ASX ANNOUNCEMENT **ASX code: GED**

31 January 2019

Golden Deeps confirms major Resource Upgrade at Abenab Vanadium project

Highlights:

- **Comprehensive geological study completed at Abenab and Abenab West Vanadium Projects**
- **New updated Mineral Resource of 2.8Mt 0.66% vanadium pentoxide, 2.35% lead and 0.94% zinc at a cut-off grade of 0.2%**
- **Resource delivers significant increase in total tonnes and contained metal - contains 18.5kt vanadium pentoxide, 65.8kt lead, 26.3kt zinc**
- **~3,000m drilling program to commence Q1 – to expand Abenab mineralised footprint**
- **New geological model generates seven new priority exploration targets**
- **Negotiations for treatment of surface ore stockpiles (ROM) and tailings are at an advanced stage**

Golden Deeps Limited (ASX: GED) is pleased to announce a significant Mineral Resource upgrade at the Abenab Vanadium project in Namibia.

The new Mineral Resource is the result of a detailed geological review and target generation study at the Abenab project, and has delivered a 150% increase in total tonnes (at a cuff-off grade of 0.2%). A drilling program is planned to test new targets identified in Q1 2019.

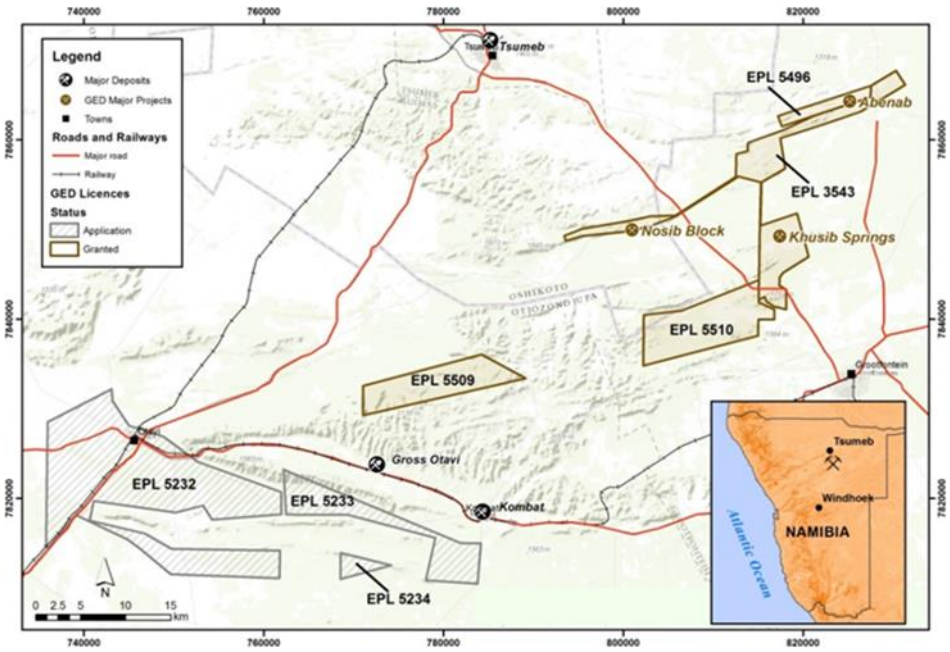

Figure 1: Location Plan - Abenab Vanadium Project

Geological Review and Target Generation Study

In November 2018, GED engaged highly experienced and recognised consultancy Shango Solutions (Shango) to conduct a comprehensive geological and drill targeting study on the Abenab Project (Figure 1). The study facilitated the integration of newly acquired historic exploration data from AVZ Limited (formerly Avonlea Minerals Limited).

Shango commenced the study with an extensive search for additional historic data followed by compilation and validation of the exploration data. Historic underground drill holes were captured off old level plans adding to the digital database. As a result, the database has been updated and enhanced providing a robust platform for future exploration work.

New 3D geological models have been generated for Abenab and Abenab West (Figure 2). The addition of underground drill data from old mine plans allowed lithological contacts and faults to be modelled resulting in an improved understanding of the ore zones and the lithological and structural controls on mineralisation.

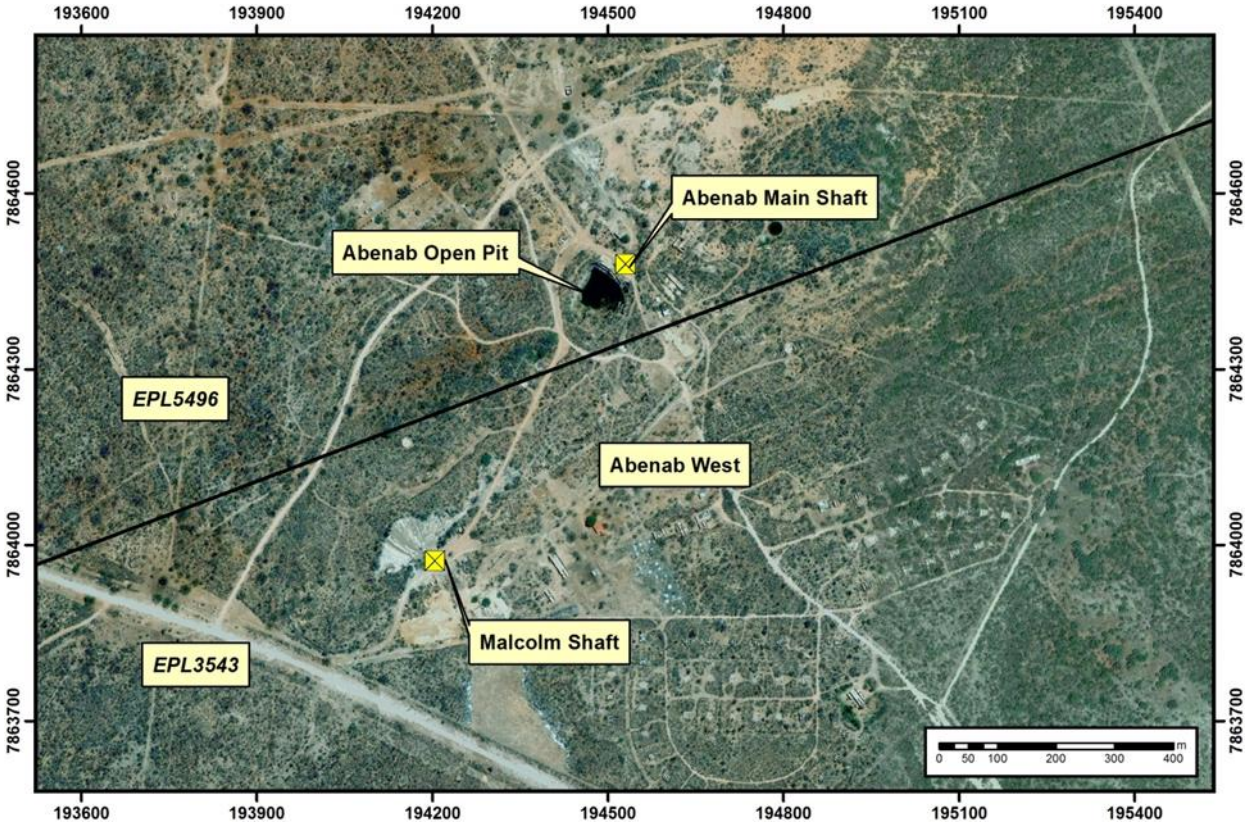

Figure 2: Abenab Project showing location of the open pit, tailings and broken ore stockpile

New Updated Mineral Resource

The updated JORC Inferred Mineral Resource for Abenab calculated by Shango is:

- **2.80Mt @ 0.66% V_2O_5 (vanadium pentoxide), 2.35% Pb (lead), 0.94% Zn (zinc)**at a 0.2% V_2O_5 cut-off
  - which equates to **18.5kt vanadium pentoxide, 65.8kt lead and 26.3kt zinc**.

By lowering the cut-off grade from the previous Resource calculated by SRK, GED has significantly increased the tonnages by 4.1kt vanadium pentoxide, 31.6kt lead and 12.3kt zinc.

The previously announced JORC Inferred Resource for Abenab was 1.12Mt @ 1.28% V_2O_5, 3.05% Pb, 1.25% Zn at a cut-off of 0.5% V_2O_5 which equated to 14kt vanadium pentoxide, 34kt lead and 14kt zinc.

The 0.5% V_2O_5 cut-off was selected in the previous Resource as it was considered to be most appropriate for a typical magnetite-style vanadium project; the majority of vanadium projects comprise vanadium minerals hosted by magnetite in layered igneous intrusions.

At Abenab, the vanadium mineralisation is primarily contained in a lead-zinc-vanadium mineral (descloizite ($Pb,Zn(VO_4)(OH)$)) and is hosted by a brecciated carbonate rock. The processing required for ore from Abenab will be significantly less, and accordingly cheaper, than the processing required for a magnetite-style vanadium deposit. As a result, a cut-off grade of 0.2% V_2O_5 has been adopted for the new Abenab Resource.

It is noted that the lead and zinc percentage values in the updated Mineral Resource remain similar to that which was reported by SRK, as a result the amount of lead and zinc has almost doubled. The Company's intention is to recover these minerals in addition to the vanadium.

Nine drillholes were utilised to define grade shells based on interpolated grades between drillholes using Leapfrog Geo. The orientation and dimensions of the grade shells were based on the interpretation of geology and mineralisation using the newly modelled breccia host as a guide (Figures 3-4).

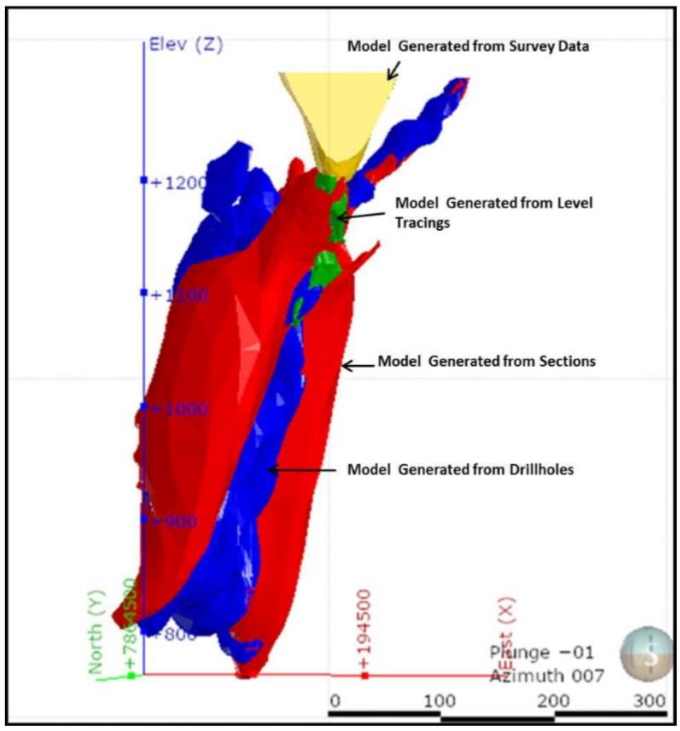

Figure 3: Sources of data used to generate final geological model

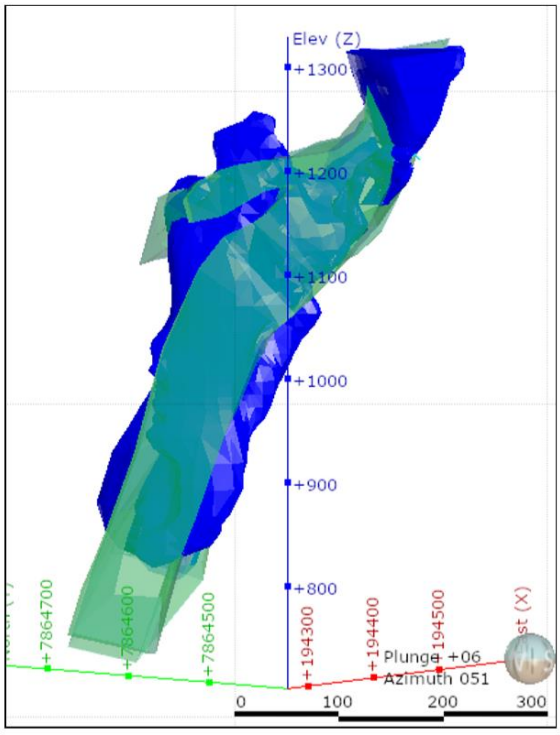

Figure 4: Comparison between SRK (green) and Shango (blue) models for the breccia host at Abenab

Various combinations of search parameters yielded robust mineralisation trends supported by downdip and horizontal grade continuity. A comparison between Shango's 0.2% V_2O_5 grade halo (green) compared to SRK's previous 0.5% V_2O_5 grade halo (yellow), is shown in Figure 5.

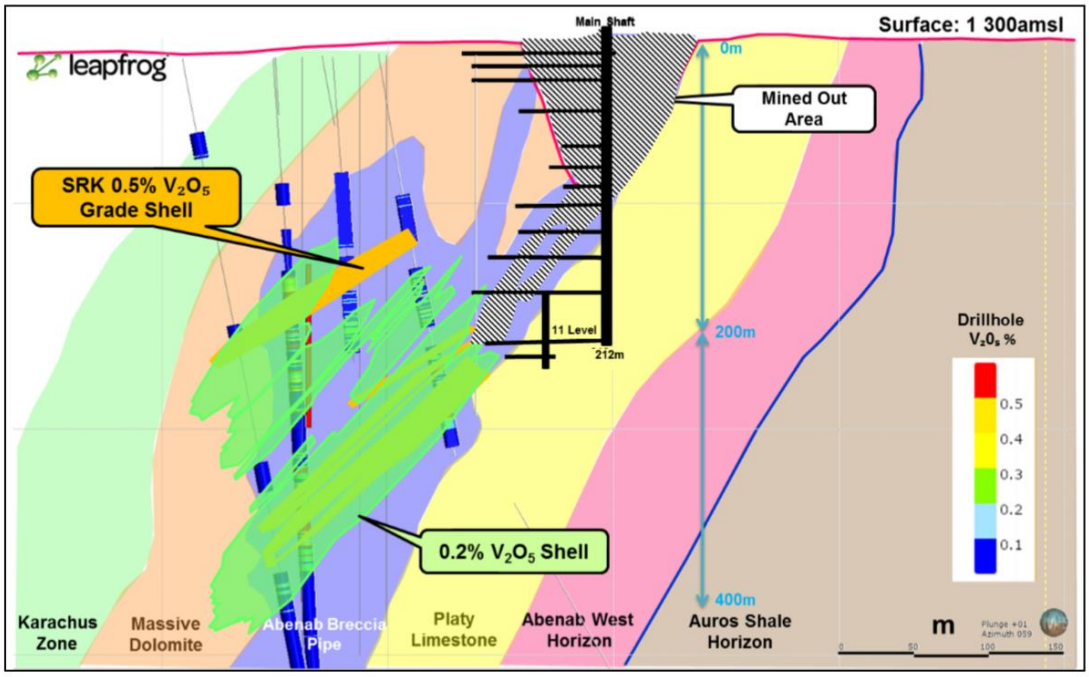

Figure 5: Shango 0.2% V_2O_5 grade halo (green) compared to SRK's 0.5% V_2O_5 grade halo (orange)

Planned Drilling Program

Utilising the new geological model, a ~3,000m diamond drilling program has been planned at Abenab and Abenab West. At Abenab, drilling will have the dual aim of in-filling existing drilling within the Resource outline and testing for extensions on the margins of the resource. The majority of previous drilling has tested the resource at depth with little or no drilling adjacent to the open pit and the underground workings below the pit. Geological mapping has identified vanadium-bearing breccias on the margins of the open pit parallel to the northeast trending fault that hosts the Abenab deposit. In addition, only minor drilling has been conducted to locate ore remnants and the mineralised halo around the underground workings.

ENDS

For further information, please refer to the Company's website at www.goldendeeps.com or:

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Caution Regarding Forward-Looking Information

This document contains forward-looking statements concerning Golden Deeps. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Golden Deeps as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Competent Person Statement

The information in this announcement that relates to Exploration Targets and Exploration Results is based on information compiled by Mr. Martin Bennett. Mr Bennett is an employee of Golden Deeps Limited and is a member of the Australian Institute of Geoscientists. Mr Bennett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Bennett consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this announcement that relates to estimation of the Mineral Resource at Abenab is based on, and fairly represents, information which has been compiled by Mr Manie Swart. Mr Swart is a Member of the South African Council for Natural Scientific Professions and a full-time employee of Shango Solutions. Mr Swart has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken 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'. Mr Swart consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Shango has been guided by SRK's 2018 resource update document (Mineral Resource Estimate for the Abenab Vanadium Project, 2018) in the compilation of the following table. Material changes in cut-off criteria and geological modelling procedures are noted as required.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Diamond core samples were taken from half-cut HQ core with sample lengths between 0.3 m and 1.2 m. Core samples intervals were selected so as not to cross geological boundaries. • Samples were representative of the geology and mineralisation. • Samples in one drill hole, BH036, were taken from a historical cross section from Tsumeb Corporation, but were not used in resource estimation (used to guide interpretation only).
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• HQ core drilling from surface was used. • Core was orientated each run using the spear method.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample recovery was logged by Avonlea Minerals Ltd's (AVZ) geological team into Microsoft Excel spreadsheets. • Good recovery was encountered (87% in total) in the drilling, with cavities and core loss marked by drillers within core trays. • The 13% core loss was a combination of poor core recovery and porosity. • There is no known bias between core recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Detailed lithological and structural logging was carried out by AVZ geologists using company standard protocols. • Lithology, alteration, mineralisation and structure were captured in the logging. • All drill core was photographed prior to cutting after geological logging with sample mark-up and orientations preserved.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Drill core samples have been half-core sampled from HQ core. • Sample intervals are 0.3 m to 1.2 m, with an average of 1 m. • Drill core was cut on site by AVZ personnel with samples confined to geological boundaries, unless <0.3 m, from logging as assigned by AVZ geologists. • No field duplicates were taken. • Samples are considered to be representative of geology and mineralisation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their*	• All samples were submitted to Genalysis (Maddington, Perth) for analysis. Samples were transported to Genalysis in Walvis Bay, Namibia, for initial sample preparation and then forwarded to Maddington, Perth. • Samples were analysed for V, Pb, Zn, S, Cu, As, Ti, Ag using

Criteria	JORC Code explanation	Commentary
	derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	ICP/MS/OES methods with a sodium peroxide fusion method. • QA/QC was performed on samples submitted to the laboratory and found to be sufficient for the resource estimation. • Standards were routinely submitted with all assay batches at a rate of 1:20. • Standards used from Geostats Pty Ltd included GBM399-5 and GBM910-8, GBM311-3 and GBM909-11. • These are base metal standards certified for Pb, Zn and Cu. No V standards were used at the time of analysis due to lack of commercially available standards of similar characteristics; however, Pb, Zn and Cu standards validate the V data. • No field duplicate samples or blanks were used in the AVZ drilling programmes.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No verification has been conducted on the samples. • No twin holes of the AVZ drilling have been drilled. • No adjustment to the assay data has been made. • AVZ data was captured into Ms Excel spreadsheets and later imported into MS Access • Database entries were compared to the original Excel spreadsheets for verification.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drillhole collars were located using GPS by AVZ geological staff which are considered to be sufficiently accurate for this study. • Drillholes collars are in UTM34S
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill spacing for AVZ's 2011/2012 drilling programme was 20 – 40 m, with holes drilled at 80° or 85° dip into the known mineralisation. • The spacing of mineralised intersections is considered sufficient to permit correlation of mineralisation continuity for this level of

Criteria	JORC Code explanation	Commentary
		resource classification. • Sample compositing was not applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drill core was orientated were possible with structural data recorded as alpha/ beta measurements. • Drilling was orientated oblique to geological units and interpreted mineralised zones using depletion polygons from mined-out areas. • The orientation of the mineralisation was determined at the modelling stage, utilising all relevant intersections.
Sample security	• *The measures taken to ensure sample security.*	• Samples were bagged and sealed and transported by AVZ field staff • to the laboratory in Walvis Bay, Namibia, and then via registered
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No independent audit of sampling techniques has been completed. However, SRK has reviewed procedures supplied and found them to be appropriate.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Abenab pipe deposit lies within one exploration licence, EPL5496. The exploration licence is held by a Golden Deeps Ltd, an 80% owned Namibian subsidiary, Huab Energy (Pty) Ltd. • The Government of Namibia has a 3% royalty on any base metal production. • There are no material issues, native title or environmental constraints known to SRK which may be deemed an impediment to the continuity of the Abenab project. Shango has not

Criteria	JORC Code explanation	Commentary
		conducted an independent review of mineral title.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration at the Abenab project has been completed by South West Africa Company, Tsumeb Corporation Ltd, Goldfields of Namibia, Japanese International Cooperation Agency, Kudu Minerals and Avonlea Minerals Ltd.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Abenab pipe deposit is hosted within carbonate units of the Otavi Group rocks. Mineralisation is hosted on or near the contact between units of the Maiberg Formation. • Mineralisation is historically hosted in a pipe-like body described as a collapsed breccia with localized clay infill. Vanadium-lead-zinc mineralisation comprises an oxide mineral known as descloizite with minor associated vanadinite.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No new exploration results are reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values*	• No new exploration results are reported.

Criteria	JORC Code explanation	Commentary
	should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• No new exploration results are reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to the main body of the report for relevant plans and sectional reviews.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Not applicable as no exploration results are reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No other data is material to this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Golden Deeps and Shango Solutions have assessed the geological data from previous companies to develop an exploration programme aimed at extending the known limits of mineralisation and upgrading the resource confidence at the Abenab Project. • Refer to the main body of the report for details of planned exploration programmes.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Resource data is stored in a Microsoft Access database and Microsoft • Excel spreadsheets. The data used in the Mineral Resource estimate has been cross referenced with original geology logs and laboratory report files and is suitable for the resource estimate
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Alex Aitken, CP responsible for the geology model and data integrity in the SRK Mineral Resource estimate was on site during the AVZ drilling operations in 2010–2012. • Mr Manie Swart (CP) who takes responsibility for Shango's Mineral Resource estimation has not been to site. However, two site visits have been conducted by Shango's technical expert, Professor Sybrand de Waal, during late 2018.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Geological interpretation has been based on an extensive critique of available drillhole and historical information spanning the entire duration of mining and previous exploration programmes. • Geological modelling was conducted using Leapfrog Geo software. • Interpretation was guided by geological logging with mineralisation contained within the quartz-carbonate breccias and veins. • Drillhole intersections have shown that the orebody displays lateralcontinuity across the host breccia-filled pipe.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below*	• The mineral resource is confined to the volume of breccia pipe which covers a plan area of approximately 125 × 160m, by 520m

Criteria	JORC Code explanation	Commentary
	surface to the upper and lower limits of the Mineral Resource.	in vertical extent, commencing from 770 mamsl surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• The resource is contained within a number of stacked and merging lenses of mineralisation which are understood to be approximately concordant with pre-brecciation bedding directions. • The lateral extents of the resource block model adequately cover the known mineralisation. • Resource estimation was performed in three dimensions utilising Leapfrog Edge • Shango conducted iterative visual and internal peer reviews to validate the estimate. • The spatial continuity was inferred from the geological model and supported by an experimental variogram. • Domaining was not required as only one vanadium population was observed with no noticeable outliers. • No outlier capping or cutting was applied to the dataset as it was not deemed necessary as no outliers where identified. • Grade shells were constructed utilising the dip and azimuth derived from the experimental variogram. Inverse Distance Weighted to the power of three (IDW3) was selected as the estimation methodology, owing to the limited spatial continuity observed within the experimental variogram. Poor spatial continuity is attributed to the limited number of samples in the dataset. • The 0.2% and 0.5% V2O5 grade shells were utilised as hard domain boundaries within which estimation was conducted. The application of the hard boundary results in only samples plotting within the grade shells being utilised. • The search range was restricted to distances marginally greater than the average drillhole spacing. The restricted search range

Criteria	JORC Code explanation	Commentary
		coupled with IDW3 estimate ensured that the model was primarily informed by adjacent samples and prevents smearing of high grades. • Grades were estimated into 20 m x 20 m parent cells and subcelled down to 2 m.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated. A description of density data is presented below.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• In the absence of an orebody optimisation study, Shango has • employed a range of cut-off grades to illustrate the effect of a variable cut-off grade on resource tonnages. • Accordingly, Shango has reported resources at both 0.2% and 0.5% V2O5 cut-off grades.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Detailed mining studies have not yet been completed. It is expected that ore will be extracted using conventional selective underground or open pit mining methods which includes drilling and blasting, • excavator mining, stope mining and dump truck haulage. Mining dilution assumptions have not been factored into the Mineral Resource estimates.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Avonlea completed metallurgical testwork in 2012 from representative bulk samples taken from onsite stockpiles. • Process flow sheet defined from historical documents from the mine processing plant correlated with the AVZ metallurgical testwork. • Detailed metallurgical testwork is planned to be completed as part of further studies. • Gravity separation using a 1 mm crushed material using wet tables and spirals to produce a heavy mineral concentrate.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No known environmental factors or assumptions have been made at this stage of the project.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density was measured by Genalysis for the samples from ABD008 with a total of 257 samples, using the' water immersion' method. • An average dry bulk density of 2.81t/m3 was applied to the mineralised material. • No allowance was made for open fissures which may exist within the orebody.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The resource classifications have been applied based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the confidence in the estimation technique, and the likely economic viability of the material. • Model validation checks show a good match between the input data and estimated grades, indicating that the estimation procedures have performed as intended, and the confidence in the estimates is consistent with the classifications that have been applied. • Past mining activity at Abenab and in the Otavi Mountain Land Region supports potential economic viability of the deposits. • Based on the findings summarised above, it was concluded that the primary controlling factor for classification was sample

Criteria	JORC Code explanation	Commentary
		coverage. A classification of Inferred was assigned to all domained material.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No independent audits or reviews have been conducted on the Resource estimates carried out by Shango. • Shangohas also completed an internal peer review.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The resource estimates have been prepared and classified in accordance with the guidelines that accompany the JORC Code (2012), and no attempts have been made to further quantify the uncertainty in the estimates. • The largest source of uncertainty is considered to be related to orebody interpretation. However, based on pit exposures and core logging, general lode geometry is considered to be well understood,the likelihood of an alternative interpretationthat would yield significantly different grade and tonnage estimates is considered to be low. • In a lode system, the incorrect linking of individual lodes between drill lines is possible, but the relatively close drill spacing would mean that any such occurrences may impact upon the localised estimates, but are not expected to significantly affect the regional or global estimates. The Mineral Resource estimate and the accompanying model are considered suitable to support broad scoping mine planning studies, but are not considered suitable for detailed production planning.