

# ASX Code: AME

ACN 159 819 173

Board of Directors Dr Jingbin Wang Non-Executive Chairman

> Dermot Ryan Managing Director

Stephen Stone Terry Wheeler Non-Executive Directors

Company Secretary Chief Financial Officer Sam Middlemas

Capital Structure Issued Shares: 151.8M Issued Options: Nil Performance Shares: 25M Performance Rights: 10.75M

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# More High Grade Gold Intercepts from Vanguard Prospect

(Sandstone Gold Project, Western Australia)

- Im sample fire assays from maiden RC drilling campaign confirm and enhance previously announced 4m sample composite results
- Robust high-grade intercepts of up to 77 gram-metres returned from oxide and fresh (primary) dolerite:

SRC013	:	6m	@	5.3g/t Au	From	52m
incl.		2m	@	9.2g/t Au	From	52m
SRC014	:	12m	@	3.0g/t Au	From	87m
and		5m	@	4.8g/t Au	From	103m
SRC016	:	2m	@	5.5g/t Au	From	64m
and		18m	@	4.3g/t Au	From	122m
incl.		12m	@	5.6g/t Au	From	126m
SRC017	:	11m	@	2.2g/t Au	From	69m
SRC019	:	8m	@	3.6g/t Au	From	39m
incl.		2m	@	7.2g/t Au	From	44m
and		7m	@	5.9g/t Au	From	52m
incl.		3m	@	11.6g/t Au	From	53m

- Gold in primary zone confirms opportunity to extend Vanguard mineralisation at depth
- > Assays from six more RC holes expected mid-late Sept
- RC drilling planned for Sept/October will test for Vanguard extensions, and test the 6km long corridor between Vanguard and Maninga Marley
- Alto plans to deliver a maiden mineral resource estimate for Vanguard before end of 2017

Alto Managing Director, Dermot Ryan said: "The discovery at Vanguard of open-ended high-grade mineralisation in a dolerite host rock is very encouraging as the largest gold deposit in the St Ives region (at Argo-Junction) and the multimillion ounce Jundee deposit in the Yandal Greenstone Belt are also hosted in dolerite."

### INTRODUCTION

Alto Metals Limited (ASX: AME) ("Alto", "the Company") is pleased to announce that assays from 1m sample intervals of previously announced 4m composite sample results (refer ASX release 7 August 2017) have confirmed the high-grade mineralisation identified by the Company's maiden RC drilling program at the Vanguard prospect, within its wholly owned Sandstone Gold Project, Western Australia.

From these results, it is apparent that the primary mineralisation at Vanguard is hosted in dolerite, which is considered a favourable host rock for larger gold deposits in Western Australia, with examples being the Barton Dolerite at Northern Star Resources Ltd's Jundee deposits and Gold Fields Ltd's Argo-Junction deposits at St Ives. Accordingly, Alto has reappraised the broader Sandstone Greenstone Belt, and re-prioritised its exploration strategy to focus on what it has designated as the "*Alpha Mafic Volcanic Domain*". This zone encompasses the 20km long mafic volcanic sequence from Indomitable in the north to Maninga Marley in the south. (Refer Figure 1 for the location and extent of the Alpha Domain).

Alto is now designing a drilling program to extend the Vanguard mineralisation to the southwest and northeast, and also to test the dolerite unit hosting Maninga Marley. Multiple Programs of Work ("PoW's") have been lodged with a view to the RC drilling commencing in the latter half of 2017.

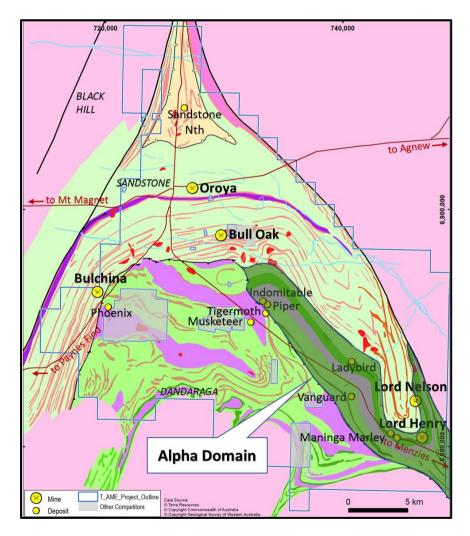


Figure 1. Location of Alpha Domain, within Sandstone Greenstone Belt

### VANGUARD PROSPECT – Assay results from 1 metre samples

Alto drilled 12 RC holes around the old **Vanguard** workings for a total of 1,638 metres (SRC012-SRC022 & SRC028). Gold results +0.5g/t Au from 1m samples for holes SRC012-SRC021 are reported in Table 1 overleaf. Significant gold grades were encountered within altered dolerite as shown in Figures 2 and 3, updated to show 1m sample fire assay results.

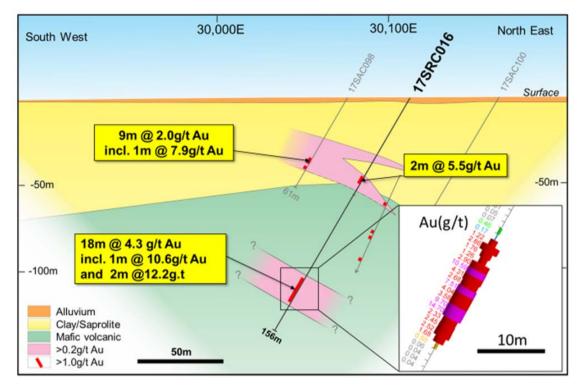


Figure 2. Vanguard Section 9,250mN, Alto's 2017 RC holes (black) & AC holes (grey)

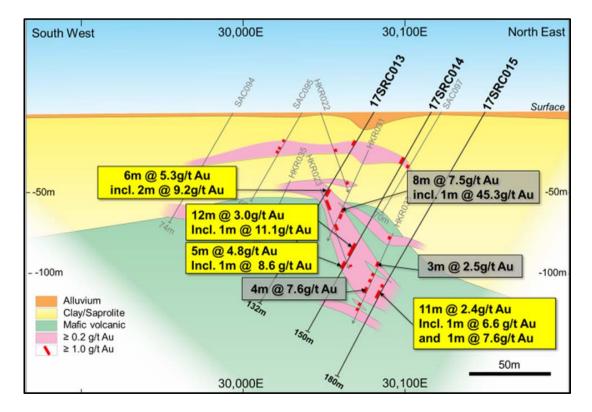


Figure 3. Vanguard Section 9,290mN, Alto's 2017 RC holes (black), AC holes & Troy holes (grey)

The location of Alto's 2017 local grid at Vanguard and the vertical plan projection of gold intercepts is shown in Figure 4 below. The gold mineralisation is open to the northwest and to the southeast and at depth.

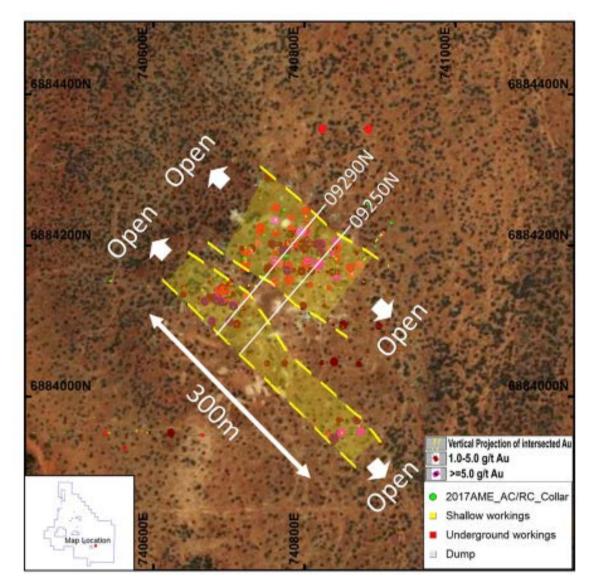


Figure 4. Vanguard Prospect, Alto 2017 RC & AC drill hole Locations

Hole ID	Local East	Local North	Hole Depth	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SRC012	29900	9312	120	26	27	1	0.83
and				54	61	7	2.34
incl.				55	56	1	5.78
and				109	110	1	0.94
SRC013	30084	9290	132	0	6	6	1.01
and				20	21	1	1.76
and				23	24	1	4.51
and				52	58	6	5.30
incl.				53	55	2	9.17
incl.				54	55	1	11.14

Hole	Local	Local	Hole	From	То	Interval	Grade (g/t
ID	East	North	Depth	(m)	(m)	(m)	Au)
SRC014	30119	9291	150	32	36	4	2.69
and				76	78	2	1.72
and				87	99	12	2.99
incl.				94	98	4	5.80
incl.				96	97	1	11.06
and				103	108	5	4.78
incl.				104	105	1	5.79
and				107	108	1	8.57
SRC015	30150	9291	180	75	77	2	0.78
and				88	89	1	0.60
and				119	130	11	2.43
incl.				124	125	1	6.60
and				127	128	1	7.59
and				141	142	1	0.50
and				162	163	1	0.52
SRC016	30113	9248	156	40	41	1	0.53
and				54	56	2	5.54
incl.				54	55	1	8.91
and				70	72	2	0.65
and				122	140	18	4.26
incl.				126	138	12	5.61
incl.				127	128	1	10.59
and				130	131	1	7.51
and				133	135	2	12.20
incl.				134	135	1	14.70
SRC017	30051	9329	138	25	27	2	1.84
incl.				26	27	1	2.20
and				49	50	1	0.97
and				60	63	3	1.54
incl.				60	61	1	2.54
and				69	80	11	2.20
and				136	137	1	3.45
SRC018	29920	9092	96	23	26	3	0.86
and				30	31	1	6.32
and				33	36	3	0.81
and				74	75	1	0.56
SRC019	29956	9089	90	39	47	8	3.56
incl.				42	43	1	5.34
and				44	46	2	7.18
and				52	59	7	5.87
incl.				53	56	3	11.57
incl.				53	54	1	26.75
SRC020	29875	9372	132	66	69	3	0.51
and				119	120	1	1.49
SRC021	30043	9367	132	42	43	1	0.69
and				49	51	2	1.01
and				79	80	1	0.54

### Table 1. Cont'd, Vanguard Prospect, 1m RC Samples, 50gm Fire Assays +0.5g/t Au

Holes SRC012 & SRC020 drilled on azimuth  $040^{\circ}$  /dip -60° Holes SRC013 - SRC019 drilled on azimuth  $220^{\circ}$  /dip -60°

### ALTO'S OBJECTIVES AT SANDSTONE

Alto has two main objectives at its 100% owned 800km<sup>2</sup> Sandstone Gold Project in Western Australia:

- In the short term, to delineate 1 million ounces of gold in shallow deposits (Eg. Vanguard, Indomitable, Havilah, Maninga Marley, Lord Nelson, Lord Henry, etc) that can be economically mined, leading to sustainable exploration-driven growth.
- In the medium to longer term, to discover 5 million ounces within high-grade gold deposits, which will serve as the foundation of major stand-alone mining operations.

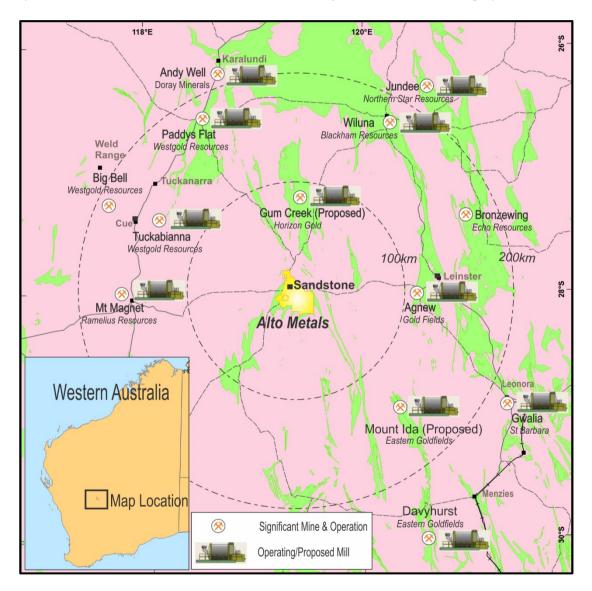


Figure 5. Location of Alto's Sandstone Gold Project, with Operating or Proposed Gold Plants

### Further information:

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#### **Competent Person Statement**

The information in this Report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Dermot Ryan, who is an employee of Xserv Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Historic exploration results and mineral resources referred to in this Report were previously reported by Troy Resources NL pursuant to JORC Code 2004. Alto Metals Limited understands that this information has not been updated since to comply with the JORC Code 2012, but believes the information has not materially changed since it was last reported.

Hole ID	East GDA94	North GDA94	RL (m)	Dip Degrees	Azimuth Degrees	Depth (m)	Date Completed	Prospect	Lease ID
SRC001	733258.8	6892101.2	507.9	-60	90	203	16/06/2017	Indomitable	E57/1031
SRC002	733259.7	6892140.7	508.0	-60	90	203	20/06/2017	Indomitable	E57/1031
SRC003	740571	6884792	494.1	-60	40	150	7/07/2017	Vanguard North	E57/1033
SRC004	740644.1	6884880.1	496.5	-60	40	120	7/07/2017	Vanguard North	E57/1033
SRC005	740554.4	6884829.3	494.5	-60	40	132	8/07/2017	Vanguard North	E57/1033
SRC006	740732.1	6884862.4	497.2	-60	40	84	8/07/2017	Vanguard North	E57/1033
SRC007	740706.2	6884831.6	496.4	-60	40	100	9/07/2017	Vanguard North	E57/1033
SRC008	740677.8	6884800.4	495.5	-60	40	110	9/07/2017	Vanguard North	E57/1033
SRC009	740689	6884873.8	496.9	-60	40	84	10/07/2017	Vanguard North	E57/1033
SRC010	740662.1	6884841.6	496.0	-60	40	100	10/07/2017	Vanguard North	E57/1033
SRC011	740639.8	6884813.4	495.3	-60	40	114	11/07/2017	Vanguard North	E57/1033
SRC012	740669.1	6884090.2	484.5	-60	40	120	12/07/2017	Vanguard	E57/1033
SRC013	740803.9	6884217.2	487.6	-60	220	132	13/07/2017	Vanguard	E57/1033
SRC014	740825.2	6884244.5	488.1	-60	220	150	13/07/2017	Vanguard	E57/1033
SRC015	740845.7	6884268.8	488.6	-60	220	180	14/07/2017	Vanguard	E57/1033
SRC016	740855.1	6884212.7	487.8	-60	220	156	15/07/2017	Vanguard	E57/1033
SRC017	740753.2	6884217.3	487.2	-70	220	138	15/07/2017	Vanguard	E57/1033
SRC018	740850	6883963.8	484.4	-60	220	96	16/07/2017	Vanguard	E57/1033
SRC019	740875.4	6883990.4	484.9	-60	220	90	16/07/2017	Vanguard	E57/1033
SRC020	740607.3	6884110	484.2	-60	40	132	17/07/2017	Vanguard	E57/1033
SRC021	740718.4	6884235.7	487.2	-60	220	132	17/07/2017	Vanguard	E57/1033
SRC022	740737.7	6884262.9	487.7	-60	220	132	18/07/2017	Vanguard	E57/1033
SRC023	740502.5	6885022.3	496.6	-60	40	78	18/07/2017	Vanguard North	E57/1033
SRC024	740473.1	6884990.8	495.6	-60	40	90	18/07/2017	Vanguard North	E57/1033
SRC025	740448.5	6884962.4	494.8	-60	40	90	19/07/2017	Vanguard North	E57/1033
SRC026	740471.3	6884921.1	494.6	-60	40	126	19/07/2017	Vanguard North	E57/1033
SRC027	740498.4	6884837.7	493.8	-60	40	132	20/07/2017	Vanguard North	E57/1033
SRC028	740901.1	6884240.6	488.5	-60	220	180	20/07/2017	Vanguard	E57/1033

#### Appendix 1. Collar details of Alto RC Drill Holes Completed in 2017

All Co-ordinates in Zone 50

## JORC Code, 2012 Edition – Table 1 report

### 23 August 2017 - Sandstone Project

# JORC (2012) Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>RC drilling carried out by Alto Metals Ltd in July 2017.</li> <li>RC samples were passed directly from the in-line cyclone through a rig mounted cone splitter. Samples were collected in 1 m intervals into bulk plastic bags and 1 m calico splits (which were retained for later use).</li> <li>From the bulk sample, a 4 m composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis.</li> <li>1 m calico splits were submitted to the laboratory if the composite sample assay values are equal to or greater than 0.2 g/t Au.</li> <li>In certain cases, selected samples from some holes were passed from the cyclone through a rig mounted cone splitter, and samples collected into calico bags at 1 m intervals were submitted directly for analysis. The remaining bulk sample was placed on the ground in 1 m intervals.</li> </ul>
Drilling techniques	RC drilling was with a KWL 350 drill rig with an onboard 1100/350 compressor using a sampling hammer of nominal 140mm hole.
Drill sample recovery	<ul> <li>The 1m calico samples were weighed using hand-held scales to ensure a consistent sample weight of 2-3 kg was obtained.</li> <li>RC recoveries in bulk plastic bags were recorded as a percentage by visual examination.</li> <li>A truck mounted 1000/1000 auxiliary/booster was used as required.</li> <li>Samples were mostly dry, except for a portion of the clay zone where the samples were recorded as moist.</li> <li>It is not known whether a relationship exists between sample recovery and grade and whether sample bias may have occurred.</li> </ul>
Logging	<ul> <li>RC drill chips were sieved from each 1 m sample and geologically logged.</li> <li>Due to the heavily oxidised nature of the drilled areas, a portion of the samples consisted of clay.</li> <li>Washed drill chips from each 1 m sample were stored in chip trays and photographed.</li> <li>Geological logging of drillhole intervals was done with sufficient detail to meet the requirements of resource estimation.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC samples were sent to MinAnalytical Laboratory Services Australia Pty Ltd located in Canning Vale, Western Australia.</li> <li>MinAnalytical were responsible for sample preparation and assaying for drillhole samples and associated check assays.</li> <li>MinAnalytical is certified to NATA in accordance with ISO17025:2005 requirements for all related inspection, verification, testing and certification activities.</li> <li>4m composite RC samples were dried and then ground in an LM5 ring mill for 85% passing 75 microns.</li> <li>1m RC samples from within 4m composite sample intervals reporting +0.2ppm Au, or selected based on geological observation, were dried then crushed and homogenised to produce a 3 kg sample for the LM5 ring mill.</li> <li>For the 4m composite sampling, field duplicate samples were collected at a rate of 1:40 and field blank samples were inserted at a rate of 1:40.</li> <li>For the 1m sampling, field blank samples were inserted at a rate of 1:40, and field standards were inserted at a rate of 1:40, giving an overall 1:20 sample to standard ratio. And found to be acceptable.</li> <li>QA/QC procedures for sub-sampling follow MinAnalytical procedures.</li> <li>Sample sizes are considered appropriate for the grain size of the material being sampled.</li> </ul>
Quality of assay data	<ul> <li>RC samples were analysed using an Aqua Regia digest with an ICP/MS finish for gold and a limited suite of base metal elements (Ag, As, As, Bi, Cu, Co, Ni, Pb, Sb, Te, W, Zn). This</li> </ul>

Criteria	Commentary
and	technique is considered a partial digest.
laboratory tests	<ul> <li>1m samples were analysed by 50g Fire Assay method. This technique is considered a total digest.</li> </ul>
	<ul> <li>No geophysical tools or handheld XRF instruments were used to determine the geochemical results.</li> <li>Laboratory Certified Reference Materials and/or in-house controls, blanks, splits and</li> </ul>
	replicates are analysed with each batch of samples. These quality control results are reported along with the sample values in the final report. Selected samples are also re- analysed to confirm anomalous results.
	Laboratory and field QA/QC results were reviewed by Alto personnel.
Verification of sampling and assaying	<ul> <li>Alto has not conducted any independent verification of the assay data.</li> <li>Drill chips were inspected where significant intersections were reported.</li> <li>No twinned holes have been drilled to date.</li> </ul>
, ,	<ul> <li>Data is entered and validated in Micromine. Alto also has a Datashed database maintained by a Database Administrator.</li> </ul>
	Values below the analytical detection limit were replaced with half the detection limit value.
Location of data points	<ul> <li>The Vanguard grid is a local grid with reference to GDA94.</li> <li>Alto used handheld GPS to locate and record drill collar positions, accurate to +/-5 metres horizontal.</li> </ul>
	<ul> <li>Alto's drill hole collar positions, and a portion of historic drill holes were subsequently recorded using a DGPS system with +/- 5cm accuracy.</li> </ul>
	<ul> <li>There is no documentation on the collar survey methodology or downhole surveys for Troy AC and RC holes. Although most Troy drill sites have been rehabilitated, some drill collars are still marked in the field by a strip of PVC protruding from the surface, and they can be accurately located in GDA94 space.</li> </ul>
	<ul> <li>Downhole surveys were completed on Vanguard and Vanguard North RC holes using a north-seeking gyro down hole survey tool operated by the drilling contractor.</li> <li>DGPS data is also used for topographic control.</li> </ul>
Data spacing	<ul> <li>Drill holes were typically spaced on a 40m by 40m spacing.</li> </ul>
and distribution	<ul> <li>The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure, where such an estimation has been undertaken.</li> </ul>
	<ul> <li>4m composite sampling has been undertaken with 1m resplits collected where assay results were reported above 0.2ppm Au.</li> </ul>
Orientation of data in	<ul> <li>Geological structures have been interpreted from drilling due to the lack of outcrop in the Vanguard and Vanguard North areas.</li> </ul>
relation to geological structure	The Troy drill orientation for Vanguard and Vanguard North was typically -60° on north south and east west grids.
	Alto's drill orientation at Vanguard North was -60° on 040° and Vanguard was -60° on 220°.
Sample security	<ul> <li>4m composite and 1m original RC drill samples comprised approximately 3 kg of material within a labelled and tied calico bag.</li> <li>Individual sample bage was pleased in a larger please planetic pellowarus bag then into a bulke bag.</li> </ul>
	<ul> <li>Individual sample bags were placed in a larger plastic polyweave bag then into a bulka bag that was despatched to the laboratory via McMahon Burnett freight.</li> <li>Sampling data was recorded on field sheets and entered into a database then sent to the</li> </ul>
	<ul> <li>Sampling data was recorded on new sneets and entered into a database themsent to the head office.</li> </ul>
	<ul> <li>Laboratory submission sheets are also completed and sent to the laboratory prior to sample receival.</li> </ul>
Audits or reviews	<ul> <li>Alto has reviewed and compiled available technical data for Vanguard and Vanguard North. No audit has been completed to date.</li> </ul>

# **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	<ul> <li>Alto's drilling program at Vanguard was completed on E57/1033, granted on 20 September 2016 to Sandstone Exploration Pty Ltd, a wholly owned subsidiary of ASX listed Alto Metals Limited.</li> <li>The total Sandstone Project area covers approximately 800 km<sup>2</sup> with five exploration licences granted on 20 September 2016 and two prospecting licences granted on 11 June 2016, and two exploration licence applications.</li> </ul>
Exploration done by other parties	<ul> <li>Previous work carried out by Troy and Herald Resources at Vanguard was described in Alto's ASX releases dated 20 June 2017 and 20 July 2017.</li> <li>At Vanguard, Herald Resources undertook RAB and RC drilling around the old Vanguard workings (on ML57/22) in 1999, and estimated a Mineral Resource (JORC 2004) of 330,000t at 1.57g/t Au for 16,657oz.</li> <li>Between 1999-2003 Troy explored ML57/22 and undertook shallow AC and RC drilling at both Vanguard and Vanguard North, drilling on east-west and north-south grids.</li> </ul>
Geology	Interpreted geology of Vanguard is described in this report.
Drill hole Information	<ul> <li>Alto's drill hole collar information and assay results +0.5 g/t Au are reported in this report.</li> <li>Herald and Troy's drilling results for the same area were published in Alto's ASX release dated 20 July 2017.</li> </ul>
Data aggregation methods	<ul> <li>Alto's gold assay results +0.5 g/t Au for Vanguard RC drilling are reported in this report.</li> <li>Troy's and Herald's gold assay results +1.0 g/t Au for Vanguard drilling (on sections drilled by Alto) were reported graphically in previous reports.</li> <li>Aggregate sample assays are calculated using a length weighted average.</li> <li>Where aggregated intercepts presented in the report include shorter lengths of high grade mineralisation, these shorter lengths have also been tabulated.</li> <li>No metal equivalents have been used or reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>At Vanguard the mineralisation strikes in multiple directions; NNW-SSE and NW-SE with both steep and shallow dipping quartz veins.</li> <li>Alto drill holes were typically oriented -60 → 220, with several holes 60 → 040, designed to intersect the mineralisation perpendicular to the interpreted ore zones.</li> <li>All intersections are reported as downhole length and no correction for true width has been applied. The relationship between true width and downhole length is not known at this stage given the variable orientation of the mineralisation.</li> </ul>
Diagrams	Refer to figures in main body of report.
Balanced reporting	• All available Alto drill hole Au assay results published, using a +0.5 g/t Au cut-off grade.
Other substantive exploration data	No other material information available for prospect areas at this stage.
Further work	<ul> <li>Additional drilling to test for lateral and depth extensions will be undertaken. Infill drilling may also be undertaken.</li> <li>Estimation of JORC 2012 Mineral Resources will also be undertaken following further RC drilling.</li> </ul>
Moisture	<ul> <li>Alto does not have any details regarding the moisture, methodology or modelling undertaken for Troy's Vanguard (JORC 2004) compliant Mineral Resource estimate.</li> </ul>
Cut-off parameters	<ul> <li>Alto has reported the exploration results above a 0.5 g/t Au cut-off grade due to the shallow nature of the mineralisation.</li> </ul>

Criteria	Commentary								
Mining factors or assumptions	No mining assumptions at this early stage.								
Metallurgical factors or assumptions	<ul> <li>Vanguard has only been historically mined by hand through small shafts and diggings (1900 - 1930's?) so metallurgical data is not available, but Alto assumes the oxide gold mineralisation will have high recoveries.</li> </ul>								
Environmental factors or assumptions	<ul> <li>It is assumed that no environmental factors exist that could prohibit any potential mining.</li> <li>The Sandstone area has a strong history of mining, and there is strong local support for mining in the area.</li> </ul>								
Bulk density	No bulk density measurements undertaken at this early stage of exploration.								
Classification	<ul> <li>Troy published a (JORC 2004 compliant) Mineral Resource estimate for Vanguard (refer Snowden Report 2007) as follows:</li> </ul>								
	Prospect Category Tonnage Grade Gold (Kt) (g/t Au) (Koz)								
	Vanguard Indicated 105 1.50 5.06								
	Vanguard Inferred 225 1.60 11.57								
	<ul> <li>Alto does not have any details regarding the methodology or modelling undertaken for the Vanguard (JORC 2004) compliant Mineral Resource estimate.</li> </ul>								
Audits or reviews	<ul> <li>The Snowden Mineral Resource estimates published by Troy in 2007 for Vanguard was peer reviewed as part of Snowden's standard internal peer review process. Alto is not aware of any external reviews of the above Mineral Resource estimate.</li> </ul>								
Discussion of relative accuracy/ confidence	<ul> <li>Alto does not have any details regarding the methodology or modelling undertaken for the Vanguard (JORC 2004) compliant Mineral Resource estimate.</li> </ul>								