

## 31 January 2018

## **CORPORATE**

**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 at 31 December 2017

Issued Shares: 185.5M Issued Options: Nil Performance Shares: 25M Performance Rights: 10.75M

## Website:

www.altometals.com.au

For further information, please contact:

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# **Highlights - Sandstone Gold Project**

- Significant intercepts of ore-grade oxide and primary (sulphide) gold mineralization were achieved at the Vanguard Prospect during the Quarter.
- 47 RC holes (8,062m) were completed at Vanguard, and a further 8 RC holes (1,048m) at Maninga Marley.
- At Vanguard, the RC drilling has defined oxide gold mineralization down to 50 - 60m below surface, lying above primary gold mineralization associated with disseminated sulphides (predominantly pyrite) within multiple planar shear zones, within an altered differentiated dolerite host.
- Resource modelling has commenced, with a view to completing a maiden JORC 2012 compliant Mineral Resource.
- The Vanguard gold mineralization is open along strike and down dip, and aircore drilling is required to define the limits of the Vanguard mineralized system.
- RC drilling re-commenced on 29 January 2018.

## **Corporate**

- \$2.675M cash @ 31 December 2017.
- Private Placement of 21.3 million shares @ \$0.075 per share raised \$1.6M, with \$0.73M of this from AME directors, approved by shareholders at AGM in November 2018.
- Shareholder Purchase Plan (SPP) @ \$0.075 per share closed 14 November 2017 and raised additional \$0.917M.

Alto's Managing Director Dermot Ryan commented:

"2018 is going to be a pivotal year for Alto as we are in a strong position to test advanced targets such as Vanguard and turn them into resources, and similarly with other targets where previous explorers and prospectors have found gold but have not pursued the mineralization into the primary zone."

## **SUMMARY OF ACTIVITIES**

Alto Metals Limited (ASX: AME) ("Alto", "the Company") is pleased to provide a summary of activities for the Quarter ending 31 December 2017 at its 100% owned 800km<sup>2</sup> Sandstone Gold Project, 150km east of Mount Magnet in Western Australia.

Alto's exploration activities over the past 3 months have focused on the highly prospective "Alpha Mafic Volcanic Domain". This zone encompasses the 20km long mafic volcanic sequence from Indomitable in the north to Maninga Marley in the south (Figure 1).

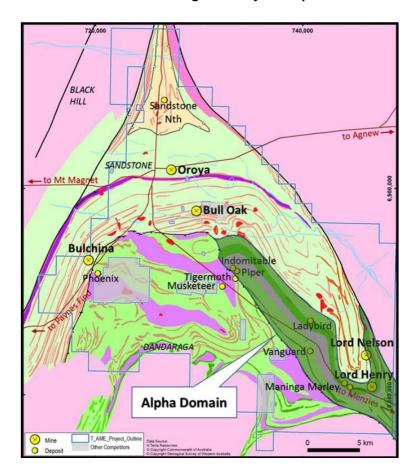


Figure 1. Geological Interpretation of Sandstone Greenstone Belt, showing Alto's Landholdings and Major Prospects

The Company's primary activity between October and December 2017 was reverse circulation (RC) drilling, with a total of 47 drill holes completed for 8,062m at the Vanguard Prospect and 8 drill holes completed for 1,048m at the Maninga Marley prospect. (refer Table 1).

The Vanguard drilling program encountered significant thicknesses and gold grades in both oxidized material and fresh rock. The primary gold mineralization is associated with disseminated sulphides (pyrite and minor arsenopyrite) within planar shear zones, hosted in altered differentiated dolerite.

Table 1. Reverse Circulation Drill Holes and Prospects Drilled October - December 2017

Prospect	Hole ID's	No. Holes	Total metres
Vanguard	SRC029 to SRC048, and SRC057 to SCR070	47	8,062
Maninga Marley	SRC049 to SCR056	8	1,048
		55	9,110m

#### **VANGUARD PROSPECT**

The Vanguard Prospect occurs within the 20km long Alpha Mafic Volcanic Domain which consists of a sequence of differentiated dolerite, basalt and ultramafic units. The gold mineralization appears to be localized around a series of regional late stage NE-SW trending brittle faults which are apparent in detailed magnetic imagery, and which disrupt and displace the regional stratigraphy.

Drilling at Vanguard has determined that the oxide zone, which generally extends to 50m-60m depth from surface, is open in all directions and frequently contains long intercepts of 2 – 3g/t of "free dig" gold mineralization. The oxide zones lie above, and are derived from, multiple zones of moderate to steeply dipping high-grade, structurally controlled primary mineralization which remain open at depth. Potential exists for high-grade plunging shoots where the planar mineralised shear zones intersect.

Figure 2 below is a plan view showing the location of the Vanguard grid, Alto's RC drill hole collars, and a general outline of the gold mineralized structures defined to date. Note hole SRC019, 200m to the southeast of the main zone.

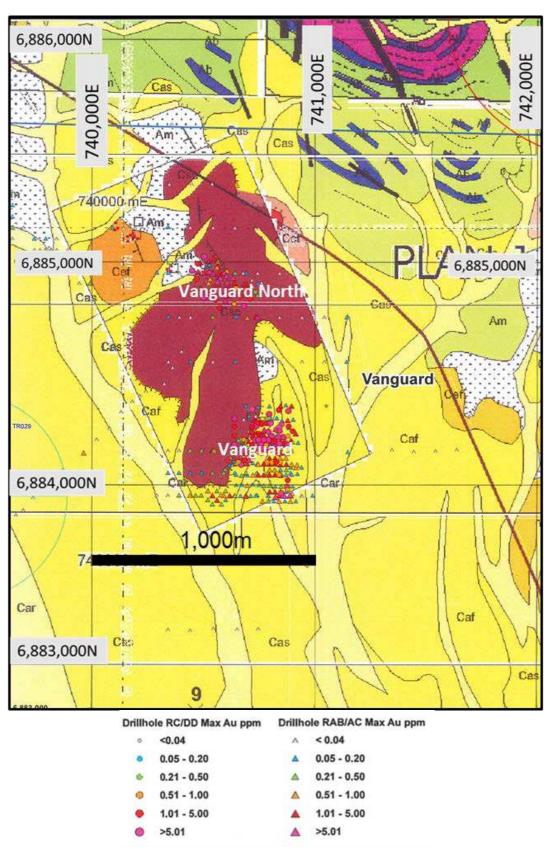
741000E NORTH 6884400N 6884400N **SRC046** SRC066 SRC032 8m @ 7.6g/t Au from 34m 2m @ 5.0g/t Au from 34m 22m @ 3.3g/t Au from 103m SRC048 3m @ 5.1g/t Au from 53m & 2m @ 12.3g/t Au from 82m & 7m @ 7.0g/t Au from 126m Open SRC067 **SRC041** 19m @ 3.2g/t Au from 39m 2m @ 9.6g/t Au from 40m & 4m @ 3.0g/t Au from 69m 6884200N 6884200N Open  $o_{pen}$ **SRC064** SRC016 11m @ 3.1g/t Au from 8m 18m @ 4.3g/t Au from122m & 4m @ 3.0g/t Au from 28m &16m @ 3.3g/t Au from 41m Open **SRC036** SRC059 21m @ 1.9g/t Au from 0m 9m @ 3.3g/t Au from 1m 6884000N & 9m @ 4.7g/t Au from 89m & 1m @ 17.9g/t Au from 92m **SRC019** 8m @ 3.6g/t Au from 39m Gold Mineralisation & 7m @ 5.9g/t Au from 52m Alto 2017RC Collar 100 m Historical Workings

Figure 2. Vanguard Prospect, Plan of 2017 RC Drill Hole locations and Mineralized Structures

Alto's 2017 RC drilling program and RC drilling currently underway is being used to produce robust resource models for use in Alto's maiden (JORC 2012 compliant) Vanguard Mineral Resource estimate. Further work will include selective diamond core drilling to obtain samples for early-warning metallurgy and specific gravity measurements.

Alto has also undertaken preliminary RC drilling at Vanguard North, some 800m to the north of Vanguard, and obtained high grade gold intersections. Aircore drilling is planned to "close the gap" and expand and define the full extent of the Vanguard mineralized system. Aircore drilling is also required to the south, to the west and to the east of Vanguard where there is only very sparse, shallow historical RAB drilling.

Figure 3. Vanguard & North Vanguard Prospects, Geology and Drill Hole Locations



In 1999, Herald Resources undertook RAB and RC drilling around the old Vanguard workings, and estimated a mineral resource of 330,000t at 1.57g/t Au for 16,657oz. Troy Resources undertook shallow RAB, AC and RC drilling at Vanguard between 1999-2003 and in 2007, drilling on east-west and north-south grids. Snowden reported a JORC 2004\* compliant resource for **Vanguard** in an NI43-101 report for Troy as follows:

Indicated Mineral Resource: 105Kt at 1.50 g/t Au for 5.06Koz Inferred Mineral Resource: 225Kt at 1.60 g/t Au for 11.57Koz

\*Cautionary Note: The above resource estimate is a historical resource estimate, and while the resource estimate was undertaken by competent professionals, a qualified person has not done sufficient work to classify the historical estimate as a JORC 2012 mineral resource, and the historical estimate should not be relied upon.

#### **EXPLORATION IN REMAINDER OF SANDSTONE GREENSTONE BELT**

The recently discovered and expanded Vanguard mineralization highlights the opportunity Alto has at Sandstone, to discover new shallow oxide gold deposits, but equally important, the opportunity to discover large primary gold deposits in favourable host rocks below the shallow drilling completed by previous explorers. Major target areas are shown below in Figure 4.

Work by Alto over the past 18 months in collating and reviewing historical exploration data reinforces our view that there is significant potential for the discovery of high-grade primary gold deposits at Sandstone, similar to those discovered in other greenstone belts in the Yilgarn of Western Australia.

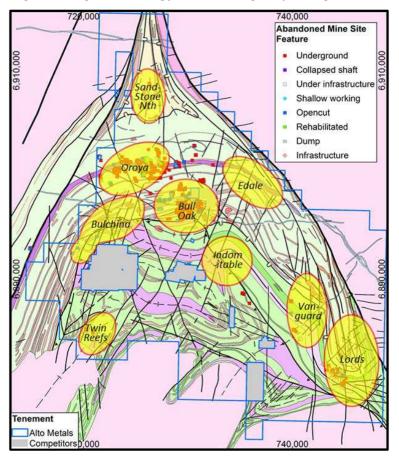


Figure 4. Regional Geology Plan showing Major Target Areas

Alto has planned a succession of systematic focused drilling campaigns in 2018 to discover oxide and especially primary gold mineralization at Vanguard and other prospects, to delineate an initial one million ounce gold JORC 2012 Mineral Resource as part of its overall objective to re-establish mining at Sandstone.

## **CAPITAL STRUCTURE**

The Company announced on 24 October that it had completed a private Placement of 11,616,667 fully paid ordinary shares ("Shares") at \$0.075 per share to sophisticated and professional investors under section 708A(5)(e) of the Corporations Act 2001 ("the Act"), thereby raising \$0.87 million, pursuant to the Company's 15% placement capacity under ASX Listing Rule 7.1.

A further \$0.73 million was subscribed by related parties (Alto directors) bringing the total capital raising to \$1.6 million. These additional funds were approved at the Company's Annual General Meeting (AGM) on 29 November 2017, and subsequently a further 9,733,333 fully paid ordinary shares were issued, bringing the total shares issued under the Placement to 21,350,000.

Following a Shareholder Purchase Plan (SPP) @ \$0.075 per share which closed on 14 November 2017, an additional \$0.917M of capital was raised by the Company.

Total Fully Paid Ordinary Shares on issue: Unlisted Performance Shares on Issue: (vendors) Unlisted Performance Rights on Issue: (management) <u>@ 31 December 2017</u> 185,459,462

25,000,000 10,750,000

#### **CASH POSITION**

The Company's cash position at 31 December 2017 was \$2.675 million.

#### **INVESTMENTS IN ASX LISTED COMPANIES**

Alto holds 2,500,000 shares in ASX-listed Enterprise Metals, currently worth approximately \$42,000. This investment is reviewed on a regular basis.

#### ABOUT ALTO AND THE SANDSTONE GOLD PROJECT

Alto holds ~75% (800km²) and is systematically exploring the historic Archaean Sandstone Goldfield 600km north of Perth in the East Murchison Mineral Field of Western Australia.

Since acquiring the Project in June 2016, Alto has compiled and reviewed a large legacy database ahead of a series of focused exploration and drilling campaigns which commenced late-2016.

Alto's immediate objective is the delineation of a combined 1 million ounce JORC 2012 Mineral Resource that can be profitably mined either though trucking to existing mills in the district or through re-establishment of standalone oxide and primary gold mining operations at the Project.

This resource is likely to be comprised of relatively shallow gold deposits (new deposits such as Vanguard and Indomitable) and existing deposits (such as Lord Nelson and Lord Henry).

Ultimately, Alto aims to find +5 million ounces of gold, which is comparable other more intensely explored greenstone belts in the Yilgarn of WA.

Alto's existing Mineral Resource base, estimated by Snowdens, is shown in Tables 1 & 2 below.

Table 1. Sandstone Gold Project - Mineral Resources JORC (2012)

Prospect	Category	Tonnes (,000)	Grade (g/t)	Ounces (,000)
Lord Nelson	Inferred	983	2.2	68
Lord Henry	Indicated Inferred	1,238 110	1.6 1.3	65 4
Lord Henry Total		1,348	1.6	69

TOTAL	2,331	1.8	137
IOIAL	2,331	1.0	10,

Table 2. Sandstone Gold Project Mineral Resources JORC (2004)\*

Prospect	Category	Tonnes (,000)	Grade (g/t)	Ounces (,000)
Havilah	Indicated	285	1.7	15.5
	Inferred	41	2.1	2.8
Maninga Marley	Inferred	80	3.1	8.0
Vanguard	Inferred	330	1.6	16.7
Ladybird	Indicated	118	2.5	9.6
	Inferred	40	2.1	2.7
Tigermoth	Inferred	561	1.7	31.2
Piper	Indicated	91	1.4	4.0
Bull Oak Reefs	Inferred	390	1.5	18.8
Sandstone North	Inferred	77	2.0	4.9
Oroya Underground	Inferred	63	5.3	10.7
TOTAL		2,076	1.9	125

<sup>\*</sup>Cautionary Note: A Competent Person has not completed sufficient work to accurately classify the JORC 2004 estimates as Mineral Resources under the JORC 2012 Code

## HISTORICAL PRODUCTION AND EXPLORATION

Since the discovery of gold at the end of the 19<sup>th</sup> Century, the Sandstone Greenstone Belt has produced over 1.3 million ounces of gold from numerous underground and open pit mining operations. Of this, some 612,000 ounces was produced between 1994 and 20 from the open-pit mining of shallow oxide ore by ASX listed companies Herald Resources Ltd and Troy Resources Ltd.

The numerous former open pits, prospects and gold occurrences now owned by Alto include Lord Nelson, Lord Henry, Havilah, Bull Oak, Vanguard, Ladybird, Maninga Marley, Sandstone North, Oroya, Tiger Moth, Musketeer, Piper and Bulchina.

Between 1994 and 2009, the exploration focus at Sandstone was largely on exploring for and mining shallow oxide ore to feed the 1987 vintage Herald/Troy Nunngarra Mill, at a time when the Australian dollar gold price was substantially lower than it is today.

The project is easily accessible by sealed highway and air with excellent communications systems, grid power and water availability

Alto's experienced management and technical team has a track record in discoveries and is supported by an External Research Advisory Committee (ERAC) led by Professor David Groves.

The group is using a 'minerals systems' approach and has identified a pipeline of high-priority lithostructural targets most likely to host million-ounce gold deposits. These target areas are being progressively assessed and ranked, using both the large legacy database which Alto has assembled from WA Mines Department Open File system, and by field observations.

#### **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 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.

The information in this report that relates to assay results from Alto's 2017 aircore and RC drilling programs at Sandstone has previously been reported to the ASX, pursuant to JORC 2012. Alto Metals Limited believes the information has not materially changed since it was last reported. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to the Lord Nelson and Lord Henry Mineral Resource estimates undertaken by Snowden Mining Industry Consultants was previously reported by Alto Metals Limited on 28 April 2017 and 16 May 2017 respectively, pursuant to JORC 2012. Alto Metals Limited believes the information has not materially changed since it was last reported.

Historic exploration results and mineral resources referred to in this Report were previously reported by Troy Resources NL pursuant to JORC Code 2004, or alternatively Herald Resources Ltd. 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.

## **Tenement Information as Required by Listing Rule 5.3.3**

Appendix 1. Sandstone Tenement Schedule at 31 December 2017

		Interest		Lease
Tenement	Project	Held	Holder	Status
E57/1029	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
E57/1030	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
E57/1031	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
E57/1033	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
E57/1044	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
E57/1054	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
E57/1070	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
E57/1072	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
P57/1377	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
P57/1378	Sandstone	100%	Sandstone Exploration Pty Ltd	Granted
P57/1415	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
P57/1417	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
M57/643	Sandstone	100%	Sandstone Exploration Pty Ltd	Application
M57/644	Sandstone	100%	Sandstone Exploration Pty Ltd	Application

Note: Sandstone Exploration Pty Ltd is a wholly owned subsidiary of Alto Metals Limited

Appendix 2. Other Tenement Schedule at 31 December 2017

Tenement	Project	Interest Held	Holder	Lease Status
E09/2204	Gascoyne	100%	Alto Metals Limited	Granted
E29/980	Marmion	100%	Alto Metals Limited	Granted

Appendix 3. Vanguard Prospect - RC Holes Completed In October - December 2017

Hole ID	Easting	Northing	RL	Dip	Azimuth	Depth (m)
SRC029	740820	6884100	486	-60	0	201
SRC030	740820	6884160	486	-60	0	207
SRC031	740802	6884196	487	-60	180	207
SRC032	740800	6884277	488	-60	180	246
SRC033	740840	6884045	485	-60	180	153
SRC034	740840	6884180	488	-60	180	165
SRC035	740838	6884336	490	-60	180	231
SRC036	740760	6884180	487	-60	180	213
SRC037	740757	6884280	488	-60	180	171
SRC038	740720	6884175	487	-60	180	200
SRC039	740718	6884258	488	-60	180	200
SRC040	740720	6884340	489	-60	180	235
SRC041	740640	6884180	486	-60	180	200
SRC029	740820	6884100	486	-60	0	201
SRC030	740820	6884160	486	-60	0	207
SRC031	740802	6884196	487	-60	180	207
SRC032	740800	6884277	488	-60	180	246
SRC033	740840	6884045	485	-60	180	153
SRC034	740840	6884180	488	-60	180	165
SRC035	740838	6884336	490	-60	180	231
SRC036	740760	6884180	487	-60	180	213
SRC037	740757	6884280	488	-60	180	171
SRC038	740720	6884175	487	-60	180	200
SRC039	740718	6884258	488	-60	180	200
SRC040	740720	6884340	489	-60	180	235
SRC041	740640	6884180	486	-60	180	200
SRC042	740640	6884260	487	-60	180	201
SRC043	740880	6884020	486	-60	180	150
SRC044	740880	6884179	477	-60	180	207
SRC045	740882	6884262	487	-60	180	200
SRC046	740881	6884331	488	-60	180	189
SRC047	740794	6884317	484	-60	180	183
SRC048	740840	6884258	487	-60	180	200
SRC057	740840	6884140	487	-60	180	100
SRC058	740819	6884197	487	-60	180	150
SRC059	740800	6884163	487	-60	180	102
SRC060	740782	6884178	487	-60	180	80
SRC061	740760	6884140	486	-60	180	96
SRC062	740722	6884138	486	-60	180	96
SRC063	740687	6884111	485	-60	180	100
SRC064	740682	6884154	486	-60	180	120
SRC065	740640	6884220	486	-60	180	100
SRC066	740641	6884296	486	-60	180	138
SRC067	740838	6884213	487	-60	180	108
SRC068	740879	6883978	485	-60	180	90
SRC069	740881	6884137	487	-60	180	80
SRC070	740880	6884218	488	-60	180	114
	Total					8,062m

Note: All holes drilled in Zone MGA 94\_50, and E57/1033

Appendix 4. Maninga Marley Prospect - RC Holes Completed in October - December 2017

Hole ID	Easting	Northing	RL	Dip	Azimuth	Depth (m)
SRC049	744535	6880730	460	-60	180	100
SRC050	744529	6880854	462	-60	180	150
SRC051	744668	6880681	460	-60	180	99
SRC052	744669	6880779	460	-60	180	150
SRC053	744708	6880787	460	-60	180	150
SRC054	745063	6880564	463	-60	180	99
SRC055	745058	6880647	463	-60	180	150
SRC056	745178	6880589	461	-60	180	150
	Total					1,048m

Note: All holes drilled in Zone MGA 94\_50, and E57/1033