# **New Silver-Copper Mineral Resource Model Highlights Extension** Potential for High-Grade Khusib Springs Deposit in Namibia

- Silver-copper drilling intersections including 69m @ 100 g/t AgEq\* underline potential for depth extensions of high-grade deposit
  - New Mineral Resource model for Khusib Springs (Table 1) incorporating drilling below the highgrade silver-copper deposit (past production 300,000t @ 584g/t silver & 10% copper with zinc, lead, antimony & germanium credits1) demonstrates significant potential for thick extensions to this highgrade silver deposit, which remains open at depth and to the west (see cross section, Figure 1).
  - > The Company's previous drilling produced thick intersections of silver (Ag) and copper (Cu), with zinc (Zn) and antimony (Sb), associated with veins and blebs of the silver-copper bearing sulphide mineral, Tennantite (see Image 1). These included the following thick, high-grade silver with copper intersections in KHDD006<sup>2</sup> (with silver equivalent, AgEq\*), (see Tables 2 and 3 for details):
    - 90m @ 83 g/t AgEq\* (52.3 g/t Ag, 0.29% Cu, 0.06% Zn, 34 g/t Sb) from 389m. incl. 69m @ 100 g/t AgEq\* (63.7 g/t Ag, 0.35% Cu, 0.07% Zn, 42 g/t Sb) from 402m, incl. 28m @ 156 g/t AgEq\* (101 g/t Ag, 0.53% Cu, 0.1% Zn, 81 g/t Sb) from 402m.

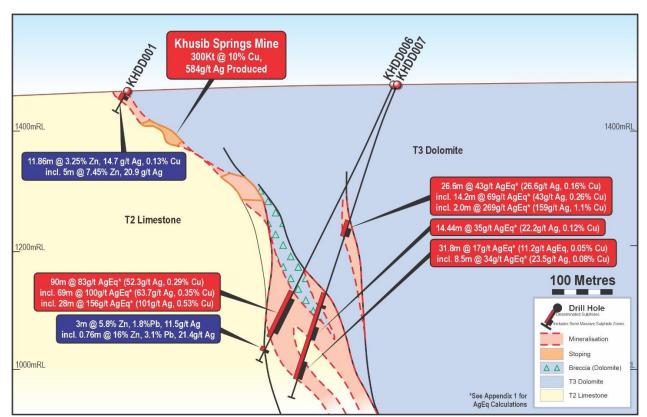


Figure 1, Khusib Springs Cross Section showing previously mined area and new intersections at depth.

> The initial drilling, which discovered extensions to the Khusib Springs deposit, has been incorporated into a maiden Mineral Resource model (Table 1), which includes high-grade remnants around the originaly mined zone, and thick new extensions at depth, which remain completely open.

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

#### **Golden Deeps CEO Jon Dugdale commented:**

"The increasing silver price has triggered a review and new Mineral Resource modelling and targeting, based on the new mineralisation discovered below the very high-grade Khusib Springs deposit, which produced 300,000 tonnes at 584g/t silver and 10% copper via a decline mine which closed in the early 2000s.

"Examination of the Company's recent drill-core indicates that the mineralisation is associated with evenly distributed blebs and clots of the high-silver bearing sulphide mineral Tennantite, over an approximate truewidth thickness of over 90m.

"Initial Mineral Resource modelling has shown potential for this thick zone of silver-copper mineralisation to extend to the west of the company's previous drilling, where the zone may re-develop into a massive sulphide zone, similar to the deposit previously mined.

"Further drilling will be planned based on this new Mineral Resource model, offering potential for the discovery of further high-grade silver-copper resources for development at Khusib Springs."

Golden Deeps Ltd (ASX: GED) is pleased to announce new Mineral Resource modelling of the Khusib Springs high-grade silver-copper deposit has demonstrated potential for substantial thicknesses of silver-copper mineralisation extending to the west and at depth below the previous mine, which produced 300,000t at 10% copper and 584g/t silver<sup>1</sup>. The decline mine closed in the early 2000s and infrastructure is still in place including the portal and previous buildings and haul roads.

The Khusib Springs deposit is analogous to the world-class Tsumeb deposit, located 40km to the northwest, which produced **27Mt** @ **4.3% Cu**, **10% Pb**, **3.5% Zn**, **95 g/t Ag)**<sup>4</sup> (see location, Figure 2).

The previous drilling intersections by the Company have been converted to silver equivalent as silver contributes most to the AgEq\* calculation (see Appendix 1, Table 3a). The revised intersections are as follows (see cross section, Figure 1 & Tables 2a and 2b for details):

- 90m @ 83 g/t AgEq\* (52.3 g/t Ag, 0.29% Cu, 0.06% Zn, 34 g/t Sb) from 389m in KHDD006² incl. 69m @ 100 g/t AgEq\* (63.7 g/t Ag, 0.35% Cu, 0.07% Zn, 42 g/t Sb) from 402m, incl. 28m @ 156 g/t AgEq\* (101 g/t Ag, 0.53% Cu, 0.1% Zn, 81 g/t Sb) from 402m.
- 26.6m @ 43 g/t AgEq\* (26.6 g/t Ag, 0.16% Cu, 0.02% Zn) from 241m in KHDD007³ incl. 2m @ 269 g/t AgEq\* (159 g/t Ag, 1.1% Cu, 0.13% Zn, 59 g/t Sb) from 254m, & 14.44m @ 35 g/t AgEq\* (22.2g/t Ag, 0.12% Cu)

Incl. 8.5m @ 34 g/t AgEq\* (23.5 g/t Ag, 0.08% Cu, 0.15% Zn).

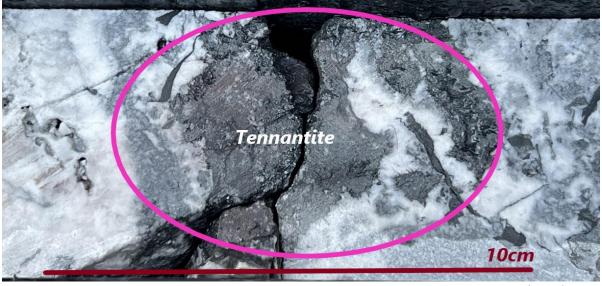


Image 1: High-tenor silver-copper bearing sulphide mineral Tennantite vein in KHDD006 (456m)

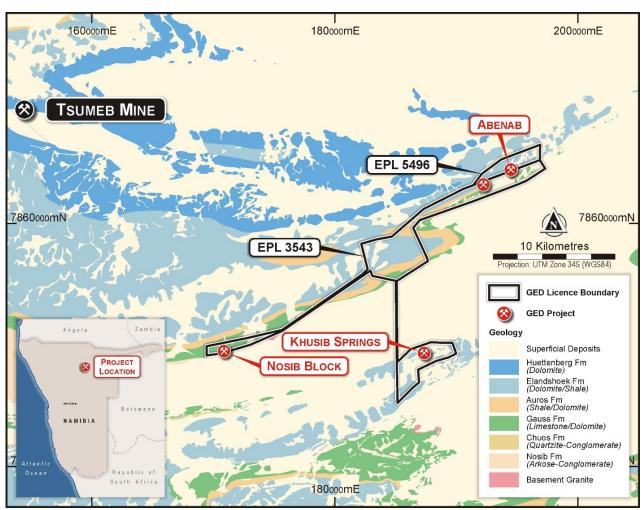


Figure 2: Golden Deeps Otavi Copper Belt licences with location of Nosib, Abenab and Khusib Springs deposits

The new Mineral Resource model incorporated recent drilling by the Company which intersected a 90m thick, approximately true-width zone of silver-copper sulphide mineralisation, occurring in a brecciated zone across the T3 dolomite/T2 limestone contact in the Maieberg Formation of the Damara Supergroup. This is the same position as the previously mined deposit located up-dip across the interpreted wrench fault<sup>2</sup> (see Figure 1). The model also includes remnant high-grade material around the previously mined high-grade massive sulphide deposit.

The new Mineral Resource estimate has been prepared by South African based Shango Solutions (Shango) and includes **1.9 Moz of silver equivalent metal in the Indicated and Inferred Mineral Resource category**, as detailed below (see Table 1 for detailed breakdown per domain):

492,000t @ 116 g/t AgEq\* (63 g/t Ag, 0.50% Cu, 0.11% Zn) – 1.9 Moz AgEq\*
 incl. 78,000t @ 353 g/t AgEq\* (163 g/t Ag, 1.84% Cu, 0.30% Zn) – 0.9 Moz AgEq\* Indicated,
 incl. 414,000t @ 73 g/t AgEq\* (45 g/t Ag, 0.26% Cu, 0.11% Zn) – 1.0 Moz AgEq\* Inferred.

The Khusib Springs high-grade silver-copper mineralisation is hosted by carbonates of the Otavi Group. The mined portion of the deposit consists of a high-grade lens-shaped massive sulphide orebody that is elongated parallel to bedding and is up to 10m thick. The orebody plunges at a moderate dip ( $\sim$ 40°) towards the south-east and is up to 110m in down dip extent, with a long dimension of nearly 150m.

The sulphides, predominantly silver bearing Tennantite, replace locally brecciated limestone of the lower Tsumeb Subgroup, on the northern limb of a large northeast-trending synclinal structure.

The mined deposit terminated against a steeply dipping wrench-fault at around 300m depth (Figure 1). Further historical drilling carried out to the south of the fault and at depth intersected several zones of silver-copper mineralisation from around 400m depth. These historical drilling intersections south of the fault indicated potential for the offset deposit to the south-west and at depth (Figure 3).

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

Work in 2020 by Shango<sup>2</sup>, on behalf of Golden Deeps, highlighted potential for remnant, open-pitable mineralisation above the mined Khusib Springs deposit (see Figure 1). **Potential was also identified for the offset extensions of the Khusib Springs deposit to be located to the south and at depth across the offsetting wrench fault (Figure 1)**.

The more recent drilling by Golden Deeps, which stepped out to the south and west of historical drilling in this zone<sup>2</sup>, intersected a thick new zone with veins and blebs/clots of Tennantite over a 90m thickness which produced the significant intersections in KHDD006<sup>2</sup> and KHDD007<sup>3</sup>. **This newly identified silver-copper zone remains open to the west and at depth, where potential exists for further massive sulphide mineralisation, similar to that previously mined. New drilling will be planned to extend the zone, and also target repeats of the very-high grade silver-copper zone mined historically.** 

The new Mineral Resources include the remnant material around the previous stoping (Indicated Mineral Resources) and the deeper mineralisation intersected by KHDD006 and 007 (Inferred Mineral Resources).

The upper deposit was mined and transported to the Tsumeb operation and concentrated via flotation then smelted to produce final metal products.

An evaluation by mining consultants Bara Consulting (South Africa) indicates the Khusib Springs Mineral Resource has a reasonable prospect of eventual economic extraction through underground mining via mechanised cut and fill (with potential for larger-scale open stoping for the thicker deposit at depth), and transport to a centralised plant (either new or existing) for processing. The existing decline would need to be extended to access the deeper deposit.

The new Khusib Springs Mineral Resource is in addition to the recently announced Mineral Resources for the Nosib and Abenab vanadium, copper, lead, zinc and silver deposits (see Figure 2), totalling 3.01Mt @ 1.07% V<sub>2</sub>O<sub>5</sub>Eq\* (0.5% V<sub>2</sub>O<sub>5</sub>, 1.39% Pb, 0.56% Zn, 0.19% Cu, 1.0 g/t Ag)<sup>5</sup>, as detailed below:

- i) Maiden Measured, Indicated & Inferred Mineral Resource estimate for Nosib<sup>5</sup> of: 707,660t @ 1.06% CuEq\* (0.67% Cu, 0.15% V<sub>2</sub>O<sub>5</sub>, 0.84% Pb, 0.04% Zn, 3.56g/t Ag) incl. 51,560t @ 4.36% CuEq\* (1.85% Cu, 1.01% V<sub>2</sub>O<sub>5</sub>, 5.86% Pb, 0.11% Zn, 6.2g/t Ag) Measured incl. 582,170t @ 0.77% CuEq\* (0.54% Cu, 0.08% V<sub>2</sub>O<sub>5</sub>, 0.49% Pb, 0.03% Zn, 3.1g/t Ag) Indicated incl. 73,930t @ 0.94% CuEq\* (0.85% Cu, 0.02% V<sub>2</sub>O<sub>5</sub>, 0.07% Pb,0.01% Zn, 5.7g/t Ag) Inferred (CuEq calculation = (1 x Cu%) + (1.12 x V<sub>2</sub>O<sub>5</sub>%) + (0.25 X Zn%) + (0.22 x Pb%) + (0.009 x Ag g/t)<sup>5</sup>
- ii) Majority Indicated Mineral Resource estimate for **Abenab**<sup>5</sup> of:
  - **2.30Mt** @ **1.11%**  $V_2O_5Eq^*$  (**0.61%**  $V_2O_5$ , **2.66% Pb**, **1.04% Zn**, **0.06% Cu**) 0.2%  $V_2O_5$  cut-off incl. 1.15Mt @ 1.34%  $V_2O_5Eq^*$  (0.76%  $V_2O_5$ , 1.86% Pb, 0.75% Zn, 0.05% Cu) Indicated incl. 1.15Mt @ 0.88%  $V_2O_5Eq^*$  (0.45%  $V_2O_5$ , 1.26% Pb, 0.70% Zn, 0.03% Cu) Inferred ( $V_2O_5Eq$ . calculation = (1 x  $V_2O_5\%$ ) + (0.9 x Cu%) + (0.23 X Zn%) + (0.2 x Pb%) + (0.008 x Ag g/t)<sup>5</sup>

Further drilling is required to extend and better define the deposit before more advanced mine modelling is carried out to generate Mineral Inventory/Reserves. These would be incorporated into the integrated mining and processing development study for the Otavi Mountain Land deposits, which would initially produce high-grade vanadium-copper-lead-zinc-silver concentrate from Abenab and Nosib prior to downstream hydrometallurgical leaching<sup>6</sup>, to produce high-value vanadium products such as vanadium electrolyte for vanadium redox flow batteries (VRFBs) as well as copper, lead and zinc by-products.

The silver-copper sulphide deposit discovered at Khusib Springs, and the copper with silver sulphide deposit at Nosib, have been converted to initial Mineral Resources to demonstrate potential economic viability, so that drilling of these thick sulphide deposits can be continued to potentially grow substantial silver-copper sulphide resources at both projects.

It is the Company's intention to establish a Mining Licence application over all three project areas (see Figure 2) while continuing exploration under the renewed Exclusive Prospecting Licences (EPLs 3543 and 5496) to substantially grow the Mineral Resource base for long term operations.

The Company is also seeking other advanced opportunities in the Otavi region to complement its existing portfolio of advanced projects.

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

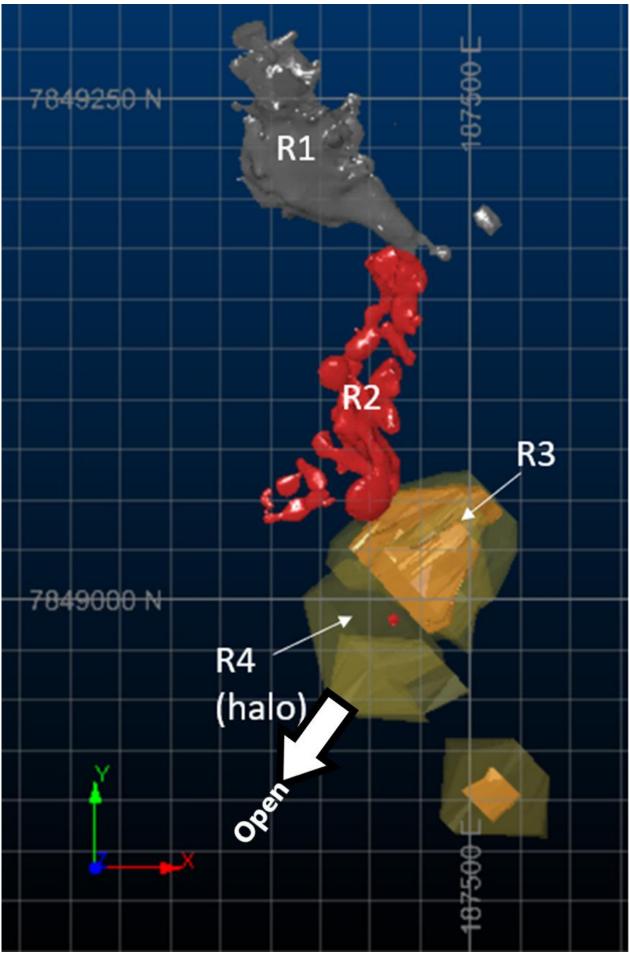


Figure 3: Khusib Springs deposit, plan projection with Mineral Resource model domains

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

## The New Khusib Springs Mineral Resource Estimate:

The new Mineral Resource estimate for the Khusib Springs silver-copper (lead-zinc) deposit has been prepared by Shango Solutions of South Africa (Shango) and is summarised in Table 1 below:

Table 1: Khusib Springs Prospect, Mineral Resource estimate as at 15 October, 2024:

Domain	Tonnage	AgEq*	Ag	Cu	Pb	Zn	Metal AgEq*
Domain	kt	g/t	g/t	%	%	%	Koz
			Inc	dicated			
R1	23	634	241	3.82	0.72	0.53	469
R2	19	474	232	2.30	0.51	0.45	290
R3	29	144	95	0.49	0.01	0.10	134
R4	7	44	28	0.16	0.01	0.04	10
Total/Av	78	353	163	1.84	0.33	0.30	903
	Inferred						
R1	3	275	118	1.51	0.25	0.27	26
R2	18	221	108	1.03	0.38	0.26	128
R3	115	128	84	0.43	0.02	0.10	473
R4	278	39	25	0.13	0.01	0.06	349
Total/Av	414	73	45	0.26	0.03	0.08	977
			Indicated	l and Infer	red		
R1	26	590	226	3.54	0.66	0.50	495
R2	37	349	171	1.67	0.45	0.35	418
R3	144	131	86	0.44	0.02	0.10	608
R4	285	39	25	0.13	0.01	0.06	359
Total/Av	492	116	63	0.50	0.08	0.11	1,880
*Density 2	2.8 t/m <sup>3</sup>						1.9Moz

Mineral Resources are reported in line with the requirements of JORC (2012)

Geological loss: R1 & R2 (5%), R3 (7%) and R4 (10%) Any differences in totals are due to rounding

Shango defined a three-dimensional (3D) geological model of the Khusib Springs deposit. This was achieved through the utilisation of historical hardcopy plans, sections and recent drillhole data provided by Golden Deeps. The Mineral Resource estimates for copper (Cu) and silver (Ag) were performed in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). Shango, at the request of Golden Deeps, verified and prepared the Company's database for 3D modelling and Mineral Resource estimation by means of applying industry best practices. The Khusib Springs deposit is a localised but high-grade pipe-like body that plunges steeply within brecciated carbonate rocks. The deposit resembles the Tsumeb deposit, located 40 km to the north-west (Figure 2).

The drillhole database was updated with the logging and sampling results of the Reverse Circulation (RC) drilling conducted by Golden Deeps during April and May of 2021. The Khusib Springs RC drilling programme was undertaken to test the shallow up-plunge extensions of the mined high-grade silver-copper orebody. Golden Deeps conducted a subsequent drilling programme during the course of 2022 (incl. KHDD006 and KHDD007)<sup>2,3</sup>, to test the deeper mineralisation and to confirm the position of the Wrench Fault.

Previous underground mining data has been modelled to allow determination of remnant Mineral Resources in the upper previously mined zone.

The current topographic surface is based on the 30m resolution Shuttle Radar Topography Mission (SRTM) and historical topographic survey plans. A detailed survey should be conducted over the area to better refine the surface topography.

The Mineral Resource tabulation is detailed in Table 1, and domains are shown on Figure 3. A geological loss of 5% was applied to the R1 and R2 domains, 7% to the R3 domain and 10% to the R4 domain. The data clearly indicates geological continuity of mineralisation between boreholes. Silver Equivalent (AgEq) for the Mineral Resource has been calculated based on an estimate of ~current pricing (Appendix 1).

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

## Information Material to Understanding Reported Mineral Resource Estimate - Khusib Springs8

### • Sampling and Sub-Sampling Techniques

#### RC Drilling:

All particulate drilling samples were collected on a metre basis via a three-way cone split mounted on the cyclone. The drillers were responsible for putting on and taking off the pre-written sample bags from the cyclone, under the supervision of the responsible geologist and the field staff. At each metre interval sub-samples of equal weight ( $\sim$ 2.5 kg) were collected in two 250mm x 400 mm x 250mic plastic bags on either side of the cone splitter and a reject sample was collected in a 600 mm x 900 mm x 150mic plastic bag with an average weight of 25kg at the bottom centre of the splitter/cyclone.

### • Diamond Drilling:

The 2022 diamond drilling was completed by a track mounted diamond rig (Epiroc-Boyles C6C). The drill holes were predominantly HQ in size with the exception of PQ drilling through the top fractured rock formations in order to insert casing, at times up to ~80m.

Sample preparation of drill core was carried out at Golden Deeps' premises. The geologist delineated the sections of the core to be sampled and recorded the metre intervals in an Excel spreadsheet. An additional 10m was also sampled respectively at the start and at the end of the mineralised zone. Each sample was limited to an interval range between 0.20m and 1.20m and restricted within lithological contacts.

The core sections to be sampled were cut in half and then quartered. Three quarters of the core was retained in the core tray and one quarter was prepared to be submitted to the laboratory for analysis. For each drill core sample, specific gravity (SG) measurements were carried out and recorded in an Excel spreadsheet. After the SG measurements were recorded, the samples (weighing between 1kg – 3kg) were placed in clearly labelled calico bags along with unique sample identification numbers. The samples were then packaged into polywoven bags after QA/QC samples were added to the batch.

Sample preparation involved, dividing the samples sequentially in groups of 10, whereby the geologist and a geology assistant verified that the numbering of the samples is accurate and correspond to the information recorded in the log sheet. Once the verification of sample numbers was completed, the geologists generally inserted certified reference material (CRMs) and blanks at intervals of 10 and 40 samples, respectively and duplicate samples were prepared at a frequency of 40 samples. The CRMs comprise of different elements with various concentrations, the grade and element type determines the position at which the standard will be inserted with the sample batches. High-grade standards were inserted within zones of mineralisation deemed to be of high concentration of a specific element and vice versa for low-grade standards.

The samples were divided in batches of 150 samples, as per the laboratory guidelines and bagged in 50kg polyweave bags, each bag containing ~10 samples. Subsequently a submission sheet was prepared for the laboratory, whereby each submission sheet represents a batch of a maximum of 150 samples. Each submission sheet indicates the sample number interval and the quantity of samples in each polyweave bag, the required sample analysis method, detection of limit of specific elements, the sample types (core, soils, et al.).

#### Sample Analysis

The first phase was completed by RC drilling between April and May 2021 and diamond drilling and was utilised to carry out the second phase of drilling between August and October 2022. 361m of drilling was achieved from 10 shallow RC holes and eight diamond holes which were completed for a total of 1,584.27 m.

The samples were transported to the Intertek laboratory located at Tschudi Mine, where the samples were received by the lab manager. Once the samples are received and verified at the laboratory, a

chain-of-custody form attached to the submission sheet is completed and signed. One copy is retained by the lab staff and another signed copy is stored by Huab. The samples were crushed, dried and pulverised at the Intertek Prep-lab and shipped to Intertek laboratories in Perth, Western Australia for analyses. The Khusib samples were analysed for 48 elements utilising the Four-Acid digestion Mass Spectroscopy method (4A/MS48)

#### Mineral Resource Data

The Mineral Resource estimate utilised historical Gold Fields of Namibia drillholes as well as RC and diamond drilling carried out by the Company from 2021 to late 2022. In 2021, Golden Deeps started an RC campaign and completed 10 boreholes (KHRC). A year later an additional seven diamond drill boreholes were completed (KHDD). The drillhole database was updated with the logging and sampling results of the RC drilling conducted by Golden Deeps during April and May of 2021. Golden Deeps conducted a drilling programme during the course of 2022 to test the deep mineralisation immediately south of the Wrench Fault. In total, 177 boreholes, totalling 28,621 m, were utilised.

The Mineral Resource estimates for silver (Ag), copper (Cu), lead (Pb) and zinc (Zn) and were performed in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). Shango verified and prepared the Golden Deeps database for 3-D modelling and Mineral Resource estimation by means of applying industry best practices.

The drill-defined Khusib Springs deposit is a lens-shaped sulphide orebody, up to 10m thick and elongated parallel to bedding, replacing limestone and is locally brecciated, situated within the lower Tsumeb Subgroup (Damara Supergroup) in the northern limb of a large NE-trending synclinal structure. A prominent zone of dolomite alteration surrounds the orebody. The shallow orebody, which was the target of mining, can be split into two zones, an Upper Orebody that extends from near surface down to a vertical depth of 110 m, and a Lower Orebody which is more sporadically developed below 110 m. A third area of mineralisation is present beneath the Lower Orebody, termed the Deep Orebody. The Khusib Upper Orebody is located on the T2-T3 contact within the Maieberg Formation where it is hosted within dolomite and limestone as well as karsts and hydraulic breccias. This orebody dips towards the south at approximately 40°.

The Mineral Resource includes 49.9% (by metal) Indicated Mineral Resources and 50% (by metal) Inferred Mineral Resources.

An evaluation by mining consultants Bara Consulting (South Africa) indicates the Khusib Springs Mineral Resource has a reasonable prospect of eventual economic extraction by underground mining and extraction via mechanised cut and fill (with potential for larger scale open stoping for the thicker deposit at depth).

Silver Equivalent (AgEq\*) has been calculated based on current pricing (see Appendix 1).

#### Criteria for Mineral Resource classification

The Khusib Springs Mineral Resource estimate is reported in the Indicated and Inferred categories. Data clearly indicates geological continuity of mineralisation between boreholes which are drilled on an average of 25 m line spacing. A geological loss of 5% was applied to the R1 and R2 domains, 7% to the R3 domain and 10% to the R4 domain.

The Mineral Resource was classified according to the following criteria:

- 1) Sampling QA/QC
  - a. Measured: high confidence, no problem areas;
  - b. Indicated: high confidence, some problem areas with low risk;
  - c. Inferred: some aspects might be of medium to high risk;
- 2) Geological confidence

- a. Measured: high confidence in the understanding of geological relationships, continuity of geological trends and sufficient data;
- b. Indicated: good understanding of geological relationships;
- c. Inferred: geological continuity not established;
- 3) Number of samples: used to estimate a specific block
  - a. Measured: at least 12 drillholes within semi-variogram range;
  - b. Indicated: at least eight drillholes within semi-variogram range;
  - c. Inferred: less than three drillholes within the semi-variogram range;
- 4) Distance to sample (Semi-variogram Range)
  - a. Measured: at least within 60% of semi-variogram range;
  - b. Indicated: within semi-variogram range;
  - c. Inferred: further than semi-variogram range;
- 5) Kriging efficiency
  - a. Measured: >60%;
  - b. Indicated: 20 60%;
  - c. Inferred: <20%;
- 6) Regression slope
  - a. Measured: >90%;
  - b. Indicated: 60 90%; and
  - c. Inferred: <60%.

By applying the criteria detailed above, the Mineral Resources for the Khusib Springs orebody are therefore classified as Indicated and Inferred.

#### Mineral Resource Estimation Methodology

The various metal grades were estimated into a 3D block model. The final AgEq (%) grade is derived from the estimated Ag, Cu, Pb, and Zn values. There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK). Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied.

- Mineral Resource estimation was performed in three dimensions utilising StudioRM.
- 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.

Four distinct domains have been identified, namely R1, R2, R3 and R4.:

- a. R1 upper easterly dipping mineralised zone with significantly higher grades;
- b. R2 westerly dipping mineralised zone with high grades that are on average lower than R1;
- c. R3 deeper mineralisation located in a separate structural block with lower grades than R1 and R2; and
- d. Low grade halo around R3.

- During Mineral Resource estimation, the four populations were separated into distinct geozones to prevent the smearing of high grades into areas of lower grades.
- Outliers (high values) or values that do not fit the statistical distribution were either capped (Kriging process) or top cut (variography) to limit smearing of these values into larger areas.
   Normal probability plots, in conjunction with the histogram plots, were used to determine a capping value for the estimation process.

#### • Cut-off Grade (CoG) (including basis)

A breakeven CoG of 30g/t AgEq was applied to the Mineral Resources. The CoG for the Mineral Resource was initially based on a CuEq% in-situ breakeven of 0.3% CuEq. (see table below) This was updated to AgEq. - based on the assumption of equivalent recovery due to Tennantite (Ag, Cu bearing sulphide mineral) being the dominant ore mineral. The marginal cut-off of material extracted during mining excludes the mining cost, and only includes processing and sales cost in the Mineral Resource cut-off grade (see table below).

Khusib Springs Resource Estimate Cut-off Grade Calculation						
	Breakeven (Cu)	Breakeven (Ag)	Marginal (Cu)	Marginal (Ag)	Comments	
Cu price (\$/t) / Ag price (\$/t)	10,000/t	\$32/0z	10,000/t	\$32/Oz		
Mining cost (\$/t mined)	33		0		UG mining cost	
Processing cost and G\$A(\$/t milled)	15.00		15.00		Used for Nosib Resource	
Sales costs (\$/t mined)	6		6		Nosib Study	
Total operating cost (\$/t milled)	54		21			
Recovered breakeven %	0.5%	32 g/t	0.2%	20 g/t		
Overall processing recovery	80.0%		80.0%			
RoM breakeven	0.68%	67 g/t	0.26%	25.5 g/t		
Mining dilution	5%		5%			
In-situ breakeven (Cu Eq%/AgEq g/t)	0.71%	69 g/t	0.28%	27 g/t	30g/t AgEq applied	

## Mining and Metallurgical Factors

An evaluation by mining consultants, Bara Consulting (South Africa), indicates that the Khusib Springs Mineral Resource has a reasonable prospect of eventual economic extraction by underground mining and extraction via mechanised cut and fill (with potential for larger scale open stoping for the thicker deposit at depth). The existing decline which would need to be extended to access the deeper deposit.

Approximate (conservative) recoveries are based on:

- 1. Metallurgical test work from the Abenab vanadium, lead, zinc, copper deposit<sup>6,7,8</sup> and the Nosib vanadium, lead, copper, silver deposit<sup>5,6,7,9</sup>, located approximately 20km to the northeast and northwest of the Khusib Springs deposit, respectively (Figure 2), and,
- 2. expected recoveries based on historical information for processing Ag-Cu-Pb-Zn +/- Sb, Ge bearing sulphide ores from the Khusib Springs deposit, processed at the Tsumeb Operation<sup>4</sup>.

Pricing and recovery information is shown in Appendix 1, Table 3b, AgEq\* estimation for Mineral Resources 15 October 2024.

Table 2a: Drilling details, KHDD006 and KHDD007<sup>2,3</sup>

Hole #	Easting (UTM34S)	Northing (UTM34S)	mRL	Azimuth (True)°	Collar Dip°	ЕОН
KHDD006	187,594	7,848,874	1475	318.0	-63	521.74
KHDD007	187,572	7,848,853	1476	318.0	-65	542.81

Table 2b: Summary of Significant Intersections (with AgEq\*), KHDD006 and KHDD007

Hole ID	From	То	Interval	AgEq g/t	Ag g/t	Cu%	Zn%	Sb g/t	Pb%
KHDD006	389.0	479.0	90.0	83	52.3	0.29	0.06	34	0.008
incl.	398.0	479.0	81.0	90	57.2	0.31	0.07	37	0.009
incl.	402.0	471.0	69.0	100	63.7	0.35	0.07	42	0.005
incl.	402.0	430.0	28.0	156	101.1	0.53	0.10	81	0.005
& incl.	411.0	421.0	10.0	234	150.2	0.81	0.15	110	0.006
KHDD007	241.0	267.2	26.2	43	26.6	0.16	0.02	11	0.003
incl.	253.0	267.2	14.2	69	43.0	0.26	0.03	17	0.005
incl.	254.0	256.0	2.0	269	159.2	1.10	0.13	59	0.017
& incl.	425.0	439.4	14.4	35	22.2	0.12	0.03	14	0.005
& incl.	500.0	531.8	31.8	17	11.2	0.048	0.05	2.8	0.001
incl.	500.0	508.5	8.50	34	23.5	0.075	0.15	3.2	0.001

### **About Golden Deeps Ltd**

Golden Deeps (ASX:GED) is an explorer/developer with a dual focus on the world-class terranes of the Lachlan Fold Belt copper-gold province of NSW, Australia, and the Otavi Mountain Land (OML) copper-lead-zinc-silver and vanadium district of Namibia.

In the Lachlan Fold Belt, Golden Deeps has exploration programs including drilling underway testing a series of copper, zinc, gold and silver targets within the under-explored Rockley-Gulgong Volcanic Belt near Mudgee, the eastern and most under-explored of four major volcanic belts which host several major copper-gold deposits. The Company also has high-grade gold targets it plans to drill at the Tuckers Hill prospect.

In Namibia, Golden Deeps has high-grade critical-metals deposits in the OML, including vanadium and copper as well as lead, zinc and silver, on a brownfields site with limited modern exploration. The Company recently announced Mineral Resource upgrades for the Abenab high-grade vanadium (lead, zinc) project and a maiden resource for the Nosib vanadium-copper-lead vanadate and copper-silver sulphide discovery. Previous drilling at the Khusib Springs copper-silver deposit produced thick silver-copper intersections that are open at depth.

Golden Deeps' operational model is based on discovery, building Mineral Resources and advancing developments with the ultimate aim of becoming a producer of critical and precious metals, such as copper, zinc, silver, gold and vanadium.

#### References

<sup>&</sup>lt;sup>1</sup> King C M H 1995. Motivation for diamond drilling to test mineral extensions and potential target zones at the Khusib Springs Cu-Pb-Zn-Ag deposit. Unpublished Goldfields Namibia report.

 $<sup>^2</sup>$  Golden Deeps Ltd ASX announcement, 7 December 2022. Exceptional 90m Intersection of Copper-Silver at Khusib.

<sup>&</sup>lt;sup>3</sup> Golden Deeps Ltd ASX announcement, 17 May 2023. Renewal of Key Tenements Paves Way for New Khusib Drilling

<sup>&</sup>lt;sup>4</sup>Tsumeb, Namibia. PorterGeo Database: www.portergeo.com.au/database/mineinfo.asp?mineid=mn290

<sup>&</sup>lt;sup>5</sup> Golden Deeps Ltd ASX announcement, 24 June 2024. New Mineral Resources for Otavi V-Cu-Pb-Zn-Ag Deposits

<sup>&</sup>lt;sup>6</sup> Golden Deeps Ltd ASX announcement, 21 June 2022. Major Study on High-Grade Vanadium Cu-Pb-Ag Development.

<sup>&</sup>lt;sup>7</sup> Golden Deeps Ltd ASX announcement, 21 March 2022. Outstanding Vanadium Extraction of up to 95% from Abenab.

Shango Solutions, Khusib Springs, GED, 3D Geological Model and Mineral Resource Estimation Issued 18 October 24

<sup>&</sup>lt;sup>9</sup> Golden Deeps Ltd ASX announcement, 13 November 2023. Exceptional Critical and Rare Metals Intersection at Nosib.

This announcement was authorised for release by the Board of Directors. \*\*\*ENDS\*\*\*

#### For further information, please refer to the Company's website or contact:

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#### **Cautionary Statement regarding Forward-Looking Information:**

This document contains forward-looking statements concerning Golden Deeps Ltd. 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 Ltd 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 Statements:**

The information in this report that relates to exploration results and metallurgical information has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is the Chief Executive Officer of Golden Deeps Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 36 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this announcement that relates to Mineral Resources estimation at Khusib Springs (and Nosib and Abenab) is based on, and fairly represents, information which has been compiled by Mr Hermanus (Manie) Berhadus Swart. Mr Swart is a full-time employee of Shango Solutions and is a member of the South African Council for Natural Scientific Professions which is a 'Recognised Professional Organisation' (RPO). Mr Swart has more than five years' experience that is relevant to the style of mineralisation and types of deposit described in this report and to the activity for which he is accepting responsibility and qualifies 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.

### **ASX Listing rules Compliance:**

In preparing this announcement the Company has relied on the announcements previously made by the Company as listed under "References". The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.

## **APPENDIX 1: Silver Equivalent Calculations**

#### Silver Equivalent (AgEq) Calculation

The conversion to equivalent copper (AgEq) grade must take into account the plant recovery/payability and sales price (net of sales costs) of each commodity.

Approximate (conservative) recoveries/payabilities and sales price are based on:

- 1. Metallurgical test work from the Abenab vanadium, lead, zinc, copper deposit<sup>6,7,8</sup> and the Nosib vanadium, lead, copper, silver deposit<sup>5,6,7,9</sup>, located approximately 20km to the northeast and northwest of the Khusib Springs deposit, respectively (Figure 2), and,
- 2. expected recoveries based on historical information for processing Ag-Cu-Pb-Zn +/- Sb, Ge bearing sulphide ores from the Khusib Springs deposit, processed at the Tsumeb Operation<sup>4</sup>.

Based on this information it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

The prices used in the calculation are based on market average and/or projected pricing for copper (Cu), zinc (Zn), lead (Pb), silver (Ag), Vanadium ( $V_2O_5$ ) and antimony (Sb) updated to current silver price (15/10/24).

Table 3a (drilling) and 3b (Mineral Resources) below shows the grades, process recoveries and factors used in the conversion of the poly metallic assay information into a Silver Equivalent (AgEq) grade percent.

Table 3a: Grades, process recoveries and factors used in the conversion of the Mineral Resource estimate:

Metal	Average grade (%)	Average grade (g/t)		Metal Pric	ces	Recovery x Payability	Factor	Factored Grade g/t)
			\$/oz	\$/lb	\$/kg		_	
Ag		63.7	32	467	1029	61.6%	1	63.7
Cu	0.35			4.47	9.85	61.6%	86	33.5
Zn	0.07			1.27	2.80	54.4%	33	1.67
Sb	0.00421	42.1		11.00	24.2	0.616	236	0.99
Pb	0.005			0.99	2.18	61.6%	22	0.1
							AgEq	100

Using the factors calculated above the equation for calculating the Silver Equivalent (AgEq) g/t grade is:

$$AgEq g/t = (1 \times Ag g/t) + (94 \times Cu\%) + (33 \times Zn\%) + (21 \times Pb\%) + (255 \times Sb\%)$$

Table 3b: Grades, process recoveries and factors used in the conversion of the Mineral Resource (MR) estimate:

Metal	Average grade (g/t)	Average grade (%)	I	Metal Pric	es	Recovery x Payability	Factor	Factored Grade g/t)
			\$/oz	\$/lb	\$/kg			
Ag	63	0.0063	32	467	1029	61.6%	1	63.3
Cu		0.50		4.47	9.85	61.6%	96	47.9
Zn		0.11		1.27	2.80	54.4%	24	2.6
Pb		0.08		0.99	2.18	61.6%	21	1.7
V2O5		0.0012		5.00	11.0	61.6%	107	0.13
							AgEq	116

Using the factors calculated above the equation for calculating the Silver Equivalent (AgEq)g/t for the MR is: AgEq g/t =  $(1 \times Ag \times g/t) + (96 \times Cu\%) + (24 \times Zn\%) + (21 \times Pb\%) + (107 \times V_2O_5\%)$ 

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

## **APPENDIX 2: JORC 2012 Table 1**

## **JORC Code - Table 1 (Khusib Springs)**

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

,	ection apply to all succeeding sections)	
Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse circulation drilling was used to obtain 1 m samples from which approximately 3 kg of sample was pulverised from which a small charge is obtained for multi-element analysis utilising the ICP-MS method.</li> <li>Samples were representative of the geology and mineralisation.</li> <li>Diamond drilling core is sampled on approximately 1 m intervals (varied subject to geological contacts) and analysed using the same procedure.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</li> </ul>	<ul> <li>Exploration drillholes at Khusib Springs were drilled by the Reverse Circulation percussion drilling method (RC drilling) and diamond drilling (HQ sized core).</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Diamond drilling recovery is reported in the detailed log. Where lost core is recorded assay grades are assumed to be zero.</li> <li>RC chips were bagged on 1 m intervals and an estimate of sample recovery has been made on the size of each sample.</li> <li>The cyclone is shut off when collecting the RC samples and released to the sample bags at the completion of each metre to ensure no cross contamination. If necessary, the cyclone is flushed out if sticky clays are encountered.</li> <li>Samples were weighed at the laboratory to allow comparative analysis.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or</li> </ul>	<ul> <li>All holes were logged for lithology, structure and mineralisation.</li> <li>Diamond drilling logging intervals are based on geological contacts.</li> <li>Logging of RC samples was based on 1m intervals.</li> </ul>

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

Criteria	JORC Code explanation	Commentary
	quantitative in nature. Core (or costean, channel, etc.) photography.  • The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No information is available detailing the sampling method utilised for the logging and sampling of the historical drillholes.</li> <li>Every 1 m RC interval (2021 – 2022 drilling) was sampled as a dry primary sample in a calico bag off the cyclone/splitter.</li> <li>Diamond drilling: half to quarter core was sampled on approximately 1 m intervals (or geological contacts) utilising a core-saw or splitter.</li> <li>Drill sample preparation was performed at Intertek (Namibia), and sample analysis was carried out by Intertek in Perth, Australia.</li> <li>Field sample procedures involved the insertion of Certified Reference Material every 20 m, and duplicates or blanks generally every 25 m.</li> <li>Sampling was carried out using standard protocols as per industry best practices.</li> <li>Sample sizes ranged typically from 2 kg to 3 kg and are deemed appropriate to provide an accurate indication of mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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 derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>All samples were submitted to the Intertek Laboratories sample preparation facility at the Tschudi Mine near Tsumeb in Namibia where a pulp sample is prepared.</li> <li>The pulp samples are then transported to Intertek in Perth Australia for analysis.</li> <li>Pulp sample(s) have been digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest.</li> <li>Cu, Pb, Zn, V, Ag and other elements have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The current Nosib drilling includes that all significant intercepts are reviewed and confirmed by two senior personnel before release to the market.</li> <li>No adjustments are made to the raw assay data.</li> <li>Data is imported directly to Datashed in raw original format.</li> <li>All data are validated using the QAQCR validation tool with Datashed.</li> <li>Visual validations are then carried out by senior staff members.</li> <li>Vanadium results are reported as V<sub>2</sub>O<sub>5</sub>% by multiplication by the atomic weight factor of 1.785.</li> </ul>
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other	The majority of the drill data was captured using the UTM34S grid.

 $<sup>*</sup>See\ silver\ equivalent\ (AgEq)\ calculations, Appendix\ 1$ 

Criteria	JORC Code explanation	Commentary
	<ul> <li>locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Location of the exploration drillholes are provided in the body of the technical report.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	Exploration drillholes were drilled at close spacing, commonly 15 m to 20 m or less.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Holes were angled to best intersect the plunging mineralisation.</li> <li>The majority of the angled holes were drilled on azimuth 343 magnetic / 360 degrees grid at a dip of -60 to -80 degrees (UTM34S grid)</li> </ul>
Sample security	The measures taken to ensure sample security.	Golden Deeps ensured secure transport of samples to the registered laboratories via standard chain-of-custody procedures.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>All previous drill data relating to the Khusib Springs project generated by Gold Fields Namibia or other companies was reviewed and validated in detail by Shango Solutions, a geological consultancy based in South Africa.</li> <li>The data review included scanning level plans and cross sections to verify the position of drillholes in the 3D model.</li> </ul>

## **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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Khusib Springs/Butterfly prospects located on Golden Deeps Limited (Huab Energy Pty Ltd) EPL3543 located near the town of Grootfontein in northeast Namibia (Figure 1).</li> <li>EPL3543 has been renewed for a period of two years, expiring 3/5/25 and 4/4/25 respectively.</li> <li>Further renewals and/or mining lease applications are planned to ensure security of tenure from 2025.</li> <li>There are no material issues or environmental constraints known to Golden Deeps Ltd which may be deemed an impediment to the continuity of EPL3543.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Khusib Springs copper prospect was primarily drilled by Gold Fields Namibia from 1993 onwards following the intersection of massive tennantite in discovery drill holes.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Khusib Springs deposit in the Otavi Mountain Land, Namibia, is a small though high-grade carbonate-hosted Cu-Zn-Pb-Ag-(As-Sb-Ge) deposit of the Tsumeb-type.</li> <li>The orebody is a lens-shaped sulfide orebody, up to 10 m thick and elongated parallel to bedding, replacing limestone and is locally brecciated, situated within the lower Tsumeb Subgroup (Damara Supergroup) in the northern limb of a large NE-trending synclinal structure.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Refer to the body of this report.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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</li> </ul>	<ul> <li>All exploration results are reported by a length weighted average. This ensures that short lengths of high-grade material receive less weighting than longer lengths of low-grade material.</li> <li>Voids/lost core intervals are incorporated at zero grade.</li> <li>The assumptions used for reporting of metal equivalent values are detailed in the body of this</li> </ul>

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

Criteria	JORC Code explanation	Commentary
	examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	<ul> <li>report.</li> <li>For REEs primary assay data has been converted to oxide data as reported to calculate a TREO component. The elements used to calculate this are Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Tm, Y and Yb.</li> <li>The REE, TREO content has not been used in the metal equivalent calculations.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Drill holes and drill traverses were designed to intersect the targeted mineralised zones at a high angle where possible.</li> <li>Intersections reported approximate true width.</li> </ul>
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.
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.	Refer to main the main body of report.
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	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further drilling targeting high-grade copper-silver and lead-zinc sulphide mineralisation in the vicinity of the Khusib Springs copper-silver orebody.</li> <li>Metallurgical testwork information will be integrated with mining studies on the high-grade Cu-Ag deposit to produce an integrated mining and processing Scoping Study.</li> </ul>

## **Section 3 Estimation and Reporting of Mineral Resources**

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

	ection 1, and where relevant in section 2, also a	
Criteria	JORC Code explanation	Commentary
Database integrity  Site visits	<ul> <li>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.</li> <li>Data validation procedures used.</li> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>	<ul> <li>Mineral Resource data is stored in a Microsoft Access database and Microsoft Excel spreadsheets. Furthermore, the databases are stored within the company's Datashed management system.</li> <li>The data used in the Mineral Resource estimate has been cross referenced against the original geology logs and laboratory report files and is suitable for the Mineral Resource estimate.</li> <li>Mr Jon Dugdale, (Golden Deeps CP) has been on site numerous occasions.</li> <li>Mr Manie Swart (CP) who takes responsibility for</li> </ul>
	If no site visits have been undertaken indicate why this is the case.	Shango's Mineral Resource estimation has not been to site. However, two regional site visits have been conducted by Shango's technical expert, Mr Mark Watts, the most recent being in April 2024.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological interpretation has been based on an extensive critique of available drillhole and available information spanning the duration of mining and exploration programmes.</li> <li>Geological modelling was conducted using StudioRM software.</li> <li>The geological model was constructed utilising the borehole data as well as underground mapping of lithological contacts.</li> </ul>
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>Plan view: north-south 420 m and east west 160 m</li> <li>In west-east section 464 m (1 464 m to 1 000 m)</li> </ul>
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of</li> </ul>	<ul> <li>The mineralised envelope was delineated applying a 0.2% CuEq grade (~20 g/t AgEq).</li> <li>The average sample length for all four domains is approximately 0.5 m. Therefore, a 0.5 m composite was applied to all the samples utilised for grade estimation.</li> <li>All Domains and metal values display a positively skewed distribution.</li> <li>Outliers (high values) or values that do not fit the statistical distribution were either capped (kriging process) or top cut (variography) to limit smearing of these values into larger areas. Normal probability plots, in conjunction with the histogram plots, were used to determine a capping value for the estimation process</li> <li>The various metal grades were estimated into a 3D block model.</li> <li>There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK).</li> <li>Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied.</li> </ul>

<sup>\*</sup>See silver equivalent (AgEq) calculations, Appendix 1

Criteria	JORC Code explanation	Commentary
	<ul> <li>selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>The various metal grades were estimated into a 3D block model.</li> <li>The final AgEq (%) grade is derived from the estimated Cu, Pb, Ag, and Zn values.</li> <li>There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK).</li> <li>Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied.</li> </ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	The Mineral Resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	A breakeven CoG of 30g/t AgEq was applied to the Mineral Resource estimate. The CoG for the Mineral Resource was initially based on a CuEq% in-situ breakeven of 0.3% CuEq. (see table, page 10). This was updated to AgEq based on the assumption of equivalent recovery due to Tennantite (Ag, Cu bearing sulphide mineral) being the dominant ore mineral. The marginal cut-off of material extracted during mining excludes the mining cost, and only includes processing and sales cost in the Mineral Resource cut-off grade (see table, page 10).
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. Based on a high-level evaluation by mining consultants, Bara Consulting (South Africa), extraction by underground mining via mechanised cut and fill. This will include 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.	<ul> <li>Metallurgical recovery assumptions are based on:         <ul> <li>Metallurgical test work from the Abenab vanadium, lead, zinc, copper deposit<sup>6,7,8</sup> and the Nosib vanadium, lead, copper, silver deposit<sup>5,6,7,9</sup>, located approximately 20km to the northwest and northeast of the Khusib Springs deposit, respectively (Figure 2), and,</li> <li>expected recoveries based on historical information for processing Ag-Cu-Pb-Zn+/- Sb, Ge bearing sulphide ores from the Khusib Springs deposit, processed at the Tsumeb Operation<sup>4</sup>.</li> </ul> </li> <li>Further metallurgical work is planned on the drill-core samples from KHDD006 and 007.</li> </ul>

Criteria	JORC Code explanation	Commentary
Environmental	Assumptions made regarding possible	No known environmental factors or assumptions
factors or	waste and process residue disposal	have been made at this stage of the project.
assumptions	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	have been made at this stage of the project.
Dalla di in	environmental assumptions made.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>An average dry bulk density of 2.81t/m³ was applied to the mineralised material.</li> <li>No allowance was made for open fissures which may exist within the orebody.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. 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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Mineral 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.</li> <li>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.</li> <li>Based on the findings summarised above, it was concluded that the primary controlling factor for classification was sample coverage. A classification of Inferred and Indicated to the domained material was appropriate.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No independent audits or reviews have been conducted on the Mineral Resource estimates carried out by Shango. Shango has also completed an internal peer review.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Mineral 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.</li> <li>The largest source of uncertainty is considered to be related to orebody interpretation. However, based on core logging, the general lode geometry is considered to be well understood, the likelihood of an alternative interpretation that would yield significantly different grade and tonnage estimates is considered to be low.</li> <li>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.</li> </ul>