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AIM: AAU

SIGNIFICANT RESOURCE INCREASE AT KEPEZ PROSPECT

Ariana Resources plc ("Ariana" or "the Company"), the exploration and development company with gold mining operations in Turkey, is pleased to announce a Joint Ore Reserves Committee ("JORC") Resource update for the Kepez Prospect ("Kepez" or "the Prospect"). Kepez is part of the Red Rabbit Joint Venture ("JV") with Proccea Construction Co. and is 50% owned by Ariana through its shareholding in Zenit Madencilik San. ve Tic. A.S. ("Zenit").

Highlights:

- Global resource of c. 371,000t at 2 g/t Au and 14 g/t Ag for 23,900 oz gold and 164,300 oz silver (all categories)*.
- New estimate represents a c. 270% increase on a gold only basis from the previous estimate of c. 8,800 oz gold.
- Kepez demonstrates potential to be mined as a series of satellite pits to the Kiziltepe mining operation.
- Potential resource extensions are represented by a number of drill holes including 9.6m @ 3.0 g/t Au + 119 g/t Ag, 6m @ 2.7g/t Au + 16 g/t Ag from near surface.
- Environmental Impact Assessment ("EIA") extension granted recently to cover part of the Kepez North area; mining permit application process currently underway.

Dr. Kerim Sener, Managing Director, commented:

"This resource update for Kepez indicates the potential to add at least one year of production from this satellite area to the Kiziltepe mining operations. Furthermore, the higher confidence Indicated resource at Kepez North, which contains approximately 60,000 tonnes at 4.6 g/t Au and 34.7 g/t Ag, shows potential for several months of high-grade production. This part of the resource has also been shown to have good metallurgical characteristics from previous bulk testwork.

"We envisage this area being developed as a series of shallow open-pits, developed as satellites to the Kiziltepe mining operations, within short trucking distance from the processing plant. In addition, we believe there is scope to enhance this resource further and additional drilling is being planned by the joint venture accordingly. The proximity of this area to the Kiziltepe operations makes such satellite operations highly viable."

This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014.

* All Mineral Resource figures in the announcement are quoted gross with respect to the Red Rabbit Joint Venture, of which 50% is owned by Ariana.

Resource Estimate

Zenit Madencilik San. ve Tic. A.S. (Zenit) engaged Odessa Resources Pty. Ltd. to review a Joint Ore Reserves Committee ("JORC") compliant Mineral Resource estimate for the Kepez Prospect, which was compiled internally by the joint venture team. The Mineral Resource estimate is based largely on work completed between 2006 and 2015, though also involves some historical exploration data. In compliance with JORC 2012, the Mineral Resource Estimate detailed here includes material scientific and technical information in respect of the Project. The Mineral Resource will inform an infill drilling programme to target those areas that remain in the Inferred category, in addition to testing extensions of known mineralisation along strike and at depth.

Geological Summary

Gold mineralisation within the Kepez district is epithermal and vein-hosted in style, with associated silver, typically structurally controlled at the contact of, or in association with Miocene aged dacitic to rhyodacitic volcanic rocks and underlying Cretaceous aged multi-lithic ophiolite rocks in the case of Kepez North. In the Kepez West area the mineralisation is dominantly associated with rhyodacitic volcanic rocks, although part of the ophiolitic units occur to the north and also appear to exert some influence on the distribution of mineralisation.

The Kepez North prospect is situated 14km haulage distance from the Kiziltepe mine-site. The prospect contains 2.5km of dominantly north-trending and bifurcating low-sulphidation style veins occurring over a series of ridges near the village of Kepez. The Kepez North main vein is approximately 600m long and up to 20m wide (Figure 1). It is positioned at the contact between dominantly dacitic pyroclastic and ophiolitic rocks and dips at 50° to the west. The majority of the gold mineralisation in this vein occurs in a matrix supported hydrothermal quartz breccia which occurs in a limited zone approximately 100m in strike. The mineralisation is silver rich with some veins showing a Ag:Au ratio of between 4:1 and 8:1. In places, a pyrite content of up to 40% is observed but is typically 1 to 5%. Additional ore grade material in the form of scree above the Kepez North hanging wall (c. 7g/t Au + 65g/t Ag) has been defined and included in the resource model.

The Kepez West prospect is located 12km haulage distance from Kiziltepe mine-site. The area generally lacks exposed outcrops, likely due to farming activities occurring over several hundred years having disturbed much of the ground. However, sporadic outcrops, sub-crop and quartz float material are present and coincide largely with an east-west structural corridor of argillic and silicic alteration. The general trend of the Kepez West vein system is east-west with an apparent 20° dip towards the south (Figure 1), although this is not well-constrained due to the limited drilling in this area. However, there is potential shown in some drilling for mineralised extensions to be identified based on current drilling, notably including

the following intercepts 9.6m @ 3.0 g/t Au + 119 g/t Ag, 6m @ 2.7g/t Au + 16 g/t Ag from within 10m of surface (as previously reported on 16 March 2016).

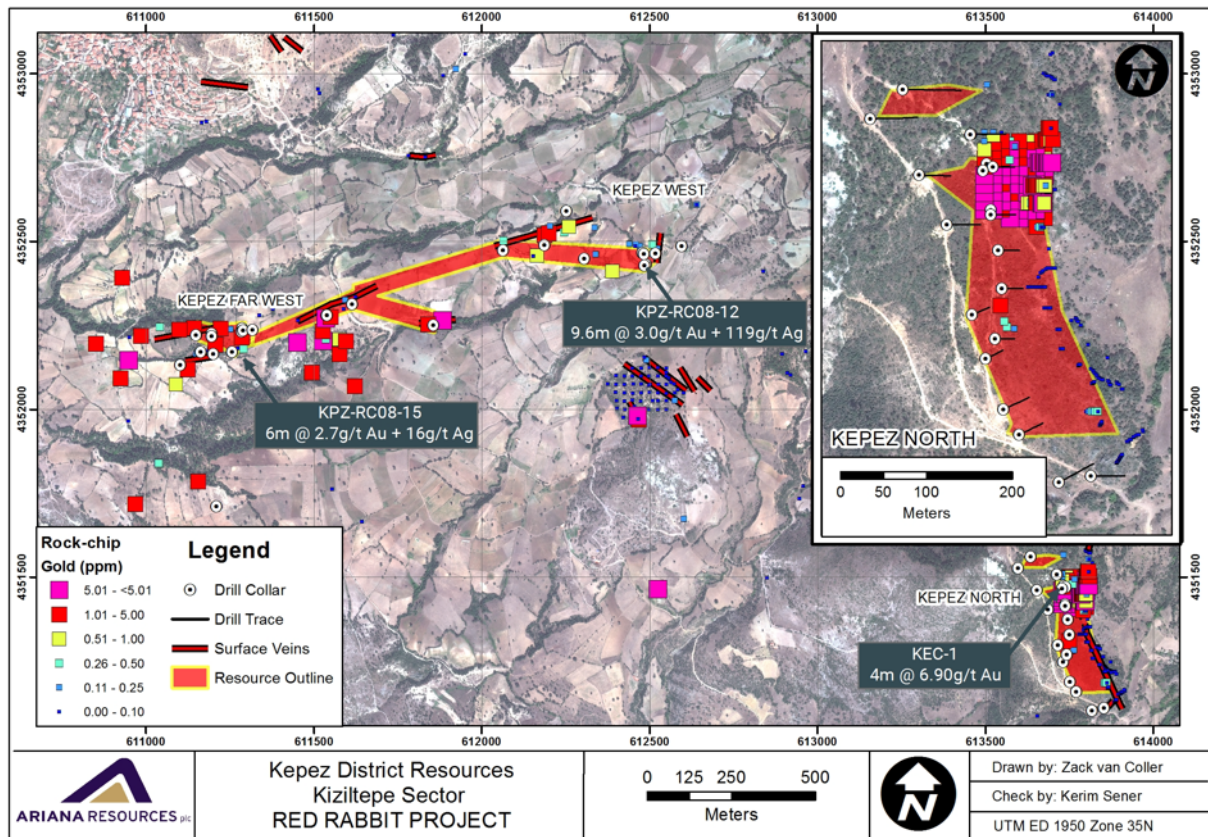


Figure 1: Map of the Kepez Prospect, showing the main resource areas (in red). An inset map shows some additional detail in the Kepez North area. Selected drill hole results are also identified in these areas.

Estimation Methodology

The Kepez North and West veins were modelled as three-dimensional wireframes from sectional interpretation using cut-off grades of 0.5 g/t Au. The dimensions of the modelled quartz veins vary significantly and are typically 500m to 1,400 m in strike length, although smaller segments are also present. The veins dip to the west by 50° at Kepez North and to the south by 20° at Kepez West and dip lengths are typically 150m to 200m. Where continuity was not established between sections, extrapolation along strike was limited. The continuity of the various structures is reflected in the Mineral Resource classification and is based on the extents of available drilling data. Drilling data comprised 20 diamond holes in Kepez North and 20 Reverse Circulation (“RC”) and 8 diamond drill holes in Kepez West.

Compositing was completed in Minesite Torque using a 1m best-fit routine, applying hard domain boundaries, which forced all samples to be included in one of the composites by adjusting the composite length, while keeping it as close as possible to the selected interval of 1m; no top cut was applied to the data. Specific gravity was determined based on the Tetra Tech feasibility study (dated 2013) for the nearby and geologically very similar Kiziltepe deposit. The average ore density identified from this study and used here resource estimation is 2.50 g/t cm³.

A block model was constructed for each vein separately to incorporate both the vein and the halo which were modelled as a whole. Model rotation was not required as the veins strike north-south or east-west. Sub-blocking was not used but block percentages were used to record the percentage of each of the mineralised structures within a block and weighted percentages were used to calculate tonnages.

Gold and silver were estimated separately for each of the vein zones using inverse distance weighted squared method, providing a global estimate. Estimation was limited to the blocks inside the wireframe of each vein zone. The number of informing samples per estimated block was limited to prevent individual holes or samples having too large an influence on the estimate. A single pass strategy was used in the interpolation as the drilling data is not dense enough to categorise material as measured or indicated, other than part of the Kepez North estimate for which extensive surface sampling data is available to support the drilling data. An ellipsoidal search of 50m x 25m x 15m was used.

Resource Classification

The Kepez resource model was classified according to JORC 2012 (Table 1). In the Kepez area Indicated Mineral Resources are those blocks or part blocks that are part of the vein zone and outcrop at surface from which a significant amount of surface sampling data has been obtained. This relates only to part of the Kepez North area and such blocks are supported by some historic diamond drilling data, as detailed in the Tetra Tech feasibility study (2013). Inferred Mineral Resources are those blocks or part blocks that are part of the vein zone and were estimated based on drilling data alone. Inferred Mineral Resources represent areas where sample density was too low to assign a higher resource category.

Confidence in the estimate of the Mineral Resources in the Kepez North area is sufficient to allow the results of the application of technical and economic parameters to be used for detailed mine planning. Some drilling will be planned to help support further studies in addition to assisting the targeting of future exploratory and resource drilling in order to expand the resource further.

Table 1: 2018 Kepez JORC 2012 compliant Mineral Resource estimate, based on 28 diamond and 20 RC drill holes. Gold equivalent is the sum of the gold ounces and the gold equivalent ounces of silver based on a price ratio of 60:1. The Indicated part of the resource previously reported in the Tetra Tech feasibility study of 2013 remains unchanged.

	Tonnes (t)	Grade Au (g/t)	Grade Ag (g/t)	Gold (oz)	Silver (oz)	Au equiv. (oz)
Kepez North						
Indicated	60,000	4.61	34.7	8,768	66,030	9,869
Inferred	159,862	1.15	7.4	5,911	37,879	6,542
Kepez West						
Inferred	150,993	1.89	12.5	9,175	60,439	10,182
GLOBAL TOTAL	370,855	2.00	13.8	23,854	164,348	26,593

Contacts:

Ariana Resources plc
Michael de Villiers, Chairman
Kerim Sener, Managing Director

Tel: +44 (0) 20 7407 3616

Beaumont Cornish Limited
Roland Cornish / Felicity Geidt

Tel: +44 (0) 20 7628 3396

Panmure Gordon (UK) Limited
Adam James / James Stearns

Tel: +44 (0) 20 7886 2500

Yellow Jersey PR Limited
Tim Thompson / Harriet Jackson
/ Henry Wilkinson

Tel: +44 (0) 7544 275 882
arianaresources@yellowjerseypr.com

Editors' Note

The information in this report that relates to Mineral Resources is based on information compiled by Mr. Alfred Gillman of Odessa Resources Pty. Ltd., who is a fellow of the Australasian Institute of Mining and Metallurgy. Mr. Gillman is a consultant to Ariana Resources plc and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the subject matter of the report to qualify as Competent Person and defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results Mineral Resources and Ore Reserves (JORC Code). Mr. Gillman consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Dr Kerim Sener, BSc (Hons), MSc, PhD, is the Managing Director of Ariana Resources plc. A graduate of the University of Southampton in Geology, he also holds a Master's degree from the Royal School of Mines (Imperial College, London) in Mineral Exploration and a doctorate from the University of Western Australia. He is a Fellow of The Geological Society of London and has worked in geological research and mineral consultancy in Africa, Australia and Europe. He has read and approved the technical disclosure in this regulatory announcement.

About Ariana Resources:

Ariana is an exploration and development company with mining operations focused on epithermal gold-silver and porphyry copper-gold deposits in Turkey, the largest gold producing country in Europe. The Company is developing a portfolio of prospective licences originally selected on the basis of its in-house geological and remote-sensing database, which now contain a total of 1.6 million ounces of gold and other metals. Ariana's objective is to cost-effectively add value to its projects through focused exploration and to develop its operations, primarily through well-financed joint ventures.

The Company's flagship assets are its Kiziltepe and Tavsan gold projects which form the Red Rabbit Gold Project. Both contain a series of prospects, within two prolific mineralised districts in the Western Anatolian Volcanic and Extensional (WAVE) Province in western Turkey. This Province hosts the largest operating gold mines in Turkey and remains highly prospective for new porphyry and epithermal deposits. These core projects, which are separated by a distance of 75km, form part of a 50:50 Joint Venture with Proccea Construction Co. The Kiziltepe Sector of the Red Rabbit Project is fully-permitted and is currently in production. The total resource inventory at the Red Rabbit Project and wider project area stands at c. 605,000 ounces of gold equivalent. At Kiziltepe a Net Smelter Return ("NSR") royalty of up to 2.5% on production is payable to Franco-Nevada Corporation. At Tavsan an NSR royalty of up to 2% on future production is payable to Sandstorm Gold.

In north-eastern Turkey, Ariana owns 100% of the Salinbas Gold Project, comprising the Salinbas gold-silver deposit and the Ardala copper-gold-molybdenum porphyry among other prospects. The total resource inventory of the Salinbas project area is c. 1 million ounces of gold equivalent. A NSR royalty of up to 2% on future production is payable to Eldorado Gold Corporation.

Panmure Gordon (UK) Limited are broker to the Company and Beaumont Cornish Limited is the Company's Nominated Adviser.

For further information on Ariana you are invited to visit the Company's website at www.arianaresources.com.

Glossary of Technical Terms:

"Ag" the chemical symbol for silver;

"Au" the chemical symbol for gold;

"cut-off grade" The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification;

"g/t" grams per tonne;

"Indicated resource" a part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed;

"Inferred resource" a part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and has assumed, but not verified, geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited or of uncertain quality and reliability;

"Inverse Distance Weighted Squared" a conventional mathematical method used to calculate the attributes of mineral resources. Near sample points provide a greater weighting than samples further away for any given resource block;

"m" Metres;

"JORC" the Joint Ore Reserves Committee;

"JORC 2012" is the current edition of the JORC Code, which was published in 2012. After a transition period, the 2012 Edition came into mandatory operation in Australasia from 1 December 2013;

"m" Metres;

"oz" Troy Ounces. One Troy Ounce is equal to 31.1035 grams;

Ends.

JORC Table 1

Ariana Resources Kepez Project

The table below is a description of the assessment and reporting criteria used in the Kepez Project Mineral estimation that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (The JORC Code, 2012). The Mineral Resource statement was prepared for the Kepez Project.

Criteria	Explanation
Sampling techniques and Data	
Sampling techniques	<ul style="list-style-type: none"> Reverse circulation (RC) chips were collected at 1m intervals and in some cases over 0.5m intervals over the mineralised zone. The chips were collected into plastic sample bags from a cyclone to ensure maximum recovery. The samples were split using a standard riffle-splitter to around 0.25 to 0.5 kg per sample and sent to an ISO-accredited laboratory in Turkey for Au and Ag analysis by fire assay. Full core was split using a rock saw and half-core samples were taken at variable intervals. Core recovery was recorded into the database.
Drilling techniques	<ul style="list-style-type: none"> Percussion Reverse Circulation (130mm diameter) Diamond coring – HQ/NQ diameter
Drill sample recovery	<ul style="list-style-type: none"> Core recoveries were monitored and were generally good (>95%). RC recoveries were routinely monitored.
Logging	<ul style="list-style-type: none"> All RC and core holes were logged lithologically using a coded logging system for rock type, grain size, colour, alteration and any other relevant observations. Mineralised zones were identified from the geological logging as well as handheld XRF.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> Samples from diamond drilling were collected as sawn half-core or in rare cases full-core where the sample quality and quantity were poorer. A combination of cyclone and riffle splitter to produce 0.25-0.5kg subsamples of RC chips was used. Wet intervals were sub-sampled with scoop or spear. Samples were oven-dried at the laboratory if necessary.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> QC procedures employed in all recent drill programs included the insertion of certified reference standards (1:22), blank samples (1:22), pulp and crush duplicates (2:22) to monitor the accuracy and precision of laboratory data. The overall quality of QAQC is considered adequate to ensure the validity of the data used for resource estimation purposes.
Verification of sampling and assaying	<ul style="list-style-type: none"> Samples collected by Ariana were submitted to ALS Global preparation facilities in Izmir for analysis (ISO 9001 accredited).
Location of data points	<ul style="list-style-type: none"> All collar positions were located initially by hand-held GPS and later surveyed by a professional surveyor using DGPS equipment. Downhole deviation surveys were not routinely carried out in holes of less than 100m depth. Deeper holes were surveyed using a gyro tool.
Data spacing and distribution	<ul style="list-style-type: none"> At Kepez drill section spacing is typically 40-60 metres.

Criteria	Explanation
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> The veins dip 50° W (Kepez North) and 20°S (Kepez West) and dip lengths are typically 150 m to 200 m. Local grade continuity follows the dip of the mineralisation for the entire deposit. All drilling is angled, thus intersecting the mineralisation obliquely. No biases are expected from the drilling direction.
Sample security	<ul style="list-style-type: none"> Samples are stored at a secure company facility (Sindirgi Depot) in a clean area free of any contamination. During an active drilling programme, samples are delivered to the laboratory once a week by Aras Cargo, Sindirgi. Chain of custody is demonstrated by both the company and ALS Global in the delivery and receipt of sample materials. Upon receipt of samples, ALS Global delivers by email to the company's designated QC Manager, confirmation that each batch of 22 samples has arrived, with its tamper-proof seal intact, at the Izmir sample preparation facility. Any damage to or loss of samples within each batch (e.g. total loss, spillage or obvious contamination), must also be reported to the company in the form of a list of samples affected and detailing the nature of the problem(s).
Audits and reviews of sampling and assaying	<ul style="list-style-type: none"> Ariana has implemented QA/QC programs covering all aspects of sample location and collection that meets or exceeds the currently accepted industry standards. Ariana implemented a QA/QC programme based on international best practice during the initial exploration work and subsequent drilling programmes. The company has continued to review and refine the QA/QC programme as these exploration campaigns have progressed.
Estimation and reporting of Kepez Mineral Resource	
Database integrity	<ul style="list-style-type: none"> The Kepez resource data is stored in a MS Access database and is managed using MS Access and Excel software. Data was logged onto field sheets which were then entered into the data system by data capture technicians. Data was validated on entry into the database, or on upload from the earlier MS Access databases, by a variety of means including the enforcement of coding standards, constraints and triggers. These are features built into the data model that ensure data meets essential standards of validity and consistency. Laboratory data has been received in digital format and uploaded directly to the database. Original data sheets and files have been retained and are used to validate the contents of the database against the original logging. Zenit Madencilik and independent consultants Odessa Resources Pty. Ltd. performed a visual validation by reviewing drillholes on section and by subjecting drillhole data to data auditing processes in specialised mining software (e.g. checks for sample overlaps etc.).
Site visits	<ul style="list-style-type: none"> Zenit Madencilik staff are permanently on site. Two site visits have been undertaken by Odessa Resources Pty. Ltd. Ariana staff have visited the site on numerous occasions to observe drilling and sampling operations in order to ensure proper QAQC and sampling protocols are maintained.
Geological interpretation	<ul style="list-style-type: none"> Veins in the Kepez project are dominantly north trending and bifurcating low sulphidation style veins and located at the contact between dacitic pyroclastic and ophiolitic rocks. Interpretations of geological surfaces derived from 3D modelling of drillhole lithological data.
Dimensions	Kepez North

Criteria	Explanation
	<ul style="list-style-type: none"> In plan orientation, the deposit is approximately 600 metres long and 20 metres wide. <p>Kepez West</p> <ul style="list-style-type: none"> The Kepez West prospect area is lacking in outcrops but the area is rich in quartz float on an E-W trend. Drilling confirms this trend and the presence of quartz veins at depth. The general trend of the Kepez West vein is thought to be E-W with a gentle 20° south dip.
Estimation and modelling techniques	<ul style="list-style-type: none"> Drillhole sample data was constrained within: <ul style="list-style-type: none"> Manually constructed wireframes defined by nominal 0.5g/t Au cut off. Several <0.5g/t Au intervals were included to maintain geological continuity. Sample data was composited to a 1 metre downhole length using a wireframe-intersection compositing method. Residual samples (those composite intervals for which there was less than 50% of the composite length) were not considered biased and hence were included in the estimate. An analysis of the grade distribution characteristics of the domain composites for each deposit was undertaken. Top cuts were not applied. Isotropic search ellipses and ranges were used. The block models were constructed using a 5mE by 5mN by 5mRL parent block size. Estimation was carried out using inverse distance squared (ID2) at the parent block scale with one pass using all available composites. A percentage weight model was used to report precisely the volume of material within each block. No changes were made to the Indicated part of the resource previously reported in the Tetra Tech feasibility study of 2013.
Moisture	<ul style="list-style-type: none"> Tonnes have been estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> Indicated and Inferred Resources have been reported above a 0.5 g/t Au cut-off grade.
Mining factors or assumptions	<ul style="list-style-type: none"> No mining factors (i.e. dilution, ore loss, recoverable resources at selective mining block size) have been applied.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> No metallurgical assumptions have been built into the resources, although it is apparent from previous testwork that the material at Kepez North responds to cyanide leaching very well, with recoveries c. 90% (per report announced 3 September 2009).
Environmental factors or assumptions	<ul style="list-style-type: none"> No environmental assumptions have been applied to the project, though it is noted that the Kepez North area has recently been included in the same Environmental Impact Assessment for the Kiziltepe Mining Operations.
Bulk density	<ul style="list-style-type: none"> Bulk density data was sourced from the Tetra Tech (2013) model. Assigned bulk density of 2.50 g/cm³ has been applied.
Classification criteria	<ul style="list-style-type: none"> Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model and modelled grade continuity.

Criteria	Explanation
	<ul style="list-style-type: none"> Inferred Mineral Resources have been defined by a search radius of 15-50m.
Block Model verification	<ul style="list-style-type: none"> For each deposit, the ID2 model was validated against the input drillhole composites for each domain by visual comparisons carried out against the composited drillhole samples for each domain against the modelled block grade.
Audits or reviews	<ul style="list-style-type: none"> The estimated grades were validated against average Au and Ag grade statistics for each lode.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Odessa Resources Pty. Ltd. place a relative accuracy of +/- 20% (and 90% confidence level) in the Mineral Resource estimate at the global level for the Inferred Resources based on the estimation technique and data quality and distribution.