

ASX Announcement

ASX: ARS

27<sup>th</sup> March, 2018

## MULTIPLE HIGH-GRADE GOLD INTERCEPTS AT EMU DEPOSIT, BOTTLE CREEK GOLD PROJECT, WA

### HIGHLIGHTS:

- First 750m of assays received from RC drilling at Bottle Creek returns multiple high-grade gold intercepts at Emu Deposit
- Grades up to 21.8 g/t Au intercepted
- Significant intercepts include:
  - 20m @ 4.1 g/t Au, including 7m @ 7.8 g/t Au
  - 23m @ 4.0 g/t Au
  - 21m @ 3.1 g/t Au, including 9m @ 5.4 g/t Au
  - 26m @ 2.3 g/t Au, including 7m @ 7.1 g/t Au
  - 8m @ 4.7 g/t Au
  - 7m @ 3.0 g/t Au
  - 16m @ 2.8 g/t Au
  - 9m @ 2.8 g/t Au
  - 14m @ 1.4 g/t Au
  - 13m @ 1.5 g/t Au
  - 12m @ 1.1 g/t Au
- Results demonstrate continuity and width of gold grade at Bottle Creek
- 3,000m of 7,000m RC program completed, ahead of schedule and on budget
- Resource modelling to proceed concurrently as results received

Alt Resources Ltd (ASX: ARS, Alt or 'the Company') is pleased to provide the initial results of the first RC drilling program to be undertaken at the Bottle Creek Gold Project since 1988. Alt commenced drilling at the Emu Deposit, Bottle Creek, on the 12<sup>th</sup> March, 2018. Initial assay results from the first 10 holes drilled, have returned grades up to **21.8 g/t Au**<sup>1</sup>, alongside broad, consistently graded zones such as **23m @ 3.99 g/t Au**<sup>2</sup>.

Alt CEO James Anderson commented; *"It is fantastic to get these results coming out of Bottle Creek after the many months of preparation. I think our shareholders will be impressed especially when all your initial drillholes from an RC program intercept gold grades and widths like this. Bottle Creek is a quality project and we are confident it will continue to provide similar results as we progress the drilling programs over the next few months"*

<sup>1</sup> From drillhole EMRC009, 48-49m

<sup>2</sup> From drillhole EMRC003, 31-54m



This drilling represents the first modern exploration to be undertaken at the Bottle Creek Gold Project since 1988, and provides further confirmation of the historical data compiled and reviewed by the Company over the past 6 months.

Alt aims to provide a JORC compliant resource for the Bottle Creek Project on the completion of current drilling programs.

Strike Drilling have been onsite at Bottle Creek since the 12<sup>th</sup> March 2018, drilling continuously and are ahead of schedule (Figure 1). Alt has a further 1,000m of assays pending from ALS Laboratories in Kalgoorlie, with an additional 1,000m of samples to be delivered this week.



*Figure 1. RC drilling underway by Strike Drilling at the Bottle Creek Gold Project.*

Figure 2 shows the location of new drillholes discussed in this release, with newly interpreted geology based on Alt's recent activities and drilling. Relevant sections are given in Figure 2 and 3, showing the broad intercepts through the mineralised zone and a strong association between mineralisation and a distinctive black shale unit (also noted by historical explorers) within the host quartz porphyry.

Significant intercepts from Alt's drilling to date at the un-mined Emu deposit are listed in detail in Table 1, and include:

- **EMAC001: 20m @ 4.1 g/t Au from 40m**
  - including 7m @ 7.8 g/t Au from 47m
- **EMAC002: 14m @ 1.4 g/t Au from 19m**
- **EMRC003: 23m @ 4.0 g/t Au from 31m**
  - including 1m @ 10.2 g/t Au, 55 g/t Ag from 71m
- **EMRC004: 16m @ 2.9 g/t Au from 58m**
- **EMRC005: 12m @ 1.1 g/t Au from 5m**
  - and 1m @ 5.2 g/t Au from 33m
- **EMRC006: 7m @ 3.0 g/t Au from 28m**
  - and 8m @ 4.7 g/t Au from 41m
- **EMRC007: 21m @ 3.1 g/t Au from 43m**



- and 9m @ 5.4 g/t Au from 46m
- EMRC008: 13m @ 1.5 g/t Au from 17m
- EMRC009: 26m @ 2.3 g/t Au from 33m
  - including 7m @ 7.1 g/t Au from 45m
  - including 1m @ 21.8 g/t Au from 48m
- EMRC010: 9m @ 2.8 g/t Au from 69m

Table 1. Significant intercepts from new RC drilling by Alt Resources at the Emu deposit. True widths are estimated to be 75% of downhole widths.

Hole ID		m from	m to	Interval (m)	Au (g/t)
EMAC001		17	19	2	1.05
	<i>and</i>	27	28	1	1.22
	<i>and</i>	40	60	20	4.09
	<i>including</i>	47	54	7	7.83
EMAC002		19	33	14	1.44
	<i>and</i>	43	44	1	0.73
EMRC003		31	54	23	3.98
EMRC004		0	1	1	0.57
	<i>and</i>	38	42	4	1.66
	<i>and</i>	49	50	1	0.69
	<i>and</i>	58	74	16	2.89
EMRC005		5	17	12	1.12
	<i>and</i>	33	34	1	5.15
EMRC006		28	35	7	2.96
	<i>and</i>	41	49	8	4.69
EMRC007		43	64	21	3.07
	<i>and</i>	46	55	9	5.37
EMRC008		17	30	13	1.51
	<i>and</i>	41	42	1	0.75
EMRC009		33	59	26	2.32
	<i>including</i>	45	52	7	7.05
	<i>including</i>	48	49	1	21.8
	<i>and</i>	69	70	1	0.55
EMRC010		21	22	1	0.64
	<i>and</i>	69	78	9	2.82

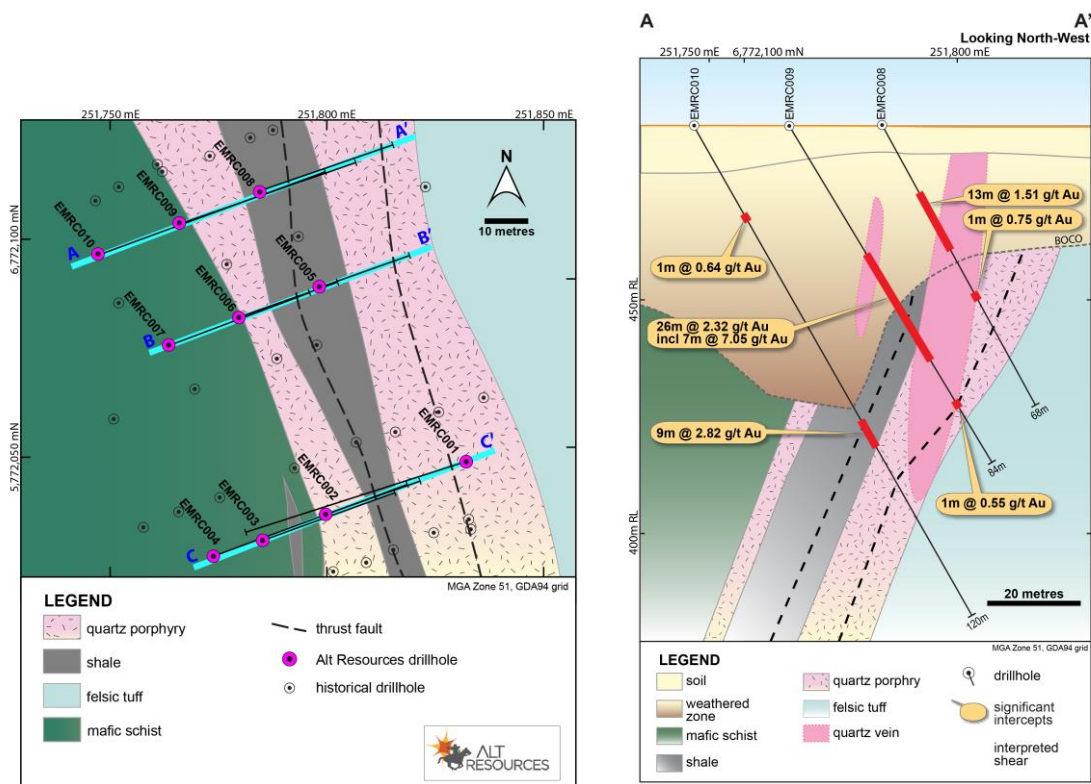


Figure 2. Plan map (left) and cross-section A-A' at the Emu Deposit, Bottle Creek. The plan map shows the distribution of new RC drillholes by Alt Resources, relative to historical holes. The location of sections lines is also shown for sections A-A', B-B' and C-C' (the latter two in Figure 3). Cross-section A-A' on the right shows interpreted geology and significant intercepts as listed in Table 1.

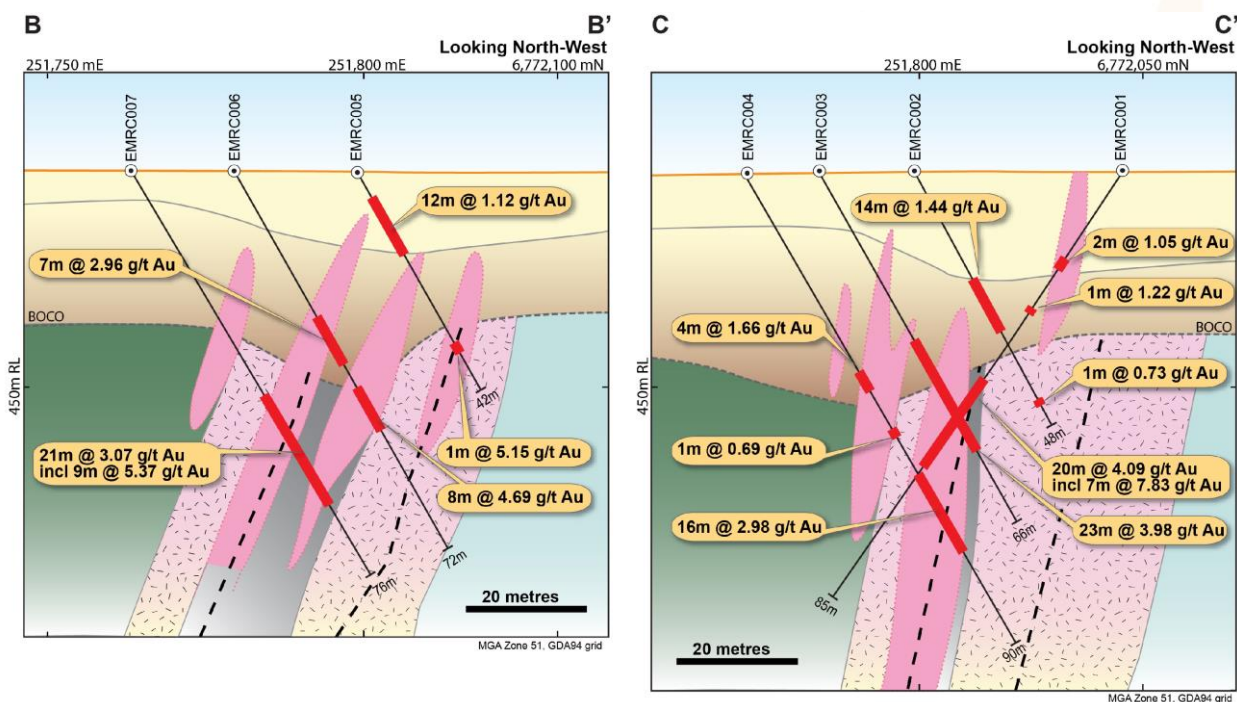


Figure 3. Cross-sections B-B' (left) and C-C' (right) through the Emu deposit. Section locations are shown by the blue lines in Figure 2. Interpreted geology and significant intercepts as listed in Table 1 are shown.





## Regional Setting and Exploration History

The Bottle Creek gold mine lies 100 km north east of Menzies in the Mt Ida gold belt (Figure 4). The gold mine is located on the northern extremity of the Mt Ida-Ularring greenstone belt extending from Davyhurst to Mt Alexander (Figure 4). The Ularring greenstone belt forms the western part of the Norseman-Wiluna Province of the Yilgarn Craton. The location of mineralisation and local geology, is shown in Figure 5.

During historical operation from 1988-1989, 90,000 oz Au was produced from two open pits (Boags and VB; Figure 6). Significant historical drilling along a 9.8 km strike outlined the Emu, Southwark and XXXX deposits. However these were never mined. The historical RC drill fences were spaced at 100m, with infill drill line spacing at 50m and 25m at various locations. The majority of drilling targeted oxide mineralisation and reached no deeper than 80m vertically below surface.

Alt's new drilling provides confirmation of historical intercepts, improves confidence in historical data, proves the continuity and grade of mineralisation in key parts of the Emu deposit and will ultimately target untested extensions to known mineralisation.

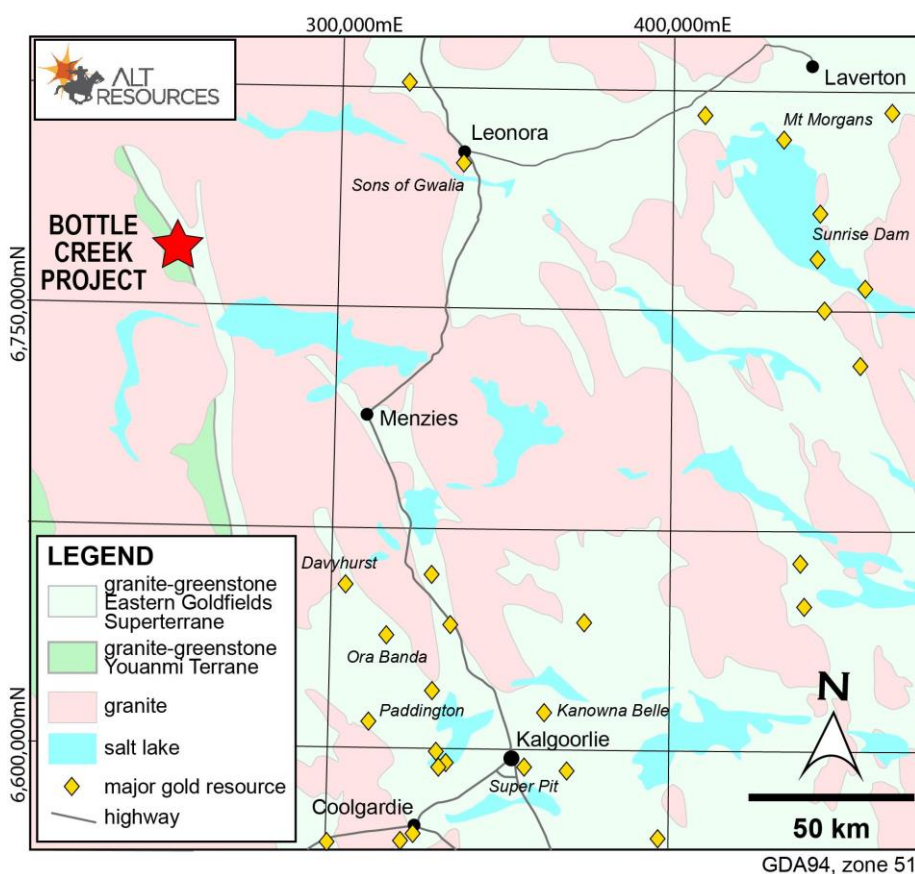


Figure 4. Location of the Bottle Creek Gold Mine, 100 km NE of Menzies. Bottle Creek lies on the boundary between the Youanmi Terrane and the Eastern Goldfields Superterrane, within the Mt Ida-Ularring greenstone belt.

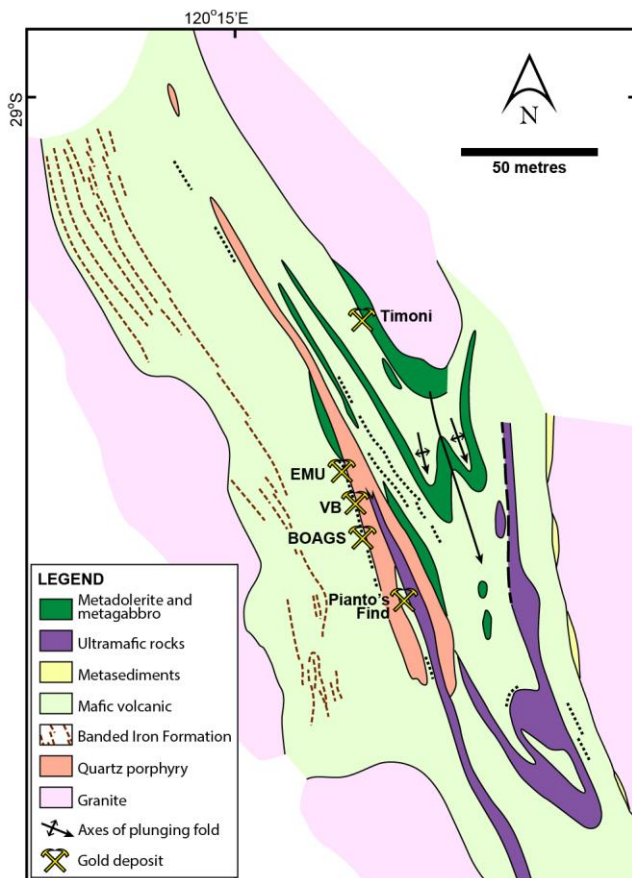


Figure 5. Geological setting of the Bottle Creek project. Modified from Legge et al. (1990).

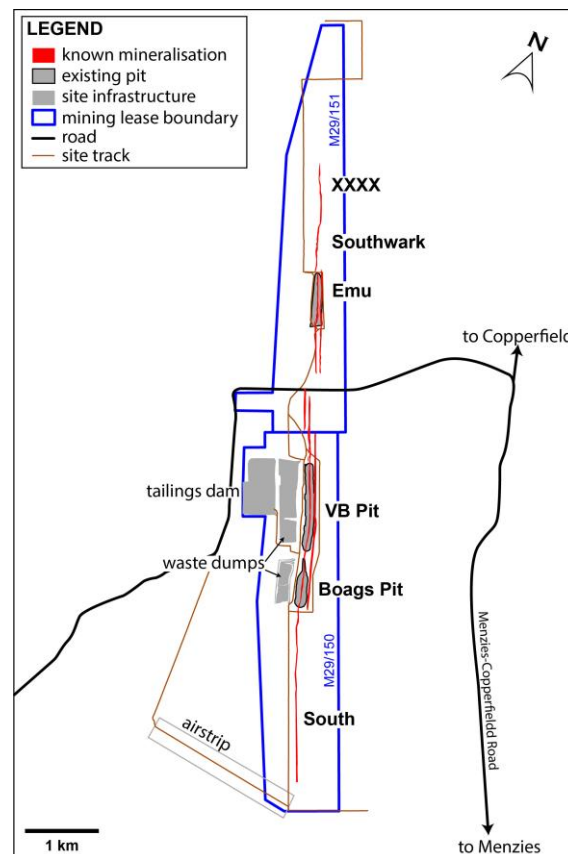


Figure 6. Site layout at Bottle Creek, showing historical VB and Boags open pits as well as the location of unmined mineralisation at Emu, Southwark and XXXX.

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## About Alt Resources

Alt Resources is an Australian based mineral exploration company that aims to become a gold producer by exploiting historical and new gold prospects across quality assets and to build value for shareholders. The Company's portfolio of assets includes the newly acquired Bottle Creek gold mine located in the Mt Ida gold belt, the Paupong IRG Au-Cu-Ag mineral system in the Lachlan Orogen NSW, Myalla polymetallic Au-Cu-Zn project east of Dalgety in NSW and the Mt Roberts gold project located near the town of Leinster in WA.

Alt Resources, having acquired historical and under-explored tenements in the Mt Ida Gold Belt, aims to consolidate the historical resources, mines and new gold targets identified within the region. Potential at Mt Ida exists for a centralised production facility to service multiple mines and to grow the Mt Ida Gold Belt project to be a sustainable and profitable mining operation.



## References

Legge P.J., Mill J. H. A., Ringrose C. R & McDonald I. R. (1990). Bottle Creek gold deposit. In: Geology of the Mineral Deposits of Australia and Papua New Guinea. F.E Hughes (ed). The Australasian Institute of Mining and Metallurgy, Melbourne pp 357-361.

## Competent Persons Statement

The information in this report that relates to mineral exploration and exploration potential is based on work compiled under the supervision of Dr Helen Degeling, a Competent Person and member of the AusIMM. Dr Degeling is an employee of Alt Resources and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that she 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'. Dr Degeling consents to the inclusion in this report of the information in the form and context in which it appears.

## No Representation, Warranty or Liability

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*Appendix 1. Drillhole collar table for new drilling by Alt Resources, described in this announcement.*

Hole ID	Hole Type	Prospect	Easting*	Northing	RL	Azi	Dip	Total Depth
EMAC001	RC	Emu	251,832	6,772,049	485	254	-56°	85
EMAC002	RC	Emu	251,800	6,772,037	485	072	-62°	48
EMRC003	RC	Emu	251,785	6,772,031	485	070	-60°	66
EMRC004	RC	Emu	251,774	6,772,027	485	070	-60°	90
EMRC005	RC	Emu	251,798	6,772,089	486	071	-59°	42
EMRC006	RC	Emu	251,780	6,772,082	486	070	-61°	72
EMRC007	RC	Emu	251,764	6,772,076	486	071	-59°	78
EMRC008	RC	Emu	251,785	6,772,111	487	070	-61°	68
EMRC009	RC	Emu	251,766	6,772,104	487	072	-59°	84
EMRC010	RC	Emu	251,747	6,772,097	487	071	-61°	120

\*All coordinates in GDA94, zone 51.

## 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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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></li> </ul>	<ul style="list-style-type: none"> <li>Air Core (AC) drill chips (EMAC001-002), and Reverse Circulation (RC) drill chips (EMRC003-010) were collected directly from a cone splitter on the drilling rig and automatically fed into pre-numbered calico bags. All sample intervals are 1m, and the sample weight can range from 0.2 -4.8kg, with the average sample weight being 1.8kg. The splitter and cyclone is levelled at the beginning of every hole and cleaned at regular intervals (minimum of 2 rods or 12m). The cyclone is exhaustively cleaned prior to entering and leaving predicted mineralised zones, and more frequently cleaned within these zones. Observations of sample size and quality are made whilst logging.</li> <li>4 duplicates, 6 blanks and 12 certified reference materials were inserted into the sample series at set intervals in sample submissions of 200 samples. No umpire assays have been undertaken to date.</li> <li>Mineralisation is not visible, however beneath the base of complete oxidation, its presence can be inferred from quartz veins and ferruginous alteration. Historical drilling completed by Norgold which brackets the current drilling (approximately 25m either side) also provides a good reference for locating the mineralised zone.</li> <li>Mineralisation (Au) is determined qualitatively using a 30 g fire assay, and atomic absorption spectroscopy technique with reportable ranges between 0.01 and 100 ppm</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>AC (EMAC001-002), and RC (EMRC003-010) drilling techniques have been completed using a standard aircore bit, and a face sampling hammer. The drill rig used is a Schramm T450 utilising 89mm rods and 102mm bit (AC), and 121mm bit (RC) using an onboard compressor rated at 450psi and 1240 cfm.</li> </ul>





<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• A qualitative assessment of sample quality, and moisture content is made whilst drilling. The collected sample is then weighed at the laboratory.</li> <li>• Certain zones in the drilling section are prone to poor recoveries, however experience gathered to date and technical adjustments are maximising recoveries in these areas. Given the results received to date, these samples are judged to be representative.</li> <li>• Results received to date show no sample bias, nor a relationship between grade and recovery. Average sample sizes are smaller in the mineralised zones, for samples above the 0.5g/t cut off average weight is 1.5kg, compared to 1.8kg average for all samples.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All holes have been geologically logged on geological intervals with recording of lithology, grain size, alteration, mineralisation, veining, structure, oxidation state, colour and geotechnical data noted and stored in the database. All holes were logged to a level of detail sufficient to support future mineral resource estimation, scoping studies, and metallurgical investigations.</li> <li>• Veins and mineralisation are logged quantitatively as percentage, all other variables are logged qualitatively. All holes have had the chip trays photographed, and these photos stored in a database.</li> <li>• All holes have been logged over their entire length (100%) including any mineralised intersections.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• AC and RC chips were split in a cone splitter on the rig. Where possible most samples are sampled dry, with only 2 wet and 3 moist samples collected to date.</li> <li>• The sample preparation technique is judged appropriate for the sample type and mineralisation style being tested.</li> <li>• The cyclone and cone splitter is regularly cleaned to prevent contamination.</li> <li>• Field duplicates are taken and to date show excellent correlation and repeatability, suggesting the samples are representative of in situ material. Further work such as twinning holes with diamond drilling is expected to be completed to further confirm this.</li> <li>• The sample size is judged appropriate for the grain size of the material being sampled, and the repeatability of the field duplicates further supports this.</li> </ul>



<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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. Ba, Mo</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Assays are completed by ALS Kalgoorlie where the delivered sample is pulverised to -75µm, and then a 30g subsample analysed by AAS fire assay technique. Analyses were for Au only with a detection limit of 0.01 ppm.</li> <li>• Samples are collected whilst drilling with 200 samples collected per submission and then transported by Alt personnel directly to the laboratory.</li> <li>• 4 duplicates, 6 blanks and 12 certified reference materials were inserted into sample series at set intervals in sample submission sizes of 200. No umpire assays have been undertaken to date. To date an acceptable level of precision and accuracy have been observed.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections have been verified by 2 Alt Resource geologists. Further verification can be inferred from historical results in adjacent holes.</li> <li>• No holes have been twinned to date.</li> <li>• All geological, sampling, and spatial data that is generated and captured in the field is immediately entered into a field notebook on standard Excel templates. These templates are then validated each night in Micromine. This information is then sent to a database manager for further validation. If corrections need to be made they are corrected the following day by the person responsible for generating the data. Once complete and validated the data is then compiled in database server.</li> <li>• No adjustment of assay data is required</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Hole locations are surveyed prior to drilling using a Leica RTK GPS and GOLA standard survey marks, once the hole is completed it is resurveyed using the same techniques to mark the actual collar location. The expected accuracy is 0.15m in three dimensions.</li> <li>• The drill rig is orientated via compass and clinometre at surface and once drilling is complete downhole surveyed with a Axis Mining north seeking gyroscope at 12m (base of laterite), and then at 30m intervals, and again at the end of hole.</li> <li>• The grid system used is MGA94 Zone 51</li> <li>• The topographic control is judged as adequate and of high quality.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the</i></li> </ul>	<ul style="list-style-type: none"> <li>• Alt Resources drilling is spaced at approximately 25m, along 50m lines, which infill the historical drilling to an approximately 25 x 25m pattern.</li> </ul>



	<p><i>degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data spacing within mineralised zones is judge as adequate to establish and support a Mineral Resource in the future.</li> <li>No sampling compositing has been applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>The true widths of intercepts are expected to be 65-75% less than the reported widths depending on both the orientation (dip) of both the mineralised zone, and drill hole. Holes are drilled near perpendicular to strike and no significant bias is expected due to azimuth.</li> <li>The interpreted mineralised zone trends approximately towards 340 degrees, and dips steeply (&gt;70°) to the degrees to the west. Drilling inclined holes at -60 degrees will introduce a slight bias to true widths but not to sample assay results.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Alt Resources keeps all samples within its custody, and within its lease boundaries until delivery to the laboratory for assay. Samples are typically collected while drilling to minimise possible contamination, and ensure unbroken sample chain of custody.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No external reviews of the sampling techniques have yet been undertaken. Internal reviews and audits are ongoing with each sample submission being analysed and reported on to ensure issues are quickly noted and rectified.</li> </ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary																								
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"><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 style="list-style-type: none"><li>The information in this release relates to the Bottle Creek Project, on mining leases M29/150 and M29/151, which is the subject of a purchase agreement between Alt Resources and a private vendor. The details of this purchase arrangement are outlined in the announcement made to the market on the 8<sup>th</sup> November, 2017 (<a href="https://www.altresources.com.au/wp-content/uploads/2017/11/ARS-ASX-Announcement-Bottle-Creek-acquisition-8Nov17.pdf">https://www.altresources.com.au/wp-content/uploads/2017/11/ARS-ASX-Announcement-Bottle-Creek-acquisition-8Nov17.pdf</a>)</li><li>There are no existing impediments to M29/150 or M29/151.</li></ul>																								
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"><li>Acknowledgment and appraisal of exploration by other parties.</li></ul>	<ul style="list-style-type: none"><li>The Bottle Creek Gold Project has seen little or no exploration prior to 1983. Modern gold exploration over the project has been conducted by Electrolytic Zinc (EZ) and Norgold, as described below.</li></ul> <table><tr><th>Activity</th><th>Year conducted</th><th>Company</th><th>Result</th></tr><tr><td>Stream Sediment sampling</td><td>1983-1987</td><td>Electrolytic Zinc</td><td>Defined 15km long Au-As-Sb anomaly associated with Bottle Creek mineralisation</td></tr><tr><td>Ironstone sampling</td><td></td><td></td><td>Definition of linear Au, As, Sb, B and Pb anomalies</td></tr><tr><td>Laterite sampling</td><td></td><td></td><td>Definition of 20km long As-Pb anomaly</td></tr><tr><td>Aerial photography</td><td></td><td></td><td></td></tr><tr><td>Aerial magnetic survey</td><td></td><td></td><td>Positive magnetic anomaly associated with mineralised zone, from magnetite alteration. The highest magnetic</td></tr></table>	Activity	Year conducted	Company	Result	Stream Sediment sampling	1983-1987	Electrolytic Zinc	Defined 15km long Au-As-Sb anomaly associated with Bottle Creek mineralisation	Ironstone sampling			Definition of linear Au, As, Sb, B and Pb anomalies	Laterite sampling			Definition of 20km long As-Pb anomaly	Aerial photography				Aerial magnetic survey			Positive magnetic anomaly associated with mineralised zone, from magnetite alteration. The highest magnetic
Activity	Year conducted	Company	Result																							
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Aerial photography																										
Aerial magnetic survey			Positive magnetic anomaly associated with mineralised zone, from magnetite alteration. The highest magnetic																							





									anomalies overlie mineralised shoots		
								Costeaming	Significant gold intersections defined in areas of poor outcrop, but poor penetration due to hard sub-surface layers		
								RAB drilling	Defined major mineralised zone (Bottle Creek, including Emu, VB and XXXX) beneath lateritic cover		
								RC drilling	Definition of oxide gold resources at VB, Boags, Emu		
								DD drilling	Testing sulphide gold mineralisation beneath Emu and VB		
								Magnetometric resistivity (MMR) and Very Low Frequency electromagnetic (VLF-E) surveys	Neither technique defined the mineralised zone		
								Geological mapping	1986-1989	Norgold	Project-scale mapping at 1:25,000 scale, defined new prospective zone SE of Boags
								RAB drilling			Exploration drilling of extensions to known mineralisation, defined parallel zone east of VB and south of Anchor.
								RC and DD drilling			Reserve drilling at VB, Boags and Emu



	Resource drilling at Anchor, XXXX, Southwark and surface laterite
	Sterilisation drilling for airstrip
Soil Sampling	Extensions to areas of previous sampling, analysed for Au, Ag, As, Sb
Airborne multi-spectral survey	Defined high density fracture patterns associated with mineralisation
Mining	Mining at VB and Boags, 1988-1989. Production at Boags: 382,000t @ 1/75 g/t Au (21.6koz Au)  Production at VB: 730,000t @ 3.1 g/t Au (72koz Au)

## Geology

- *Deposit type, geological setting and style of mineralisation.*

- The Bottle Creek gold project lies on the western edge of the Norseman-Wiluna Province in WA, within the Ularring greenstone belt. West of the project, the area is characterized by banded iron formations interbedded with mafic volcanics. In the central and eastern parts of the project, a dominantly mafic-ultramafic volcanic and intrusive suite occurs. Minor volcanoclastic sediments are interbedded with the greenstones. The entire central and eastern zone has been intruded by felsic quartz porphyries.
- Near Bottle Creek, the greenstone belt is folded into a tight, south-plunging anticline with a granite core
- The project is defined by epigenetic, hydrothermal, shear-hosted gold+silver mineralisation. Mineralisation is hosted within a steeply dipping, sheared, carbonaceous black shale unit (the Emu Formation), close to the contact with the interbedded mafic volcanics and banded ironstones.
- Sulphide mineralisation is characterised by pyrite, pyrrhotite and magnetite, with minor tetrahedrite, sphalerite, arsenopyrite and



		<p>chalcopryite. Native gold and electrum are also present as fine, &lt;45µm grains.</p> <ul style="list-style-type: none"> <li>• A strong regolith profile is developed in the mineralised zone, to a depth of approximately 85m in some areas.</li> <li>• 5 mineralised zones have been defined by historical exploration, including from south to north, Boags, VB, Emu, Southwark and XXXX.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>• See Table 1, Appendix 1 and Figures 2-3 above for drillhole information pertaining to significant intercepts presented here.</li> <li>• No significant information has been excluded for drilling results reported in this document.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Reported drill intercepts are averaged intercepts from 1m samples.</li> <li>• No cutting of high grade values has been undertaken.</li> <li>• Significant intercepts (see Table 1 in the body of this release) are reported using a low-grade cut-off of 0.5 g/t Au. Some intercepts are reported with up to 12m of waste, where the intercept is judged to be a coherent geological interval.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Based on extensive drilling throughout the Emu prospect, mineralisation is interpreted to be striking north 20 °west, and with a dip close to vertical, or dipping steeply west, as portrayed in Figures 2-4 in the text. Drilling was oriented perpendicular to this trend. Holes have been drilled at a 60 degree angle to approximate (as close as practicably possible) a true width intercept through the steeply dipping mineralised zone.</li> <li>• Reported intercepts are downhole lengths; the true width is estimated to be approximately 65-75% of the downhole width, based on interpretations</li> </ul>



		drilling.																					
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The location of new drillholes at Emu with significant intercepts described in the text is shown in Figure 6, with cross-sections and interpreted geology in Figures 4 to 5. Coordinates in GDA94, zone 51.</li> <li>The layout of the Bottle Creek site is shown in Figure 3.</li> <li>Table 1 gives the details of significant intercepts discussed in this release, with drillhole collar information available in Appendix 1.</li> </ul>																					
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drillhole locations are reported and a table of significant intervals is provided in the text of this release, and are judged to be a balanced report of exploration results.</li> </ul>																					
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<p><b>Metallurgical Testing</b></p> <ul style="list-style-type: none"> <li>Metallurgical testwork was carried using selected composited RC intervals by EZ, as below:</li> </ul> <table border="1"> <thead> <tr> <th>Hole ID</th><th>Interval</th><th>Sample Number</th></tr> </thead> <tbody> <tr> <td>EMU-32</td><td>54-58m</td><td>110721</td></tr> <tr> <td>EMU-12</td><td>24-28m</td><td>119717</td></tr> <tr> <td>EMU-31</td><td>90-99m</td><td>110720</td></tr> <tr> <td>EMU-38</td><td>33-60m</td><td>110722</td></tr> <tr> <td>EMU-14</td><td>69-90m</td><td>110718</td></tr> <tr> <td>EMU-17</td><td>34-44m</td><td>110719</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>The six composite samples were submitted to Eltin Pty Ltd in Kalgoorlie for preliminary metallurgical. Cyanidation tests were carried out by Kalgoorlie Metallurgical Laboratories.</li> <li>Testwork used the following parameters: <ul style="list-style-type: none"> <li>Nominal grind to 80% - 75 microns</li> <li>24 hour cyanidation test</li> <li>pH of 9.5</li> <li>splitting of cyanide residue into +75 micron and -75 micron fractions for liberation tests</li> <li>production of rate curves for the test to establish recovery times</li> <li>assessment of reagent usage for the test</li> </ul> </li> </ul>	Hole ID	Interval	Sample Number	EMU-32	54-58m	110721	EMU-12	24-28m	119717	EMU-31	90-99m	110720	EMU-38	33-60m	110722	EMU-14	69-90m	110718	EMU-17	34-44m	110719
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- Kalgoorlie Scheme water was used for the test
- The following results were determined:
  - The samples are free milling
  - For a head grade greater than 4 g/t Au, recoveries of the order of >90% can be expected at a grind of approximately 80% passing 75 microns
  - Greater recoveries can be expected in a full size plant
  - By cyaniding in the mill, the rate of gold dissolution can be significantly increased compared to the laboratory curves
  - There is evidence of some soluble copper which will affect cyanide consumption
  - Samples 110718, 110721 and 110722 require further work due to high cyanide resistant residues.

#### **Specific Gravity**

- Specific gravity analyses were performed by EZ using selected samples of PQ core
- Volume calculations were made with calipers and a complex programmable calculator programme to take in account uneven breaks
- The sections of core were weighed on a series of kitchen scales. The scales were recalibrated after every weighing using pieces of lead cut to size and weighed on a microbalance. The recalibration was undertaken over a range of weights each time.
- The quality of the core was noted for each block weighed. The complete mineralised zone was weighed along with representative sections of the wall rock.
- Principal results of the SG calculations are:

#### **Mineralised Zone:**

Surface ironstone	2.7-3.2
Ironstone	>2.1
Massive quartz	1.75-1.85
Sugary quartz	1.60-1.65

#### **Wall rocks:**

Laterite (clay)	1.9-2.0
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		Porphyry	2.2-2.3
		<ul style="list-style-type: none"><li>Open File report by Electrolytic Zinc (a18217) notes that there is a vertical density stratification within the ore zone.</li></ul>	
<b>Further work</b>	<ul style="list-style-type: none"><li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li><li><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></li></ul>	<ul style="list-style-type: none"><li>A resource drilling program is underway for the Bottle Creek project and expected to continue through most of 2018. The resource drilling program aims to confirm historical drilling and provide enough confidence in the historical data to develop a resource able to be reported according to the JORC 2012 code for the remaining in-ground mineralisation at Bottle Creek. The focus for this program will primarily be the un-mined Emu deposit, as well as the un-mined Southwark deposit, immediately north of the Boags and VB pits. Further drilling beneath the VB and Boags pits will occur on completion of drilling at Emu and Southwark.</li></ul>	