence levels of the key criteria that were considered during the resource estimation.
- The reporting block cut-off grade of 150 ppm  $\text{U}_3\text{O}_8$  currently reflects an expected open pit mining scenario reliant on mechanized strip mining equipment to allow bulk removal of overburden. Feasibility Study level mining studies are currently in progress.

## JORC Code, 2012 Edition – Table 1 Ambassador Mineral Resource Estimate, July 2017

Material discussed in Sections 1 and 2 are a summary of past releases to the ASX (dated 24 February 2010, 16 March 2010, 10 May 2010, 11 June 2010, 2 April 2012, 4 December 2012, 18 December 2014, 4 March 2015, 20 April 2015, 17 September 2015, 23 June 2016, 8 November 2016 and 25 May 2017).

An abridged commentary under Sections 1 & 2 is included for completeness.

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3kg was pulverised to produce a 30g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling data only is considered for the purpose of mineral resource estimation.</li> <li>Chemical assays are used for diamond drill hole samples, with factored downhole equivalent uranium grades used for percussion drill holes (aircore and reverse circulation).</li> <li>Samples have been collected from a few metres above to a few metres below the uranium mineralised zone since 2009.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling data at Ambassador, Princess and Shogun comprise diamond, aircore and reverse circulation (RC) data.</li> <li>Diamond drilling was completed using triple tubes.</li> <li>The drill core is not oriented as all holes are vertical and the mineralisation is laterally extensive and not structurally controlled.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Sample flow from the cyclone was continually monitored during aircore drilling, in line with industry's best practice.</li> <li>Core loss in diamond drill core was recorded in the course of logging.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <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>	<ul style="list-style-type: none"> <li>Lithological logging of drill samples is carried out systematically, and stratigraphy assigned on the combination of sedimentary and wireline features.</li> <li>Drill core is systematically photographed.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core 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> <li>Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p><b>Site Based Work</b></p> <ul style="list-style-type: none"> <li>Selection of sample composites for chemical analysis is based on their position relative to the main redox boundary in the weathering profile, with validation from wireline and portable XRF data.</li> <li>Standard practice is followed for aircore and diamond drilling samples, with drill core vacuum packed in recent drilling programs to better preserve the inherent moisture of the host formations.</li> <li>Field duplicates are submitted for aircore samples with pseudo-duplicates generated at the coarse crush stage for the drill core (whole samples dispatched to the laboratory to maximise sample size).</li> </ul> <p><b>Laboratory Based Work</b></p> <ul style="list-style-type: none"> <li>Following sorting, weighing and drying at the laboratory, drill samples were crushed to 3mm, split to produce a 2.2kg fraction and pulverised to 90% passing 75 microns.</li> <li>Samples submitted are analysed for uranium and a range of trace and major elements via fused bead laser ablation and XRF, using a combination of atomic emission spectroscopy (ICP-AES) and mass spectroscopy (ICP-MS).</li> <li>Check measurements of wet bulk density and moisture are carried out at the primary analytical facility.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<p><b>QA/QC of Assay Samples</b></p> <ul style="list-style-type: none"> <li>A comprehensive QA/QC program was carried out, comprising the use of in-house and external standards, blank, field and laboratory duplicates, and external pulp duplicates (umpire assays). Barren flushes were also inserted between samples at the laboratory.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>		<ul style="list-style-type: none"> <li>Twin drilling has been carried to validate historical data and to enable comparisons between diamond and aircore datasets.</li> </ul>
<b>Portable XRF Logging</b>		<ul style="list-style-type: none"> <li>All drill cuttings were analysed by portable XRF through ~50-micron plastic bags on site to guide future drilling and for additional sampling purposes. The portable XRF data is not used directly for any purpose other than determining mineralised zones for sampling, and grade variability. Portable XRF data is not used during Mineral Resource estimation.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Various checks are carried out on wireline data, including via depth-matching for a range of wireline tools.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill holes were surveyed using a Differential Global Positioning System in Real-Time Kinematics (RTK) mode. The MGA94, zone 51 grid system was used.</li> <li>Azimuth and inclination data from wireline tools (collected since 2012) were used in to calculate the deviation of each drill hole.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill spacing at Ambassador East and Northeast ranges between 50 x 80m and 50 x 40m along WNW-ESE trending traverses in the Measured Status portion of the Mineral Resource, 100 x 80m for Indicated material and 200 x 80m or greater for Inferred material, with a decreasing ratio of diamond to percussion drill holes.</li> <li>Data spacing is adequate for the methods used and resource classification.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling has adequately tested the tabular nature of the mineralisation at Mulga Rock.</li> <li>Aircore and diamond were consistently drilled at least 6m past the base of uranium mineralisation to allow for effective wireline logging of mineralised intervals.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>A full chain of custody is maintained during sampling and dispatch, with vacuum packing of drill core ensuring a very high standard of core quality upon delivery.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>AMC Consultants conducted an audit of drilling and sampling processes in November 2016, confirming the appropriateness and robustness of the procedures described above.</li> <li>Golder carried out an independent review of the sensitivity of data input, processing and resource estimation in the second half of 2016 and found the estimation process to be robust. That review also supported more localised factoring of radiometric disequilibrium.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Ambassador, Princess and Shogun Deposits are located about 240 km ENE of Kalgoorlie within Mining Leases M39/1104 and 39/1105, held by Narnoo Mining Pty Ltd, a wholly owned subsidiary of Vimy Resources Limited (Vimy).</li> <li>Mining Leases M39/1104 1105 are located on unallocated and vacant Crown Land and are not subject to a native title claim.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgement and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive summaries of past exploration activities have been submitted in previous announcements listed at the top of this table.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mulga Rock Project comprises sediment-hosted, supergene-enriched uranium deposits. The mineralisation that comprises the Ambassador, Princess and Shogun resources is hosted primarily by reduced Late Eocene sediments. Those sediments consist of a multiple fining upwards packages including sandstone, claystone (typically carbonaceous) and lignite deposited in alluvial and lacustrine environments.</li> <li>Overlying the reduced Eocene sediments is a succession of oxidised sediments which at Ambassador are about 25 to 55m thick.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill hole information used in this Mineral Resource Estimate have been previously released to the ASX.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>The minimum intercept used to define mineralisation envelopes was 0.5m or greater above 100ppm U<sub>3</sub>O<sub>8</sub> (0.01% U<sub>3</sub>O<sub>8</sub>), with a zero waste length (grades lower than 100ppm U<sub>3</sub>O<sub>8</sub>). The value of 100ppm represents a natural break in the assay data.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation is tabular and horizontal and related to un-pressurised groundwater flow.</li> <li>Therefore, vertical drill hole intersections closely approximate true mineralisation thickness.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Plan views of all drill collars at Mulga Rock East and West are provided in the main text.</li> <li>Representative sections were provided in a release to the ASX "Mineral Resource Update at Mulga Rock Project"; 25 May 2017 and interpretations have not materially changed since then.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Balanced reporting has been achieved through a consistent and comprehensive reporting of sampling and analytical processes followed and disclosure of all intercepts.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Laboratory checks of field derived bulk densities validated the process followed and further validation is underway using long-spaced density data from wireline data.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Additional analysis is underway to expand a conditional simulation model to the Ambassador, Princess and Shogun Mineral Resources, which collectively form the current MRP Ore Reserve.</li> </ul>



## Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>The resource estimations are based on the available historical exploration and more recent drill hole datasets. Vimy manages exploration data in a Datashed database system.</li> <li>Vimy has assumed responsibility for the validity of the drill hole data and geology.</li> <li>The database was reviewed, and validation checks completed prior to commencing the resource estimation study.</li> <li>Changes made to the database before loading into mining software included: <ul style="list-style-type: none"> <li>Replacing less than detection samples with a value equal to half the detection level</li> <li>Identifying intervals with no samples/assays/radiometric data and setting appropriate bespoke priorities for those intervals.</li> </ul> </li> <li>The deconvolved radiometric <math>eU_3O_8</math> grades (before disequilibrium factoring) were composited to 0.5m intervals in conjunction with the assay data to make processing, comparison and modelling more efficient. The radiometric data suite allowed for cross-checking of assay data, geology, and density.</li> <li>A final table of ranked assays data was used for the resource estimation with priority placed on: <ul style="list-style-type: none"> <li>Diamond drilling with chemical data, then</li> <li>Disequilibrium factored radiometric grades.</li> </ul> </li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Ingvar Kirchner (Coffey Mining; now AMC Consultants) visited site in November 2014 and November 2016, while Ellen Maidens, Vimy Resource estimation geologist visited site in November 2015 and November 2016.</li> <li>Several other people employed by Coffey Mining visited site during 2012 and 2010.</li> <li>Xavier Moreau undertook multiple site visits during the 2011, 2012, 2014, 2015 and 2016 drilling programmes and during the sampling phase.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>Geology (lithology) was not modelled but used in defining the mineralised zones.</li> <li>Stratigraphy was modelled and influences the limits of the interpreted mineralised zones.</li> <li>Diamond drilling has improved the geological understanding of the deposit. Previously the interpretation was complicated by the overprint of oxidation/lithology and stratigraphy. A simplified stratigraphic interpretation has been completed and is the basis for mineralised domain definition.</li> <li>The deposit grades are very closely associated with the reduction-oxidation front and are highest close to this sub-horizontal boundary.</li> <li>For the purpose of the resource estimation, the mineralisation boundaries were based on a nominal 100ppm <math>eU_3O_8</math> lower cut-off grade, defining a mineralised zone of at least 0.5m thickness and honouring, where possible, the geology/stratigraphy. This value represents a</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>natural break in the distribution of grades distinguishing mineralisation from the un-mineralised material.</p> <ul style="list-style-type: none"> <li>Four uranium mineralised zones were previously defined for the Ambassador deposit marking progressively deeper and lower grade mineralisation—Domains 100, 200, 300, and 400. These domains were subdivided into key sub-domains based on geology, paleochannel profile and tenor of mineralisation for estimation purposes. Domain 100 has been divided into 7 subdomains. Domains 200-400 have been subdivided to reflect if they are located in Ambassador West or Ambassador East. Infill drilling in Ambassador East has allowed mineralisation below domain 100 to be re-interpreted into what are now subdomains 210, 310, 350 and 410. Geophysical characterisation of the ore has led to a reinterpretation of the lower parts of domain 100 near the outflow of the Princess channel to subdomains 210 and 310.</li> <li>At Princess Domain 100 is split into two east and west subdomains, based on facies type and grade continuity (subdomains 180 and 190 respectively). It is possible that those two sub-domains are continuous over a short portion of the current divide, but a conservative interpretation was used for the purpose of this Mineral Resource update. A lower lens of the eastern mineralisation is now recognised as a distinct lower domain (220). The lower “Cretaceous” mineralisation occurring beneath domain 190 is now recognised as having formed within the lower Eocene material and has been renamed as domain 390.</li> <li>The inclusion of reprocessed downhole gamma data from a number of historic RC drill holes at Shogun has resulted in a minor modification of the mineralisation envelope for the northeast corner of Domain 100.</li> </ul>

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<b>Dimensions</b>	<ul style="list-style-type: none"><li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li></ul>	<ul style="list-style-type: none"><li>The block models are not rotated.</li><li>The block model extents are tabulated below:<table><tr><th colspan="4">Mulga Rock Project – Ambassador Deposit July 2017 Block Model Construction Parameters</th></tr><tr><th></th><th>Origin (m)</th><th>Extent (m)</th><th>Parent/Sub Block Size (m)</th></tr><tr><td>Easting</td><td>573000</td><td>10500</td><td>50/10</td></tr><tr><td>Northing</td><td>6676000</td><td>9000</td><td>50/10</td></tr><tr><td>Elevation</td><td>230</td><td>170</td><td>1.0/0.25</td></tr></table><table><tr><th colspan="4">Mulga Rock Project – Princess Deposit July 2017 Block Model Construction Parameters</th></tr><tr><th></th><th>Origin (m)</th><th>Extent (m)</th><th>Parent/Sub Block Size (m)</th></tr><tr><td>Easting</td><td>578000</td><td>4000</td><td>50/10</td></tr><tr><td>Northing</td><td>6683000</td><td>2000</td><td>50/10</td></tr><tr><td>Elevation</td><td>230</td><td>170</td><td>1.0/0.25</td></tr></table><table><tr><th colspan="4">Mulga Rock Project – Shogun Deposit July 2017 Block Model Construction Parameters</th></tr><tr><th></th><th>Origin (m)</th><th>Extent (m)</th><th>Parent/Sub Block Size (m)</th></tr><tr><td>Easting</td><td>559500</td><td>4500</td><td>50/10</td></tr><tr><td>Northing</td><td>6685500</td><td>4600</td><td>50/10</td></tr><tr><td>Elevation</td><td>240</td><td>110</td><td>10/0.25</td></tr></table><table><tr><th colspan="4">Mulga Rock Uranium Deposits – Emperor Deposit September 2016 Block Model Construction Parameters</th></tr><tr><th></th><th>Origin (m)</th><th>Extent (m)</th><th>Parent/Sub Block Size (m)</th></tr><tr><td>Easting</td><td>551000</td><td>10300</td><td>100/10</td></tr><tr><td>Northing</td><td>6685000</td><td>10000</td><td>100/10</td></tr><tr><td>Elevation</td><td>240</td><td>110</td><td>10/0.25</td></tr></table></li></ul>	Mulga Rock Project – Ambassador Deposit July 2017 Block Model Construction Parameters					Origin (m)	Extent (m)	Parent/Sub Block Size (m)	Easting	573000	10500	50/10	Northing	6676000	9000	50/10	Elevation	230	170	1.0/0.25	Mulga Rock Project – Princess Deposit July 2017 Block Model Construction Parameters					Origin (m)	Extent (m)	Parent/Sub Block Size (m)	Easting	578000	4000	50/10	Northing	6683000	2000	50/10	Elevation	230	170	1.0/0.25	Mulga Rock Project – Shogun Deposit July 2017 Block Model Construction Parameters					Origin (m)	Extent (m)	Parent/Sub Block Size (m)	Easting	559500	4500	50/10	Northing	6685500	4600	50/10	Elevation	240	110	10/0.25	Mulga Rock Uranium Deposits – Emperor Deposit September 2016 Block Model Construction Parameters					Origin (m)	Extent (m)	Parent/Sub Block Size (m)	Easting	551000	10300	100/10	Northing	6685000	10000	100/10	Elevation	240	110	10/0.25
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<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"><li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li><li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li><li><i>The assumptions made regarding recovery of by-products.</i></li><li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li></ul>	<ul style="list-style-type: none"><li>Vimy, under AMC Consultants’ supervision, estimated the Mineral Resource for the Ambassador, Princess and Shogun deposits as at June 2017. The Emperor Mineral Resource remains unchanged from that reported previously in November 2016.</li><li>U<sub>3</sub>O<sub>8</sub> grade estimation at Ambassador and Princess was completed using Ordinary Kriging (OK). A check estimate using an accumulation process involving OK was also run. While locally there are minor differences in grade and hence metal content between the OK and the accumulation estimates, globally there is no difference.</li><li>U<sub>3</sub>O<sub>8</sub> grade estimation at Shogun was completed using an accumulation process involving OK of full-width composites. A normal OK check estimate was also run.</li><li>The estimations were constrained with geological mineralisation interpretations and sub-domains.</li></ul>																																																																																

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	<ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>In the majority of cases at Ambassador, Princess, and Shogun, the radiometric <math>U_3O_8</math> grades for similar intervals are lower than the corresponding chemical assays for <math>U_3O_8</math>, requiring positive adjustments to the radiometric data to emulate the accurate chemical assay data. Data for the mineralised subdomains were split into groups based on the data types and then distinctly identified grade ranges. Separate disequilibrium corrections (regression formulae for Q-Q data) were derived for each data type and sub-domain.</li> <li>All samples within the mineralised wireframes were composited to 0.5m samples.</li> <li>High-grade cuts were applied to the combined chemical and <math>U_3O_8</math> 0.5m composite data for the various uranium domains and sub-domains. At Ambassador high-grade cuts ranged from 800 to 15,000ppm for high-grade sub-domains of domain 100, and 2,100ppm to 700ppm for deeper low-grade sub-domains, decreasing with depth. No top cut was applied for sub-domain 410. At Princess high grades in domain 190 were cut at 9,000ppm. In domain 180 a cut of 2,500ppm was applied, while a high-grade cut of 1000ppm was applied to domains 220 and 390. At Shogun, a high-grade cut of 7,000ppm was applied to domain 100. No high-grade cut was used for domain 200.</li> <li>Accumulation Method Ordinary Kriging (OK) and normal OK estimates were completed using grade variogram models and a set of ancillary parameters controlling the source and selection of composite data from the domains and sub-domains. The sample search parameters were defined based on the estimation methods, variography and the data spacing.</li> <li>A two-pass search strategy with hard boundaries was used for all sub-domains for grade estimation.</li> <li>Mining will be by shallow open pit mining. Details are currently the subject of a Definitive Feasibility Study. Mining is expected to be more selective than the current drill spacing and supported block estimation size.</li> <li>Block estimates were visually compared to the input composite samples in section views and swath plots. Global average grades for estimates and declustered composite mean grades show a good correspondence.</li> <li>Other than for limited trial mining in two small pits, mining has not commenced, so no global reconciliation data is available for the deposit.</li> <li>No assumptions were made concerning recovery of by-products as this does not drive the economics of the project.</li> <li>The block size of 50m x 50m x 1m is considered appropriate given the drill hole spacing and style of mineralisation at Ambassador and Princess. The block size of 50m x 50m x 10m is considered appropriate given the drill hole spacing and style of mineralisation at Shogun</li> <li>No assumptions are made regarding the SMU in the model.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The 2017 Ambassador and Princess Mineral Resources have changed from the previous Mineral Resources primarily due to the following items: <ul style="list-style-type: none"> <li>Increased drill spacing and diamond drilling density in the area reported (Ambassador East and Princess).</li> <li>Introduction of key sub-domains to better honour local geology, paleochannel profile, tenor of mineralisation, and disequilibrium characteristics.</li> <li>Changes to interpretations related to infill drilling and improved geological knowledge. Some of the domains have decreased slightly in volume while others have increased.</li> <li>Changes to bulk density values and method of applying the densities according to estimated dominant lithologies for direct estimation. Driven partly by improved moisture estimates, the dry bulk densities for some domains will have increased slightly on average.</li> <li>The use of sub-domains has improved disequilibrium factors generated from DC holes, and has improved the parity between the <math>eU_3O_8</math> radiometric data and the <math>U_3O_8</math> assay data, honouring local variations. The disequilibrium studies have been thorough in distinguishing the various radiometric data types, tools, and domains. The purpose of the disequilibrium factors applied to the various data and domains is to get the consistently low biased <math>eU_3O_8</math> radiometric data to be statistically comparable to the “umpire/correct” chemical assay data.</li> </ul> </li> <li>The revised 2017 Mineral Resource for the Ambassador East infill area has increased by approximately 14% in terms of contained <math>U_3O_8</math> metal compared to the November 2016 estimate. For the larger Ambassador area, the additional data and modelling currently results in an overall 30% increase in contained metal.</li> <li>The updated 2017 Mineral Resource for Princess has increased by approximately 18% in terms of contained <math>U_3O_8</math> metal compared to the 2014 estimate.</li> <li>The 2017 revised Shogun Mineral Resource has changed only due to the inclusion of newly retrieved gamma data for selected historic RC holes (chemical assays were used previously). This has resulted in an approximately 3% increase in the volume of domain 100, and the transfer of an additional 8% (approximately) of material in domain 100 to Indicated category from Inferred, for a 1% increase in contained metal.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and metal are reported on a dry basis, requiring a dry in-situ bulk density. Wet density and moisture are also estimated in the block model for mining studies and metallurgical purposes.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The nominal 100ppm U<sub>3</sub>O<sub>8</sub> lower cut-off used to interpret the mineralisation domains was chosen as it represents a natural break in the assay data.</li> <li>A block cut-off grade of 150ppm U<sub>3</sub>O<sub>8</sub> is currently applied for reporting purposes assuming open-pit mining methods.</li> <li>Mining studies are currently in progress.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The resource has been subject to a Pre-feasibility Study (November 2015), and is currently the subject of a Definitive Feasibility Study. Therefore, assumptions on mining methods and parameters are very robust.</li> <li>Relatively shallow open pit mining, incorporating in-pit waste and tailings disposal is assumed for the bulk of the deposit.</li> <li>No mining recovery factor has been applied to the U<sub>3</sub>O<sub>8</sub> in the Mineral Resource. Mining is by open pit, and the majority of the mineralisation present within the pit design can be recovered for processing.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No factors regarding metallurgy, recovery or processing cost have been applied in the Mineral Resource. Nor should they be.</li> <li>Recent test work at Ambassador has shown potential recoveries greater than 90% for both lignite and sand-hosted mineralised material, using an atmospheric acid leach (tested in a resin-in-pulp configuration)</li> <li>At Ambassador, spectral, mineralogical, deportment and metallurgical studies show that the bulk of the uranium is present primarily in a hexavalent ionic state and adsorbed onto organic matter, with a negligible fraction contained in refractory minerals.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The November 2015 Pre-Feasibility Study identified that the most effective management of overburden storage would be to employ strip mining with the majority of waste placed in the mining void as the pit advances. This would minimise the size of above ground overburden storage areas. Additional mining studies part of the MRP DFS have identified that hybrid in-pit and above ground overburden disposal might be suitable and equally cost-effective.</li> <li>The Mulga Rock Project Public Environmental Review (PER) document was lodged and accepted for public comment by the EPA in November 2015. The public comment period closed in March 2016.</li> <li>The Project achieved State and Commonwealth environmental permitting in December 2016 and March 2017 respectively.</li> <li>In June 2017, the WA State Government confirmed that those approvals stand and that the Mulga Rock Project can proceed (refer to ASX announcement "Western Australian Government confirms the Mulga Rock Project is allowed to proceed"; 20 June 2017).</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Bulk density</b>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li><i>The bulk density of bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>Bulk density has been determined by using both gamma downhole geophysical logging of diamond drill holes in the Ambassador deposit and Archimedean data from core samples.</li> <li>The Archimedean density measurements have been used to validate and correct the downhole geophysical data where applicable. Downhole gamma data has been selectively used where differences have been identified.</li> <li>Dry bulk density values were determined by converting the wet bulk density using moisture values for the corresponding lithology and mineralised domain type.</li> <li>Bulk densities were estimated directly into the block models using Inverse Distance (Power=1) method and assigned to the composite intervals according to the main lithologies discussed above, each assigned a specific moisture, wet bulk density and dry bulk density.</li> <li>Those densities were checked using a probability based lithological model and found to be identical.</li> <li>Density values assigned to the Ambassador deposit are consistent with density of similar lithologies for other deposits in the area.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been classified in accordance with JORC Code 2012 guidelines based on the confidence levels of the key criteria considered during the resource estimation such as data quality, drilling density, apparent grade and spatial continuity of the mineralisation.</li> <li>The results appropriately reflect the Competent Persons' view of the deposit.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>AMC have audited the 2017 Ambassador Mineral Resource model and determined that the model is fit for purpose.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>The resource classification represents the relative confidence in the resource estimate as determined by the Competent Person. Issues contributing to or detracting from that confidence are discussed above.</li> <li>Conditional simulation modelling has been used to help quantify the confidence levels associated with varying drill spacing, and its implications with regards to plant feed variability. All other things being equal, the following criteria were used to support resource classification: <ul style="list-style-type: none"> <li>Measured category is defined as having a +/- 15% relative error at the 90% level against the quarterly production output (~0.75Mlbs U<sub>3</sub>O<sub>8</sub>).</li> <li>Indicated category is defined as having a +/- 15% relative error at the 90% level against the annual production output (~3Mlbs U<sub>3</sub>O<sub>8</sub>).</li> </ul> </li> <li>The ordinary kriged estimates are considered to be a global estimate with no further adjustments for Selective Mining Unit (SMU) dimensions. Accurate mining scenarios are yet to be determined by the current Definitive Feasibility Studies.</li> <li>No large-scale production data is available for comparison to the estimate.</li> <li>The local accuracy of the resource is adequate for the expected use of the model in the definitive feasibility study.</li> <li>Due to the nature of the uranium mineralisation, the degree of radiochemical disequilibrium is likely to vary considerably between drill holes and with depth down each drill hole. The disequilibrium factoring applied for the 2017 Resource estimate has resulted in satisfactory global results, but local variations are expected.</li> <li>Diamond drilling and increased drill spacing have improved the geological, physical property (density and moisture) and disequilibrium adjustment confidence in the Ambassador East and Princess deposits.</li> <li>Further investigation into suitable grade control methods will be conducted before moving the MRP into production.</li> </ul>