



## Vidalita Drilling Update

- First assays from air core 2019 drilling programme in from the Vidalita prospect
- Shallow high grade silver intersected: up to 71g/t silver
- 16 air core holes completed and assays now pending
- Broad zones of visual alteration identified in several holes including visible silver minerals
- Focus on prioritising additional regional targets by field team

Emu NL (ASX:EMU) is pleased to report that the air core (AC) drilling campaign planned for the Vidalita Prospect, Maricunga Belt, Chile (Figure 1) is progressing rapidly. To date, sixteen AC holes have been completed (Table 1, JORC Table in Appendix 1). Assays from these drill holes have starting coming in.



As announced on 30 November 2018 and 21 January 2019, Emu is currently following up results from the 2018 drilling campaign that discovered a virgin high sulphidation gold-silver-base metal mineralised epithermal system.

The 2019 drilling programme is designed to:

1. follow up on shallow gold-silver mineralisation discovered during the 2018 drilling campaign
2. test the deeper seated gold-silver-copper-zinc-lead mineralisation intersected in diamond drilling during 2018, and
3. assess new prospect areas defined from geological and geochemical survey.

The AC drilling crew was mobilised to Vidalita early January.

**Figure 1.** Vidalita is located in Chile's Maricunga Belt, host to in excess of 85 million ounces in gold resources.



### Shallow gold and silver mineralisation previously intersected at Vidalita

The 2018 drilling campaign intersected significant shallow silver-gold mineralisation over a widespread area of the Vidalita Prospect (Figure 2). This mineralisation is typically hosted in vuggy silica zones that occur across the prospect. Noteworthy intercepts from that campaign include gold intercepts of:

**48 m at 0.7 g/t gold from 44 m including 3 m at 3.0 g/t gold from 68 m** in hole 5300-4;

**40 m at 0.4 g/t gold from 12 m including 7 m at 0.7 g/t gold from 28 m** in hole 5100-4; and

**7 m at 0.7 g/t gold from 88m; including 3 m at 1.2 g/t gold from 92 m** also in hole 5100-4.

All measurements are down hole; true thicknesses are to be confirmed.

Significantly, gold grades up to **1m at 8.4g/t** were obtained in hole 5300-4 which demonstrates high grade gold occurs in the system.

In addition, significant shallow silver intercepts include:

**28 m at 23 g/t silver from 36m including 8m at 33 g/t silver from 40 m** in hole 4900-1; and

**16 m at 88 g/t silver from 44m including 4m at 148 g/t silver from 52 m** in hole 6500-2.

(ASX announcement 21 August 2018.)

### Deeper gold-silver-copper mineralisation previously intersected at Vidalita

Gold, silver, ±copper mineralisation is interpreted to be associated with a hydrothermal sulphide breccia. Significant deeper gold intercepts include:

**70 m at 0.2 g/t gold from 174 m including 2m at 0.7 g/t gold from 216 m** in hole 5700-1.

In addition, high grade silver intercepts also occur in hole 5700-1:

**6 m at 211 g/t silver from 215 m including 1 m at 1049 g/t silver from 216m;** and also

**6 m at 93 g/t silver from 251 m including 2 m at 177 g/t silver from 253 m.**

The JORC Table 1 for this data is included in the announcement to the ASX on 18 July 2018. All widths are downhole; true widths are to be confirmed.

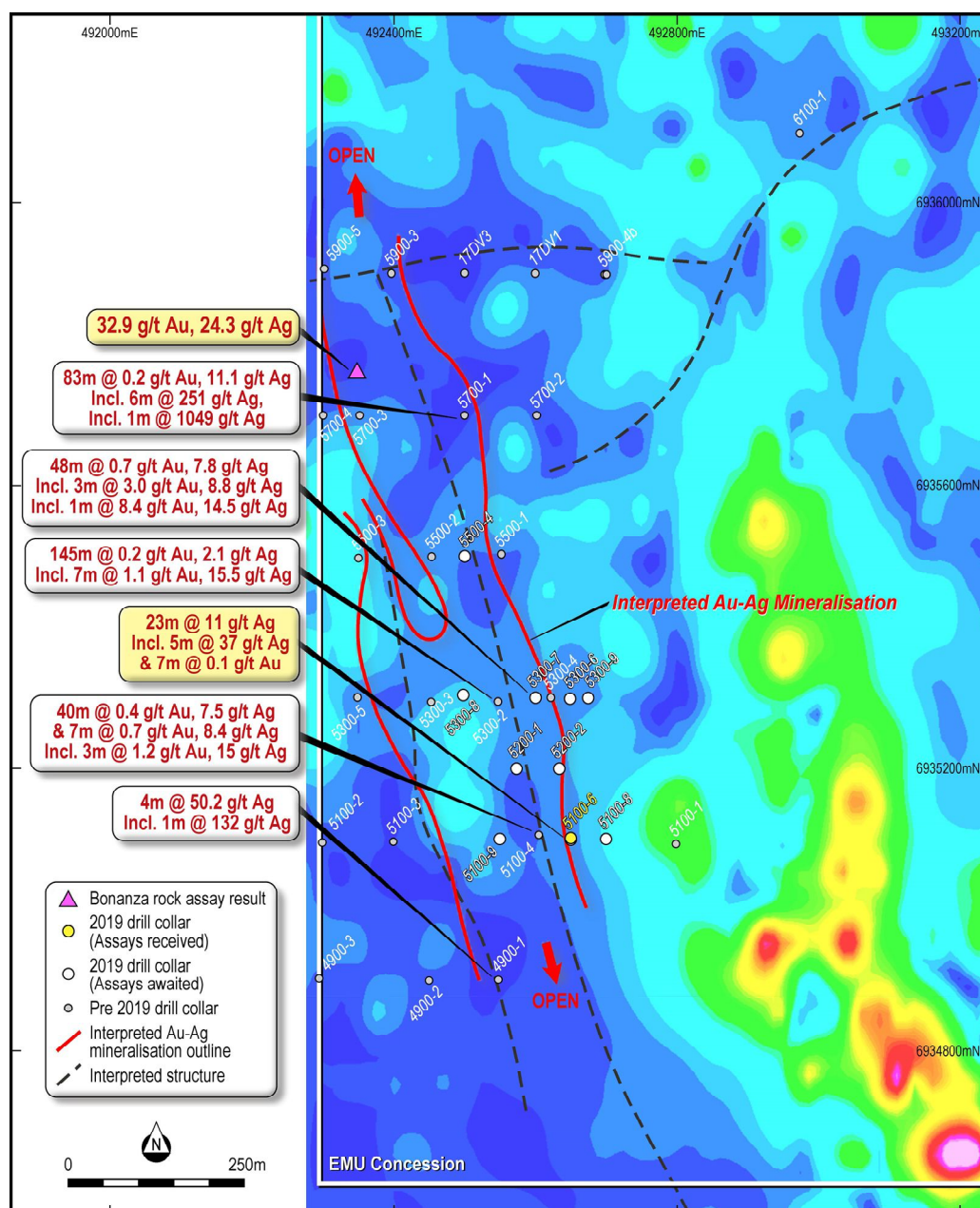
### Preliminary 2019 drill results

The shallow gold-silver mineralisation is currently being targeted by the 2019 AC drilling. To date, 16 holes have been completed (Figure 2; Table 1). First assays have been received with the following significant results from the first hole 5100-6 (Figure 3):

**23 m at 11.8 g/t silver from surface including 5 m at 37 g/t silver;  
including 1 m at 71 g/t silver; and 7m at 0.1 g/t gold from 1m**

This occurrence of high-grade silver and associated gold from surface is very encouraging.

Several other holes indicate broad zones of epithermal alteration minerals such as vuggy silica, alunite, pyrite and native sulphur (Figure 4a). Significantly, visual possible “ruby” (red-purple coloured) silver minerals (e.g. pyrargyrite) have been possibly identified in hole 5200-1 (Figure 4b). These “ruby” silver minerals are commonly observed in areas of bonanza silver mineralisation of the high sulphidation epithermal type (e.g. Salares Norte, La Coipa, Esperanza).



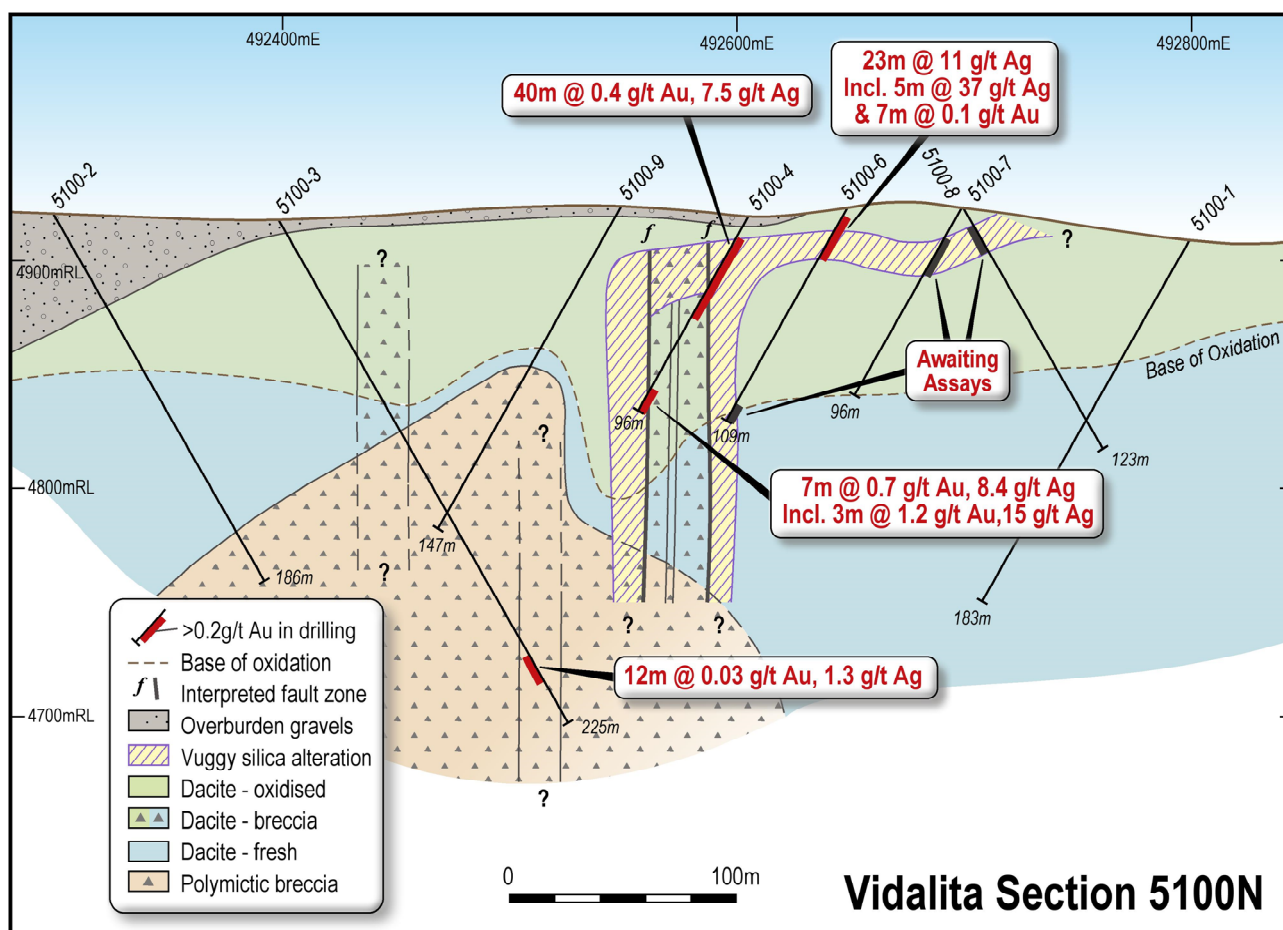
**Figure 2.** Holes completed on the Vidalita Prospect to date. The background image is of the ground magnetic data (Analytic Signal). The cold colours indicate areas of low magnetic response that are interpreted to be caused by alteration associated with interpreted structures and associated gold-silver mineralisation.

These initial results all confirm Emu's view that Vidalita represents a large system of epithermal alteration and mineralisation close to surface and extends over strike length in excess of 1.4km. This area 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).

Significantly, **bonanza** grades of gold up to **32.9g/t** (~1 oz/t, refer to Figure 3) and silver up to **594g/t** (~19oz/t) have been assayed from surface rock assays (see ASX announcements on 4 December 2017 and 7 May 2018). Importantly, high grade gold was intersected in drill hole 5300-4 with assays up to **1 m at 8.4 g/t gold**. The occurrence of high grade gold at surface and in drilling at Vidalita



demonstrates excellent potential for the discovery of a high grade gold-silver deposit similar to Salares Norte in the northern Maricunga Belt (Figure 1).



**Figure 3.** Interpretive section 5100N. Location of holes is indicated in Figure 2. Complete assays for holes 5100-7, 8, and 9 yet to be received. Preliminary assays for hole 5100-6 only.



**Figure 4 (a)** Left: Native sulphur at 133m and **(b)** Right: Possible pyrrargyrite or pearceite, significant “ruby” silver minerals, in tuff breccia at 133-134m, both from hole 5100-2



Hole ID	#	Collar E	Collar N	Collar R.L.	Azimuth	Dip	Final Depth	Drill Start Date	Drill Finish Date
5100-5	1	492650	6935100	4924	270	-60	84.00	8/01/2019	12/01/2019
5100-6	2	492650	6935102	4924	270	-60	109.00	13/01/2019	16/01/2019
5100-7	3	492700	6935100	4924	270	-60	96.00	17/01/2019	19/01/2019
5300-6	4	492650	6935299	4897	270	-60	158.00	19/01/2019	23/01/2019
5300-7	5	492600	6935300	4897	270	-60	150.00	21/01/2019	23/01/2019
5300-8	6	492498	6935304	4896	270	-60	143.00	24/01/2019	1/02/2019
5300-9	7	492675	6935300	4903	270	-60	142.00	2/02/2019	2/02/2019
5500-4	8	492500	6935500	4900	270	-60	171.00	3/02/2019	5/02/2019
5100-8	9	492700	6935100	4900	90	-60	123.00	6/02/2019	6/02/2019
5100-9	10	492550	6935100	4900	270	-60	147.00	7/02/2019	8/02/2019
5200-1	11	492574	6935200	4905	270	-60	168.00	9/02/2019	9/02/2019
5200-2	12	492634	6935200	4905	270	-60	135.00	10/02/2019	10/02/2019
6500-3	13	492800	6936500	4905	270	-60	153.00	11/02/2019	12/02/2019
6500-4	14	492900	6935200	4905	270	-60	158.00	13/02/2019	13/02/2019
6800-1	15	492989	6936818	4872	240	-60	192.00	14/02/2019	15/02/2019
7300-1	16	493623	6937305	4801	270	-60	200.00	16/02/2019	17/02/2019

**Table 1.** Drill collar table for the 2019 AC drilling campaign. Co-ordinates are WGS84, Zone 19J.

### Prioritisation of regional targets

Surface geochemical surveys (rock and/or soils) have previously delineated prospects for possible follow-up by drilling. Field work, including rock sampling, conducted during the current season has focussed on prioritising those prospects for follow-up drilling. Results of this field work is currently being synthesised and interpreted.

### Next Steps

Drilling continues at Vidalita and regional areas and waiting on further results.

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### About the Vidalita prospect, Maricunga Belt, Chile



#### Maricunga Belt: Host to Very Large Gold Deposits

Salares Norte (Gold Fields) *Feasibility	3.7 Moz Au & 50 Moz Ag
La Coipa (Kinross) *Mine	1.3 Moz Au & 64 Moz Ag
Cerro Maricunga (Rio 2) *Feasibility	5.9 Moz Au & 4 Moz Ag
Marte-Lobo (Kinross) *Development	6.2 Moz Au
Maricunga Mine (Kinross) *Mine	6.3 Moz Au
Vidalita (Emu)	?? Au
Caspiche (Goldcorp/Barrick) *Development	19.8 Moz Au & 40Moz Ag
Cerro Casale (Goldcorp/Barrick)*Development	25.4 Moz Au & 43Moz Ag
Alturas (Barrick) *Scoping Study	6.8 Moz Au

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 cover an area of approximately 136 km<sup>2</sup> secured by mineral exploration concessions and 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 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.

The Company 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 following minimum expenditure of US\$1M. 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 is continuing 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. 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

**Options (unlisted)**

(none)

**Directors:**

**Peter Thomas**

Non-executive Chairman

**Terry Streeter**

Non-Executive Director

**Gavin Rutherford**

Non-Executive Director

**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. 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
<i>Sampling techniques</i>	<p>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.</p> <p>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.</p> <p>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.</p>
<i>Drilling techniques</i>	Air core (AC) drilling using 75mm diameter bits.
<i>Drill sample recovery</i>	<p>Geological team makes a qualitative estimate (as good, moderate or poor) of sample recovery for each one metre down hole sample interval.</p> <p>Supervising geologist ensures that representative chip and AC samples are collected during drilling.</p> <p>Sampling is considered to be unbiased.</p>
<i>Logging</i>	<p>Alteration, mineralisation, rock type, and structure, where evident, are logged and recorded from the core drill samples.</p> <p>Pieces of core recovered by the AC system are stored in core trays for logging and geological reference.</p> <p>Total hole length is logged.</p>
<i>Sub-sampling techniques and sample preparation</i>	<p>AC samples (fines) from each one metre of drill hole is bagged up. The sample is usually around 1kg.</p> <p>The 1m samples are prepared for analysis by standard laboratory procedures.</p> <p>Sub-sampling at the sample processing facility is done using splitters.</p> <p>The samples collected are representative of the in situ material.</p> <p>Sample sizes are appropriate to the grain size of the material being sampled.</p>





<i>Quality of assay data and laboratory tests</i>	<p>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.</p> <p>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.</p> <p>All drill samples results are reported.</p> <p>The aqua regia digest in this instance is considered appropriate given the stage of the program and the altered nature of the rocks.</p> <p>10% of drilling samples will be sent for check analysis to another laboratory.</p> <p>Laboratory standards and repeats are used to for QA/QC.</p>
<i>Verification of sampling and assaying</i>	<p>Highly anomalous four metre composites are identified and the one metre samples from which they were composited sent to an alternative laboratory for assaying.</p> <p>No twinned holes have been drilled.</p> <p>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.</p>
<i>Location of data points</i>	<p>Drill hole collars are located using hand held GPS accurate to &lt; 5m in the first instance. Holes are subsequently surveyed in using DGPS accurate to &lt;0.02m.</p> <p>WGS 84 UTM zone 19J (south) grid system</p> <p>Topographic control is deemed adequate at this stage of the exploration program.</p>
<i>Data spacing and distribution</i>	<p>The drill holes are irregularly spaced (but generally &gt;100m) as they are testing geological, geophysical or geochemical targets.</p> <p>No mineral resources are being reported at this time.</p> <p>The AC samples are composited into four metre composites in the laboratory.</p>
<i>Orientation of data in relation to geological structure</i>	<p>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.</p> <p>The controls on mineralisation are unknown at this time.</p>
<i>Sample security</i>	<p>Emu management supervises sample collection and delivery to the laboratory.</p>
<i>Audits or reviews</i>	<p>None undertaken.</p>



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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	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 may be 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 15 <sup>th</sup> 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 assumed the rights and 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.
<i>Exploration done by other parties</i>	Previous work was limited to rock sampling. There had been no drilling in the area prior to Emu's activities.
<i>Geology</i>	The prospect area is located within the early to late Miocene volcanics of the Maricunga Belt. The project is a green fields exploration project and while the source of the surface evidence of mineralisation can only be speculation at this stage, it is likely 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.
<i>Drill hole Information</i>	See Table in body of announcement.
<i>Data aggregation methods</i>	Simple averages are calculated from mineralised zones.  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.



<i>Relationship between mineralisation widths and intercept lengths</i>	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.
<i>Diagrams</i>	Interpretive cross sections are included in the announcement. These are preliminary in nature and are subject to change.
<i>Balanced reporting</i>	Emu considers all pertinent information pertaining to this prospect is supplied in either this or previous announcements.
<i>Other substantive exploration data</i>	<p>Surface rock and talus sampling was undertaken at opportune locations where outcrop allowed and appropriate. Summary maps were included in previous announcements.</p> <p>Satellite imagery is used to identify significant areas of alteration to guide exploration.</p>
<i>Further work</i>	Follow-up drilling, by infill and to extend into areas that are considered “open” to mineralisation, is being considered but not yet planned.