EMU NL

# IP SURVEY IDENTIFIES FURTHER HIGH-GRADE GOLD-SILVER-COPPER POTENTIAL AT VIDALITA, CHILE

**27 March 2019**

- **Re-interpretation of drill and Induced Polarisation (IP) geophysical data at Vidalita completed following recent outstanding gold assay of:**

  **24m at 5 g/t gold and 28 g/t silver from 20m in hole 5300-8.**

- **3D interpretation of all Vidalita drilling defines a shallow north plunge to gold-silver mineralisation, open at depth over a 1km strike.**
- **IP data defines a very consistent 1km long north-plunging anomaly below the surface at 150m to 300m depth.**
- **One diamond hole, 5700-1 drilled by EMU in 2018, targeted the IP anomaly but intersected only its top edge, returning:**

  **82 m at 0.2 g/t gold, 11 g/t silver and 0.12% copper from 174m;**

  *including* **1m at 0.8 g/t Au, 1049 g/t silver and 5.4% copper.**

- **The IP targets may represent the system's sulphide-rich core and may indicate potential for high-grade gold, silver and copper.**
- **Diamond drilling has been planned to follow up the IP targets.**

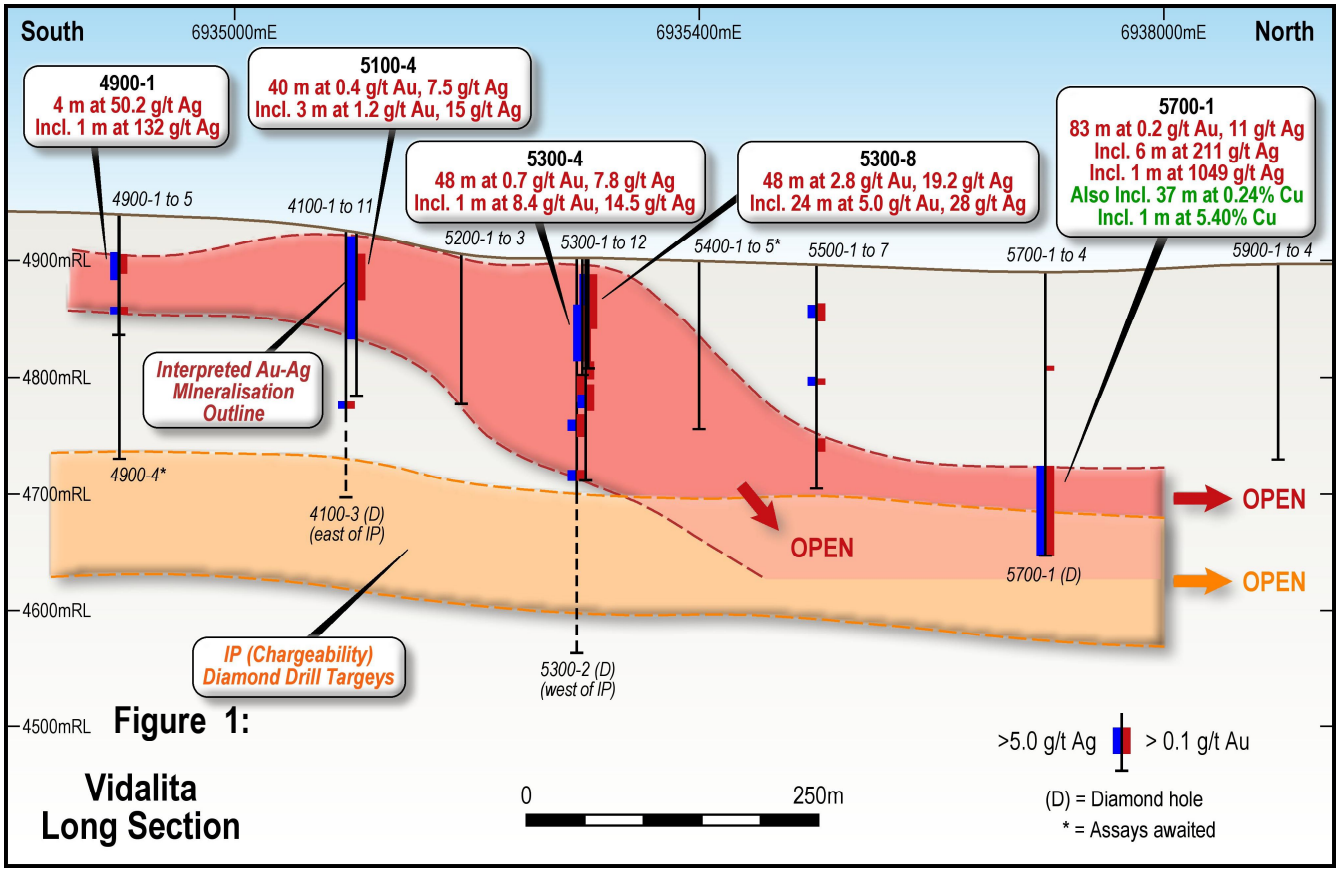


**Figure 1:** North to south long section of the drilling at Vidalita (results reported in ASX announcements dated 18 July, 21 August 2018 and 8 March 2019).

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Emu NL (ASX:EMU) is pleased to report re-interpretation, following Emu's discovery hole, of drill and Induced Polarisation (IP) geophysical data at the Vidalita Prospect, Maricunga Belt, Chile, which has identified further high-grade gold targets. The discovery hole, **5300-8,** returned results of:

**24m at 5 g/t gold and 28 g/t silver from 20m.**

The results and mineralisation style at Vidalita confirm excellent potential for discovery of a high-grade gold-silver deposit similar to Salares Norte (ASX announcement 8 March 2019).

A compilation of the updated drill database into 3D indicates a strong shallow, north-northwest plunge trend to the gold-silver mineralisation (Figure 1). The mineralised trend occurs as an extensive zone of demagnetisation in the ground magnetic data which is interpreted to be caused by very large areas of extensive alteration associated with NNW trending structures and associated gold-silver mineralisation (Figure 2).

## Induced Polarisation (IP) Geophysics Review

The IP geophysical method is principally used to identify areas of:

1. intense disseminated sulphide development indicated by the chargeability data; and
2. massive sulphide and/or massive clay alteration indicated by the resistivity data.

Only one diamond hole (completed by EMU in 2018) has tested the IP chargeability (Figure 3) and conductivity (Figure 4) anomalies. That hole, which only tested the top edge of those anomalies, intersected:

**82m at 0.2 g/t gold, 11 g/t silver and 0.12% copper** from 174m in hole **5700-1;**

*including* **1m at 0.8 g/t Au, 1049 g/t silver and 5.4% copper.**

The occurrence of bonanza silver and high-grade copper associated with very thick intercepts of gold mineralisation coincident with the IP anomalies is extremely encouraging. The strongest anomaly remains untested at depth.

A very consistent shallow, north-plunging trend to the IP is evident in the data for at least 1km strike and at depths between 150m and 300m below surface (Figure 1). These IP anomalies have not been effectively tested by previous diamond drill holes (Figure 1 and 5). It is possible that the IP anomalies represent a sulphide-rich core to the system at depth.

## Next Steps

Emu is planning and prioritising diamond drilling to test these high-grade gold, silver and copper geophysical anomaly drill targets.

The aircore rig at Vidalita continues infill drilling to track the interpreted gold-silver-rich structures near surface along strike and down plunge as per the pre-season drill plot design. Drilling directed at specifically following up the discovery hole is in planning with a view to being undertaken this season. Further assay results are awaited.

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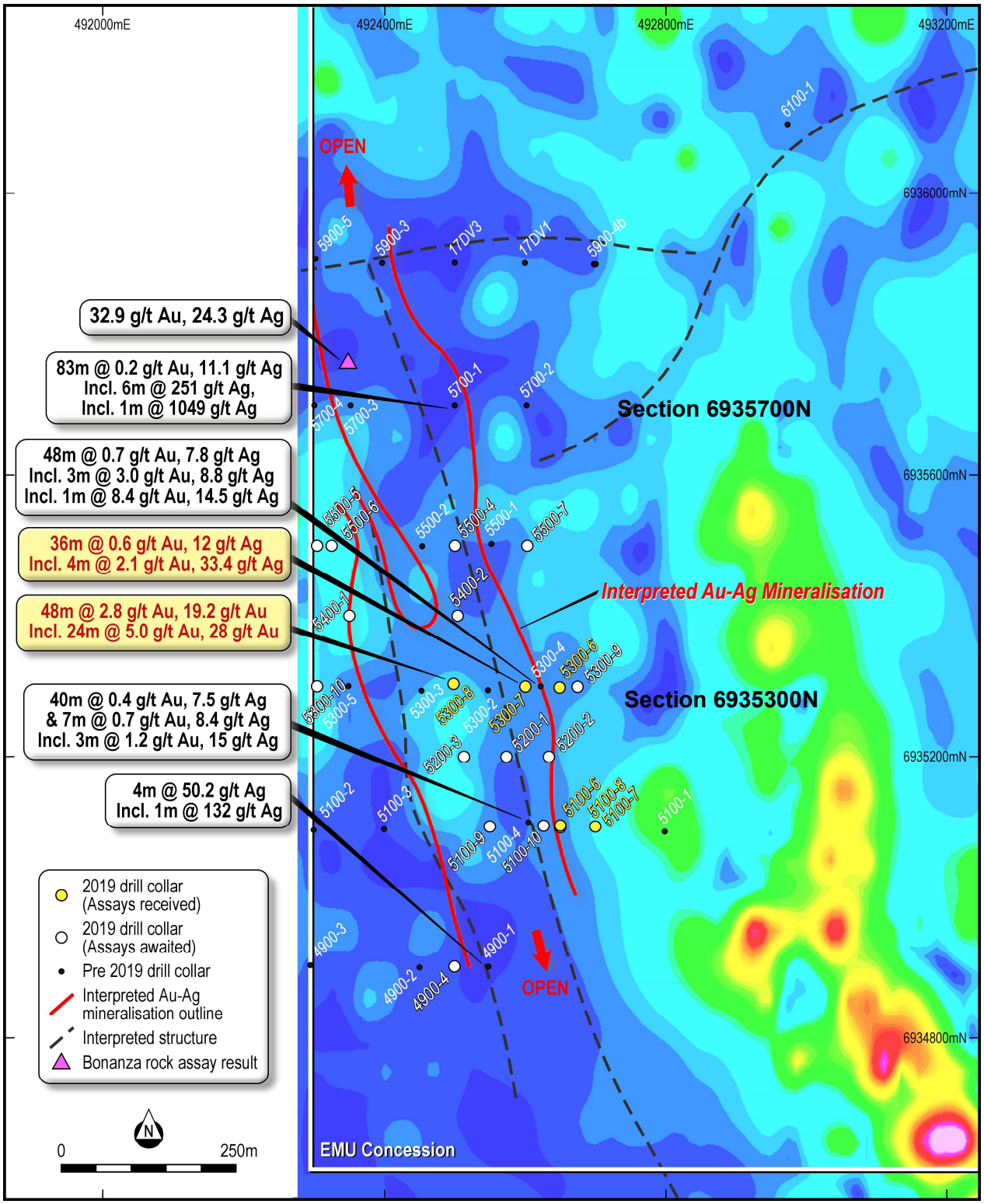


**Figure 2:** Drill holes completed at the Vidalita Prospect. The background image is of the ground magnetic data (Analytic Signal). The cold colours indicate areas of low magnetic response that are interpreted to be caused by alteration associated with interpreted structures and associated gold-silver mineralisation. (Results reported in ASX announcements dated 18 July 2018, 21 August 2018 and 8 March 2019).

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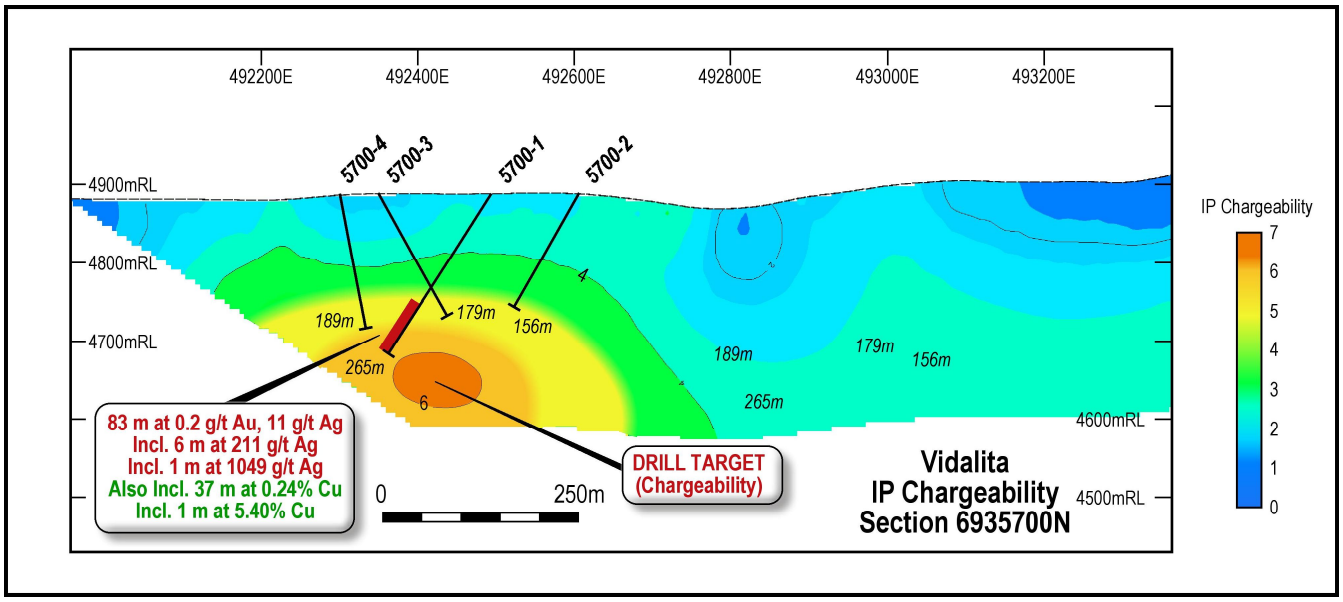


**Figure 3**: Induced Polarisation (IP) image of the chargeability data inversion showing drilling by EMU in 2018. Chargeability is designed to identify areas of disseminated sulphide mineralisation. (Results reported in ASX announcement dated 21 August 2018).

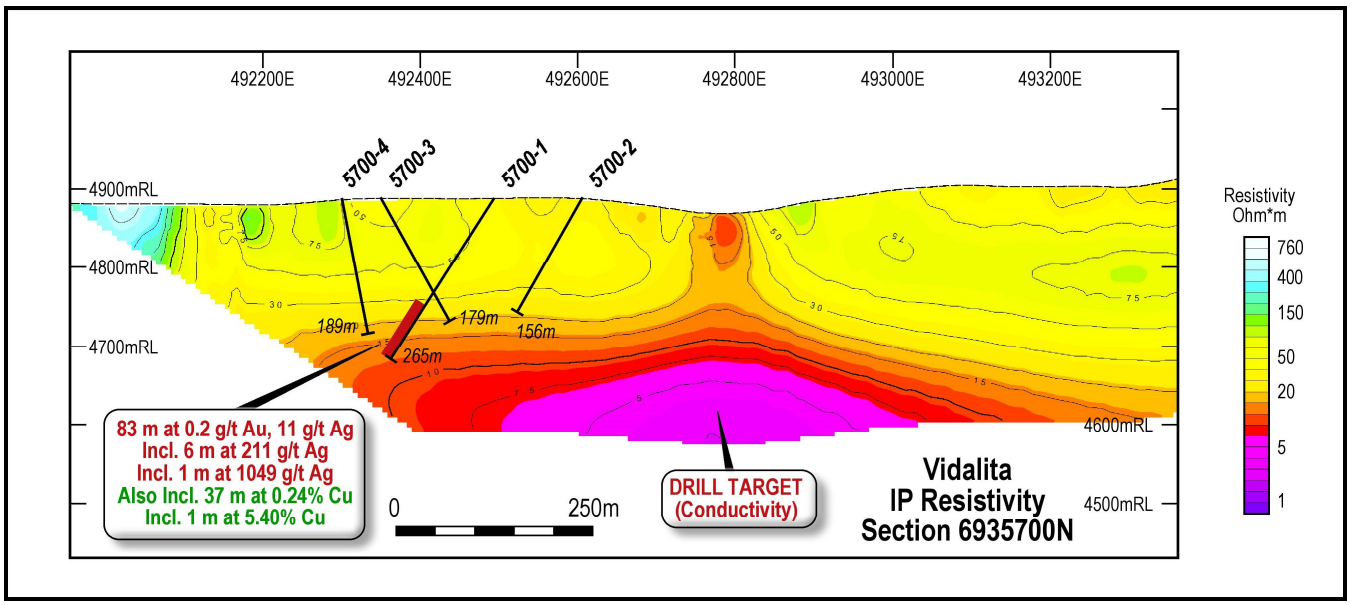


**Figure 4**: Induced Polarisation (IP) image of the resistivity data inversion showing drilling by EMU in 2018. Areas of conductivity in the resistivity data is interpreted to indicate areas of massive sulphide mineralisation and or massive clay alteration. (Results reported in ASX announcement dated 21 August 2018).

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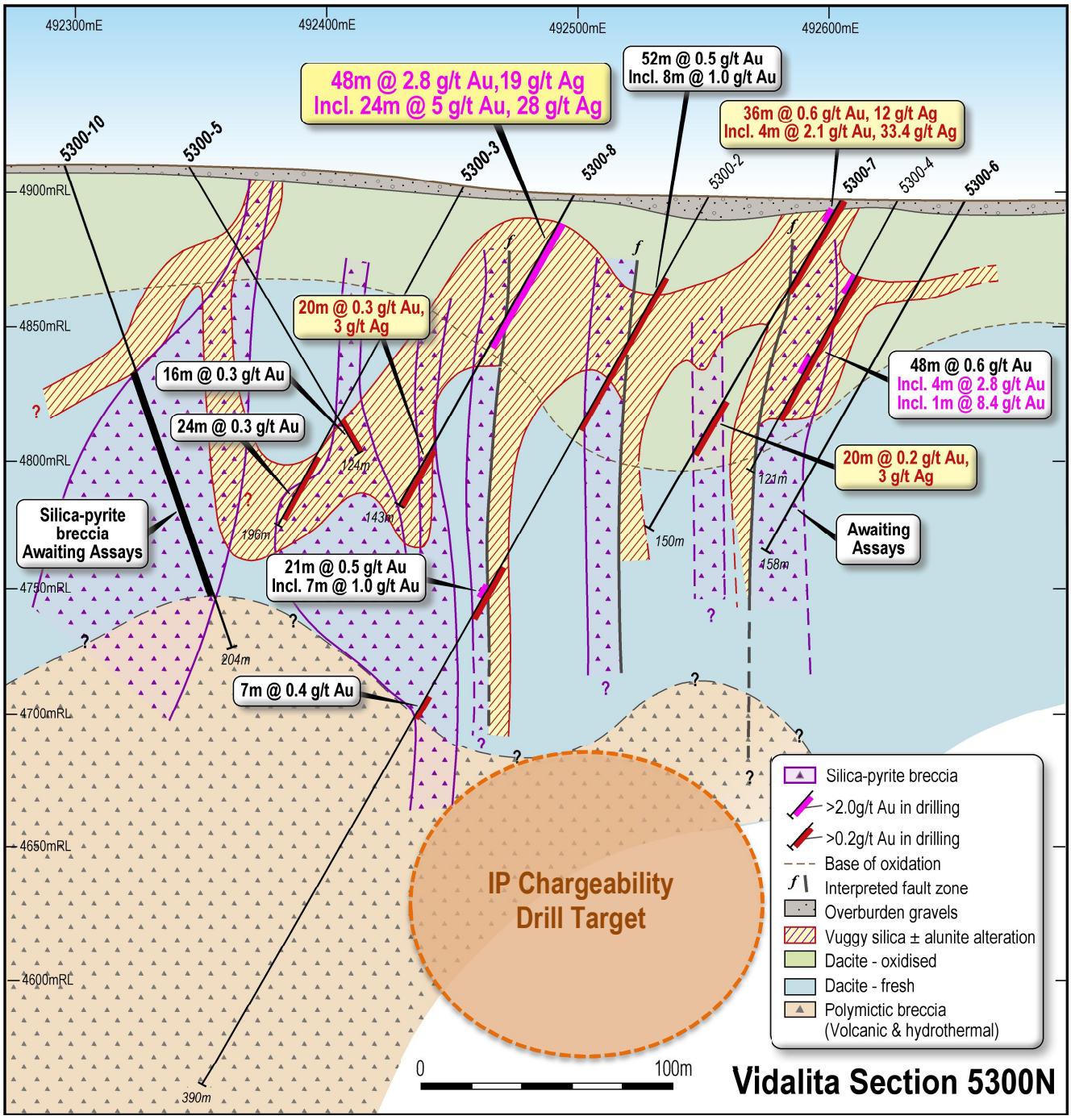


**Figure 5:** Interpreted geological cross section across the central portion of Vidalita at 6935300 N. Drill intersections in pink > 2 g/t gold occur associated with high grade silica-pyrite structures and vuggy silica that are open along strike and down plunge. (Results reported in ASX announcements dated 18 July 2018, 21 August 2018 and 8 March 2019).

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**Figure 6**: Location of the EMU NL project in the Maricunga Belt in relation to the Salares Norte deposit owned by Goldfields with a current SAMREC-compliant resource of 21.0Mt at 5.2 g/t Au and 72 g/t Ag for 3.5Moz Au and 48.6Moz Ag (indicated).

## About the Vidalita prospect, Maricunga Belt, Chile

The Vidalita prospect is located in the Maricunga gold belt in the Atacama Region in northern Chile hosting numerous world-class gold and silver projects. Emu's project in the Maricunga Belt covers an area of approximately 136 km$^2$ secured by mineral exploration and exploitation concessions that host alteration and mineralisation that appear geologically similar to other high sulphidation gold deposits of the Maricunga gold belt. The projects are accessed using established infrastructure of roads that link Copiapó (major mining town) with the Refugio project (Kinross), Cerro Casale project (Barrick/Goldcorp) and the Caspiche project (Goldcorp). Refugio is located approximately 30 km to the northwest of Vidalita.

Emu holds an **Option** to acquire a 100% interest in certain of the Vidalita and Jotahues concession packages from two Chilean companies; Prospex SpA and BLC SpA.

The Prospex area covers six concessions at Vidalita and is subject to a 2% NSR on any production. The Option may be exercised in November 2019 on payment of US$2M. If Emu defines: (i) 0.5Moz of gold in measured resources, a further 5M ordinary shares will be issued; and (ii) 1Moz of gold in measured resources, a further 5M ordinary shares will be issued.

The BLC SpA area comprises of three concessions (Jotahues and Vidalota A&B) and is subject to a 1% NSR. There is no Option payment to be made.

In addition, Emu has pegged a concession within its own right, Arroyo Ancho. Portions of this are subject to an area of influence inclusion into the Prospex Option.

Emu continues to look for new mineral exploration, development, and mining opportunities within Australia and overseas jurisdictions.

**Emu NL**

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**Fully paid shares (listed)**
127,854,728 (inc. 7.4m which Emu can buy back for nil consideration)

**Contributing Shares (listed)**
33,668,824 paid to $0.03, $0.03 to pay, no call before 31/12/2020

**Directors:**
**Peter Thomas**
Non-Executive Chairman
**Terry Streeter**
Non-Executive Director
**Gavin Rutherford**
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## COMPETENT PERSON'S STATEMENT

Any details contained herein that pertain to exploration results, mineral resources or mineral reserves are based upon information compiled by Mr Leo Horn, an experienced geologist working for Emu NL. There are no material changes to previously reported results. Mr Horn is a Member of the Australian Institute of Geoscientists and has sufficient experience in 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, Mineral Resources and Ore Reserves" (JORC Code). Mr Horn consents to the inclusion herein of the matters based upon his information in the form and context in which it appears.

## FORWARD LOOKING STATEMENTS

As a result of a variety of risks, uncertainties and other factors, actual events and results may differ materially from any forward looking and other statements herein not purporting to be of historical fact. Any statements concerning mining reserves, resources and exploration results are forward looking in that they involve estimates based on assumptions. Forward looking statements are based on management's beliefs, opinions and estimates as of the respective dates they are made. The Company does not assume any obligation to update forward looking statements even where beliefs, opinions and estimates change or should do so given changed circumstances and developments.

# Appendix 1

## JORC Code, 2012 Edition – Table 1 report, EMU NL

## Vidalita Drilling

***Section 1 Sampling Techniques and Data***

| Criteria | Commentary |
|---|---|
| *Sampling techniques* | Air core (AC) samples – samples are collected from the rig cyclone in a bucket over each metre drilled. The larger in-tact core segments are recovered and stored in core trays for logging and geological reference. This material is not oriented.<br>The remaining fine material in the bucket is transferred to a sample bag in total. This sample is usually around 1kg representing ~ 15 to 20% of the mass of the 1m interval.<br>All samples are prepared at Actlabs in Copiapo where they are crushed to 2mm, split to an 800g sample then pulverised and split again to 25g. The final split is sent to Actlabs, Coquimba for analysis. |
| *Drilling techniques* | Air core (AC) drilling using 75mm diameter bits. |
| *Drill sample recovery* | Geological team makes a qualitative estimate (as good, moderate or poor) of sample recovery for each one metre down hole sample interval.<br>Supervising geologist ensures that representative chip and AC samples are collected during drilling.<br>Sampling is considered to be unbiased. |
| *Logging* | Alteration, mineralisation, rock type, and structure, where evident, are logged and recorded from the core drill samples.<br>Pieces of core recovered by the AC system are stored in core trays for logging and geological reference.<br>Total hole length is logged. |
| *Sub-sampling techniques and sample preparation* | AC samples (fines) from each one metre of drill hole is bagged up. The sample is usually around 1kg.<br>The 1m samples are prepared for analysis by standard laboratory procedures.<br>Sub-sampling at the sample processing facility is done using splitters.<br>The samples collected are representative of the in situ material.<br>Sample sizes are appropriate to the grain size of the material being sampled. |

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|---|---|
| *Quality of assay data and laboratory tests* | A 25g split from each one metre AC pulp is taken from four consecutive one metre samples, combined, re-pulverised to homogenise and a 25g split is taken for analysis.<br>All samples are digested using 25g aqua regia and analysed using ICP-MS at Actlab's laboratory in Coquimba. Select samples are re-analysed using Fire assay techniques.<br>All drill samples results are reported.<br>The aqua regia digest in this instance is considered appropriate given the stage of the program and the altered nature of the rocks.<br>10% of drilling samples will be sent for check analysis to another laboratory.<br>Laboratory standards and repeats are used to for QA/QC. |
| *Verification of sampling and assaying* | Highly anomalous four metre composites are identified and the one metre samples from which they were composited sent to an alternative laboratory for assaying.<br>No twinned holes have been drilled.<br>All geochemical and geological data is loaded into databases managed by independent third party entities for verification, storage and plotting. Assay data are not adjusted. |
| *Location of data points* | Drill hole collars are located using hand held GPS accurate to < 5m in the first instance. Holes are subsequently surveyed in using DGPS accurate to <0.02m.<br>WGS 84 UTM zone 19J (south) grid system<br>Topographic control is deemed adequate at this stage of the exploration program. |
| *Data spacing and distribution* | The drill holes are irregularly spaced (but generally >100m) as they are testing geological, geophysical or geochemical targets.<br>No mineral resources are being reported at this time.<br>The AC samples are composited into four metre composites in the laboratory. |
| *Orientation of data in relation to geological structure* | Drill hole azimuth was planned on indications of outcrop and/or subcrop geology and lithological strike as indicated by a ground magnetic survey and geologic mapping.<br>The controls on mineralisation are unknown at this time. |
| *Sample security* | Emu management supervises sample collection and delivery to the laboratory. |
| *Audits or reviews* | None undertaken. |

***Section 2 Reporting of Exploration Results***
***(Criteria listed in the preceding section also apply to this section.)***

| Criteria | Commentary |
|---|---|
| *Mineral tenement and land tenure status* | Emu has an option agreement dated 14 November 2016 with two Chilean companies, Prospex SpA and BLC SpA, to acquire 8 concessions at Vidalita and 3 concessions at Jotahues. This option maybe exercised any time up until November 2019 by granting Prospex and BLC a 1% NSR on production and allotting them up to 15 million Emu ordinary shares subject to certain vesting conditions (see ASX release 15th November 2016). Prospex SpA in turn has an option to acquire 6 of the 8 Vidalita concessions from local Chilean parties. Under the terms of that agreement, Prospex has the right to exercise that option by November 2019 by paying US$2 million and granting the Chilean parties a 1% NSR over those 6 concessions. Under the Emu option agreement, Emu has taken an assignment of the rights and assumed the obligations of Prospex in relation to those 6 concessions. The option agreements are subject to a 5km AOI from the boundaries of the 11 concessions. Since entering into the option agreement with Prospex and BLC, additional concessions have been applied for and were reported in subsequent ASX releases. |
| *Exploration done by other parties* | Previous work was limited to rock sampling. There had been no drilling in the area prior to Emu's activities. |
| *Geology* | The prospect area is located within the early to late Miocene volcanics of the Maricunga Belt. The project is a green fields exploration project however the mineralisation style intersected in drilling is interpreted to be similar to known high sulphidation epithermal style ore deposits in the same geological setting. Rocks consist of volcanically derived lithologies, including tuffs, andesites, dacites, polymictic and monomictic breccias, and minor sedimentary facies associated with volcanic crater development. Major north-north-west trending faults may control the extent of mineralisation and provide the bounds to that mineralisation. Lesser cross-cutting faults, generally north-easterly, appear to affect mineralisation plunge and repetitions. |
| *Drill hole Information* | See ASX announcement on 8 March 2019. |
| *Data aggregation methods* | Simple averages are calculated from mineralised zones.<br>Gold zones above 0.2ppm are aggregated within the mineralised zones to calculate average gold intersections. Barren zones less than one sample interval may be included in a composite aggregation if occurring within the overall mineralised zone. |

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| *Relationship between mineralisation widths and intercept lengths* | Project is at an early stage of exploration and any conclusions at this stage would be speculation. All widths quoted are down hole intersection widths. |
| *Diagrams* | Interpretive cross sections are included in the announcement. These are preliminary in nature and are subject to change. |
| *Balanced reporting* | Emu considers all pertinent information pertaining to this prospect is supplied in either this or previous announcements. |
| *Other substantive exploration data* | Surface rock and talus sampling was undertaken at opportune locations where outcrop allowed and appropriate. Summary maps were included in previous announcements.<br>Satellite imagery is used to identify significant areas of alteration to guide exploration. |
| *Further work* | Follow-up drilling, by infill and to extend into areas that are considered "open" to mineralisation, is being considered but not yet planned. |