

## Exploration update

Drilling has commenced at the Vidalita exploration property in Chile.



Figure 1: Drilling activity at Vidalita, January 2018

The Company's release of 10 January 2018 referred to assay results having been received for some soil samples. Further specifics of the results received so far (and referred to as such in that release) are:

Sample ID	Easting WGS84 UTM Zone 19S	Northing WGS84 UTM Zone 19S	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppm	Pb ppm	S ppm	Sb ppm	Zn ppm
381181	482589.43	6942033.91	0.8	X	735	15.1	X	3.1	X	11.09	49
381182	482643.18	6942114.18	0.6	X	2248	10.8	X	2.9	X	84.89	50
381183	482680.41	6942220.91	3.8	X	2274	36.5	0.1	2.1	X	47.25	86
381184	482673.6	6942288.91	0.9	X	714	23.1	X	5	X	18.47	67
381185	482641.9	6942384.79	1	X	3307	13	X	4	X	57.28	49
381186	482623.62	6942477.04	1.4	X	2481	13	X	4.2	X	66.83	46

X= below detection limit

### Investor enquiries

Tony Wiggins

General Manager

T +61 8 9226 4266

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

🐦 *follow our success on twitter@emuasx*



## About:-

EMU is an ASX listed Company seeking to deliver tangible outcomes for investors by:

- focusing on testing substantive mineralised systems capable of forming commercially attractive development opportunities using existing technologies;
- seeking to reduce risk by selecting operating environments with established minerals law and mining industries;
- remaining alert to best practice exploration technologies, seeking to bring new insights to our work;
- drawing on our depth of relevant experience; and
- remaining active, with meaningful programs of work.

## About the gold projects, Maricunga Belt, Chile

The Vidalita and Jotahues gold projects are located in the Maricunga gold belt in the Atacama Region in northern Chile hosting numerous world class gold and silver projects. Emu's projects cover an area of approximately 6,900 hectares 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 a network of roads that link Copiapó with the Refugio project (Kinross), Cerro Casale project (Barrick/Goldcorp) and the Caspiche project (Goldcorp). Refugio is located 30 km to the northwest of Vidalita. **Emu is unaware of the project having been drilled other than for the 3 holes it drilled in 2017.**

The Company holds an option (**Option**) to acquire a 100% interest in certain of the Vidalita and Jotahues concession packages from two Chilean companies.

The concessions the subject of the Option comprise 2 packages: one package, (the Prospex SpA concessions) covers six concessions at Vidalita, is subject to a 2% NSR on any production, and the second package, (the BLC SpA concessions) comprised of three concessions at Jotahues and two concessions at Vidalita (Vidalota A&B), is subject to a 1% NSR.

The royalties apply to any concession acquired by Emu within 5km of the outer boundary of any of the interests listed in the Option agreement. Any concession interest within that area acquired by the other parties to that agreement shall be offered to Emu on the same terms as the other party acquired the same.

The Option will lapse if Emu fails to pay US\$100,000 in November 2018. The Option may be exercised in November 2019 on payment of US\$2M following expenditure of US\$1M, electing to continue on or before November 2018 (by paying US\$100,000 refer to above), the issue of 2.5M Emu shares and then 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.

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



**Emu NL**

ABN 50 127 291 927

**ASX Code:** EMU

10 Walker Ave  
West Perth, WA 6005

T +61 8 9226 4266

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

PO Box 1112  
West Perth, WA 6872

**Fully paid shares (listed)**

73,910,387 (inc. 4m which Emu can buy  
back for nil consideration)

**Contributing Shares (listed)**

36,580,667 paid to \$0.03, \$0.03 to pay, no  
call before 31/12/2018

**Options (unlisted)**

4,750,000, exercise price \$0.10, expiring  
20/12/18

2,000,000 exercisable (subject to minimum  
share price milestones being met in the  
case of 1,500,000 of these options) at  
\$0.11, expiring 20/12/18

300,000, exercise price \$0.25, expiring  
20/12/18

2,000,004, exercise price \$0.03 to acquire a  
contributing share EMUCA expiring  
30/4/18

**Directors:**

**Peter Thomas**  
Non-executive Chairman

**Greg Steemson**  
Managing Director

**Gavin Rutherford**  
Non-Executive

**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 Greg Steemson, Managing Director of Emu NL. Mr Steemson is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) 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 Steemson 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.

JORC Code, 2012 Edition – Table 1 report, EMU NL  
Jotahues and Vidalita rock and soil sampling  
Vidalita air core drilling

Section 1 Sampling Techniques and Data  
(Criteria in this section apply to all succeeding sections.)

Criteria	Explanation	Commentary
<i>Sampling techniques</i>	<p><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p><b>Soil samples</b> – a +2mm -6mm screened sample consisting of ~1kg is collected in the field or, if not possible, the required screening is done in the laboratory.</p> <p><b>Rock samples</b> – are either large rock pieces or a collection of small chips.</p> <p><b>Air core samples</b> – are samples from each 1m of drill hole taken by PVC spear. The sample is usually around 1kg representing ~ 15 to 20% of the mass of the 1m interval. Pieces of core recovered by the air core system are stored in core trays for logging and geological reference.</p> <p>For sample submissions EMU171105-159 (132 soil and 40 rock samples from Jotahues) and EMU171129-160 (244 soil and 68 rock samples from Jotahues and Vidalita) the soil and rock samples were crushed to 2mm, 500g split, pulverized and 100g shipped to Intertek, Perth for analysis.</p> <p>All subsequent sample submissions for soils, rocks and aircore have been (and unless stated will continue to be) crushed to 2mm, 800g split, pulverised and 150g shipped to Intertek for analysis.</p>

<i>Drilling techniques</i>	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Air core drilling using 75mm diameter bit.
<i>Drill sample recovery</i>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>Geological team makes a qualitative estimate (as good, moderate or poor) of sample recovery for each 1 meter down hole sample interval.</p> <p>Supervising geologist ensures that representative chip and core samples are collected during drilling.</p> <p>Sampling is considered to be unbiased.</p>
<i>Logging</i>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>Alteration and rock types are logged and recorded from aircore samples.</p> <p>Pieces of core recovered by the air core 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><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p>	<p>Representative core samples (if any) stored for future reference.</p> <p>Air core samples from each 1m of drill hole taken by PVC spear. The sample is usually around 1kg.</p> <p>The 1m samples are prepared for analysis by standard laboratory procedures.</p> <p>Sub-sampling is done using splitters.</p>

	<p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></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>
<p><i>Quality of assay data and laboratory tests</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>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 have been established.</i></p>	<p>A 25g split from each 1m air core pulp is taken from 4 consecutive metre samples, combined, repulverised to homogenise and the a 25g split is taken for analysis.</p> <p>All samples are digested using 25g aqua regia and analysed using ICP-MS at Intertek's laboratory in Perth.</p> <p>Soil samples - 9 elements are reported including gold (0.1ppb DL).</p> <p>Rock samples – 52 elements are reported including gold (10ppb DL).</p> <p>Air core samples - 9 elements are reported including gold (10ppb DL).</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 air core samples will be sent for check analysis to another laboratory.</p> <p>Laboratory standards, blanks and checks are also reported.</p>
<p><i>Verification of sampling and assaying</i></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage</i></p>	<p>No drilling assay results at this time.</p> <p>No twinned holes.</p>

	<p><i>(physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></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>
<p><i>Location of data points</i></p>	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All samples are located using hand held GPS accurate to &lt; 5m.</p> <p>UTM grid system</p> <p>Topographic control is deemed adequate at this stage of the exploration program.</p>
<p><i>Data spacing and distribution</i></p>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>The soil samples are generally collected on a 50 X 400 or 50 X 200 grid. The Jotahues samples were collected on traverses upslope from the valley floor on 100m centres and composed of composites from samples 33m either side of the sample location (3 sub-samples). The aircore drillholes are irregularly spaced (but generally &gt;100m) as they are testing geological, geophysical or geochemical targets.</p> <p>No mineral resources are being reported.</p> <p>The Jotahues soil samples were composited in the field. The aircore samples are composited into 4m composites in the laboratory.</p>
<p><i>Orientation of data in relation to geological</i></p>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is</i></p>	<p>The controls on mineralisation are unknown at this time.</p>

<i>structure</i>	<i>known, considering the deposit type.</i>  <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	The controls on mineralisation are unknown at this time.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Management was present during the drilling.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	None undertaken.

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

Criteria	Explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>  <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	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 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 the September Quarterly 2017 Appendix 5B.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Prior to the March 2017 drilling program, no drilling is known on these concessions. Previous work was limited to rock sampling.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The project is a green fields exploration project and while the source of the surface evidence of mineralization 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.
<i>Drill hole Information</i>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <p><i>easting and northing of the drill hole collar</i></p> <p><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p> <p><i>dip and azimuth of the holes, down hole length and interception depths hole length.</i></p> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>Drill hole 6500-1 was commenced 9 January 2018.</p> <p>492,963E/6,936,511N</p> <p>4,873m</p> <p>Vertical. Hole is in progress.</p>
<i>Data aggregation methods</i>	<i>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</i>	No drill assays at this time.

	<p><i>and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	Project is at an early stage of exploration and any conclusions at this stage would be speculation.
<i>Diagrams</i>	<i>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.</i>	Not yet applicable – assays yet to be received and drilling is continuing.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Not yet applicable – assays yet to be received and drilling is continuing
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density,</i>	None undertaken.

	<i>groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<i>Further work</i>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	Drilling is continuing. The planned program was released to ASX on 21 August 2017.

