ASX ANNOUNCEMENT



4 September 2017

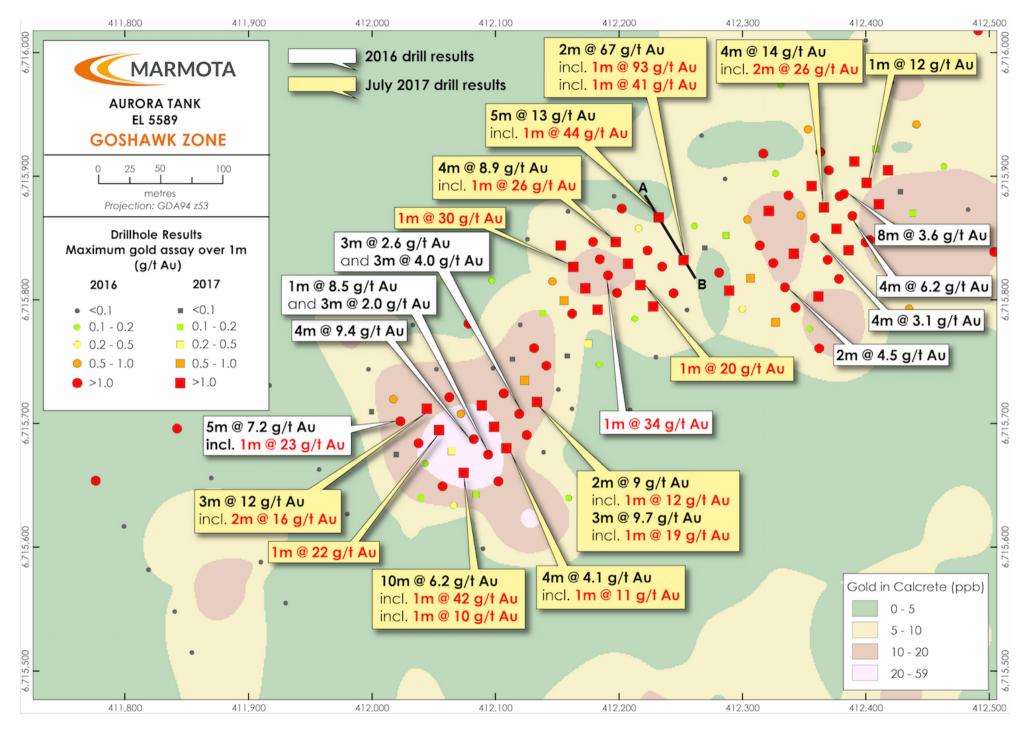
# **Aurora Tank Gold**

# **1m assays return outstanding grades**

Marmota Limited (ASX: MEU) ("Marmota")

Marmota is delighted to announce that it has received detailed 1m assay results from the July 2017 drilling at Aurora Tank. Initial 4m composite results were reported to the ASX on 2 August 2017. The new detailed 1m results from July 2017 drilling have yielded Marmota's best results to date, featuring **outstanding 1m intersections** including: **101 g/t gold** (with duplicate samples at **85 g/t** and **93 g/t**, averaging **93 g/t**) in Hole 21, grades of **44 g/t** gold in the adjacent hole located 40m to the NW (Hole 22) [open to both the North and South of the same section], and multiple intersections exceeding **20 g/t** gold including:

| • | 1m at 💡 | 93 g/t         | gold | from 32m | - Hole 17AT021 | (2m @  | <b>67</b> g/t | gold | from 32m) |
|---|---------|----------------|------|----------|----------------|--------|---------------|------|-----------|
| • | 1m at 🤞 | <b>44 g/</b> t | gold | from 45m | - Hole 17AT022 | (5m @  | <b>13</b> g/t | gold | from 41m) |
| • | 1m at 4 | 42 g/t         | gold | from 33m | - Hole 17AT011 | (4m @  | <b>14</b> g/t | gold | from 32m) |
| • | 1m at 4 | 42 g/t         | gold | from 18m | - Hole 17AT042 | (10m @ | <b>6</b> g/t  | gold | from 17m) |
| • | 1m at 💈 | 26 g/t         | gold | from 31m | - Hole 17AT026 | (4m @  | <b>9</b> g/t  | gold | from 28m) |
| • | 1m at 1 | 19 g/t         | gold | from 23m | - Hole 17AT035 | (3m @  | <b>10</b> g/t | gold | from 22m) |
| • | 1m at 💈 | 20 g/t         | gold | from 30m | - Hole 17AT045 | (2m @  | <b>16</b> g/t | gold | from 29m) |
| • | 1m at 🗧 | 30 g/t         | gold | from 17m | - Hole 17AT029 |        |               |      |           |
| • | 1m at 💈 | 20 g/t         | gold | from 17m | - Hole 17AT024 |        |               |      |           |
|   | 1m at 💈 | 22 g/t         | gold | from 20m | - Hole 17AT044 |        |               |      |           |



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Figure 1: Aurora Tank – Best downhole gold results at Goshawk Prospect

## Background

- Aurora Tank (EL 5589) is situated about 50km NE of the Challenger gold mine [see Fig. 4]
- Aurora Tank is 100% owned by Marmota
- Significant gold was first identified at Aurora Tank's Goshawk gold prospect by drilling calcrete anomalies
- Gold mineralisation is hosted in quartz-biotite gneiss, of generally similar age and lithology to Challenger

## Goshawk 2016 Drilling

- In September 2016, Marmota commenced its first drilling program at Aurora Tank, at the Goshawk Gold Prospect, with the intention of fully defining geochemical dispersion from gold mineralisation
- 2016 drilling: 98 angled Aircore drill holes for 4,385 metres [ASX:MEU 29 Nov 2016]
   31 Reverse Circulation (RC) drill holes for 2,604 metres [ASX:MEU 1 Feb 2017, 23 May 2017]

#### 2016 Drilling Highlights at Goshawk include:

| • | 3m at | 11.3 g/t | gold | from 22m | – Hole 16AT019 | ( incl | 1m @ 23 g/t | gold from 22m ) |
|---|-------|----------|------|----------|----------------|--------|-------------|-----------------|
| • | 4m at | 9.0 g/t  | gold | from 25m | – Hole 16AT043 | ( incl | 1m @ 34 g/t | gold from 27m ) |
| • | 4m at | 3.7 g/t  | gold | from 24m | – Hole 16AT044 | ( and  | 1m @ 11 g/t | gold from 20m ) |
| • | 4m at | 6.2 g/t  | gold | from 35m | – Hole 16AT061 | ( incl | 1m @ 23 g/t | gold from 35m ) |
| • | 4m at | 5.1 g/t  | gold | from 40m | – Hole 16AT126 | ( incl | 1m @ 13 g/t | gold from 41m ) |
| • | 4m at | 5.0 g/t  | gold | from 32m | – Hole 16AT100 | ( incl | 1m @ 10 g/t | gold from 33m ) |

## New Goshawk 2017 Drilling (July)

- In July 2017, aircore drilling at Goshawk infilled drillhole coverage to 50m depth to approximately 20 x 20m over a strike length of 500m
- 2017 drilling: 48 angled Aircore drill holes for 2,299 metres [ASX:MEU 10 July 2017, 2 Aug 2017]
- Significant gold mineralisation is further confirmed over a 500m strike length [ see Fig. 1 ]
- Mineralisation is consistently within 50m of the surface
- Figure 2 illustrates a cross-section at A–B [see Fig. 1]

## Table 1July 2017 drillingGOSHAWK

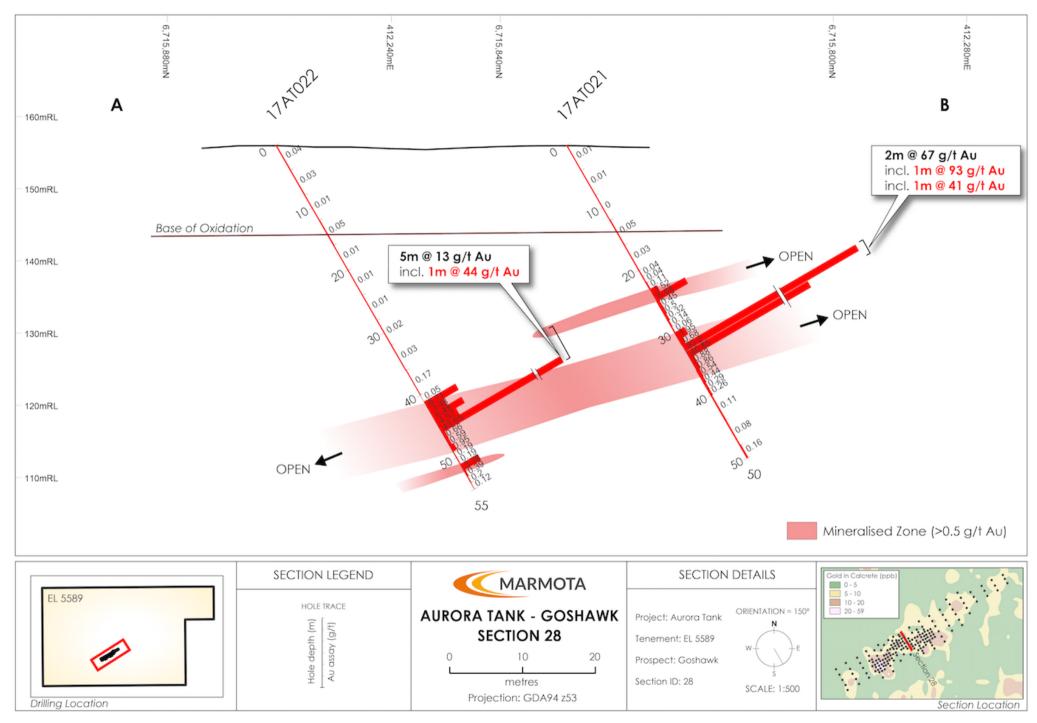
Significant Gold Intersections > 1.0 g/t Au

| Hole ID   | Northing  | Easting | DIP | AZM | EOH | Depth    | Depth  | Intercept | Au g/t |
|-----------|-----------|---------|-----|-----|-----|----------|--------|-----------|--------|
|           |           |         |     |     |     | From (m) | To (m) | Width (m) |        |
| 17AT003   | 6,715,905 | 412,418 | -60 | 150 | 50  | 14       | 15     | 1 m       | 2.9    |
| 17AT006   | 6,715,878 | 412,410 | -60 | 150 | 50  | 37       | 38     | 1 m       | 1.8    |
| 17AT007   | 6,715,895 | 412,400 | -60 | 150 | 50  | 35       | 36     | 1 m       | 11.9   |
| and       |           |         | 1   | T   | 1   | 40       | 42     | 2 m       | 3.2    |
| 17AT008   | 6,715,912 | 412,391 | -60 | 150 | 50  | 23       | 24     | 1 m       | 6.9    |
| and       |           |         |     |     |     | 39       | 42     | 3 m       | 1.9    |
| and       |           |         |     |     |     | 44       | 48     | 4 m       | 3.4    |
| 17AT009   | 6,715,840 | 412,386 | -60 | 150 | 40  | 27       | 28     | 1 m       | 2.8    |
| 17AT010   | 6,715,858 | 412,376 | -60 | 150 | 45  | 22       | 23     | 1 m       | 1.2    |
| and       |           |         |     |     |     | 27       | 30     | 3 m       | 2.4    |
| 17AT011   | 6,715,875 | 412,366 | -60 | 150 | 50  | 15       | 20     | 5 m       | 2.0    |
| and       |           |         |     |     |     | 32       | 36     | 4 m       | 14.1   |
| including |           |         |     |     |     | 33       | 35     | 2 m       | 26.4   |
| including |           |         |     |     |     | 33       | 34     | 1 m       | 42.3   |
| 17AT012   | 6,715,892 | 412,356 | -60 | 150 | 50  | 30       | 31     | 1 m       | 3.9    |
| 17AT013   | 6,715,803 | 412,361 | -60 | 150 | 35  | 17       | 18     | 1 m       | 1.8    |
| 17AT014   | 6,715,838 | 412,341 | -60 | 150 | 40  | 14       | 15     | 1 m       | 1.4    |
| and       |           |         |     | ·   |     | 20       | 21     | 1 m       | 1.3    |
| 17AT015   | 6,715,872 | 412,321 | -60 | 150 | 55  | 13       | 14     | 1 m       | 3.2    |
| and       |           |         |     |     |     | 51       | 54     | 3 m       | 1.1    |
| 17AT019   | 6,715,808 | 412,289 | -60 | 150 | 40  | 26       | 27     | 1 m       | 2.3    |
| 17AT021   | 6,715,832 | 412,252 | -60 | 150 | 50  | 23       | 25     | 2 m       | 4.1    |
| and       |           |         |     | ·   |     | 32       | 34     | 2 m       | 67.0   |
| including |           |         |     |     |     | 32       | 33     | 1 m       | 93.2   |
|           |           |         |     |     |     | 33       | 34     | 1 m       | 40.9   |
| 17AT022   | 6,715,867 | 412,232 | -60 | 150 | 55  | 41       | 46     | 5 m       | 13.0   |
| including |           |         | ·   | •   | •   | 45       | 46     | 1 m       | 43.7   |
| and       |           |         |     |     |     | 51       | 52     | 1 m       | 3.8    |
| 17AT023   | 6,715,795 | 412,228 | -60 | 150 | 40  | 15       | 16     | 1 m       | 8.0    |
| and       |           |         |     |     |     | 21       | 22     | 1 m       | 2.7    |

| 17AT024   | 6,715,830                | 412,218 | -60 | 150 | 50 | 17 | 19  | 2 m      | 10.3 |
|-----------|--------------------------|---------|-----|-----|----|----|-----|----------|------|
| including | ,                        |         |     |     |    | 17 | 18  | 1 m      | 19.6 |
|           | ,                        |         |     |     |    | 24 | 20  | <b>4</b> | 4 5  |
| and       |                          | 442.207 | 60  | 450 |    | 24 | 28  | 4 m      | 1.5  |
| 17AT025   | 6,715,830                | 412,207 | -60 | 150 | 55 | 38 | 40  | 2 m      | 1.1  |
| 17AT026   | 6,715,847                | 412,198 | -60 | 150 | 50 | 28 | 32  | 4 m      | 8.9  |
| including |                          |         |     |     |    | 31 | 32  | 1 m      | 25.9 |
| and       |                          |         |     |     |    | 38 | 40  | 2 m      | 2.6  |
| and       |                          |         |     |     |    | 47 | 48  | 1 m      | 1.5  |
| 17AT027   | 6,715,792                | 412,182 | -60 | 150 | 40 | 23 | 24  | 1 m      | 1.1  |
| 17AT028   | 6,715,810                | 412,173 | -60 | 150 | 50 | 13 | 14  | 1 m      | 3.9  |
| and       |                          |         |     |     |    | 42 | 43  | 1 m      | 2.0  |
| and       |                          |         |     |     |    | 45 | 47  | 2 m      | 1.2  |
| 17AT029   | 6,715,827                | 412,162 | -60 | 150 | 55 | 17 | 18  | 1 m      | 29.7 |
| 17AT030   | 6,715,844                | 412,153 | -60 | 150 | 57 | 24 | 26  | 2 m      | 6.0  |
| 17AT035   | 6,715,718                | 412,134 | -60 | 150 | 40 | 17 | 19  | 2 m      | 9.0  |
| including |                          |         |     |     |    | 17 | 18  | 1 m      | 12.1 |
| and       |                          |         |     |     |    | 22 | 25  | 3 m      | 9.7  |
| including | ,                        |         |     |     |    | 23 | 24  | 1 m      | 19.3 |
| 17AT038   | 6,715,680                | 412,109 | -60 | 150 | 40 | 20 | 24  | 4 m      | 4.1  |
| including | ,                        |         |     |     |    | 21 | 22  | 1 m      | 11.4 |
| and       | ,                        |         |     |     |    | 34 | 38  | 4 m      | 1.0  |
| 17AT039   | 6,715,698                | 412,099 | -60 | 150 | 50 | 23 | 25  | 2 m      | 4.5  |
| and       | ,                        |         |     |     |    | 32 | 33  | 1 m      | 1.7  |
| and       | 1                        |         |     |     |    | 47 | 50  | 3 m      | 2.5  |
| 17AT040   | 6,715,715                | 412,088 | -60 | 150 | 57 | 19 | 20  | 1 m      | 1.4  |
| and       | ,                        |         | •   |     |    | 33 | 34  | 1 m      | 3.1  |
| 17AT042   | 6,715,660                | 412,074 | -60 | 150 | 45 | 17 | 27  | 10 m     | 6.2  |
| including |                          |         | •   |     |    | 18 | 19  | 1 m      | 41.8 |
| 5         |                          |         |     |     |    | 26 | 27  | 1 m      | 10.0 |
| 17AT044   | 6,715,695                | 412,054 | -60 | 150 | 55 | 16 | 18  | 2 m      | 1.4  |
| and       |                          | · ·     |     |     |    | 20 | 21  | 1 m      | 21.6 |
| and       |                          |         |     |     |    | 52 | 53  | 1 m      | 1.4  |
| 17AT045   | 6,715,712                | 412,044 | -60 | 150 | 50 | 29 | 32  | 3 m      | 11.7 |
| including |                          |         |     |     |    | 29 | 31  | 2 m      | 16.1 |
|           | . In a stand and a stand |         |     |     |    |    | [ ] |          |      |

Goshawk drill collar locations are shown in Figure 5

[Intersections over 5 g/t gold in red]



#### Figure 2: Cross section 28: marked A–B on Figure 1

## Geology

- Mineralisation is developed in the weathered bedrock zone, with deepest mineralisation at about 50 metres from surface.
- Increased geological continuity of mineralisation is now shown on most 20m-spaced sections over the 500m strike length drilled.
- Mineralisation sometimes includes anomalous silver, arsenic and copper and is often associated with quartz. Where gold mineralisation is present, quartz fragments mixed with quartz-biotite-muscovite gneiss fragments are often present.
- High grade intervals are also seen at or near to Base of Partial Oxidation; quartz fragments often also occur in these intervals.
- Drilling and sampling details are described in the JORC Appendix 1.
- Together, the anomalous silver, arsenic and a few above background copper results all suggest proximity to primary mineralisation.
- The Company is assessing the physical properties and geophysical characteristics of this gold mineralisation, to assist in targeting of deeper, primary mineralisation.

#### Other

The number of intersections greater than 1 g/t gold at Goshawk has increased from 66 intersections (2016 drilling) to over 117 intersections (with July 2017 drilling).

## **Kingfisher zone** – first pass reconnaissance testing of new target

- In addition to drilling at Goshawk (described above), Marmota also carried out a 39-hole firstpass reconnaissance testing program for 1,890 metres of a new zone called Kingfisher, located approximately 1km to the south of Goshawk.
- Rock types at Kingfisher are different to those at Goshawk and may include significant iron enrichment with up to 37% Fe in weathered banded iron formation and weathered mafic gneiss which are not present at Goshawk.
- The 1m assays reported have defined a zone of continuous mineralisation at the SE extreme of the drilling program over a strike length of at least 200m in an EastNorthEast orientation [see Figure 3]. The results warrant follow-up drilling.
- The zone to the NE and East of the significant gold intersections has not yet had any drilltesting and only very sparse calcrete sampling coverage.

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|         |           |         |     | -11 | Jigiiiii |          | intersec |           | , 8/ L AU |
|---------|-----------|---------|-----|-----|----------|----------|----------|-----------|-----------|
| Hole ID | Northing  | Easting | DIP | AZM | EOH      | Depth    | Depth    | Intercept | Au g/t    |
|         |           |         |     |     |          | From (m) | To (m)   | Width (m) |           |
| 17KI003 | 6,714,400 | 412,356 | -90 | 0   | 50       | 29       | 31       | 2 m       | 1.3       |
| 17KI010 | 6,714,315 | 412,158 | -90 | 0   | 50       | 28       | 30       | 2 m       | 1.1       |
| 17KI015 | 6,714,344 | 412,243 | -90 | 0   | 50       | 31       | 32       | 1 m       | 2.4       |
| 17KI021 | 6,714,372 | 412,272 | -90 | 0   | 50       | 36       | 37       | 1 m       | 1.0       |

Significant Gold Intersections > 1.0  $\sigma/t$  Au

Table 2

July 2017 drilling

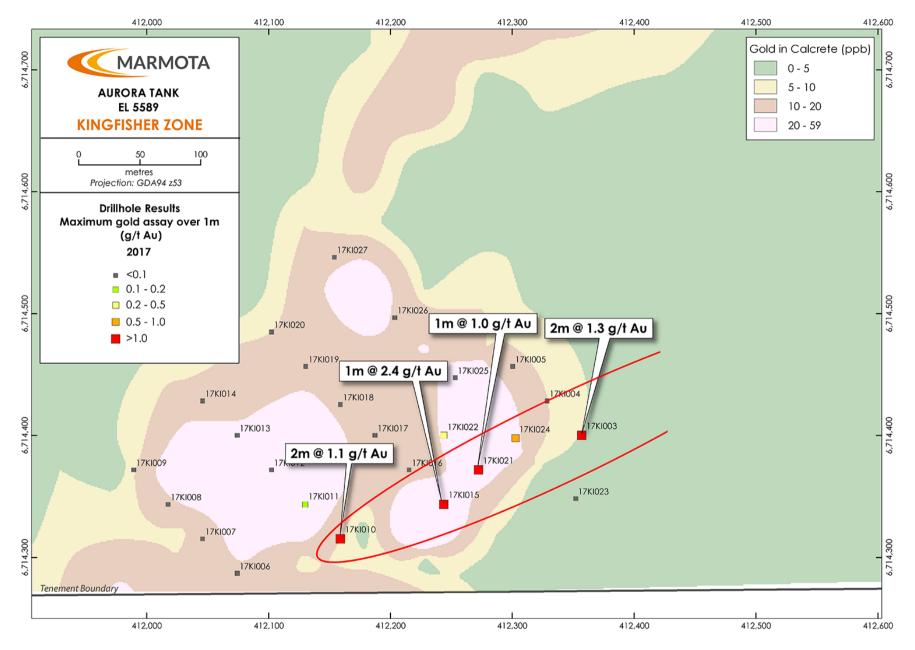
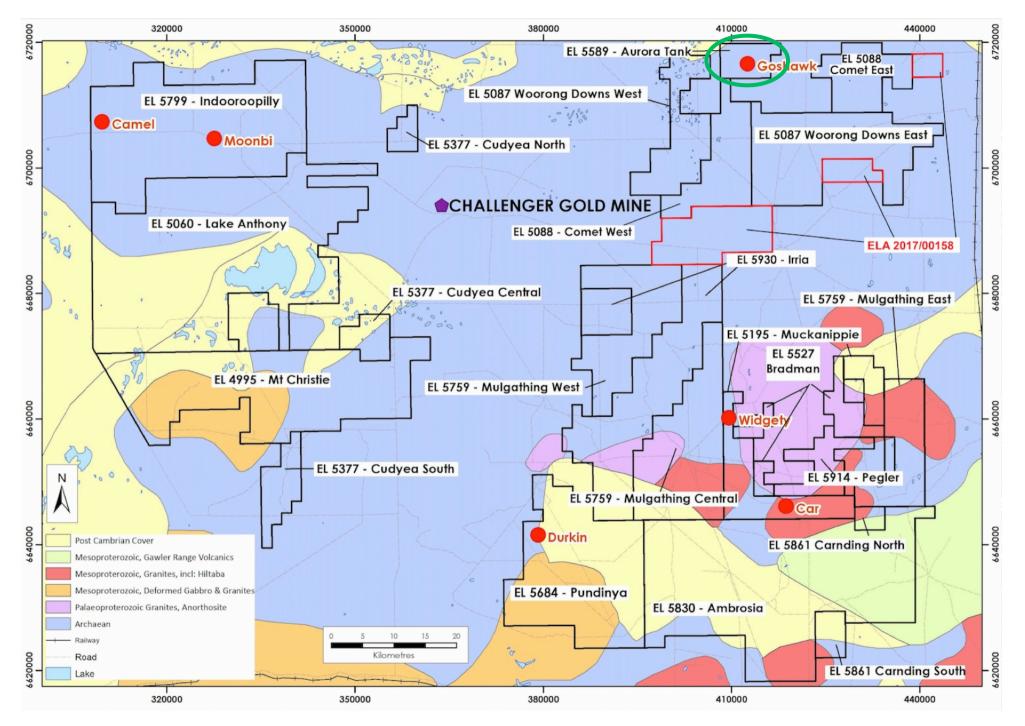


Figure 3: Kingfisher zone – first pass reconnaissance drilling has defined a zone of interest at SE extreme of test drilling

## Forward Program: Aurora Tank – What's Next?

- The new 1m assays provide additional evidence of frequent high-grade intersections, geological continuity of mineralisation, and are open on multiple cross sections.
- Priority auger drilling program to collect 400 additional calcrete samples at Aurora Tank has already commenced [ see ASX:MEU 7 Aug 2017 ]
- A JORC compliant estimate of gold Resources within 50 metres from surface over the 500m long mineralised zone has been commissioned.
- Metallurgical recovery: Representative samples from mineralised intersections will be sent for determination of cyanide-extractable gold.
- The intersections, which are all close to the surface, show evidence of frequent high-grade intersections and geological continuity of mineralisation. Further drilling is required to determine if these high-grade intersections also point to a significant deposit at depth.



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Figure 4: Marmota's Gawler Craton tenements around the Challenger Gold Mine Aurora Tank circled in green; new tenements in red

#### For further information, please contact:

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#### **About Marmota Limited**

Marmota Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centred on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's copper project is based at the Melton project on the Yorke Peninsula. The Company's uranium project is at Junction Dam adjacent to the Honeymoon mine.

www.marmota.com.au

For more information, please visit: www.marmota.com.au

#### **Competent Persons Statement**

Information in this Release relating to Exploration Results is based on information compiled by Dr Kevin Wills, who is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Wills consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

## **APPENDIX 1**

JORC Code, 2012 Edition – Table 1 report

## Section 1 Sampling Techniques and Data

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

| Criteria                 | JORC Code explanation   | Commentary   |
|--------------------------|---|--|
| Sampling<br>techniques   | <ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul> <li>48 aircore holes were drilled to collect samples from the Goshawk prospect area and 39 aircore holes were drilled at the Kingfisher prospect area.</li> <li>Samples were collected at 1m intervals from the drilling cyclone and stored in separate bags at the drill site.</li> <li>Composite 4m samples were initially collected using a 50mm PVC tube 'spear' to collect representative samples from four 1m bags. Composite samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay (samples pulverized to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry)</li> <li>1m samples were collected by passing the entire 1m sample through a three-tier riffle splitter on selected 1m samples from 4m composite assay results which returned assay (samples pulverized to produce sub samples for lab assay (samples for 4m. 1m split samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay (samples through a three-tier riffle splitter on selected 1m samples from 4m composite assay results which returned assay results &gt;0.2 g/t Au. 1m split samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay (samples pulverized to produce sub samples for lab assay (samples pulverized to produce sub samples for lab assay (samples pulverized to produce sub samples for lab assay (samples pulverized to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry).</li> <li>Only laboratory assay results were used to compile the table of intersections that appears in the report.</li> </ul> |
| Drilling<br>techniques   | <ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer,<br/>rotary air blast, auger, Bangka, sonic, etc) and details (e.g.<br/>core diameter, triple or standard tube, depth of diamond tails,<br/>face-sampling bit or other type, whether core is oriented and if<br/>so, by what method, etc).</li> </ul>   | <ul> <li>Drill method consists of aircore blade in the softer rock and aircore hammer (slimline RC) in the harder rock.</li> <li>Hole diameters are 90 mm.</li> </ul>  |
| Drill sample<br>recovery | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>  | <ul> <li>Drillhole and sample depths were recorded in hard copy format<br/>during drilling including description of lithology and sample intervals.</li> <li>Qualitative assessment of sample recovery and moisture content of<br/>drill samples was recorded.</li> </ul>  |

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | <ul> <li>Whether a relationship exists between sample recovery and<br/>grade and whether sample bias may have occurred due to<br/>preferential loss/gain of fine/coarse material.</li> </ul>   | <ul> <li>Sample recoveries were generally high, and moisture in samples minimal. In some instances, where ground water influx was high, wet/moist samples were collected.</li> <li>The sample system cyclone was cleaned at the end of each hole and as required to minimise up-hole and cross-hole contamination.</li> <li>No relationship is known to exist between sample recovery and grade.</li> </ul>  |
| Logging   | <ul> <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> <li>All samples were geologically logged by the on-site geologist. The holes have not been geotechnically logged.</li> <li>Geological logging is qualitative.</li> <li>Chip trays containing 1 m geological subsamples were collected and photographed at the completion of the exploration program.</li> <li>100% of any reported intersections in this announcement have had geological logging completed.</li> </ul>   |
| Sub-sampling<br>techniques<br>and sample<br>preparation | <ul> <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 representivity 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> | <ul> <li>1m samples averaging 2 kg were collected for laboratory assay.<br/>Samples were collected by passing through a three-tier riffle splitter.</li> <li>It is considered representative samples were collected after<br/>homogenizing of sample through drilling cyclone and unbiased<br/>splitting of samples in bags.</li> <li>Laboratory sample preparation includes drying and pulverizing of<br/>submitted sample to target of p80 at 75 um.</li> <li>No samples checked for size after pulverizing failed to meet sizing<br/>target in the sample batches relevant to the report.</li> <li>Duplicate samples were introduced into the sample stream by the<br/>Company, while the laboratory completed repeat assays on various<br/>samples.</li> <li>Standard samples were introduced into the sample stream by the<br/>Company, while the laboratory completed standard assays also.</li> <li>Both Company and laboratory introduced duplicate samples<br/>indicate acceptable analytical accuracy and precision.</li> <li>Laboratory analytical charge sizes are standard sizes and<br/>considered adequate for the material being assayed.</li> </ul> |
| Quality of<br>assay data<br>and<br>laboratory<br>tests  | <ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision</li> </ul>  | <ul> <li>Bureau Veritas Minerals in Adelaide was used for analytical work.<br/>Samples were analysed in the following manner: <ul> <li>Aqua Regia Digest. Analysed by Inductively Coupled Plasma<br/>Mass Spectrometry for Ag, As, Au and Cu.</li> </ul> </li> <li>For laboratory samples, the Company introduced QA/QC samples<br/>at a ratio of one QA/QC sample for every 25 drill samples. The<br/>laboratory introduced additional QA/QC samples (blanks,<br/>standards, checks) at a ratio of greater than 1 QA/QC sample for<br/>every 10 drill samples.</li> <li>Both the Company introduced and laboratory introduced QA/QC</li> </ul>  |

| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
|   | have been established.   | samples indicate acceptable levels of accuracy and precision have been established.   |
| Verification of<br>sampling and<br>assaying                         | <ul> <li>The verification of significant intersections by either<br/>independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data<br/>verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>            | <ul> <li>A Company geologist has checked the calculation of the quoted intersections in addition to the Competent Person.</li> <li>No twinned holes were drilled in the program.</li> <li>No adjustments have been made to the assay data.</li> </ul>   |
| Location of<br>data points  | <ul> <li>Accuracy and quality of surveys used to locate drill holes<br/>(collar and down-hole surveys), trenches, mine workings and<br/>other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul> <li>Drill hole coordinate information was collected using a digital GPS system with an autonomous accuracy of +/-0.5 metres utilising GDA 94 Zone 53.</li> <li>Area is proximately flat lying and topographic control uses SRTM 90 DEM.</li> </ul> |
| Data spacing<br>and<br>distribution                                 | <ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul> | <ul> <li>Drill holes were advanced along traverses setup perpendicular to the orientation of the geochemical anomaly.</li> <li>Drill hole spacing was generally 20 metres along traverse spaced at 20 metres along strike (see Figure 1).</li> </ul>    |
| Orientation of<br>data in<br>relation to<br>geological<br>structure |  | <ul> <li>Drill lines were orientated to cover previously drilled mineralisation<br/>and traverses crossed the width of the mineralised zone, therefore<br/>a sampling bias should not have occurred.</li> </ul>   |
| Sample<br>security  | • The measures taken to ensure sample security.  | <ul> <li>Company staff collected all laboratory samples.</li> <li>Samples submitted to the laboratory were transported and delivered by Company staff.</li> </ul>   |
| Audits or<br>reviews  | • The results of any audits or reviews of sampling techniques and data.  | No audit of data has been completed to date.  |

## Section 2 Reporting of Exploration Results

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

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
| <i>Mineral<br/>tenement and<br/>land tenure<br/>status</i> | <ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>  | <ul> <li>Aurora Tank (EL 5589) is 100% owned by Marmota Limited.<br/>EL 5589 is located approximately 100 km southwest of Coober<br/>Pedy in South Australia.</li> <li>There are no third party agreements, non-government royalties,<br/>historical sites or environmental issues.</li> <li>Exploration is conducted within lands of the Antakirinja Matu-<br/>Yankunytjatjara Native Title Determination Area.</li> <li>The tenement is in good standing.</li> </ul>  |
| Exploration<br>done by other<br>parties                    | Acknowledgment and appraisal of exploration by other parties.   | <ul> <li>Exploration in the Commonwealth Hill region has been carried out<br/>by a number of exploration companies previously including;</li> <li>Kennecott Explorations (Australia) Pty Ltd (1968-69)</li> <li>Dampier Mining Co. Ltd (1978-79)</li> <li>Afmeco Pty Ltd (1980-83)</li> <li>Stockdale Prospecting Ltd (1986-87)</li> <li>SADME (1996-97)</li> <li>Minotaur Gold NL (1993-99)</li> <li>Redport Ltd (1997-2002)</li> <li>Apollo Minerals (2013-15)</li> </ul>   |
| Geology  | • Deposit type, geological setting and style of mineralisation.   | <ul> <li>The Goshawk zone of Aurora Tank is situated in the Christie<br/>Domain of the western Gawler Craton. The Christie Domain is<br/>largely underlain by late Archaean Mulgathing Complex which<br/>comprises of meta-sedimentary successions interlayered with<br/>Banded Iron Formations (BIF), chert, carbonates and calc-silicates.</li> <li>Marmota is targeting Challenger-style Late Archaean gold whilst<br/>being open for occurrence of a variety of other mineralisation styles<br/>which may also exist in the tenement area.</li> </ul> |
| Drill hole<br>Information                                  | <ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul> | <ul> <li>The required information on drill holes is incorporated into<br/>Appendix 2 to the ASX Release.</li> </ul>   |

| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
| Data<br>aggregation<br>methods   | <ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | <ul> <li>Any intersections are calculated by simple averaging of 4 m assays.</li> <li>Where aggregated intercepts are presented in the report, they may include shorter lengths of high grade mineralisation; these shorter lengths are also tabulated.</li> <li>No metal equivalents are reported.</li> </ul> |
| Relationship<br>between<br>mineralisatio<br>n widths and<br>intercept<br>lengths | <ul> <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 (eg 'down hole length, true width not known').</li> </ul>   | <ul> <li>Drill coverage is not currently considered sufficient to establish true widths due to uncertainty regarding mineralisation dip and strike.</li> <li>Mineralisation intersections are downhole lengths; true width is unknown.</li> </ul>  |
| Diagrams   | • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.   | See figures in release attached.   |
| Balanced<br>reporting  | <ul> <li>Where comprehensive reporting of all Exploration Results is<br/>not practicable, representative reporting of both low and high<br/>grades and/or widths should be practiced to avoid misleading<br/>reporting of Exploration Results.</li> </ul>   | <ul> <li>Cut-off of 1.0 g/t gold was applied in reviewing assay results and deemed to be appropriate at this stage in reporting of exploration results.</li> <li>Reporting is considered balanced.</li> </ul>  |
| Other<br>substantive<br>exploration<br>data                                      | <ul> <li>Other exploration data, if meaningful and material, should be<br/>reported including (but not limited to): geological observations;<br/>geophysical survey results; geochemical survey results; bulk<br/>samples – size and method of treatment; metallurgical test<br/>results; bulk density, groundwater, geotechnical and rock<br/>characteristics; potential deleterious or contaminating<br/>substances.</li> </ul>   | See attached ASX Release. Geological observations are included in that report.   |
| Further work   | <ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>   | <ul> <li>See attached release.</li> <li>Marmota is currently reviewing results received to date from this drilling campaign and considering additional work programs including resampling mineralised zones at 1m intervals, additional infill drilling and preliminary metallurgical testwork.</li> </ul>     |

### **APPENDIX 2**

## Goshawk 2017 drillhole collar summary

| Hole ID | Easting<br>(MGA94<br>z53) | Northing<br>(MGA94<br>z53) | RL  | Dip | Azimuth<br>(Mag) | EOH<br>Depth |
|---------|---------------------------|----------------------------|-----|-----|------------------|--------------|
| 17AT001 | 412,438.0                 | 6,715,870                  | 155 | -60 | 150              | 50           |
| 17AT002 | 412,428.0                 | 6,715,888                  | 155 | -60 | 150              | 50           |
| 17AT003 | 412,418.0                 | 6,715,905                  | 154 | -60 | 150              | 50           |
| 17AT004 | 412,408.0                 | 6,715,922                  | 154 | -60 | 150              | 48           |
| 17AT005 | 412,420.7                 | 6,715,860                  | 155 | -60 | 150              | 44           |
| 17AT006 | 412,410.7                 | 6,715,878                  | 155 | -60 | 150              | 50           |
| 17AT007 | 412,400.7                 | 6,715,895                  | 154 | -60 | 150              | 50           |
| 17AT008 | 412,390.7                 | 6,715,912                  | 155 | -60 | 150              | 50           |
| 17AT009 | 412,386.0                 | 6,715,840                  | 154 | -60 | 150              | 40           |
| 17AT010 | 412,376.0                 | 6,715,858                  | 154 | -60 | 150              | 45           |
| 17AT011 | 412,366.0                 | 6,715,875                  | 154 | -60 | 150              | 50           |
| 17AT012 | 412,356.0                 | 6,715,892                  | 154 | -60 | 150              | 50           |
| 17AT013 | 412,361.4                 | 6,715,803                  | 154 | -60 | 150              | 35           |
| 17AT014 | 412,341.4                 | 6,715,838                  | 156 | -60 | 150              | 40           |
| 17AT015 | 412,321.4                 | 6,715,872                  | 156 | -60 | 150              | 55           |
| 17AT016 | 412,326.8                 | 6,715,782                  | 156 | -60 | 150              | 45           |
| 17AT017 | 412,306.8                 | 6,715,818                  | 156 | -60 | 150              | 45           |
| 17AT018 | 412,286.8                 | 6,715,852                  | 156 | -60 | 150              | 45           |
| 17AT019 | 412,289.4                 | 6,715,808                  | 156 | -60 | 150              | 40           |
| 17AT020 | 412,269.4                 | 6,715,842                  | 156 | -60 | 150              | 40           |
| 17AT021 | 412,252.1                 | 6,715,832                  | 156 | -60 | 150              | 50           |
| 17AT022 | 412,232.1                 | 6,715,867                  | 156 | -60 | 150              | 55           |

| 17AT023 | 412,227.5 | 6,715,795 | 154 | -60 | 150 | 40 |
|---------|-----------|-----------|-----|-----|-----|----|
| 17AT024 | 412,217.5 | 6,715,830 | 154 | -60 | 150 | 50 |
| 17AT025 | 412,207.5 | 6,715,830 | 157 | -60 | 150 | 55 |
| 17AT026 | 412,197.5 | 6,715,847 | 157 | -60 | 150 | 50 |
| 17AT027 | 412,182.8 | 6,715,792 | 154 | -60 | 150 | 40 |
| 17AT028 | 412,172.8 | 6,715,810 | 157 | -60 | 150 | 50 |
| 17AT029 | 412,162.8 | 6,715,827 | 154 | -60 | 150 | 55 |
| 17AT030 | 412,152.8 | 6,715,844 | 157 | -60 | 150 | 57 |
| 17AT031 | 412,175.5 | 6,715,765 | 157 | -60 | 150 | 40 |
| 17AT032 | 412,155.5 | 6,715,800 | 157 | -60 | 150 | 50 |
| 17AT033 | 412,158.2 | 6,715,755 | 157 | -60 | 150 | 48 |
| 17AT034 | 412,138.2 | 6,715,790 | 157 | -60 | 150 | 50 |
| 17AT035 | 412,133.6 | 6,715,718 | 154 | -60 | 150 | 40 |
| 17AT036 | 412,123.6 | 6,715,735 | 157 | -60 | 150 | 50 |
| 17AT037 | 412,113.6 | 6,715,752 | 157 | -60 | 150 | 58 |
| 17AT038 | 412,108.9 | 6,715,680 | 156 | -60 | 150 | 40 |
| 17AT039 | 412,098.9 | 6,715,698 | 154 | -60 | 150 | 50 |
| 17AT040 | 412,088.9 | 6,715,715 | 156 | -60 | 150 | 57 |
| 17AT041 | 412,084.3 | 6,715,643 | 154 | -60 | 150 | 37 |
| 17AT042 | 412,074.3 | 6,715,660 | 156 | -60 | 150 | 45 |
| 17AT043 | 412,064.3 | 6,715,678 | 156 | -60 | 150 | 60 |
| 17AT044 | 412,054.3 | 6,715,695 | 156 | -60 | 150 | 55 |
| 17AT045 | 412,044.3 | 6,715,712 | 154 | -60 | 150 | 50 |
| 17AT046 | 412,039.6 | 6,715,640 | 154 | -60 | 150 | 50 |
| 17AT047 | 412,019.6 | 6,715,675 | 154 | -60 | 150 | 47 |
| 17AT048 | 411,999.6 | 6,715,710 | 154 | -60 | 150 | 48 |
|         |           |           |     |     |     |    |

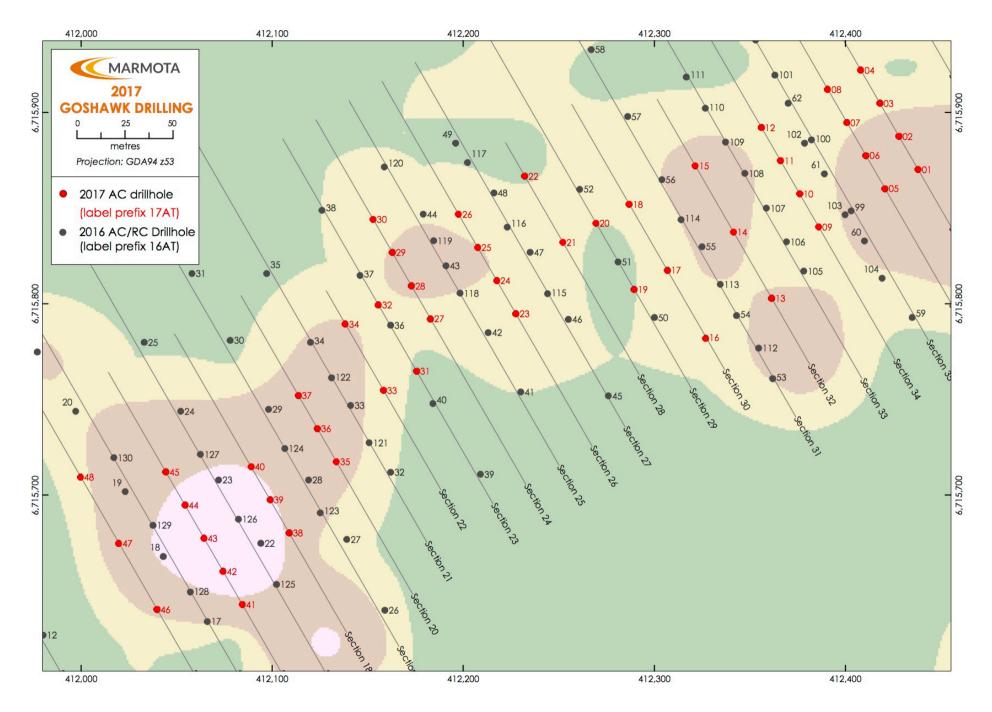


Figure 5: Aurora Tank – Goshawk Drill Collars