

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2017

### HIGHLIGHTS:

- **Barlee Gold Project – maiden drilling program completed at T6, T8 and T11 targets**
- **Malinda Lithium Project – first pass drilling intersected significant lithium mineralisation with spodumene confirmed in several pegmatites**
- **Pilbara Gold Project – gold nuggets identified shedding from outcropping conglomerates of the Witwatersrand Basin age-equivalent Mallina Basin**

### Capital Structure:

ASX Code:	AMD
Share price (31/01/18):	3.1¢
52 week range:	2.3 - 10.5¢
Shares on issue:	180.8m
Options on issue:	66.0m

### Board and Management:

Steven Michael	Managing Director
Dr Frazer Tabearth	Non-Executive Director
Nicholas Ong	Non-Executive Director
Dean Tuck	Exploration Manager
Matthew Foy	Company Secretary



**Figure 1 – Projects location map**

### DECEMBER QUARTER REVIEW

During the quarter, Arrow Minerals Limited (formerly Segue Resources Limited) (**Arrow** or the **Company**) completed the second phase of drilling at the Barlee Gold Project. A total of 69 holes were drilled across the T1, T2, T6, T8 and T11 prospects to test bedrock mineralisation beneath gold-in-soil anomalies.

Drilling at T8 confirmed thick, continuous gold mineralisation with multiple high-grade intersections. The results highlight the potential for the T8 prospect to host considerable gold mineralisation with 1.5 strike km of gold anomalism yet to be tested.

Significant intersections from the T8 prospect include:

- 27m @ 0.6g/t Au from 9m including 1m @ 9.0g/t Au
- 10m @ 0.8g/t Au from 7m including 1m at 6.0g/t Au
- 17m @ 0.7g/t Au from 22m including 8m @ 1.2g/t Au

At the Malinda Lithium Project, results from the maiden 17 hole RC drilling programme included significant high-grade mineralisation, including:

- 2m @ 1.71% Li<sub>2</sub>O including 1m @ 2.01% Li<sub>2</sub>O
- 4m @ 1.42% Li<sub>2</sub>O including 1m @ 2.00% Li<sub>2</sub>O

All of the high-grade (>1.5% Li<sub>2</sub>O) lithium samples were analysed for mineralogical composition. Several samples, including all +2.0% Li<sub>2</sub>O samples, contain spodumene as the primary lithium-bearing mineral.

At the Pilbara Gold Project, prospectors uncovered several gold nuggets shedding from conglomerate units of the Mallina Basin. Arrow has completed a targeting exercise over the project, highlighting nine conglomerate or basement gold targets.

## BARLEE GOLD PROJECT (Eastern Goldfields, Western Australia)

Arrow completed the second phase of aircore, reverse circulation (RC) and diamond drilling at the Barlee Gold Project, west of Menzies, Western Australia (**Figure 2**). A total of 69 holes were drilled across the T1, T2, T6, T8 and T11 prospects. This was the first significant gold drilling ever undertaken at the prospects and was designed to test coincident gold-in-soil anomalies over areas of structural interest.

### T8 Prospect

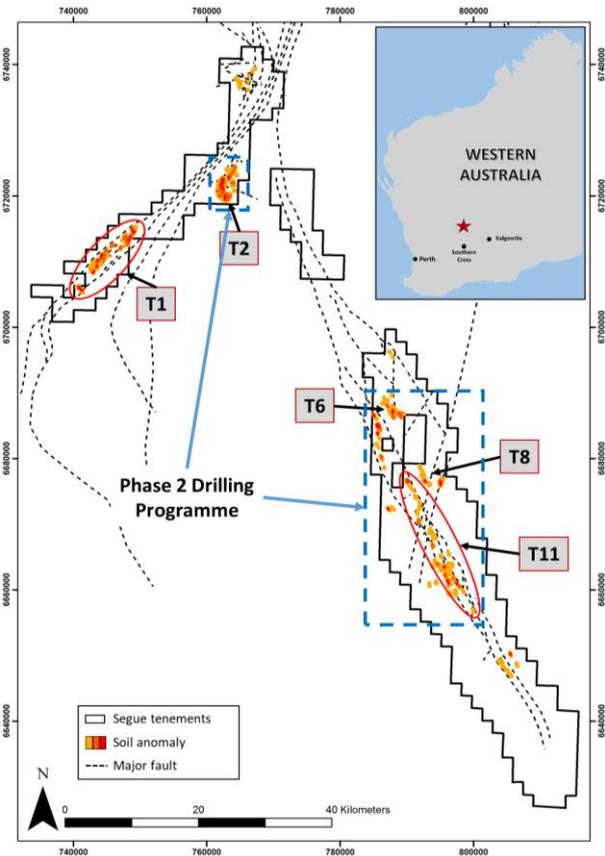
The T8 prospect was defined by a 1.7km x 600m gold-in-soil anomaly with associated pathfinder elements, adjacent to a regional scale NNE trending structure and intense localised magnetic anomaly.

Two RC fence-lines spaced 200m apart were drilled at the T8 prospect, with holes at 60m spacing. Significant gold mineralisation was intersected on both drill lines (**Figure 3**), including:

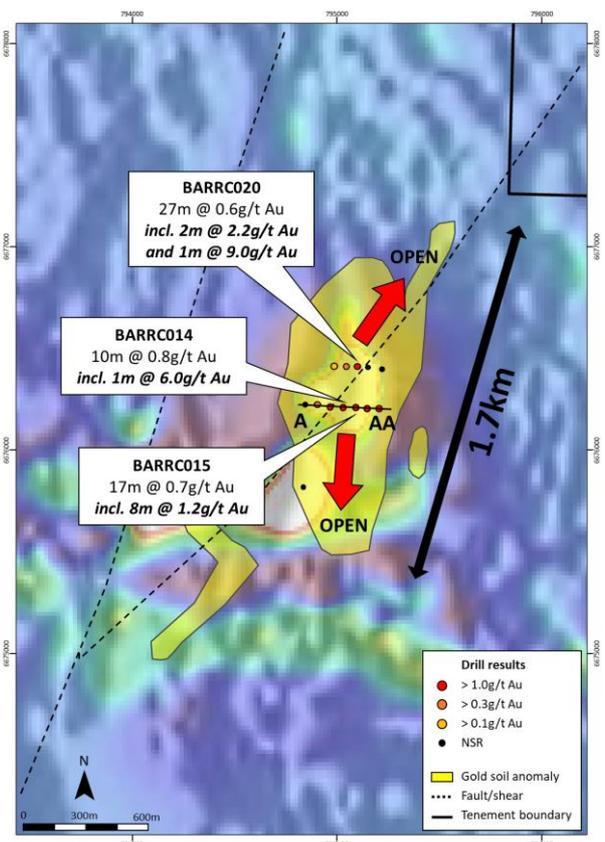
- 27m @ 0.6g/t Au from 9m, including:
  - **1m @ 9.0g/t Au from 14m; and**
  - **2m @ 2.2g/t Au from 9m**
- 10m @ 0.8g/t Au from 7m, including:
  - **1m at 6.0g/t Au from 11m**
- 17m @ 0.7g/t Au from 22m, including:
  - **8m @ 1.2g/t Au from 27m**

The results at T8 are highly significant for first pass drilling and have confirmed thick, continuous gold mineralisation with multiple high-grade intersections (Section A-AA, **Figure 4**). The results highlight the potential for the T8 prospect to host considerable gold mineralisation with 1.5 strike km of gold anomalism yet to be tested (open to the north and south) and no drilling at depth.

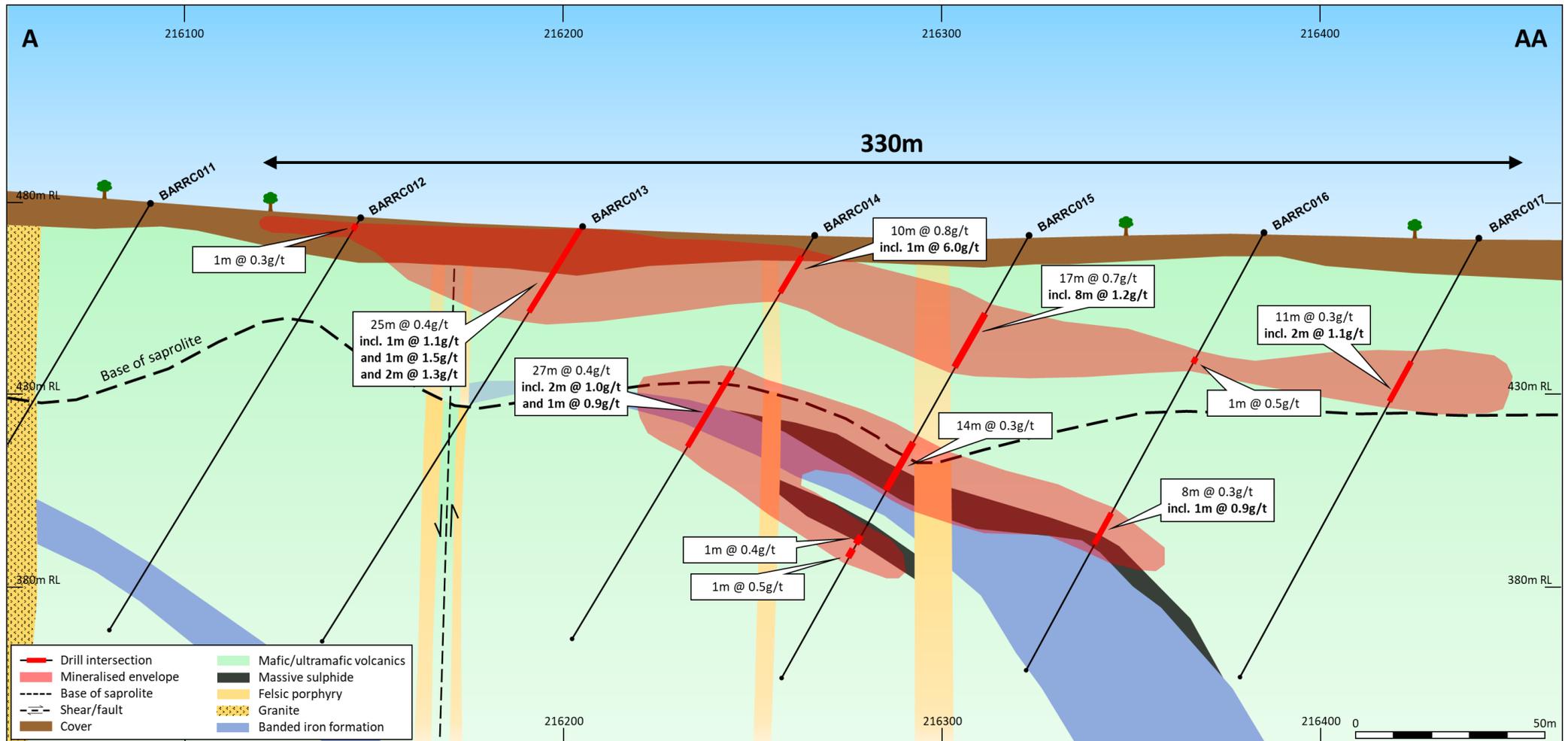
With mineralisation confirmed, follow up work for T8 will consist of systematic tight spaced aircore drilling over the anomaly and ground geophysics to help define priority targets within this exciting gold discovery. Aircore drilling and geophysics will be undertaken in 1H 2018.



**Figure 2 – Barlee Gold Project location map**



**Figure 3 – T8 Prospect with gold intersections**



**Figure 4: Cross section A-AA at T8 prospect showing drill intersections and gold mineralised envelope**

### T6 Prospect

The T6 prospect is located in the Yerilgee greenstone belt and was defined by a 4.2km x 1.3km gold-in-soil anomaly, adjacent to a late stage granitic intrusion and a project scale NNE trending structure. Arrow completed 29 aircore holes across three fence lines and six RC holes (Figure 5).

Three RC holes were drilled into a well mineralised porphyry to the south-east and three holes interested a quartz-breccia/BIF contact in the north-west of the prospect. BARRC025 returned a significant intersection of **27m @ 0.6g/t Au and 18.7g/t Ag from 8m**, with higher grade intercepts including **1m @ 1.5g/t Au and 128.0g/t Ag** and **1m @ 2.1g/t Au and 41.2g/t Ag** from 16m.

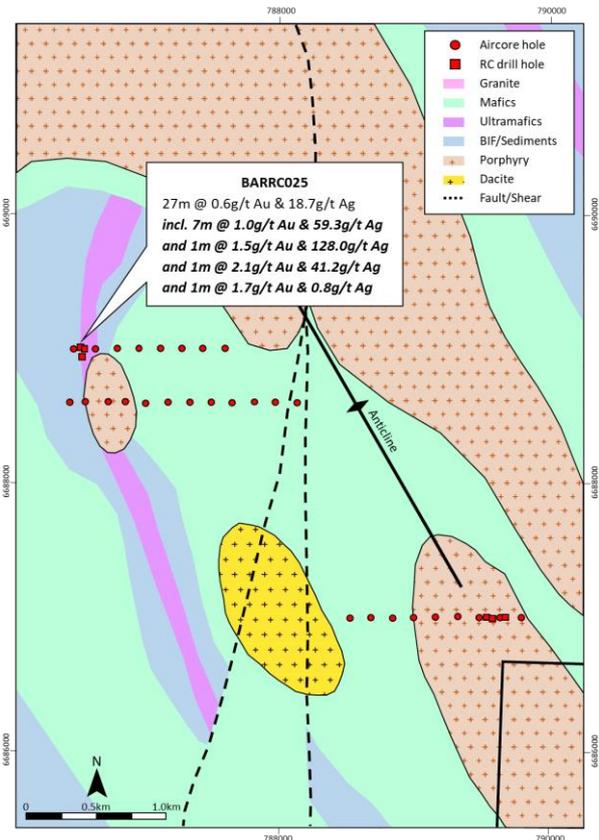
T6 is interpreted to be a regional anticline of high magnesium basalts, sedimentary iron formations and ultramafics, which have been faulted and intruded by a number of mineralised felsic porphyrys and dacites. Drilling of the southern line intersected alteration associated with the contact of high magnesium basalts and a felsic porphyry intrusion. Drilling also intersected a 10 – 40m wide brecciated quartz vein along a sedimentary iron formation/ultramafic contact with a porphyry intrusion in the north-west of the prospect.

The presence of high silver associated with the gold potentially indicates a precursor VMS, skarn or epithermal contribution to the mineralised system. Such a mineralised system would be similar to the Marvel Loch gold deposit near Southern Cross, which produced over 1.6 million ounces of gold at an average grade of 2.6g/t Au.

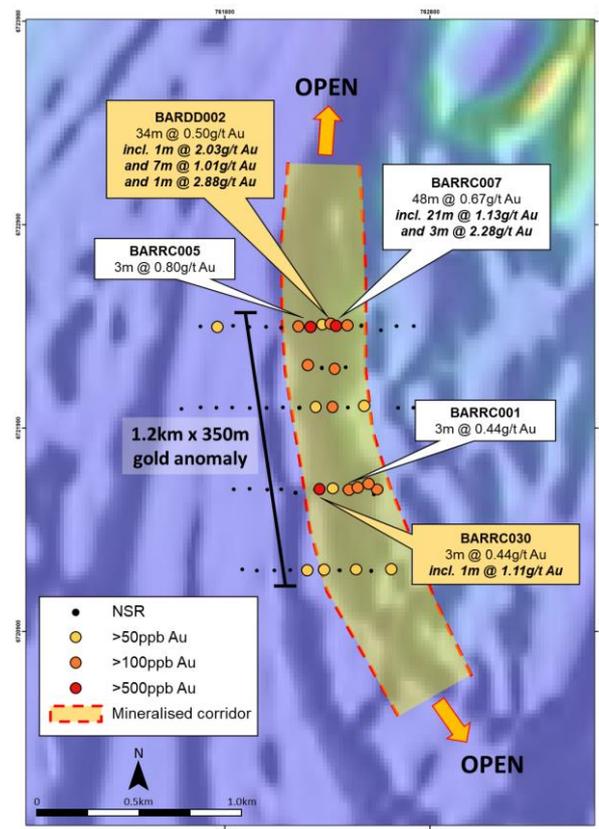
### T2 Prospect

The T2 prospect is located in the Mt Elvire greenstone belt adjacent to the regionally significant Evanston Shear and has been defined by a 5km x 1.5km gold-in-soil anomaly. The T2 prospect was first drilled in July 2017, with BARRC007 intersecting 48m @ 0.7g/t Au from 27m including 21m @ 1.1g/t Au and 3m @ 2.3g/t Au.

An additional seven RC holes (882m) were completed, with hole BARRC030 intersecting 3m @ 0.4g/t Au from 9m including 1m @ 1.1g/t Au. The follow up drill programme has further confirmed bedrock gold anomalism over 1.2km of strike and remains open in all directions (Figure 6).

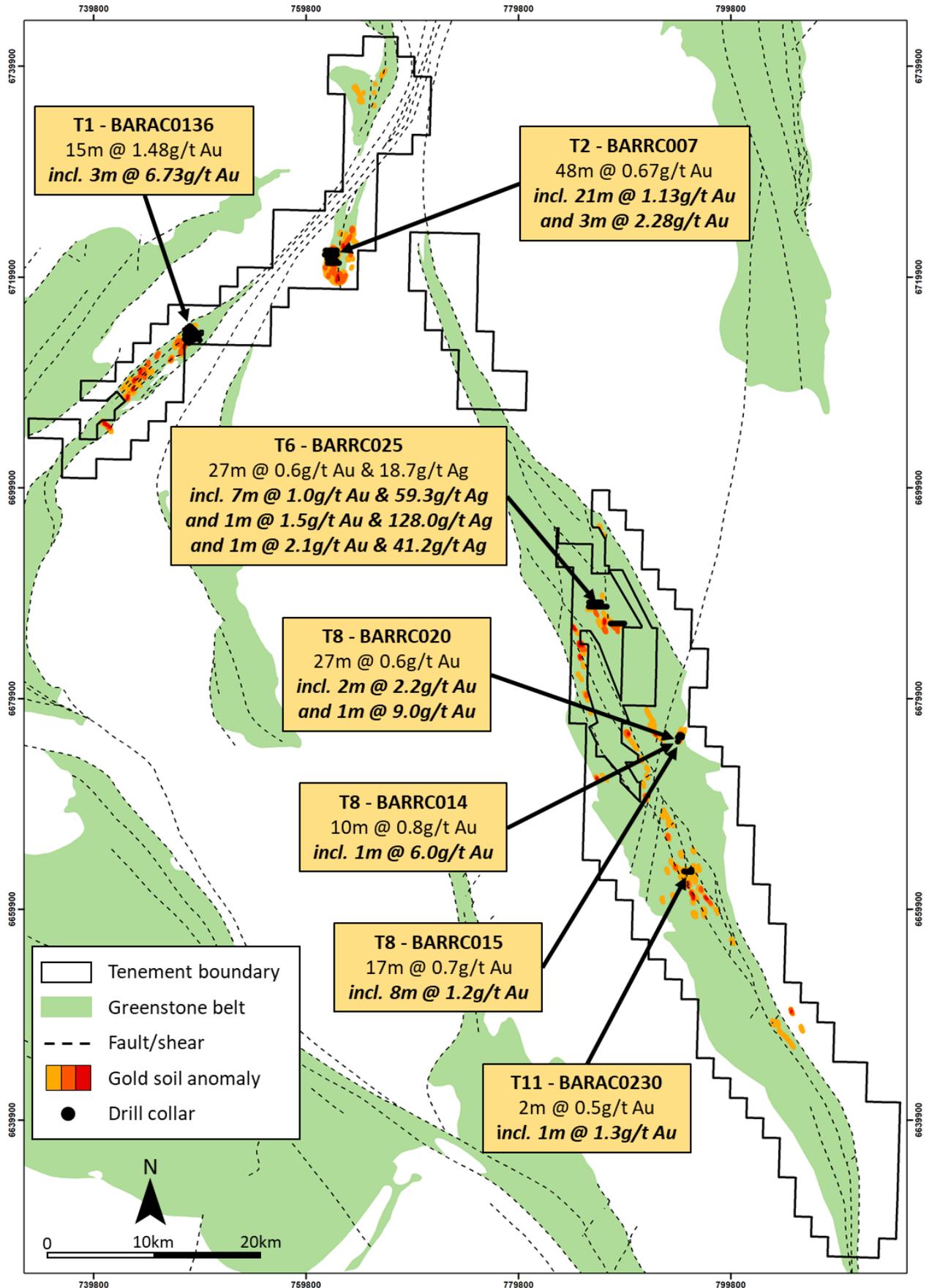


**Figure 5 – T6 Prospect with gold intersections**



**Figure 6 – T2 Prospect with gold intersections**





**Figure 8: Map of the Barlee Project showing significant drill results. Over 50 strike kilometres of gold anomalies remain untested to date**

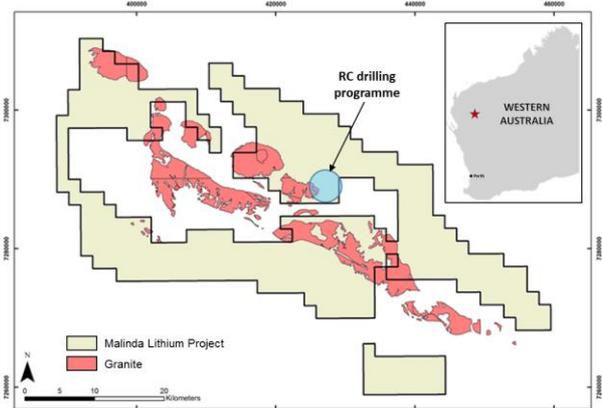
## MALINDA LITHIUM PROJECT (Gascoyne Region, Western Australia)

During the quarter, Arrow announced assay results from all 17 RC holes at the 100% owned Malinda Lithium Project (previously Gascoyne Lithium Project) in Western Australia (**Figure 9**).

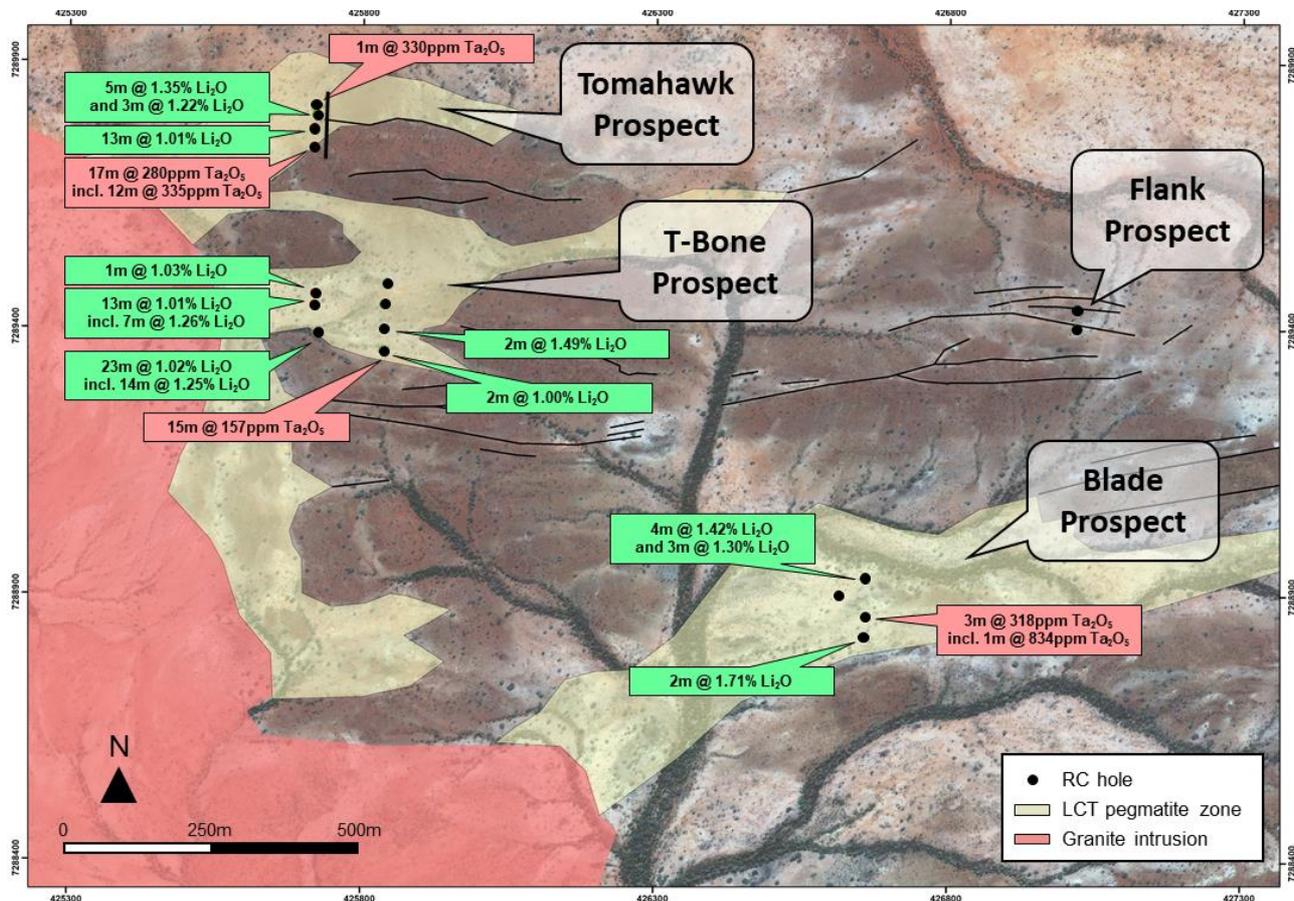
The 2,430m RC drill programme was designed to test the thickness, depth and orientation of four lithium-caesium-tantalum (**LCT**) prospects which had been defined by previous soil sampling and rock chip programmes (**Figure 10**).

Arrow previously announced assay results from the first six holes and received assay results from the remaining 11 holes (GASRC0007-17). The new assay results, from the Blade and T-Bone Prospects, contain significantly higher lithium grades, including **2m @ 1.71%  $\text{Li}_2\text{O}$**  (GASRC0016) and **4m @ 1.42%  $\text{Li}_2\text{O}$**  (GASRC0011). In addition, GASRC0012 intersected **3m @ 318ppm  $\text{Ta}_2\text{O}_5$ , including 1m @ 834ppm  $\text{Ta}_2\text{O}_5$** .

Arrow submitted 10 samples >1.5%  $\text{Li}_2\text{O}$  for mineralogical determination by X-ray Diffraction (**XRD**). XRD analysis has confirmed the presence of spodumene and holmquistite as well as lithium micas (lepidolite, muscovite). The highest grade samples (all +2.0%  $\text{Li}_2\text{O}$ ) contain spodumene as the main lithium-bearing mineral.



**Figure 9: Malinda Lithium Project location map**



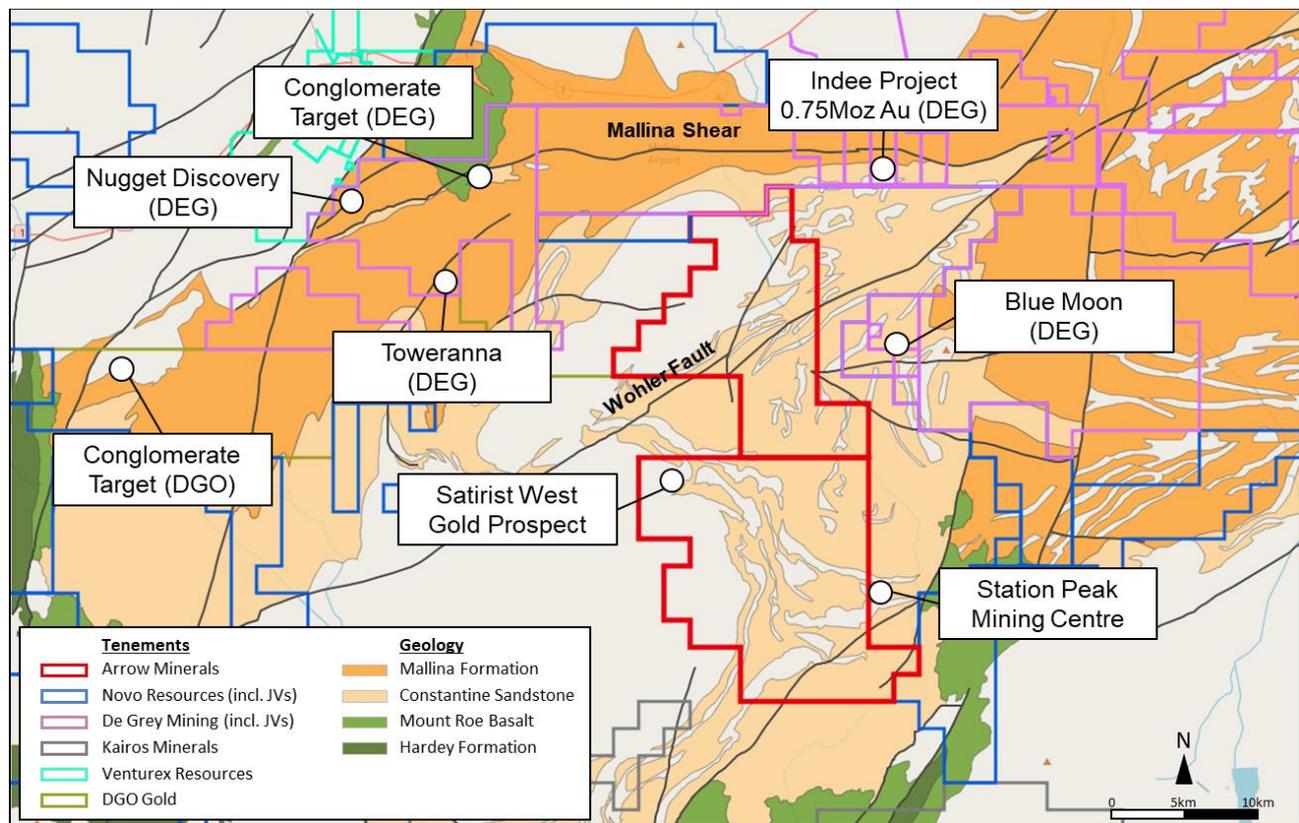
**Figure 10: Lithium prospects showing drill collar locations and significant lithium and tantalum intersections**

The pegmatites of the Malinda Lithium Project show evidence of being highly differentiated and zoned which is similar to the Tanco (Canada) and Bikita (Zimbabwe) pegmatites. The Tanco and Bikita pegmatites show considerable internal variation in mineralogy and chemistry, which is apparent in the Malinda Pegmatites. This style of zoned pegmatite has produced zones of high grades at both Tanco and Bikita.

Arrow is currently completing an ultra-high resolution aerial imagery survey to better define the orientation of pegmatite swarms within the main mineralised pegmatites. This survey will be completed in February 2018 and will be used to plan drill locations for the next round of RC drilling. In addition, Arrow has commenced metallurgical testwork on various samples, including spodumene, tantaite and lepidolite to better understand potential extraction and beneficiation techniques.

### **PILBARA GOLD PROJECT (Pilbara Region, Western Australia)**

During the quarter, Arrow completed a geological review of its exploration tenements in the Pilbara Region (**Figure 11**), confirming the presence of sediments and conglomerates which are the age-equivalent of the Central and West Rand Formations which host the majority of the gold deposits in the Witwatersrand Basin, South Africa.



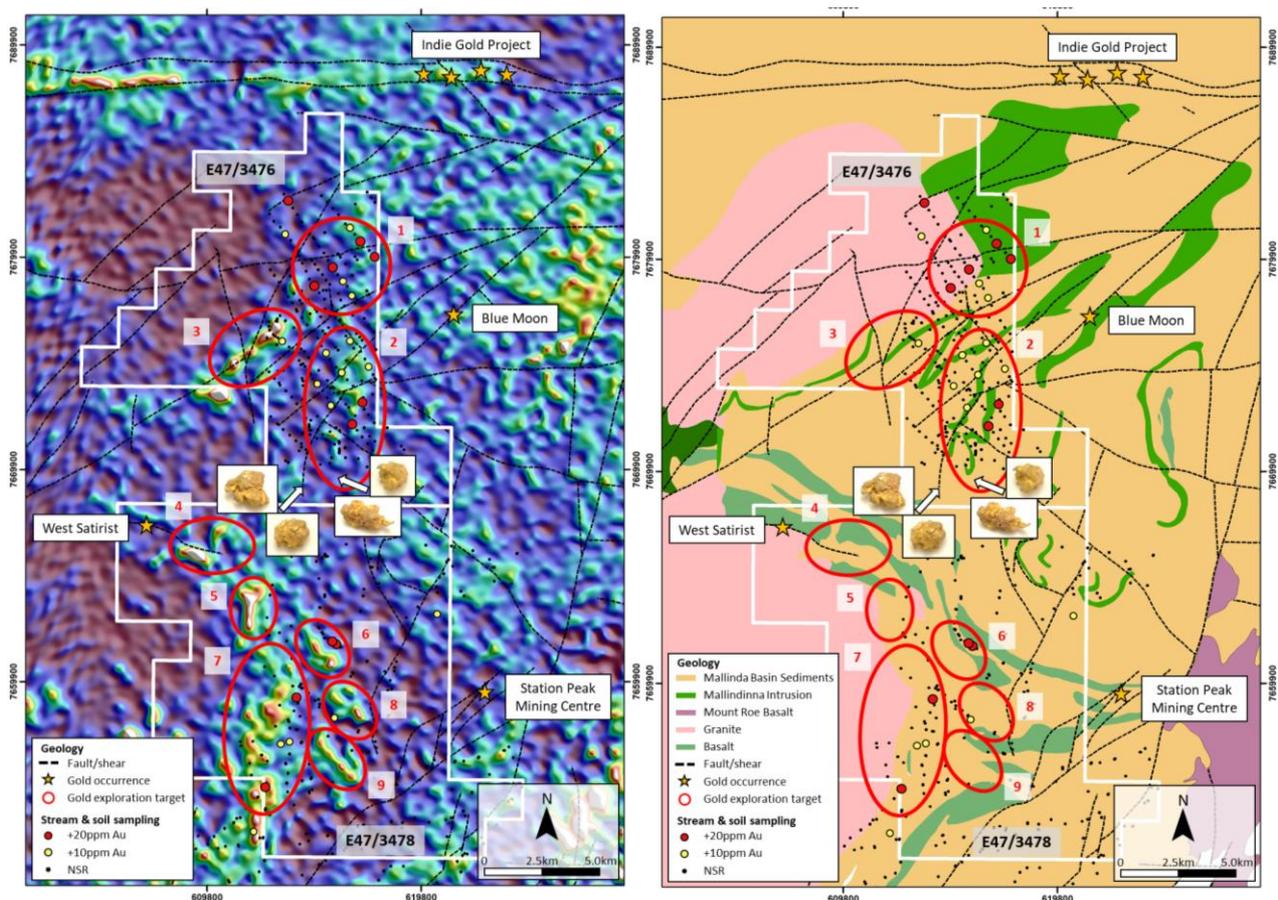
**Figure 11: Arrow's Pilbara Gold tenements (red) showing regional geology and major structures**

Arrow has completed a targeting exercise over E47/3476 (north) and E47/3478 (south), highlighting nine conglomerate or basement gold targets (**Figure 11**).

Paleoplacer gold within the Witwatersrand Basin is often associated with detrital uranium providing a useful targeting tool for the Pilbara due to the abundance of outcropping bedrock. Arrow has reprocessed available radiometric surveys, highlighting seven conglomerate gold targets with uranium anomalies over mapped conglomerates and meta-sediments of the Mallina Basin.

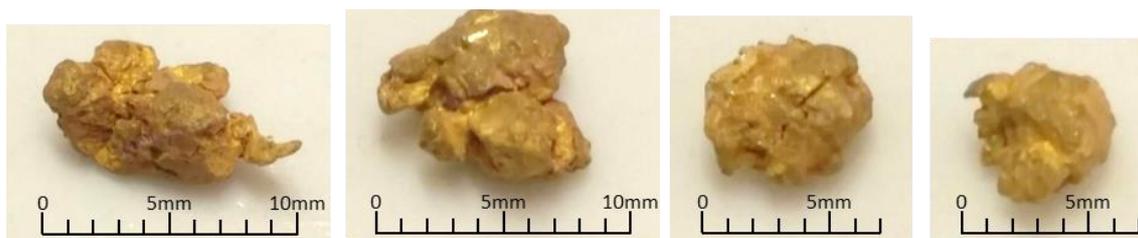
Historical surface geochemistry data was also reviewed as part of the targeting exercise with three of the uranium anomalies having coincident elevated gold in stream or gold in soil values, enhancing the prospectivity of the prospects. The remaining four conglomerate gold targets have not had any previous exploration over them and remain high priority targets.

The two basement gold targets are located along significant shear structures splaying off the Mallina Shear which hosts De Grey Mining Limited's (**De Grey**) (ASX: DEG) Indee Gold Project and the Blue Moon Prospect and associated nuggets, which was recently acquired by De Grey. Target 1 is a gold-arsenic anomaly situated along splay faults off the Mallina and Wohler Shears. Target 2 is located along the same structure as the Blue Moon Prospect and is also a coincident uranium anomaly within conglomeratic sediments.



**Figure 11: Arrow's Pilbara Gold tenements (red) showing regional geology and major structures**

In November 2017, Arrow advised that prospectors had uncovered several gold nuggets shedding from conglomerate units of the Mallina Basin on exploration licence E47/3476 (**Figure 12**). In addition to the gold nuggets found during the short prospecting trip, there was considerable evidence of previous prospector activity throughout the tenement.



**Figure 12: Gold nuggets discovered on Arrow's exploration licence E47/3476**

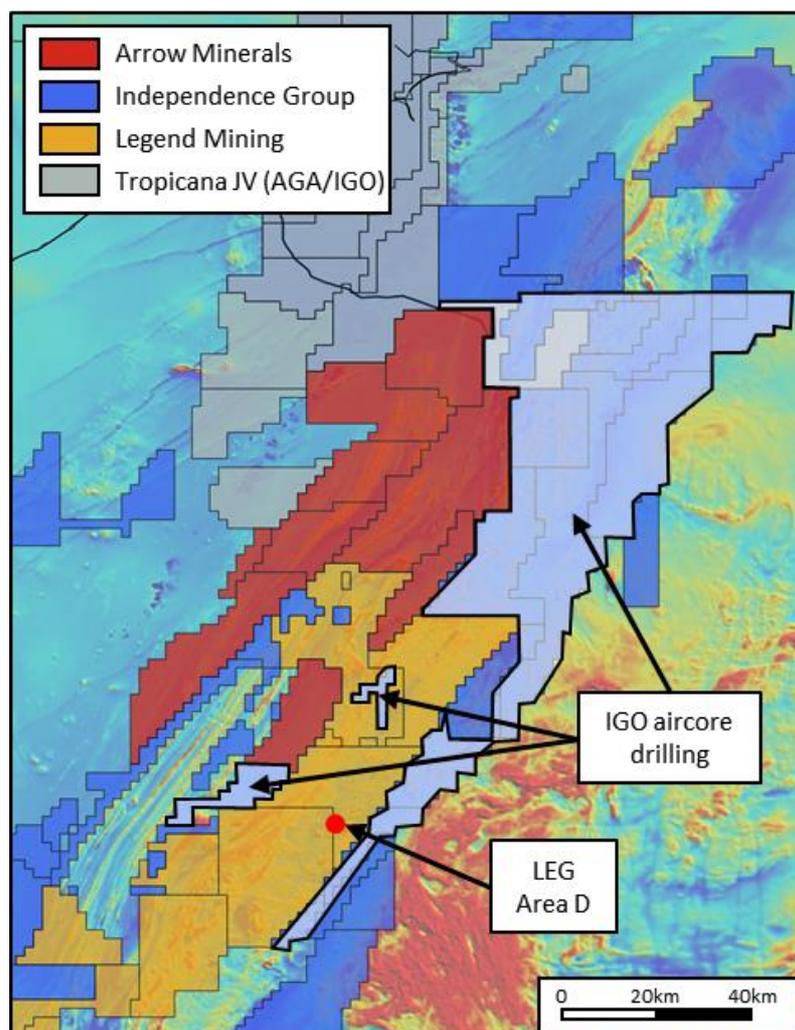
## PLUMRIDGE NICKEL PROJECT (Fraser Range Province, Western Australia)

During the quarter, Arrow's joint venture partner, MMG Limited (HKEx: 1208, ASX: MMG) (**MMG**), completed a 4,000m RC drilling programme at the Plumridge Nickel Project. The drilling programme commenced at the end of October 2017 and consisted of 11 holes targeting seven electro-magnetic (**EM**) conductors.

The drill programme, which was completed in December 2017, provided significant exploration data and materially improved the geological understanding of this landholding, which remains highly prospective for the discovery of nickel-copper deposits. Subsequent to the end of the quarter, MMG has elected to withdraw from the Project prior to meeting the Stage 1 expenditure requirement and therefore Arrow retains full ownership the Project.

MMG has confirmed that it has met the expenditure commitments on each of the eight tenements prior to withdrawal and has provided Arrow with all exploration data acquired over the past two years, which represents a significant boost for future exploration efforts.

Recent positive exploration results by other Fraser Range explorers, Independence Group NL (**IGO**) (ASX: IGO) and Legend Mining Limited (**Legend**) (ASX: LEG), demonstrate an increased geological understanding across the Fraser Range. Importantly, IGO has completed a significant amount of aircore drilling immediately to the east of the Project and Legend has identified nickel mineralisation 15km south-east of the Project at Area D (**Figure 13**).



**Figure 13 – Fraser Range tenement holders showing recent exploration activities**

### **PLUMRIDGE GOLD PROJECT (Fraser Range Province, Western Australia)**

During the quarter, the Company surrendered tenement E39/1117, which is part of the Plumridge Gold Project. Subsequent to the end of the quarter, Arrow surrendered the remaining three tenements comprising the Plumridge Gold Project. Arrow has entered into an agreement to sell its geological dataset relating to the Plumridge Gold Project to an unrelated party for total consideration of \$125,000.

### **PARDOO NICKEL PROJECT (Pilbara Region, Western Australia)**

The Company's joint venture partner Caeneus Minerals Limited (ASX: CAD) commenced drilling of eight "Priority 1" anomalies at the Pardoo Nickel Project. The RC drill holes range from 100 to 300 metres for a total of approximately 1,300 metres.

## **CORPORATE AND FINANCIAL**

### ***Change of Company Name***

During the quarter, the Company obtained shareholder approval to change the Company's name with the Australian Securities and Investments Commission to Arrow Minerals Limited.

The effective date for the change of company name and ticker code on ASX was 6 December 2017.

### ***Pro-Rata Non-Renounceable Options Entitlement Issue***

On 25 October 2017, the Company announced a one-for-four pro-rata non-renounceable options entitlement issue of 43,147,987 new listed options (**Option**) to acquire fully paid ordinary shares in the capital of the Company (**Offer**). The Options were issued for \$0.01 per Option and are exercisable at \$0.10 each on or before 31 December 2019.

On 1 December 2017, Arrow advised that following the close of the Offer and placement of shortfall, a total of 43,147,987 Options were issued to raise gross proceeds of \$431,479.

The capital structure of Arrow is set out below:

### **Quoted Securities**

Ordinary shares on issue (ASX:AMD)	180,858,615
Quoted options exercisable at 10.0¢ on or before 31/12/2019 (ASX:AMDOA)	43,147,987

### **Unquoted Securities**

Unquoted options exercisable at 35.0¢ on or before 18/2/2018	428,471
Unquoted options exercisable at 12.6¢ on or before 3/8/2018	714,285
Unquoted options exercisable at 17.5¢ on or before 30/6/2019	8,571,408
Unquoted options exercisable at 7.0¢ on or before 31/12/2019	13,146,469

For further information visit [www.arrowminerals.com.au](http://www.arrowminerals.com.au) or contact:

### **Arrow Minerals Limited**

Mr Steven Michael

*Managing Director*

E: [info@arrowminerals.com.au](mailto:info@arrowminerals.com.au)

### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Dean Tuck who is a Member of the Australian Institute of Geoscientists. Mr Tuck is a full-time employee of the Company and has more than five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves". Mr Tuck consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Appendix A – Schedule of Tenements as at 31 December 2017**

Tenement ID	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
<b>Barlee Gold Project</b>				
E16/495	Granted	100%	0%	100%
E16/498	Application	0%	0%	0%
E30/488	Granted	100%	0%	100%
E30/493	Granted	100%	0%	100%
E30/494	Granted	100%	0%	100%
E77/2403	Granted	100%	0%	100%
E77/2416	Granted	100%	0%	100%
E77/2432	Granted	0%	100%	100%
<b>Pilbara Gold Project</b>				
E47/3476	Granted	100%	0%	100%
E47/3478	Granted	100%	0%	100%
E45/5042	Application	0%	0%	0%
E45/5042	Application	0%	0%	0%
<b>Plumridge Gold Project</b>				
E39/1117	Surrendered	100%	(100%)	0%
E39/1118	Granted <sup>1</sup>	100%	0%	100%
E39/1830	Granted <sup>1</sup>	100%	0%	100%
E39/1979	Granted <sup>1</sup>	100%	0%	100%
<b>Malinda Lithium Project</b>				
E09/1618	Granted	35%	0%	35%
E09/2169	Granted	100%	0%	100%
E09/2170	Granted	100%	0%	100%
E09/2171	Granted	100%	0%	100%
E09/2197	Granted	100%	0%	100%
E09/2198	Granted	100%	0%	100%
<b>Plumridge Nickel Project</b>				
E28/1475	Granted	100%	0%	100%
E28/2266	Granted	100%	0%	100%
E28/2267	Granted	100%	0%	100%
E28/2317	Granted	100%	0%	100%
E39/1084	Granted	100%	0%	100%
E39/1709	Granted	100%	0%	100%
E39/1710	Granted	100%	0%	100%
E39/1731	Granted	100%	0%	100%
<b>Pardoo Nickel Projects</b>				
E45/1866	Granted	100%	0%	100%
E45/4279	Granted	100%	0%	100%
E45/4671	Granted	100%	0%	100%

1. Surrendered subsequent to the end of the quarter