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### MAIDEN LORD HENRY JORC 2012 MINERAL RESOURCE OF 69,000oz

- Lord Henry Indicated and Inferred Mineral Resource of 1.3Mt at 1.6 g/t Au for 69,000oz contained gold (JORC 2012) estimated by Snowden
- First step in broader strategy to delineate million ounce gold resource and re-establish multiple gold mining centres at Sandstone
- Snowden considers "there is potential for economic extraction in the areas classified as Indicated and Inferred Resources, and there are no known impediments to mining"
- Aircore drilling currently in progress at Indomitable, Vanguard and south and east of Bulchina, with assay results due in coming weeks

Alto Metals Limited (ASX: AME, "Alto" or "the Company") is pleased to announce an Indicated and Inferred Mineral Resource of 1.3 million tonnes grading 1.6 g/t Au for 69,000 ounces of contained gold for the Lord Henry gold deposit, 30km south east of Sandstone and part of its extensive, 100% owned Sandstone Gold Project in the Murchison District of Western Australia.

Alto's Managing Director Dermot Ryan said: "Lord Henry has supported economic mining activity in the past and may yet play an important role in Alto's plans to develop one or more new gold operations within its extensive tenure, which encompasses the majority of the historical Sandstone goldfield."

The Mineral Resource was independently estimated by Snowden Mining Industry Consultants Pty Ltd ('Snowden'), is based on drilling by previous holder Troy Resources Ltd and is reported in accordance with the 2012 JORC Code.

Table 1. Lord Henry Mineral Resources at May 2017				
Category	Reporting cut-off (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Contained gold (oz)
Indicated	0.80	1,200	1.6	65,000
Inferred	0.80	110	1.3	4,000
Total	0.80	1,300	1.6	69,000

The Mineral Resource estimate is an update on a previous estimate by Troy and is based on data from 226 reverse circulation (RC) drill holes and three diamond holes drilled by Troy between 2004 and 2009, and is depleted for all known historical mining.

Snowden considers there is potential for economic extraction in the areas classified as Indicated and Inferred Resources, and there are no known impediments to mining. The Mineral Resource has been reported above a 0.8 g/t Au cut-off based on historical mining and mining of similar deposits.

**Note:** While exercising all reasonable due diligence in checking and confirming the data validity, Snowden has relied on the data as supplied by Alto to estimate and classify the Lord Henry Mineral Resource.

As such, Snowden accepts responsibility for the geological interpretation, resource modelling and classification while Alto has assumed responsibility for the accuracy and quality of the underlying drilling data, compiled from WA Department of Mines and Petroleum, Open File WAMEX Reports.



Figure 1. Lord Henry Open Pit 2017, Looking Northeast

#### Lord Henry Geology

The Lord Henry deposit occurs at the southern end of the north-south trending Trafalgar shear zone, within a granodiorite body bounded to the south and west by a sheared ultramafic contact. Weathering is typically shallow in the south of the deposit, with fresh rock encountered very near surface. Oxidation levels increase to the north where weathered material in encountered to a depth of around 60m.

Mineralisation at Lord Henry comprises a series of stacked lodes or veins striking broadly east-west and dipping -20° to -30° degrees to the north. The lodes are characterised by quartz-sericitechlorite-pyrite alteration within the granodiorite body. While wallrock alteration is strong, it is comparatively poor in sulphides (generally less than 2%), suggesting the bulk of the gold is contained within veins. There are several vein types developed, the shapes and geometries of which are indicative of normal faulting in fault zones oriented shallowly to the north.

#### Comparison to Previous 2011 Resource Estimate

The previous Mineral Resource for Lord Henry was estimated by Snowden in 2007 and reported in accordance with the 2004 edition of the JORC Code. For comparison purposes Snowden has used the depleted Mineral Resource reported in the Troy Annual Report (2011) as no mining has occurred since that time. Snowden notes that the reporting cut-off was changed from 0.8 g/t Au to 0.5 g/t Au between the original reporting of the Mineral Resource in 2007, and the depleted Mineral Resource reported in 2011.

Category	Reporting cut-off (g/t Au)	Tonnage (kt)	Grade (g/t Au)	Contained gold (oz)
Indicated	0.50	987	1.9	60,300
Inferred	0.50	39	1.7	2,100
Total	0.50	1,026	1.89	60,400

#### Lord Henry Mineral Resources - Troy Annual Report 2011

Note: Small discrepancies may occur due to rounding

At a 0.5 g/t Au cut-off the Snowden 2017 Mineral Resource shows more tonnes for less grade and more ounces. The change is a result of the updated interpretation and smoothing in the 2017 estimate.

#### **Drillhole Database and Modelling**

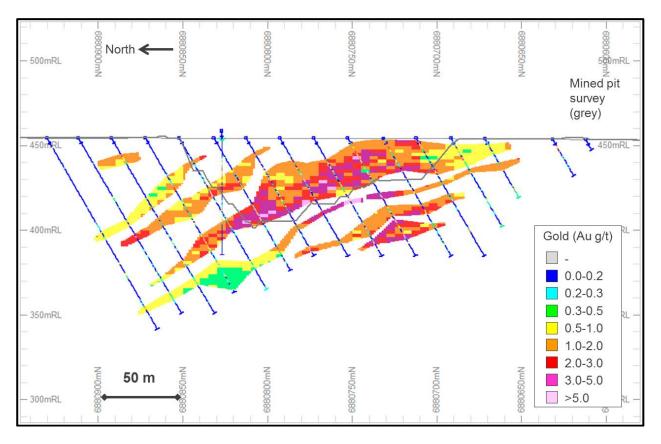
Within the defined resource area, sections are spaced 20 m apart, with drillholes spaced at about 20 m on section, with some infill to 10 m. The drill orientation is typically -60° to 180° which is designed to intersect mineralisation perpendicular to the interpreted mineralised zones.

Snowden estimated gold grades using ordinary block kriging (parent cell estimates) using CAE Datamine Studio 3 (Datamine) software. Due to the variable dip of the mineralisation, dynamic anisotropy was used to locally adjust the orientation of the search ellipse and variogram models.

The mineralisation wireframes were used to create a point file where each point relates to a triangle centroid and contains the true dip and true dip direction of the wireframe triangle. All points related to the edges of the wireframes were manually removed to avoid anomalies in these areas. This point file was then used to estimate the local true dip and dip direction into the block model for each block. The estimates of true dip and dip direction were subsequently used to locally adjust the variogram and search orientations during the grade estimation.

The initial search ellipse of 30 m by 30 m by 10 m was defined based on the results of the variography and assessment of the data coverage. A minimum of eight and maximum of 24 samples was used for the initial search pass, with no more than four samples per drillhole in all the mineralisation domains.

Snowden carried out a Kriging Neighbourhood Analysis (KNA) on a test area within the mineralised domains to determine the optimal parent block size and number of informing samples for estimation. Based on this analysis, a block model was constructed using a parent block size of 10 mE by 5 mN by 2 mRL.



#### Figure 2. Lord Henry Cross Section 6883850mN Estimated Grade & Drillhole Composites, (Note, material above the pit surface (grey line) has been mined out)

Snowden carried out a gap analysis with respect to Table 1 of the JORC Code (2012) in order to define the requirements to improve the confidence in the Mineral Resource. The following summarises Snowden's findings:

- Troy maintained a well audited database, however as Alto do not own the database, the data used for the 2017 Mineral Resource is based on a database compiled by Alto from publicly available data. Review of the statistics of the compiled database shows that it is not materially different to that reported by Troy.
- While the bulk density values assigned appear reasonable, Snowden does not have access to any supporting documentation or data supporting these values.
- Snowden cannot find any information on the sample preparation process (crushing and grinding stages) but acknowledges that SGS Australia Pty Ltd (SGS) typically use appropriate methods and have significant experience in this style of mineralisation.
- While the quality of the assay results has previously been reported as acceptable for resource estimation, Snowden has no access to the detailed quality assurance/quality control (QAQC) reports to confirm the reported quality of the assay results.
- Snowden has no quantitative information on sample recovery, however review of the available DD core in the core yard shows generally good recovery within the mineralised zones.
- There is no documentation on the collar survey methodology or downhole surveys for RC drillholes. Snowden has noted variations between the collar locations of the DD and RC compared to the air core (AC) and RAB drillholes, and there is the potential for some error here.

• The existing Lord Henry pit has water in the bottom of it, meaning that it is not possible to confirm whether the survey at the bottom of the pit is accurate. There is the potential for a bottom cut to exist at Lord Henry which may not be included in the final pit survey supplied by the Department of Mines and Petroleum to Alto.

For further details, refer Appendix A, JORC (2012) Table 1, Assessment Criteria. (attached)

#### **Further Information**

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#### **Competent Persons Statements**

All exploration and drilling data referred to in this Report were previously reported by Troy Resources NL pursuant to JORC 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.

The information in this report that relates to the 2017 Lord Henry Mineral Resource estimate is based on information compiled by John Graindorge who is a Chartered Professional (Geology) and a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to 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". John Graindorge is a full-time employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the drillhole database used for the 2017 Lord Nelson Mineral Resource estimate is based on information compiled by Dermot Ryan who is a Chartered Professional (Geology) and a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to 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". Dermot Ryan is an employee of consultancy Xserv Pty Ltd and a Director and security holder of the Company and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### APPENDIX A

## JORC (2012) Table 1 – Section 1 Sampling Techniques and Data

ltem	Comments
Sampling	All drilling was carried out by Troy Resources NL (Troy).
techniques	Reverse circulation (RC) samples were passed directly from the in-line cyclone through a rig mounted multi-tier riffle splitter. Samples were collected in 1 m intervals into bulk plastic bags and 1 m calico splits (which were retained for later use). From the bulk sample, a 5 m composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis. The 1 m calico splits were submitted to the laboratory if the composite sample returned assay values equal to or greater than 0.2 g/t Au. In certain cases, selected samples from some holes were passed from the cyclone through a rig mounted multi-tier riffle splitter, and samples collected into calico bags at 1 m intervals were submitted directly for analyses. The remaining bulk sample was placed on the ground in 1 m intervals.
	<ul> <li>Diamond cores were marked on the core by the geologist according to geological intervals. The core was cut in half by Troy field technicians, with half being placed in a pre-numbered calico bag and the other half returned to the core tray. For duplicate samples the core to be submitted for analysis is quartered.</li> </ul>
Drilling techniques	The 2017 Mineral Resources for Lord Henry were based on 226 RC drillholes and three diamond drillholes (DD).
	• For diamond drilling, triple tube coring was used due to the friable nature of the oxide zone lithologies being drilled. The angled core holes were orientated where possible using a crayon marker spear tool and the holes were regularly surveyed using an Eastman downhole camera. Due to the deeply weathered, soft and friable nature of the core, most of the orientations either failed or could not be pieced together over any useful continuous lengths.
Drill sample	Snowden has no quantitative information on sample recovery.
recovery	Review of the available DD core in the core yard shows generally good recovery.
Logging	Qualitative geological logging of most drillhole intervals was done with sufficient detail to meet the requirements of resource estimation.
Subsampling techniques	Diamond drillholes were sampled using half core samples. RC samples were split using a multi- tier riffle splitter with approximately 2 kg samples collected.
and sample preparation	<ul> <li>SGS Australia Pty Ltd (SGS) located in Perth, Western Australia, were responsible for sample preparation and assaying for drillhole samples and associated check assays. The company, at the time, were certified to the ISO 9001 requirements for all related inspection, verification, testing and certification activities.</li> </ul>
	• Resource definition RC and DD samples were assayed using 50 g fire assay with AAS finish.
	<ul> <li>Snowden cannot find any further information on the sample preparation process (crushing and grinding stages) but acknowledges that SGS typically use appropriate methods and have significant experience in this style of mineralisation.</li> </ul>
	Sample sizes are considered to be appropriate.
Quality of assay data	• For RC and DD resource evaluation drilling, an average of one field duplicate, one blank and one standard was submitted for every 50 samples.
and laboratory tests	Quality control (QC) samples were inserted randomly throughout the sample sequence.
	For all exploration work a minimum of one standard QC sample was submitted with each batch of samples.
	• Standards were purchased from Gannet Holdings Pty Ltd (Gannet) in Perth, WA. The actual standard used was dependent on the expected assay results and type of sample being taken (i.e. oxide, transitional or fresh rock). The grade of the standard used was also routinely varied.
	Blank material (crushed basalt) for the resource drilling at Lord Nelson and Lord Henry was also purchased from Gannet.
	The results of the QC standards were assessed by Troy on a batch-by-batch basis. Batches of samples where the results of the submitted standards differ from the expected value by more than ±10% were re-analysed by the laboratory. Troy had independent checking of all QC sample results carried out by Maxwell Geoservices (Maxwell) on a monthly basis. Maxwell monitored the laboratory performance over the longer period and liaised with the laboratory and with Troy when QC problems were detected. Maxwell reported that all standards and blanks fell within the expected limits. The field duplicate results show that 20% to 25% of the repeat samples are outside of ±10% compared to the original sample values with no apparent bias. This is to be expected given the style of mineralisation.

Item	Comments
Verification of sampling and assaying	Snowden has not conducted any independent verification of the assay data.
	• Values below the analytical detection limit were replaced with half the detection limit value.
	• Troy maintained a well audited database, however as Alto Metals Limited (Alto) do not own the database, the data used for the 2016 Mineral Resource is based on a database compiled by Alto from publicly available data. Review of the statistics of the compiled database shows that it is not materially different to that reported by Troy (Snowden, 2007).
Location of	The grid is based on GDA94 zone 50.
data points	• There is no documentation on the collar survey methodology or downhole surveys for RC drillholes. Snowden has noted variations between the collar locations of the DD and RC compared to the AC and RAB drillholes and there is the potential for some error here.
	• The angled diamond core holes were orientated where possible using a crayon marker spear tool and the holes were regularly surveyed using an Eastman downhole camera.
	Mined pit survey wireframe was supplied by Alto.
	• Snowden created a pre mining surface topography wireframe using the top limit string of the pit from the mined pit survey, with the drillhole collar locations within the pit. In the waste dump areas, the base string around the dumps was used to define the original surface topography.
Data spacing and distribution	<ul> <li>Within the defined resource area, sections are spaced 20 m apart, with drillholes spaced at about 20 m on section, with some infill to 10 m. The drill orientation is typically -60° → 180° which is designed to intersect mineralisation perpendicular to the interpreted ore zones.</li> </ul>
	The drilling was composited downhole for estimation using a 1 m interval.
Orientation of data in relation to geological structure	<ul> <li>The drill orientation is typically -60° → 180° which is designed to intersect mineralisation perpendicular to the interpreted ore zones.</li> </ul>
Sample security	• Drill samples comprised approximately 2 kg of material within a labelled and tied calico bag. After wet samples were dried, six bags were placed in a larger plastic polyweave bag that ass labelled with the laboratory address and sender details and tied with wire.
	• Samples were dispatched three times per week. On each occasion, a sample submission form was completed which lists the sample IDs, the total number of samples and analyses to be conducted. This form was faxed to the laboratory and to the database technician in Troy's Perth office.
	• Samples were picked up by a courier firm, who counted the total number of polyweave bags before taking them to the Mount Magnet depot 150 km to the west of Sandstone. Here the samples were picked up by the courier's road train and taken to the Perth depot before being dispatched to the lab.
	• Upon receipt of the samples, the lab checked the sample IDs and total number of samples and notified Troy of any differences from the sample submission form.
	• After the analysis of the samples had been completed, results were sent to the senior geologist and database technician in both digital and paper format
Audits and	Alto have reviewed and compiled the data for Lord Henry.
reviews	• Snowden is not aware of any other independent reviews of the drilling, sampling and assaying protocols, or the assay database, for the Lord Henry project.

Item	Comments	
Mineral tenement and land tenure	• Snowden has not independently verified the tenement status and has relied on information provided by Alto along with publicly available information.	
	• The total project area covers approximately 724 km <sup>2</sup> with five exploration licences granted on 20 September 2016 and three prospecting licences granted on 11 June 2016.	
Exploration done	All drilling to date at Lord Henry has been carried out by Troy.	
by other parties	• Some historical regional exploration and mining was carried out in previous years, with many areas containing old shafts from artisanal mining.	
Geology	<ul> <li>The Lord Henry deposit occurs along the southern end of the north-sourth trending Trafalgar shear zone, striking broadly east-west.</li> </ul>	
	• The Lord Henry deposit is contained within a granodiorite body bounded to the south and west by a sheared ultramafic contact, forming part of the Trafalgar shear. Mineralisation comprises a series of stacked, -20° to -30° north dipping lodes characterised by quartz-sericite-chlorite-pyrite alteration within the granodiorite body. A thin veneer of surficial cover exists and this can also be mineralised where the lodes project to surface. The overall trend of the mineralised zones is northeast with a defined length of 400 m. High-grade gold intersections are associated with sulphide rich quartz veins and stringers.	
	• The interpreted mineralisation domains are based on a nominal 0.2 g/t Au to 0.3 g/t Au cut-off which appears to be a natural break in the grade distribution.	
Drillhole information	No exploration results being reported.	
Data aggregation methods	No exploration results being reported.	
Relationship between mineralisation widths and intercept lengths	No exploration results being reported.	
Diagrams	Refer to figures in main summary.	
Balanced reporting	No exploration results being reported.	
Other	No exploration results being reported.	
substantive exploration data	Induced polarisation (IP) results over the area support the extension of the mineralisation.	
Further work	Snowden understands that drilling is planned at the Lord Henry project during 2017.	

# JORC (2012) Table 1 – Section 2 Reporting of Exploration Results

## JORC (2012) Table 1 – Section 3 Estimation and Reporting of Mineral Resources

Item	Comments
Database integrity	• Troy maintained a well audited database, however as Alto do not own the database, the data used for the 2017 Mineral Resource is based on a database compiled by Alto from publicly available data. Review of the statistics of the compiled database shows that it is not materially different to that reported by Troy (Snowden, 2007).
	• Snowden undertook a basic check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.
Site visits	• Snowden's General Manager Geosciences, Lynn Olssen, and Principal Consultant, John Graindorge, visited the Lord Nelson project on 31 August 2016 and 1 September 2016, observing the existing open pit, local geology and general site layout, along with diamond drill core.
	• Staff from Alto, who accept responsibility for the reliability of the underlying drillhole data, have been to site several times.
Geological	Snowden believes that the local geology is reasonably well understood.
interpretation	• The interpreted mineralisation domains are based on a nominal 0.2 g/t Au to 0.3 g/t Au cut- off which appears to be a natural break in the grade distribution. The interpreted domains include:
	<ul> <li>The main mineralisation domain; domain 3. A continuous domain of mineralisation which runs the entire length of the deposit.</li> </ul>
	<ul> <li>Mineralisation in the hangingwall of the main mineralisation domain; domains 1 and 2. These domains are in the west of the deposit and are not as thick or continuous as the main domain.</li> </ul>
	<ul> <li>Mineralisation in the footwall of the main mineralisation domain; domains 4, 5 and 6.</li> <li>These domains are smaller, discontinuous pods of mineralisation. Domain 6 contains some continuous areas but also a series of less continuous mineralised pods.</li> </ul>
	• Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources.
Dimensions	• The Lord Henry gold mineralisation covers an area of around 400 m along strike by 200 m across strike and extends to approximately 100 m below surface. The mineralisation interpretation extends between 60 m and 130 m down dip from the base of the current pit.
	The mineralisation is open along strike and down dip.
Estimation and modelling techniques	• Snowden estimated gold grades using ordinary block kriging (parent cell estimates) using CAE Datamine Studio 3 software. Due to the variable dip of the mineralisation, dynamic anisotropy was used to locally adjust the orientation of the search ellipse and variogram models.
	• The statistical analysis shows that the mineralised domains (particularly domains 2, 3, 5 and 6) have positively skewed gold distributions with high coefficients of variation (CV), indicating there are outliers in the domains which have the potential to cause local over estimation. Domains 1 and 4 are lower grade domains with less of a skew and do not contain outliers.
	• As a result, a top cut of 17 g/t Au to 30 g/t Au was applied to these domains prior to estimation. This top cut impacts around 0.5% of the composites. Snowden considers that ordinary kriging with a top cut is an appropriate estimation technique for these domains.
	Boundaries between the mineralised domains were treated as hard for estimation.
	• A block model was constructed using a parent block size of 10 mE by 5 mN by 2 mRL based on the nominal drillhole spacing along with an assessment of the grade continuity using a kriging neighbourhood analysis.
	• The initial search ellipse of 30 m by 30 m by 10 m was defined based on the results of the variography and assessment of the data coverage. A minimum of eight and maximum of 18 samples was used for the initial search pass, with no more than four samples per drillhole in the mineralisation domains.
	• Grade estimates were validated against the input drillhole composites (globally and using grade trend plots) and show a good comparison. There is evidence of some over-smoothing indicating that additional selectivity may be achievable during mining.
	• The previous Mineral Resource for Lord Henry was estimated in 2007 (Snowden, 2007) and reported in accordance with the 2004 JORC Code. For comparison purposes Snowden compare the 2017 Mineral Resource to the depleted Mineral Resource reported in the Troy annual report (2011). No mining has occurred since this time. Snowden notes that the reporting cut-off was changed from 0.8 g/t Au to 0.5 g/t Au between the original reporting of the Mineral Resource in 2007, and the depleted reporting in 2011. At a 0.5 g/t Au cut-off the

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Item	Comments		
	2016 Mineral Resource shows more tonnes for less grade and more ounces. The change is a result of the updated interpretation and smoothing in the 2016 estimate.		
Moisture	All tonnages have been estimated as dry tonnages.		
Cut-off parameters	The mineralisation has been reported above a 0.8 g/t Au cut-off grade based on historical mining.		
Mining factors and assumptions	• It is assumed the deposit will be mined using conventional open cut mining methods.		
Metallurgical factors and assumptions	• The deposit has been mined previously by Troy with the material processed at the Sandstone Mill. The previous operation focused mainly on the oxide resources, however with a suitable process flowsheet, in Snowden's opinion, the sulphide resources should also be recoverable.		
Environmental factors and assumptions	• It is assumed that no environmental factors exist that could prohibit any potential mining development at the Lord Henry deposit. The Sandstone area has a strong history of mining and several prospecting leases are currently being worked. Anecdotal evidence suggests strong local support for mining in the area.		
Bulk density	• At Lord Henry, model blocks that lie between the topography and base of oxidation were assigned a bulk density of 1.92 t/m <sup>3</sup> . This includes transported and oxide material. Model blocks between the base of oxidation and above the top of fresh surface were assigned a bulk density of 2.29 t/m <sup>3</sup> . Model blocks below the top of fresh surface were assigned a bulk density of 2.66 t/m <sup>3</sup> .		
	• These assigned bulk density values are based on those used for the previous estimate, however Snowden has not reviewed the values and does not have access to any information on the source of the values. However, the bulk densities appear reasonable for the style of mineralisation.		
Classification	• The Mineral Resource has been classified as an Indicated Resource where the mineralisation is continuous and supported by 20 m by 20 m drilling data. Extrapolation beyond the drilling is limited to approximately one drill section.		
	• The Mineral Resource has been classified as an Inferred Resource where it is less continuous but supported by more than two drillholes. Extrapolation beyond the drilling is limited to approximately one drill section.		
	• Snowden considers that there is potential for economic extraction in the areas classified as Indicated and Inferred Resources.		
	• The Mineral Resource classification appropriately reflects the view of the Competent Person.		
Audits and reviews	• The Mineral Resource estimate has been peer reviewed as part of Snowden's standard internal peer review process.		
	Snowden is not aware of any external reviews of the Lord Henry Mineral Resource estimate.		
Discussion of relative accuracy/	• The Mineral Resource has been validated both globally and locally against the input composite data.		
confidence	• Comparison to historically reported production data shows that the 2017 estimate has higher tonnes for lower grade but overall similar contained gold. Snowden is aware that the estimate is slightly over-smoothed and that more selectivity may be achieved during mining; as such, Snowden considers this a reasonable result.		