

# ASX ANNOUNCEMENT

**14 December 2023** 

**Dalgaranga Gold Project - Mineral Resource Estimate Update** 

# NEVER NEVER HITS 952,900oz @ 5.74g/t DALGARANGA MOVES TO 1.7Moz @ 2.49g/t

43% increase in Dalgaranga Project Resource ounces, 13% uplift in grade and 27% more tonnes – all within 2km of the plant

# Highlights:

- Updated Mineral Resource Estimate ("MRE") completed for the Dalgaranga Gold Project, located on granted Mining Leases and within 2km of the 2.5Mtpa processing plant:
  - o 21.15Mt @ 2.49g/t gold for 1,692,600 ounces, comprising:
    - 5.16Mt @ 5.74g/t gold for 952,900 ounces Never Never Gold Deposit
    - 15.99Mt @ 1.45g/t gold for 739,800 ounces Gilbey's Complex
- Resource Classification breakdown for the updated Dalgaranga Gold Project MRE:
  - <u>12.96Mt @ 2.67g/t gold for 1,119,000 ounces (66%)</u> classified as Indicated;
  - 7.93Mt @ 2.25g/t gold for 573,610 ounces (34%) classified as Inferred.
- Resource Classification breakdown for the updated Never Never Gold Deposit MRE:
  - 3.67Mt @ 5.93g/t gold for 700,700 ounces (74%) classified as Indicated;
  - 1.49Mt @ 5.28g/t gold for 252,100 ounces (26%) classified as Inferred.
- In-fill drilling from surface has converted circa 74% of the updated Never Never Gold Deposit MRE ounces to the higher confidence Indicated Resource classification, available for future conversion to Ore Reserves.
- The underground component of the updated Never Never MRE averages more than 1,690 ounces per vertical metre ("ozpvm"). Additionally, the apparent strike length of high-grade mineralisation at depth has increased to over 200m north-south and growing.
- Targeted in-fill drilling and updated Resource estimation of the higher grade Four Pillars and West Winds gold prospects has delivered an updated Gilbey's Complex MRE of:
  - 11.32Mt @ 1.34g/t gold for 486.500 ounces with 86% or:
  - 9.28Mt @ 1.38g/t gold for 410,800 ounces classified as Indicated and constrained within a A\$2,800/oz pit.
- Updated Spartan Group Mineral Resources for the Dalgaranga and Yalgoo ("Murchison") and Glenburgh and Egerton ("Gascoyne") Projects now stand at:
  - 44.16Mt @ 1.77g/t gold for 2,512,400 ounces (69% or 1.7Moz Indicated)

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Spartan Resources Limited ("**Spartan**" or the "**Company**") (ASX: SPR) is pleased to announce the Updated Mineral Resource Estimate ("MRE") for its 100%-owned **Dalgaranga Gold Project "DGP"**, located in the Murchison region of Western Australia.

This latest MRE update comprises an update for the high-grade Never Never Gold Deposit as well as an update for the Gilbey's Complex, which comprises the higher-grade Four Pillars and West Winds Gold Prospects. The updated Mineral Resource Estimate is summarised below:

NEVER NEVER GOLD DEPOSIT									
Open Pit Resource >0.5gpt <270mRL									
Category	Category Tonnes (Mt) Grade (Au gpt) Ou								
Indicated	1.09	2.46	86.3						
Inferred	0.18	1.08	6.2						
TOTAL	1.27	2.27	92.5						
	Underground Resource >2.0gpt Au >270mRL								
Indicated	2.58	7.40	614.5						
Inferred	1.31	5.86	245.9						
TOTAL	3.89	6.88	860.4						
	TOTAL NEVER NEV	/ER GOLD DEPOSIT							
Indicated	3.67	5.93	700.7						
Inferred	1.49	5.28	252.1						
GRAND TOTAL	5.16	5.74	952.9						

Table 1. Never Never MRE Dec 2023, reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au <270mRL) and underground >2.0g/t Au, >270mRL) \*

GILBEY'S COMPLEX									
Open Pit Resource >0.5gpt <270mRL									
Category	Category Tonnes (Mt) Grade (Au gpt) Ounces (Koz)								
Measured	0.26	0.89	7.5						
Indicated	9.28	1.38	410.8						
Inferred	1.77	1.19	68.1						
TOTAL	11.32	1.34	486.5						
	Underground Resource >2.0gpt Au >270mRL								
Measured									
Indicated									
Inferred	4.67	1.69	253.3						
TOTAL	4.67	1.69	253.3						
	TOTAL GILBE	Y'S COMPLEX							
Measured	0.26	0.89	7.5						
Indicated	9.28	1.38	410.8						
Inferred	6.44	1.55	321.5						
GRAND TOTAL	15.99	1.45	739.8						

Table 2. Gilbey's Complex MRE Dec 2023, including, Plymouth and Sly Fox. Reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au within a A\$2,800 pitshell) and underground >1.0g/t Au, below a A\$2,800 pitshell) \*

	DALGARANGA GOLD PROJECT								
Category	Category Tonnes (Mt) Grade (Au gpt) Ounces (Koz)								
Measured	0.26	0.89	7.5						
Indicated	12.96	2.67	1,111.5						
Inferred	7.93	2.25	573.6						
TOTAL	21.15	2.49	1,692.6						

Table 3. Dalgaranga Gold Project Combined Resource as at December 2023



#### **Management Comment**

Spartan Managing Director and Chief Executive Officer, Simon Lawson, said: "This is an exceptional result for our shareholders which reflects the hard work of the Spartan team over the past year. To be able to post a high-grade Resource for the Never Never discovery of just under 1 million ounces at an average grade of 5.74g/t less than a year after emerging from a 10c recapitalisation is an incredible outcome and a remarkable story – one of which we are justifiably proud!

"The centrepiece of this MRE update is once again the Never Never discovery, which has grown remarkably within short order from a resource of 303,000oz at the start of 2023, through to 721,000oz in July, and now, less than 12 months later, reaching 952,900oz – 74% of which is now classified as Indicated.

"Importantly, Never Never continues to emerge as an exciting growth story at depth, with recent visible gold intercepts having been logged below the current MRE boundary and awaiting assay. The deposit remains open and appears to be shallowing and flattening slightly to the south due to the flexure zone mentioned in Tuesday's announcement. This presents as a tantalising target for a fan of directional drilling from a parent hole that we plan to drill early in the New Year to systematically understand the potential of Never Never Deeps.

"I would also like to highlight the importance of the recognition and structural re-interpretation of the high-grade Four Pillars and West Winds gold prospects, part of the larger Gilbey's Complex MRE presented here. We believe these high-grade structures within and beneath the current Gilbey's open pit, when combined with the incredible high-grade endowment of the Never Never Gold Deposit, are a key part of any longer-term future mine plan.

"We now have 739,800 ounces at an average grade of 1.45g/t in resource at Gilbey's as a starting point for the future. That grade is more than 50 per cent above the average resource grade at which the Company was mining last year. The identification and focus on the higher-grade aspects of the Gilbey's sequence bodes extremely well for the potential to add bulk tonnage open pit ore feed at very attractive grades into the high-grade ore feed that we expect will come from the Never Never underground mining complex. The Company's mining strategy for these deposits located within the floor of the current Gilbey's open pit is likely to be somewhat different from what was contemplated and mined before, albeit we are very excited about the possibilities here.

"Another key takeaway for investors is that while this is just an interim update in what is a rapidly unfolding growth story at Dalgaranga, the Company has more drill assays to come and many more high-grade targets sitting along-strike from Never Never, Four Pillars and West Winds. We have a full target set and we have shown what our team is capable of with our drilling strategies. We are well positioned and set to continue to deliver more high-grade ounces at very attractive gold grades.

"We are all looking forward to another massive year in 2024. If we can repeat anything like the success we have enjoyed in 2023 in terms of continued growth in high-grade resource ounces within a 2km radius of the Dalgaranga plant, then Spartan is set for a very exciting future!

"Upon reflecting on 2023, this has been a huge team effort, and I would especially like to thank our Exploration and Drill Management team on site, our Resource team and our incredible Finance team for their diligent stewardship of our exploration programs and prudent management of our finances.

"I would also like to thank and wish all of our loyal shareholders a very safe and festive summer season and we look forward to presenting more high-grade drill results, more rapid resource growth, and as a consequence an exciting mine plan and Ore Reserves in 2024."



# Global Mineral Resource Commentary

The waterfall chart below (Figure 1) illustrates and incorporates the changes from the previous Group Mineral Resource Estimate released in January to the current Group Mineral Resource Estimates.

The Never Never Deposit and along with the Gilbey's Complex, which includes Plymouth, Sly Fox, are collectively included in the Dalgaranga Gold Project (DGP). As Archie Rose is 9km from the processing plant, it is now reported under the Murchison Regional Resource with the Yalgoo Gold Project which could be trucked for milling at the DGP process plant.

Substantial resource growth and conversion has been achieved at the Never Never Gold Deposit in terms of grade and ounces. In addition, the conversion of Inferred ounces at Gilbey's at an increased grade has had a material impact on the total MRE for the Dalgaranga Gold Project.

No changes have been made to Glenburgh Gold Project (GGP) or the Egerton Gold Project (EGP) mineral resource estimates, collectively the Gascoyne Region Resource.

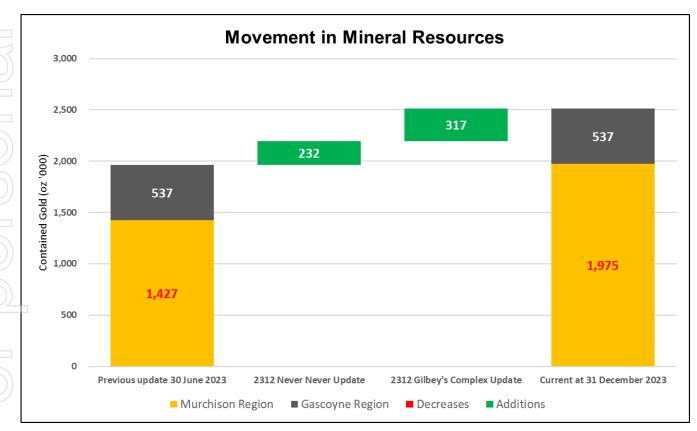


Figure 1: Group Mineral Resources Waterfall Chart - previous to current as 31 December 2023 (0.5g/t-0.7g/t cut-off for open pit and 1.0g/t-2.0g/t for underground).



# **Never Never Gold Deposit - Mineral Resource Estimate Update**

The Mineral Resource Statement for the Never Never Mineral Resource Estimate (MRE) was prepared during December 2023 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

Drilling from the August to December 2023 campaign focused on extending the high confidence underground portion of the resource and testing depth extensions of known mineralisation. Results continue to demonstrate consistency of thickness and grade, with the depth from surface to the current vertical limit which has extended from 500m to 600m. Mineralisation remaining open at depth.

The December 2023 Never Never MRE ("2312 MRE") includes data from 28 additional DD / RCDD holes completed in the August to December campaign. Mineralised domains were informed by RC, DD and RCDD only, of which 386 drill holes generated 5,655 sample composites for estimation within the interpreted mineralised envelope. Samples were predominantly from RC drilling (82%), with diamond drilling contributing 18%.

Compared to the previous 2023 mid-year MRE ("2306 MRE"), the 2312 Never Never MRE has increased by 32% overall, with the dominant Never Never HG01 domain increasing by circa 27%.

In the opinion of the Competent Person (CP) the MRE is a reasonable representation of the local gold Mineral Resources where close-spaced grade control drilling has been conducted (<50m depth), and global gold Mineral Resources (>50m depth) within the Never Never Deposit. Mineral Resources are reported below topography and comprise oxide, transitional and fresh rock. Mineral Resources are reported in Table 4 and Table 5 below.

Table 4. Never Never MRE Dec 2023, reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au <270mRL) and underground >2.0g/t Au, >270mRL) \*

NEVER NEVER GOLD DEPOSIT									
Open Pit Resource >0.5gpt <270mRL									
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Indicated	1.09	2.46	86.3						
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	Underground Resource >2.0gpt Au >270mRL								
Indicated	2.58	7.40	614.5						
Inferred	1.31	5.86	245.9						
TOTAL	3.89	6.88	860.4						
	TOTAL NEVER NEV	/ER GOLD DEPOSIT							
Indicated	3.67	5.93	700.7						
Inferred	1.49	5.28	252.1						
GRAND TOTAL	5.16	5.74	952.9						

Table 5. Never Never MRE Dec 2023, reported by Material Type and Resource Total. \*

	NEVER NEVER GOLD DEPOSIT – MATERIAL TYPE											
Catagoni	Oxide Transitional						Fresh	Fresh		Total		
Category	Category Mt Au g/t Au koz Mt		Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	
Indicated	0.4	1.79	24.9	0.2	2.59	19.9	3.0	6.80	655.9	3.7	5.93	700.7
Inferred	0.0	0.88	1.3	0.0	0.85	1.2	1.4	5.56	249.6	1.5	5.28	252.1
TOTAL	0.5	1.70	26.2	0.3	2.32	21.1	4.4	6.41	905.5	5.2	5.74	952.9



This MRE includes Inferred Classified Mineral Resources, which are unable to have economic considerations currently applied to them, and there is no certainty that further drilling will enable them to be converted into Measured or Indicated Classified Mineral Resources.

The Never Never Gold Deposit is located on an existing Mining Lease and within 1km of Spartan's 100%-owned 2.5Mtpa Dalgaranga processing plant.

Open pit and underground mining methods were assumed at the Never Never Gold Deposit. No mining dilution or minimum mining widths have been applied within the Mineral Resource or during reporting. The transition point between open pit and underground will be further assessed in ongoing studies.

Spartan considers the reported open pit material would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 230m RL (195m below surface).

Given the grade and thickness of the main Never Never mineralised shoot at depth, the reported underground material would fall within the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an underground mining framework. Mining studies are progressing.

#### **Drilling techniques**

Drilling has been completed from surface using RC, DD, RCDD, RAB and AC drilling techniques. All DD and RCDD holes were oriented.

For the August to December 2023 drilling campaign, all drilling was either diamond drilling (DD) from surface or RC pre-collars with diamond tails. Three diamond wedges were cut off from parent diamond holes, achieving target separation up to 30m.

The RC drilling used a nominal 5½ inch diameter face-sampling hammer. DD holes were completed using a combination of HQ or NQ drill diameters, dependent on depth.

All drilling collar locations were picked up by SPR personnel using a differential global positioning system (DGPS). All reported coordinates were referenced to grid system MGA\_GDA94 Zone 50. The topography is relatively flat at the location of drilling, with most drilling for Never Never completed on the adjacent waste dump. Downhole surveys were completed using gyroscopic survey tools at 30m increments or less. Drilling since 2022 has used continuous gyro surveying from end of hole.

### Historical drilling

Gilbey's North was historically drilled in 2013 and 2017 as part of a sterilisation program for waste dump extensions. Exploration and resource definition drilling targeting a historical AC drilling intercept commenced in December 2021.

Within the Never Never area both AC and RAB drilling have been utilised to inform the structural / lithological model, however excluded from the mineralisation interpretation and MRE.

Drilling methods used by historical operators are assumed to be in line with industry standards at the time. All areas included in the MRE are now considered sufficiently supported by recent SPR drill information.

# Sampling and sub-sampling techniques

Utilising a cone splitter, 1 m RC samples were split and collected at the drill rig, with each RC sample weighing approximately 3-5 kg. The DD core was sawn half lengthways with the left-hand side of the core being consistently sampled.



The RC chips were geologically logged over 1 m intervals. The DD holes were logged to geological boundaries in addition to being structurally and geotechnically logged. Drilling intersected oxide, transitional and primary mineralisation to a maximum downhole depth of 650m below surface).

Sample recovery and metreage were visually assessed and recorded if significantly reduced.

Routine checks for correct RC sample depths were undertaken and sample recoveries were visually checked for recovery, moisture and contamination. The cyclone was flushed with compressed air and manually cleaned at 30 m intervals. The RC samples collected were all predominantly dry.

Spartan's QAQC protocols include the collection and analysis of field duplicates and the insertion of appropriate commercial standards (certified reference materials) and blank samples. Insertion rates are 4/100 samples for CRMs, 2/100 for blank samples and 2/100 for field duplicates. In 2022, SPR adopted target zones for field duplicate samples where predicted mineralised zones were duplicate sampled with RC drilling – submitted duplicates included mineralised zones +/- 5m above and below.

# **Historical sampling**

Sampling methods used by previous historical operators are assumed to be in line with industry standards at the time.

Gilbey's North historically was drilled in 2013 and 2017 as part of a sterilisation program for waste dump extensions. Exploration and resource definition drilling targeting a historical AC drilling intercept commenced in December 2021.

Within the Never Never area both AC and RAB drilling were utilised to inform the structural / lithological model, however excluded from the mineralisation interpretation and MRE.

All areas included in the MRE are now considered sufficiently supported by the recent SPR drill information.

#### Sample analysis method

Since 2022 all RC and DD samples have been sent to ALS Global Ltd in Canning Vale, Perth for analysis by PhotonAssay. PhotonAssay is considered a non-destructive next-generation technique that uses high-energy X-rays. This technology continues to provide faster, more accurate analytical results with reduced emissions and ensures the operator protection by removing hazardous chemicals in the analytical process.

Samples are dried, and if the sample weight is greater than 3 kg, the sample is riffle split. For PhotonAssay, the sample is crushed to nominal 85% passing 2 mm, linear split, and a nominal 500 g subsample is taken (method code PAP3502R). Quality control samples are also analysed, including certified reference materials, blanks and sample duplicates.

Approximately 3% of assays grading above 0.2 g/t Au are selected for fire assay analysis on a whole intersection by drill hole basis. The correlation between samples submitted for fire assay up to August 2023, had a correlation of 98%.

QAQC assaying and analysis for the August to December campaign is currently ongoing with combined results to date reported in the Gilbey's Mineral Resource Estimate - December 2023 Update report.

# **Historical analysis**

No information is available in the database for historical sample analysis, however assuming aqua regia and fire assaying was used to industry standards at the time.



#### **Geology and geological interpretation**

Regionally, the Dalgaranga project lies in the Archaean Dalgaranga Greenstone Belt in the Murchison Province of Western Australia. Most gold mineralisation at the Gilbey's Main deposit is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining, hosted by a volcaniclastic-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Zone). The Never Prospect is located at the northerly extension of the Gilbey's Main Zone which trends north – south and dips moderately to steeply to the west.

While all drill types were used for structural - lithology modelling of Gilbey's Never Never, RAB and AC drilling data were excluded from mineralisation estimation owing to the style of drilling and potential for sampling bias. Only recent data from RC, DD and RCDD drilling were used for mineralised domains and estimation, 100% of which were drilled in the last 24 months.

Spartan believes mineralisation is largely structurally controlled at the Never Never deposit. The footwall Shale units provide a reasonable mineralisation definition proxy, with mineralisation existing on the hanging wall of a siliceous shale unit. The structural understanding of the Never Never deposit is an ongoing process, however initial modelling has provided an early framework that assisted the MRE process.

The primary style of mineralisation at Never Never is a high-grade thickened zone located on the hanging wall of the northwest-striking shale unit. The Never Never Lode strikes west-south-west (MGA grid) and is noticeably different in geometry, grade tenor and alteration to other mineralisation styles at Dalgaranga. In unweathered material, the Never Never mineralisation is associated with highly silicified, sericite altered and mylonitic textured volcaniclastic unit with a fine-grained pyrite present. Visible gold has also been noted in a significant number of diamond drill holes.

The secondary style of mineralisation is analogous to the mineralisation styles present in the Gilbey's Main deposit, where mineralisation is understood to be structurally controlled, and where silicification and the presence of sulphides typically accompany mineralisation. Spartan postulate the Never Never mineralisation is a high-grade feeder to the Gilbey's system, with other feeder zones noted in grade control drilling within the main Gilbey's Pit.

Spartan believes mineralisation at Dalgaranga is largely structurally controlled, with data indicating crosscutting structures introducing gold into the stratigraphic package. Shale units provide a reasonable mineralisation definition proxy, with mineralisation existing on the hanging wall of a siliceous shale unit. A highly foliated volcaniclastic unit in proximity to a cross-cutting structure appears to host higher concentrations of gold mineralisation.

During 2023 a Gilbey's Complex Geological Model was completed by Spartan Geologists involved with mining operations over the last three or more years – this was extended over the Never Never resource area. Detailed stratigraphy, regolith and major faults were modelled using all available data using Leapfrog Geo software. While all drill types were used for building the model, RAB and AC drilling data were excluded from mineralisation estimation owing to the style of drilling and potential for sampling bias.

Mineralisation interpretations were informed by 361 drill holes – comprising RC (332), DD (14) and RCDD (47), using Leapfrog GEO software. Using a 0.3 g/t gold cut-off grade to guide the geological and grade continuity of the interpreted mineralisation, a total of 13 mineralised domains were created. These were divided into three broad areas:

- Laterite Horizon 1 domain (figure 2)
- Eastern Domains 3 Gilbey's North domains, and 7 Never Never domains (figure 3)
- Western Domain 3 Never Never domains including the primary HG01 high-grade shoot. (figure 4)

For the Dec 2023 update, only the main HG01 domain was updated.



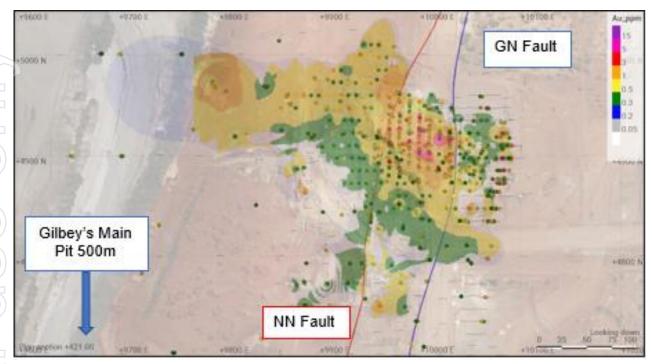


Figure 2: Plan view of the Never Never Gold Deposit showing Laterite domain (yellow wireframe) and related drill assays coloured by gold (ppm) and filtered to above 0.3 ppm gold.

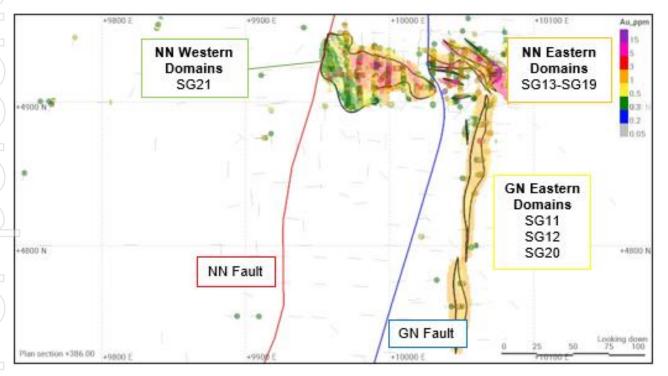


Figure 3: Plan view of Never Never Gold Deposit showing mineralisation domains and associated drill assays coloured by gold (ppm) and filtered to above 0.3 ppm gold. (385mRL +/-10m)



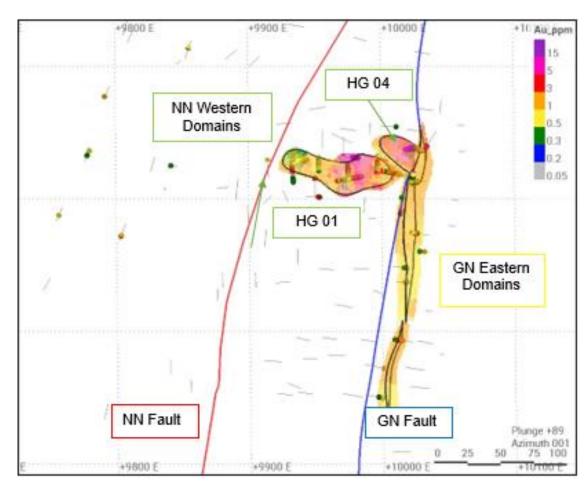


Figure 4: Plan view of Never Never Gold Deposit showing mineralisation domains and associated drill assays coloured by gold (ppm) and filtered to above 0.3 ppm gold. (320mRL +/110m)

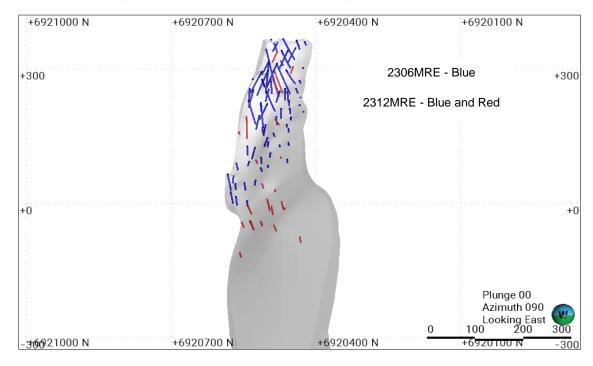


Figure 5: HG01 Domain 2306 vs 2312 sample composites



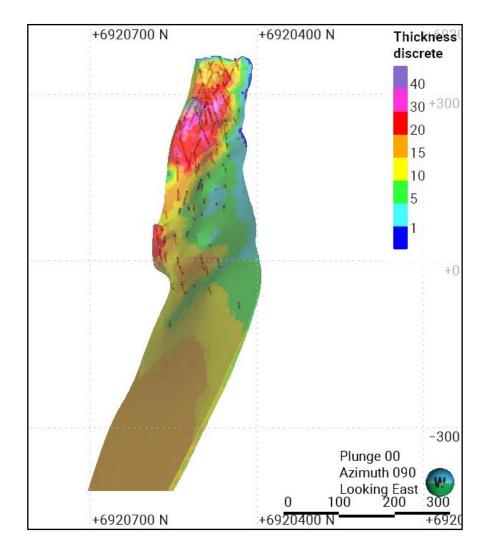


Figure 6: HG01 Domain demonstrating lode thickness (note holes drilled and logged but waiting on assays were used to inform the interpretation and influenced the variable thickness shown)

# **Estimation methodology**

Sample data were composited to a 1 m downhole length using a best-fit method following analysis of the sample length frequency. Top-caps (anomalously high grades were reassigned a lower grade in line with the remainder of the grade population, not removed from the data set) were applied to the composites prior to block grade estimation.

Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains. Top-caps were initially applied on a global basis within individual domains to limit the potential influence of obvious statistical outliers (Table 6).

Of note is the change in top cut for HG01 from 75g/t Au (2306 MRE) to 100g/t Au (2312 MRE) due to consistent zones of high-grade gold mineralisation intercepted during the 2023 drilling campaigns (Figure 4).



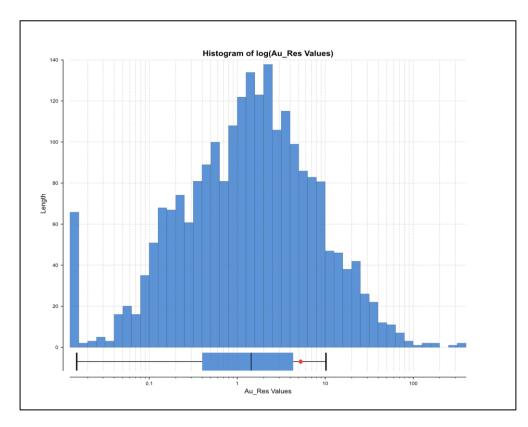


Figure 7: HG01 Domain Composite Histogram

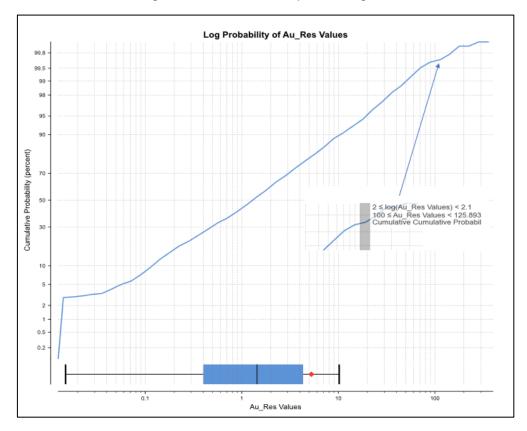


Figure 8: HG01 Log Probability Plot



Table 6. Summary of the top caps applied by domain.

Lode	#Composites	Mean	Max Au	cv	Top Cut 2023	New mean	New CV	Metal cut %	Samples Cut
2312_NN_Lode_HG01	2295	5.3	393.0	3.1	100	4.5	2.0	-14%	8
2306_NN_Lode_HG04	205	1.7	23.6	3.0	8	1.2	1.2	-31%	9
2306_NN_Lode_SG21	1889	1.8	85.4	2.7	13	1.2	1.7	-33%	42
2306_NN_Lode_SG12	582	1.9	143.5	3.4	10	1.4	1.3	-31%	13
2306_NN_Lode_SG13	204	1.1	11.6	1.5	5	0.9	1.1	-21%	5
2306_NN_Lode_Cluster	460	2.7	151.2	3.1	35	2.0	1.8	-26%	7
2306_NN_Lode_Laterite	1096	0.9	12.6	N/A	N/A	N/A	N/A	N/A	N/A

Exploratory Data Analysis (EDA) and variography of the capped and composited gold values was completed within each domain and correlated well with spatial and statistical observations made by the Company's resource geologists. All EDA was completed in Leapfrog Geo with third party review in Datamine's Supervisor software. The data was exported for further visual and graphical review.

Additional data for the 2312 MRE update was solely contained within the HG01 domain, other domains remained as per the 2306 MRE.

The majority of gold at Never Never is contained in HG01 domain; the variogram used to estimate this domain can be seen in Figure 9 and 10. Note the very low nugget of 0.15 which reflects the high-grade nature of the Never Never Gold Deposit as demonstrated by drilling to date.

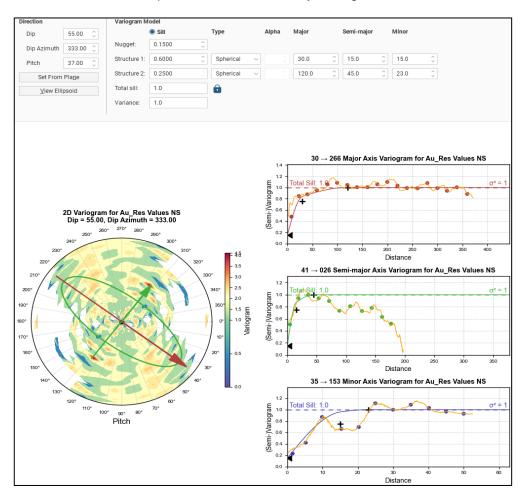


Figure 9: 2312\_NN\_Lode\_HG01 variography



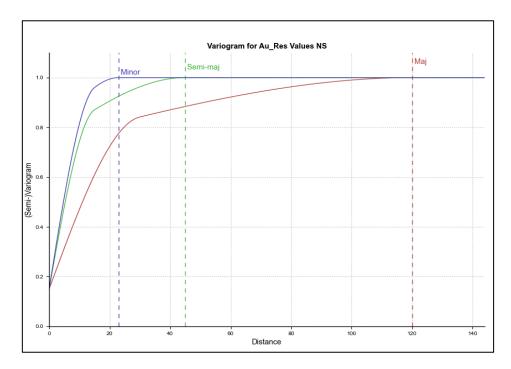


Figure 10: 2312\_NN\_Lode\_HG01 variography

Estimation test work was completed on all domains, using multiple techniques (Inverse Distance squared and cubed, Ordinary Kriging, Nearest Neighbour, Dynamic Anisotropy) with soft and hard boundaries between domains also completed.

The final methods determined to provide the most representative estimate are outlined in Table 7.

nal Estimation Method 2312\_NN\_Lode\_HG01 Ordinary Kriged (OK) Large domain with varying drill density 2306\_NN\_Lode\_HG04 Small mineralised envelope with varying drill density Ordinary Kriged (OK) 2306 NN Lode SG21 Ordinary Kriged (OK) Grade control drill density Large domain with varying drill density - grade 2306\_NN\_Lode\_SG12 Ordinary Kriged (OK) control at surface Large domain with varying drill density - grade 2306\_NN\_Lode\_SG13 Ordinary Kriged (OK) control at surface 2306\_NN\_Lode\_SG14 to Multiple small domains of a related system, too SG20 (Combined) Ordinary Kriged (OK) small to be effectively estimated in isolation. 2306\_NN\_Lode\_Laterite Ordinary Kriged (OK) Grade control drill density

Table 7. Final estimation techniques by domain

Estimation was undertaken within parent cell blocks of Y: 8 mN, X: 8 mE, Z: 8 mRL, with sub-celling of Y: 1.0 mN, X: 1.0 mE, Z: 1.0 mRL to ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were completed for each mineralised domain BM vs Wireframe. All domains showed less than 1% volume difference.

All domain estimates were based on parameters underpinned by geological logging (lithology, mineralogy and veining) within domains using a nominal cut-off grade of 0.3 ppm Au. Hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain. The exception is the grouped domains of 2306\_NN\_Lode\_SG14 to SG20 which are the clustered Never Never domains on the eastern side of the GN Fault – the composite



samples within these domains were grouped for top cap analysis and a soft boundary has been used between them for estimation purposes.

A three-pass estimation search strategy was employed for all domains. Identical estimation search parameters were employed using Inverse Distance Squared (ID2) Inverse Distance Cubed (ID3) and Nearest Neighbour (NN) as a comparative validation tool for all domains.

The predominant Never Never domain 2312\_NN\_Lode\_HG01 had a maximum distance range of 80 m in the major direction, with the number of neighbourhood composites ranging from a minimum of 7 to a maximum of 12 samples, restricted to 3 samples per hole in the first pass.

The range was increased to a maximum of 160 m in the major direction for the second pass with other parameters remaining the same as the first pass.

For the third pass the maximum range was increased to 640 m in the major direction, using a variable orientation (dynamic anastophy). The number of neighbourhood composites ranging from a minimum of 7 to a maximum of 30 samples, restricted to 3 samples per hole. Additional restrictions were placed on high-grade composites greater than 45g/t Au restricted influence to 15m. This criteria was introduced due to changing orientation of Never Never at depth and the decrease in available sample composites.

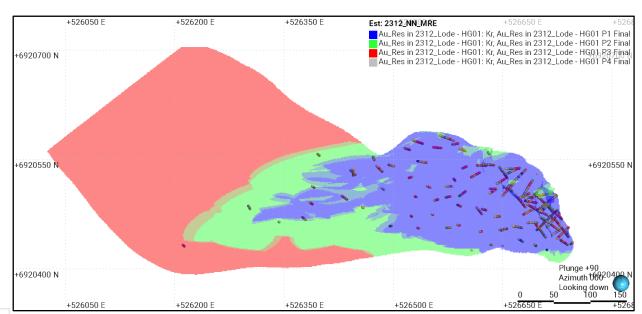


Figure 11: Plan view of the 2312\_NN\_HG01 domain blocks coloured by pass number, compared to composites. Blue denotes blocks estimated in the first pass



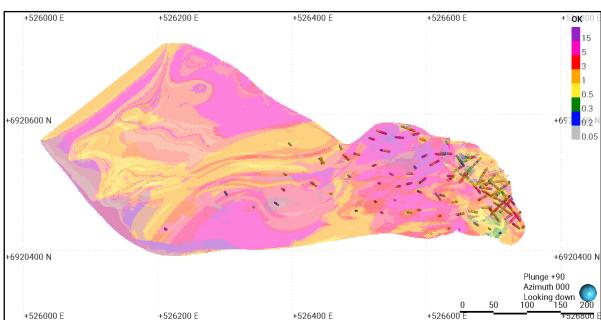


Figure 12: Plan view of the 2312\_NN\_HG01 domain blocks coloured by gold grade (ppm), compared to composites coloured by gold grade (ppm)

Validation of the estimation outcomes was completed by global and local bias analysis (swath plots) and statistical and visual comparison (cross and long sections) with input data.

Example of the predominant 2312\_NN\_HG01 values used for MRE reporting in RED vs data composites in BLACK. (Figure 13–15).

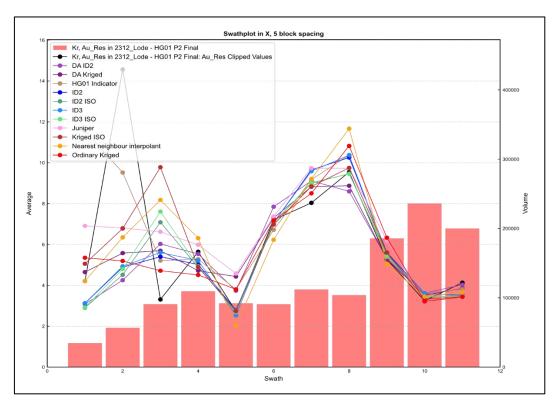


Figure 13. Swath plot by easting at 45m (5 Parent Blocks) spacing for the 2312\_NN\_HG01 domain; black points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms



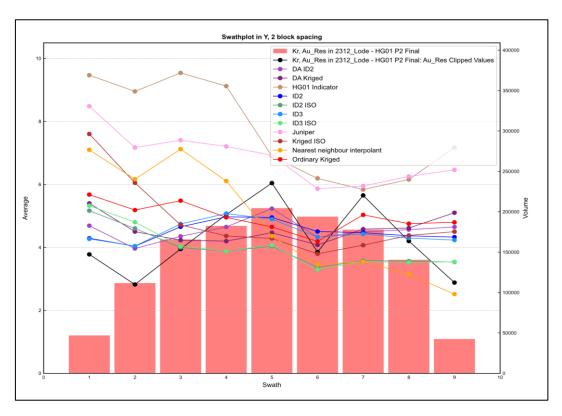


Figure 14. Swath plot by northing at 16m (2 Parent Blocks) spacing for the 2312\_NN\_HG01 domain; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms

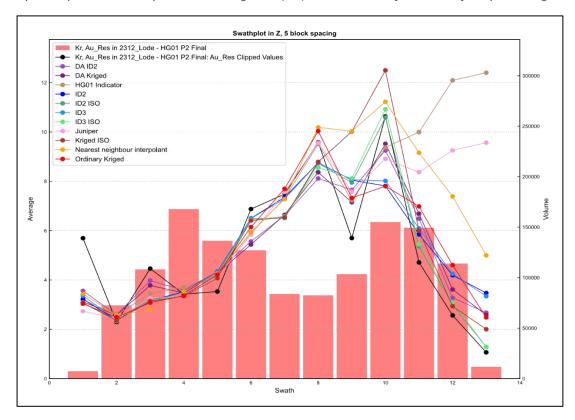


Figure 15. Swath plot by elevation at 45m (5 Parent Block) spacing for the 2312\_NN\_HG01 domain; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms



Validation for the predominant 2312\_NN\_HG01 domain indicates the estimate performed within 4% when compared to the composites globally for all estimation methods.

The 3D block model was coded with density, weathering and Mineral Resource Classification prior to evaluation for Mineral Resource reporting.

### **Bulk density**

Bulk density values at the Never Never deposit was derived from 463 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth. In addition, a further 51 validated measurements were taken from 7 drill holes completed at Never Never during 2022.

Samples were taken nominally between 1 m to 350 m downhole to provide a representative density profile across oxidation states. The methodology for density measurements is not recorded in the MS Access database; however, Spartan personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (57), transitional (60) and fresh (346) drill core samples.

Since August, additional bulk density readings have been taken on recent diamond core representing regolith and lithological units. Analysis considered various lithologies, weathering profiles and mineralised vs unmineralized fresh rock intervals. Results indicated averages used previously are appropriate.

Due to the statistical variation in bulk density values by lithology, bulk densities were averaged, and a default assigned to each weathering unit. The following bulk density values were determined and applied in the block model:

Oxide: 1.70 t/m3
 Transitional: 2.60 t/m3
 Fresh: 2.80 t/m3

#### **Resource Classification Criteria**

Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the stage of project assessment, amount of drilling undertaken, current understanding of mineralisation controls and mining selectivity within an open pit vs underground mining environment.

In SPR's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.

Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning the Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade estimations (sensitivity analysis).

Indicated Mineral Resources were defined:

- Via manual polygon and informed where a strong to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
- Where blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 50 m or less or where drilling was within approximately 50 m of the block.



 Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the first estimation pass.

Inferred Mineral Resources were defined:

- Via manual polygons and informed where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
- Where drill spacing averaged a nominal 50 m or greater
- Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the second or third estimation passes.

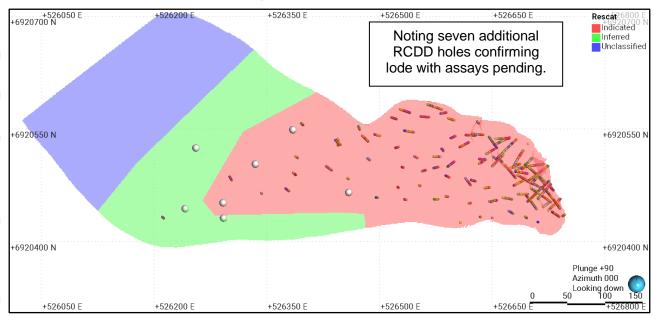


Figure 16. Plan view of the main domain HG01 block model, coloured by Resource Classification and compared to the relative composites used to estimate the domain.

Noting seven additional drill holes were completed with logging confirming typical Never Never-Style mineralisation were taken into consideration when applying resource classification.

Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained Unclassified for drill targeting.

The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.

#### **Reporting Cut-off grade**

The Mineral Resource estimate cut-off grade for reporting of open pit gold resources at Never Never was 0.5 ppm gold to 155m below surface. This elevation corresponds to preliminary pit designs completed by SPR on previous models using an open pit mining method and economic cut-offs applied from November 2022. The reported resource was not constrained by pit design.

The Mineral Resource estimate cut-off grade for reporting of underground gold resources was 2.0 ppm gold from 155 m below surface. The reporting cut-off grade is in line with Western Australian peers for reporting unconstrained underground resources.

Tonnages were estimated on a dry basis.



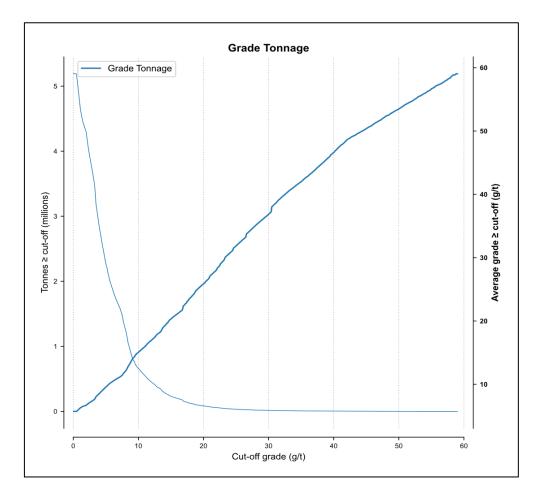


Figure 17: Never Never Grade/Tonnage Curve

# Assessment of Reasonable Prospects for Eventual Economic Extraction

The Never Never deposits are located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant.

Open pit and underground mining methods were assumed at the Never Never deposit. No mining dilution or minimum mining widths were assumed or applied within the Mineral Resource or during reporting. The transition point between open pit and underground will be further assessed in ongoing studies.

The Company considers the reported open pit material would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 195 m below surface.

Given the grade and thickness of Never Never at depth, the reported underground material would fall within the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an underground mining framework.



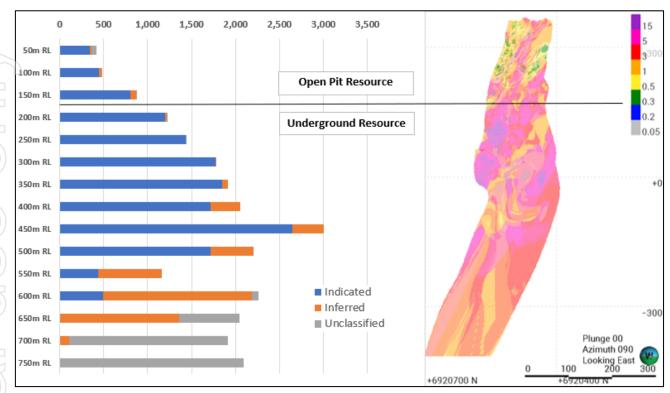


Figure 18: Never Never Ounces per vertical metre (OVM)

# **Mining and Depletion**

Mining approvals from the DMiRs was given in late October 2022 with limited mining of Laterite ore completed prior to care and maintenance.

A drone survey was completed over the mined portion of Never Never, producing a 3D wireframe which was used to deplete <u>27.8kt at 1.72 g/t Au for 1,536 oz</u> from the MRE

The stockpile has been partially processed, with Never Never ore blended with other stockpiled ore and milled prior to full shut down.

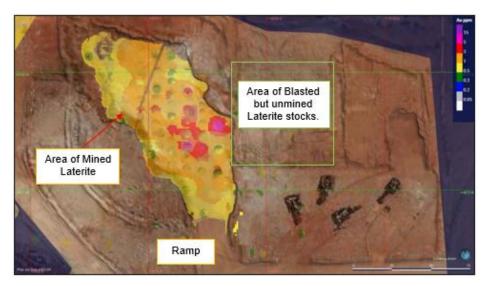


Figure 19: 2022 Partial mining of Never Never Laterite Zone



# **Metallurgical Factors and Assumptions**

Recent metallurgical recovery test work conducted on samples from across the Never Never Gold Deposit show that Never Never high-grade material – being mineralised material that could reasonably be expected to be mined—indicates:

- Average 92% overall metallurgical recovery in oxide material, with fresh material averaging above 92% through a standard gravity/Carbon-in-Leach ("CIL") process flowsheet.
- Overall gravity recoveries or Gravity Recoverable Gold ("GRG") averages 20% in the oxide material and 31% in fresh material through a standard gravity concentration flowsheet.
- Overall leach kinetics illustrates that more than 90% of the gold contained in high-grade material in CIL feed leaches within 48hrs.

In addition, test work on the Never Never high-grade material also indicates that there are:

- No material or significant recovery issues from any typical "deleterious elements", such as copper, lead, zinc, nickel or arsenic in the high-grade material.
- No material, or significant recovery issues from any "preg-robbing" material, such as carbonaceous material in graphitic shale

Analysis of the 5-year-old 2.5Mtpa Dalgaranga Processing Plant ("DPP") illustrates:

- That the existing CIL process plant flowsheet is well suited in its current configuration to process the Never Never high-grade material.
- The comminution circuit is suitable for processing the Never Never high-grade material with upgrades as indicated in the original Dalgaranga Gold Project DFS.
- Gravity, leaching, gold recovery, tailings and plant services are fit for purpose and only require minor refurbishment and capacity upgrades prior to start up.
- The existing CIL circuit capacity is adequate at the anticipated treatment rates for the Never Never high-grade material.

No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.

# **Environmental Factors or Assumptions**

The deposits being assessed are all situated on a granted Mining Lease within an operating mine site and have no identified areas of Environmental concern or consideration. Vegetation clearance is managed under permit.

No environmental factors are applied to the Mineral Resources or resource tabulations.

# Gilbey's Gold Deposit - Mineral Resource Estimate Update

The Mineral Resource Statement for the Gilbey's Mineral Resource Estimates (MRE) was prepared during November 2023 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

Gilbey's has been the main open pit mining area at Dalgaranga until November 2022 when Spartan Resources Limited (previously Gascoyne Resources Limited) placed operations on care and maintenance.

Gilbey's MRE contains Gilbey's Main Zone, GFIN, West Winds, Four Pillars and Gilbey's East Prospects.



During 2023 a Gilbey's Complex Geological Model was completed by the Company's Geologists involved with mining operations over the last three or more years. Detailed stratigraphy, regolith and major faults were modelled using all available data using Leapfrog Geo software.

The Geological model formed the basis for mineralised domains for Gilbey's, which were combined into a single block model. The MRE contains 24 mineralised domains, including GMZ (7), Gilbey's East (16) and GFIN (1), with 85% of volume within the GMZ domains.

Since the previous MRE update in 2021, 2,044 drill holes have been completed into the resource area including RCGC (1,854), RC (170) and DD/RCDD (20). A further 17 RC and 12 RCDD have been completed in 2023 with results pending.

Mineralised domains were informed by RC, DD and RCDD only, of which 2,044 drill holes generated 236,364 sample composites for estimation within the interpreted mineralised envelope. Samples were predominantly from RC drilling (96.6%), with diamond drilling contributing 3.4%. 2023 drilling campaign included 19 DD/RCDD drill holes.

The resource statement for this report will focus on Gilbey's, however for Company reporting purposes Gilbey's Complex will continue to include Plymouth and Sly Fox MREs (refer to the separate Plymouth-Sly Fox December 2023 MRE update report).

In the opinion of the Competent Person (CP) the MRE is a reasonable representation of the local gold Mineral Resources where close-spaced grade control drilling has been conducted and global gold Mineral Resources within Gilbey's Deposit. Mineral Resources are reported below topography and comprise oxide, transitional and fresh rock.

Mineral Resources are reported below in tables 8 and 9:

Table 8. Gilbey's MRE Dec 2023.. Reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au within a A\$2,800 pitshell) and underground >1.0g/t Au, below a A\$2,800 pitshell) 3

	GILBEY'S GOLD DEPOSIT								
Open Pit Resource >0.5gpt, constrained by A\$2,800 Pit Shell									
Category	ategory Tonnes (Mt) Grade (Au gpt) Ounces (Koz)								
Measured	0.3	0.89	7.5						
Indicated	8.8	1.35	383.2						
Inferred	1.7	1.18	63.7						
TOTAL	10.8	1.31	454.4						
Under	Underground Resource >1.0gpt Au below A\$2,800 Pit Shell								
Measured									
Indicated									
Inferred	3.7	1.65	194.3						
TOTAL	3.7	1.65	194.3						
	TOTAL GILBEY'S	GOLD DEPOSIT							
Measured	0.3	0.89	7.5						
Indicated	8.8	1.35	383.2						
Inferred	5.4	1.50	258.0						
GRAND TOTAL	14.4	1.40	648.8						



Table 9. Gilbey's MRE Dec 2023, reported by Material Type and Resource Total. - combined open pit (>0.5g/t Au constrained with an A\$2,800 pit shell) and underground >1.0g/t Au, below the A\$2,800 pit shell) \* \*

	GILBEY'S GOLD DEPOSIT – MATERIAL TYPE													
ı	Catagory		Oxide		Transitional			Fresh				Total		
ı	Category	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	
. [	Measured							0.26	0.89	7.52	0.3	0.9	7.5	
	Indicated	0.0	1.61	0.6	0.2	1.36	9.6	8.6	1.35	373.1	8.8	1.35	383.2	
	Inferred	0.0	2.17	0.9	0.0	1.40	1.8	5.3	1.50	255.3	5.4	1.50	258.0	
	TOTAL	0.0	1.90	1.5	0.3	1.37	11.4	14.1	1.40	635.9	14.4	1.40	648.8	

<sup>\*</sup>NB Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

Noting measured category relates to surface stockpiles only, not in-situ gold mineralisation.

Including Plymouth and Sly Fox, reporting as 'Gilbey's Complex' as shown in tables 10 and 11:

Table 10. Gilbey's Complex MRE Dec 2023, including, Plymouth and Sly Fox. Reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au within a A\$2,800 pitshell) and underground >1.0g/t Au, below a A\$2,800 pitshell) \*

	GILBEY'S COMPLEX GOLD DEPOSITS								
Open Pit Resource >0.5gpt, constrained by A\$2,800 Pit Shell									
Category	Tonnes (Mt) Grade (Au gpt) Ounces (Koz)								
Measured	0.26	0.89	7.5						
Indicated	9.28	1.38	410.8						
Inferred	1.77	1.19	68.1						
TOTAL	11.32	1.34	486.5						
Under	ground Resource >1.0g	pt Au below A\$2,800 P	it Shell						
Measured									
Indicated									
Inferred	4.67	1.69	253.3						
TOTAL	4.67	1.69	253.3						
	TOTAL GILBE	Y'S COMPLEX							
Measured	0.26	0.89	7.5						
Indicated	9.28	1.38	410.8						
Inferred	6.44	1.55	321.5						
GRAND TOTAL	15.99	1.45	739.8						

Table 11: Gilbey's Complex Dec 2023, reported by Material Type and Resource Classification - combined open pit (>0.5g/t Au constrained with an A\$2,800 pit shell) and underground >1.0g/t Au, below the A\$2,800 pit shell) \*

	GILBEY'S COMPLEX GOLD DEPOSITS – MATERIAL TYPE											
Catagory	Oxide			Transitional		Fresh				Total		
Category	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz
Measured							0.26	0.89	7.5	0.3	0.89	7.5
Indicated	0.1	1.53	2.9	0.26	1.48	12.3	8.97	1.37	395.6	9.3	1.38	410.8
Inferred	0.0	2.10	0.9	0.04	1.48	2.1	6.37	1.55	318.4	6.4	1.55	321.4
TOTAL	0.1	1.64	3.8	0.3	1.48	14.4	15.6	1.44	721.5	16.0	1.44	739.8

This MRE includes Inferred Classified Mineral Resources, which are unable to have economic considerations applied to them, and there is no certainty that further drilling will enable them to be converted to Measured or Indicated Classified Mineral Resources.



#### **Drilling techniques**

Drilling has been completed from surface using RC, DD, RCDD, RAB and AC drilling techniques. All DD and RCDD holes were oriented.

Recent resource drilling over the project area commenced in 2022 with RC drilling focused on Gilbey's East and initial holes at Four Pillars. In 2023 drilling with RC and DD/RCDD has focused on the main Gilbey's Lodes, targeting the higher grade Four Pillars and West Winds prospects, and additional geotechnical and metallurgical drilling.

The RC drilling used a nominal 5½ inch diameter face-sampling hammer. Diamond drilling was completed using a combination of PQ, HQ or NQ drill diameters, dependent on depth. RCGC has previously been on a nominal 10m x 7m pattern.

All drilling collar locations were picked up by SPR personnel using a differential global positioning system (DGPS). All reported coordinates were referenced to grid system MGA\_GDA94 Zone 50. The topography is relatively flat at the location of drilling. Downhole surveys were completed using gyroscopic survey tools at 30m increments or less. Drilling since 2022 has used continuous gyro surveying from end of hole.

#### **Historical drilling**

The Dalgaranga area was historically drilled Rotary Air Blast (RAB) drilling, Air Core (AC) drilling, Reverse Circulation (RC) drilling and Diamond (DD) drilling over numerous campaigns by several companies. Drilling methods used by historical operators are assumed to be in line with industry standards at the time.

Equigold NL developed the project in 1997 focusing on the oxide portion of the resources at Gilbey's. Spartan's ownership commenced in 2013 and areas included in the MRE are now considered sufficiently supported by recent drill information.

# Sampling and sub-sampling techniques

Using a cone splitter, 1 m RC samples were split and collected at the drill rig, with each RC sample weighing approximately 3-5 kg. The DD core was sawn half lengthways with the left-hand side of the core consistently sampled.

The RC and AC chips were geologically logged over 1 m intervals. The DD holes were logged to geological boundaries in addition to being structurally and geotechnically logged. Drilling intersected oxide, transitional and primary mineralisation to a maximum downhole depth of 500m below surface at Sly Fox and 150m at Plymouth.

Sample recovery and metreage were visually assessed and recorded if significantly reduced.

Routine checks for correct RC sample depths were undertaken and sample recoveries were visually checked for recovery, moisture and contamination. The cyclone was flushed with compressed air and manually cleaned at 30 m intervals. The RC samples collected were all predominantly dry.

SPR's QAQC protocols include the collection and analysis of field duplicates and the insertion of appropriate commercial standards (certified reference materials) and blank samples. Insertion rates are 4/100 samples for CRMs, 2/100 for blank samples and 2/100 for field duplicates.

For the 2023 campaign, RC drilling incorporated duplicate field samples for all target zones to be used for metallurgical composites and QAQC purposes. For QAQC, the duplicate selection was based on primary assay results greater than 0.1g/t Au with approximately 5 samples either side. Selection was approximately 1 in 10 holes drilled with spatial distribution a consideration.



# **Historical sampling**

Sampling methods used by historical operators are assumed to be in line with industry standards at the time.

Historical information is restricted for RAB drill holes; however, it is understood that RAB samples were typically analysed as 4 m composites, excluding collar samples, which range in sample length from 1 m to 4 m.

AC samples were 2-4m composite samples (3-5 kg per sample) with a 1m EOH sample. Anomalous gold values (>100ppb) for composites were resampled to 1m intervals. All AC and RAB and trench samples were excluded from the MRE.

### Sample analysis method

Various assaying methods have been employed for drilling at Gilbey's / Dalgaranga.

Pre-2022 all RC and DD samples from resource drilling were analysed using fire assay. For RC samples the entire sample was oven dried at  $105^{\circ}$ C for at least 12 hours. Samples >3 kg were riffle split 50:50 with the excess discarded. Samples up to 3 kg were then pulverised to 85% passing minus 75  $\mu$ m using a LM5 ring mill. The DD samples are prepared as follows at MinAnalytical Laboratory: The entire sample was oven dried at  $105^{\circ}$ C for a minimum 2 hours, as required. Samples >3 kg were crushed to nominal minus 2 mm and Rotary split to produce a 3 kg sample for pulverising (excess crushed material retained). Samples up to 3 kg, were pulverised to 85% passing minus 75  $\mu$ m using a LM5 ring mill. Fire Assaying was conducted using a 50g charge.

Before mid-2018, GC RC samples were also sent to MinAnalytical, with analysis by conventional Fire Assay methods. Subsequently, GC RC samples have either been sent to MinAnalytical, with Photon Assay being used for analysis, or to the Dalgaranga Mine Site Laboratory for Pulverising and Leach (PAL) analysis.

The subset of GC RC samples sent to the Dalgaranga Mine Site Laboratory for PAL analysis are prepared as follows: The drill chips are oven dried. A split of 250 – 500 g of material is taken for PAL analysis (no crushing undertaken due to the RC drill chips being sufficiently comminuted for PAL analysis). Samples where analysis were analysed by the PAL1000 for 65 minutes. A 100 ml solution is collected and centrifuged. A 10 ml aliquot is then collected and assayed for gold by AAS technique. The PAL method is considered to be a partial recovery method.

Since 2022 all RC and DD samples (including Plymouth RCGC) were sent to ALS Global Ltd in Canning Vale, Perth for analysis by PhotonAssay. PhotonAssay is considered a non-destructive next-generation technique that uses high-energy X-rays. This technology continues to provide faster, more accurate analytical results with reduced emissions and ensures the operator protection by removing hazardous chemicals in the analytical process.

Samples are dried, and if the sample weight is greater than 3 kg, the sample is riffle split. For PhotonAssay, the sample is crushed to nominal 85% passing 2 mm, linear split, and a nominal 500 g subsample is taken (method code PAP3502R). Quality control samples are also analysed, including certified reference materials, blanks and sample duplicates.

For the 2023 campaign from 31/07/2023 to 08/12/2023, the laboratory summary was as follows:



Laboratories	ALS_PTH
No. of Batches	110
No. of DH Samples	15,871
No. of QC Samples	1,197
No. of Std Samples	2,543

#### **Standard Type Ratios**

Standard Type	DH Sample Count	Standard Type Count	Standard Sample Count	Ratio of QC Standard to DH Samples
CLIENT	15,871	1	818	1:19
CRM	15,871	27	1,725	1:9

The 'OREAS' standards used by Spartan are certified for Photon and are Standard Type 'CRM', they have associated CRM certificates. The 4mm Blank material is purchased in drums from GeoStats Pty Ltd and does not have certification, it is referred to as standard type 'Client'.

Figure 20: July to December 2023 Laboratory Summary

QAQC assaying is still ongoing at time of reporting, with additional field duplicates and fire assay repeats currently being processed. Ratios and count are shown below.

QC_Category	DH Sample Count	QC Sample Count	Ratio of QC Samples to DH Samples		
Field duplicate	15871	347	1:46		
Lab Pulp Checks	15871	53	1:299		
Lab Pulp Split	15871	797	1:20		

Figure 21: July to December 2023 Sample QC Category Ratios

Blank material used by Spartan is not certified. Of the 6 fails, 5 were deemed to be within the acceptable limits for photon analysis. One was flagged as a likely sample swap.

Au Standard(s)					No. of	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD	Samples	Mean Au	SD	cv	Mean Bias
BLANK	PAAU02	PAAU02	0.00	0.0100	717	0.00	0.01	13.5959	0.00%
BLANK	PAAU02H	PAAU02H	0.00	0.0100	2	0.00	0.00	0.0000	0.00%
OREAS 230	PAAU02	PAAU02	0.33	0.0210	165	0.33	0.02	0.0730	0.91%
OREAS 234	PAAU02	PAAU02	1.19	0.0470	164	1.19	0.05	0.0398	0.01%
OREAS 236	PAAU02	PAAU02	1.85	0.0530	175	1.84	0.05	0.0292	-0.33%
OREAS 240	PAAU02	PAAU02	5.47	0.1100	117	5.37	0.12	0.0217	-1.77%
OREAS 251b	PAAU02	PAAU02	0.50	0.0280	54	0.51	0.04	0.0687	3.07%

Figure 22: QC Performance



The high-grade OREAS 240 noted a mean bias of -1.77%, with two failed stands just outside the 3 standard deviations deemed acceptable. OREAS 240 was introduced into the sample stream mid-year.

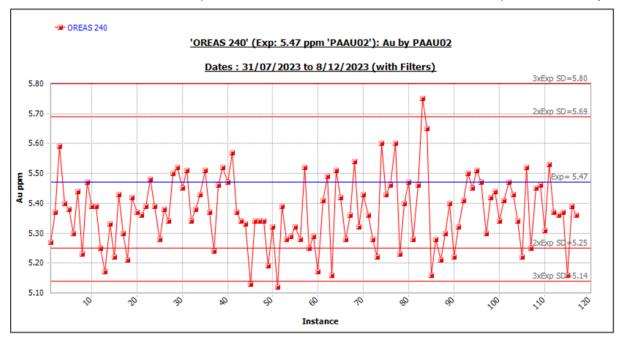


Figure 23: OREAS 240 performance Au by PAAU02

Of the 13 failed standards, they were all deemed to be acceptable as they were 'within acceptable limits for Photon according to ALS' or just outside 3 standard deviations with other QC in the batch passing.

QAQC of photon assaying via fire assaying method is ongoing, however performance across the Dalgaranga Gold Project has demonstrated a strong correlation between the two methods. Field duplicate selection has been completed awaiting results, the SPR Group QAQC report covering July to December is reported in January.

#### Historical analysis

No information is available in the database for historical sample analysis, however assuming aqua regia and fire assaying was used to industry standards at the time.

#### **Geology and geological interpretation**

Regionally, the Dalgaranga project lies in the Archaean Dalgaranga Greenstone Belt in the Murchison Province of Western Australia.

Most gold mineralisation at the Gilbey's Main deposit is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining, hosted by a volcaniclastic-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Zone). The Never Never prospect is located at the northerly extension of the Gilbey's Main Zone which trends north east— south west and dips moderately to steeply to the north west.

Plymouth and Sly Fox are located on a south-eastern limb of an anticline, broadly orientated north west – south east, although mineralisation is located on different trends. Plymouth has a higher degree of structural complexity with north-west, south-east and north-east, south-west trending lodes that demonstrate numerous fault offsets. Sly Fox is a more continuous north-west, south-east mineralised trend.



During 2023 a Gilbey's Complex Geological Model was completed by Spartan Geologists involved with mining operations over the last three or more years. Detailed stratigraphy, regolith and major faults were modelled using all available data using Leapfrog Geo software.

SPR believes mineralisation at Dalgaranga is largely structurally controlled, with data indicating cross-cutting structures introducing gold into the stratigraphic package. Shale units provide a reasonable mineralisation definition proxy, with mineralisation existing on the hangingwall of a siliceous shale unit. A highly foliated volcaniclastic unit in proximity to a cross-cutting structure appears to host higher concentrations of gold mineralisation.

While all drill types were used for building the model, RAB and AC drilling data were excluded from mineralisation estimation owing to the style of drilling and potential for sampling bias.

Using a nominal 0.3 g/t gold cut-off grade to guide the geological and grade continuity of the interpreted mineralisation, a total of 24 mineralised domains were created including GMZ (7), Gilbey's East (16) and GFIN (1), with 85% of volume within the GMZ domains.

Based on statistical analysis, subdomains were generated from the GMZ domains based on the following grade bins:

- Greater than 2.5 g/t Au
- 0.75 to 2.5g/t Au
- Less than 0.75g/t Au

Grade bins were selected as these populations displayed a low coefficient of variance. The sub domains were created with Leapfrog's RBF interpolant to identify spatial continuity of like grade populations. Each new sub domain has had its own variography and estimation parameters developed.

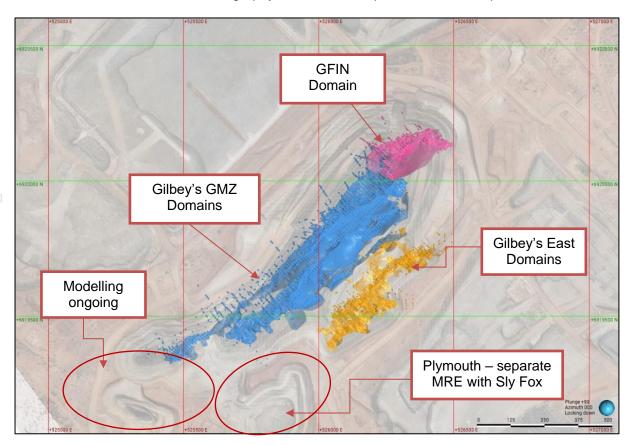


Figure 24: Gilbey's Mineralised Domains - Plan View



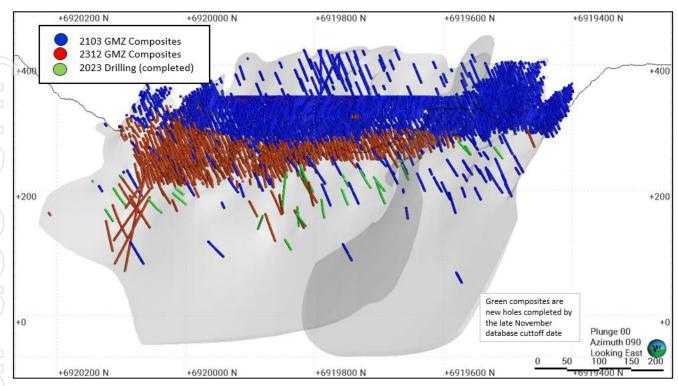


Figure 25: Gilbey's Mineralised Domains - Long Section Looking South East

# **Estimation methodology**

Sample data were composited to a 1 m downhole length using a best-fit method following analysis of the sample length frequency. Top-caps (anomalously high grades were reassigned a lower grade in line with the remainder of the grade population, not removed from the data set) were applied to the composites prior to block grade estimation.

Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains and sub-domains.



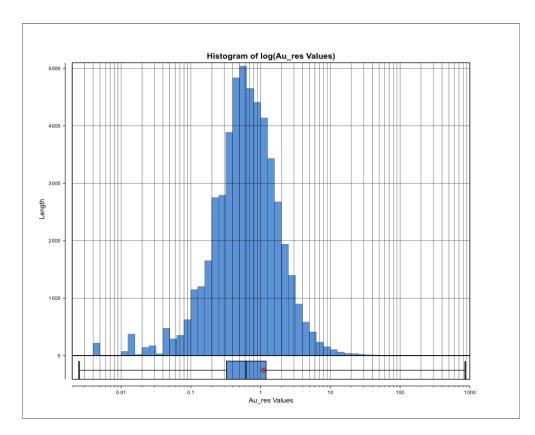


Figure 26: Histogram of all composite grades contained within combined Gilbey's GMZ Domains

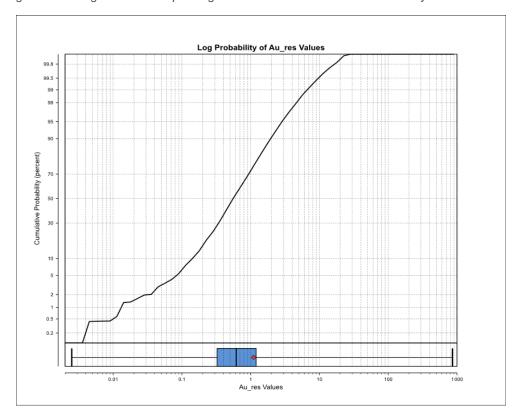


Figure 27: Log probability plot of composite grades contained within combined Gilbey's GMZ Domains



Top-caps were initially applied on a global basis within individual domains (or sub-domains) to limit the potential influence of obvious statistical outliers (Table 12).

Table 12. Summary of the top caps applied by domain.

				applied by domain.			
Sub Domain	Mean	Max grade	CV	Influence Limitation	Hard Cut	IL CV	HC CV
2312_Lode_GM > 2.5 g/t	5.46	859.00	3.80	50	200	1.37	1.85
2312_Lode_GM 0.75 to 2.5g/t	1.25	22.09	1.01	N/A	N/A	N/A	N/A
2312_Lode_GM <0.75g/t	0.43	5.46	0.82	N/A	N/A	N/A	N/A
2312_Lode_GM_H >2.5g/t	7.74	635.19	3.82	70	200	1.71	2.52
2312_Lode_GM_H 0.75 to 2.5g/t	1.21	19.12	1.06	N/A	N/A	N/A	N/A
2312_Lode_GM_H < 0.75g/t	0.38	4.54	0.99	N/A	N/A	N/A	N/A
2312_Lode_GM_H_C 0.75 to 2.5g/t	1.20	14.60	1.56	N/A	N/A	N/A	N/A
2312_Lode_GM_H_C < 0.75g/t	0.39	3.15	1.06	N/A	N/A	N/A	N/A
2312_Lode_GM_F >2.5g/t	1.44	13.70	1.91	N/A	N/A	N/A	N/A
2312_Lode_GM_F 0.75 - 2.5g/t	1.11	9.15	1.28	N/A	N/A	N/A	N/A
2312_Lode_GM_F < 0.75g/t	0.45	5.68	1.06	N/A	N/A	N/A	N/A
2312_Lode_GM_F_B >2.5g/t	8.91	261.11	3.11	50	80	1.39	1.86
2312_Lode_GM_F_B 0.75 - 2.5g/t	1.21	14.55	1.06	N/A	N/A	N/A	N/A
2312_Lode_GM_F_B <0.75g/t	0.38	4.42	0.91	N/A	N/A	N/A	N/A
2312_Lode_GM_F_C >2.5g/t	10.50	116.65	2.09	-	40		1.64
2312_Lode_GM_F_C 0.75 - 2.5g/t	1.17	12.33	1.34	N/A	N/A	N/A	N/A
2312_Lode_GM_F_C <0.75g/t	0.35	3.21	1.06	N/A	N/A	N/A	N/A
2312_Lode_GFIN >2.5g/t	6.42	118.99	1.88	-	80		1.57
2312_Lode_GFIN 0.75-2.5g/t	1.31	11.65	1.08	N/A	N/A	N/A	N/A
2312_Lode_GFIN < 0.75g/t	0.38	2.38	0.91	N/A	N/A	N/A	N/A
2312_Lode_GF_Bulge 0.75 - 2.5g/t	1.13	4.25	0.73	N/A	N/A	N/A	N/A
2312_Lode_GF_Bulge <0.75g/t	0.33	2.05	1.05	N/A	N/A	N/A	N/A
2312_Lode_GE_C >2.5g/t	8.52	350.00	3.50	-	70		1.84
2312_Lode_GE_C 0.75 - 2.5g/t	1.13	17.73	1.34	N/A	N/A	N/A	N/A
2312_Lode_GE_C < 0.75g/t	0.36	5.44	1.15	N/A	N/A	N/A	N/A
2312_Lode_GE_N >2.5g/t	6.29	34.14	1.30	N/A	N/A	N/A	N/A
2312_Lode_GE_N 0.75 - 2.5g/t	0.95	7.87	1.23	N/A	N/A	N/A	N/A
2312_Lode_GE_N <0.75g/t	0.36	1.58	1.16	N/A	N/A	N/A	N/A
2312_Lode_GE_O > 2.5g/t	5.91	49.22	1.52	N/A	N/A	N/A	N/A
2312_Lode_GE_O 2.5-0.75g/t	1.10	10.97	1.18	N/A	N/A	N/A	N/A
2312_Lode_GE_O <0.75g/t	0.42	2.00	0.75	N/A	N/A	N/A	N/A

Exploratory Data Analysis (EDA) and variography of the capped and composited gold values was completed within each domain and correlated well with spatial and statistical observations made by the Company's resource geologists. All EDA was completed in Leapfrog Geo with third party review in Datamine's Supervisor software. The data was exported for further visual and graphical review.

An example highlighted is the predominant GM 0.75-2.0g/t subdomain; the variogram used to estimate this domain can be seen in Figure 28-31:



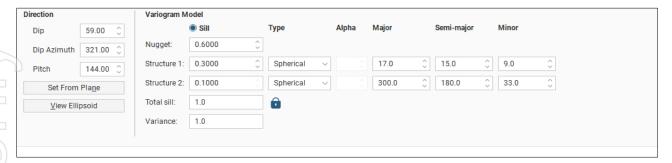


Figure 28: GM 0.75-2.0g/t subdomain variography

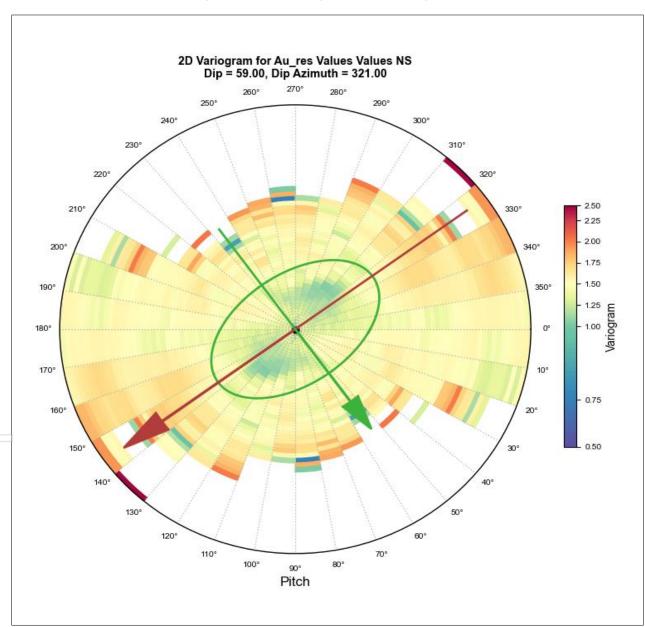


Figure 29: GM 0.75-2.0g/t subdomain variography



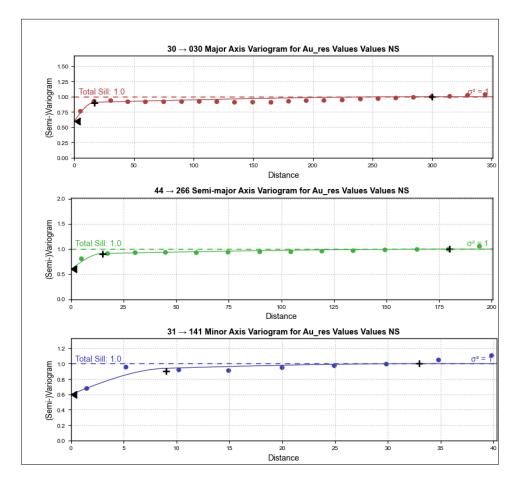


Figure 30: GM 0.75-2.0g/t subdomain variography

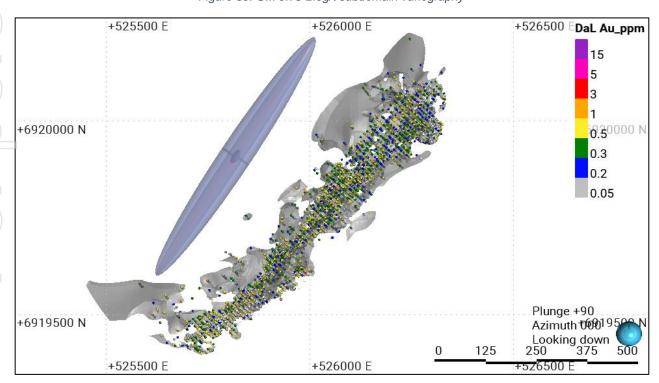


Figure 31: GM 0.75-2.0g/t subdomain variography



Estimation test work was completed on all domains, using multiple techniques (Inverse Distance squared and cubed, Ordinary Kriging, Nearest Neighbour, Dynamic Anisotropy). Evaluation of soft and hard boundaries between domains were also completed.

The final methods were determined to provide the most representative estimate are outlined in Table 13:

Table 13. Gilbey's final estimation techniques by domain

Domain	Final Estimation Method	Commentary
2311_Lode - GMZ 2311_Lode - GFIN 2311_Lode - GM_H 2311_Lode - GM_F 2311_Lode - GM_F_B 2311_Lode - GM_F_C 2311_Lode - GM_H_C 2307_Lode - GF_Bulge	Indicator Kriged	Interpolant selected to control bivariate data set bound within domain. Grade Bins of > 2.5g/t 0.75 to 2.5g/t and < 0.75 g/t were selected as these populations displayed a low coefficient of variance. The sub domains were created with Leapfrog's RBF interpolant to identify spatial continuity of like grade populations. Each new sub domain has had it's own variography and estimation parameters developed.
2308_Lode - GE_A 2308_Lode - GE_B 2308_Lode - GE_D 2308_Lode - GE_E 2308_Lode - GE_G 2308_Lode - GE_H 2308_Lode - GE_I 2308_Lode - GE_I 2308_Lode - GE_I 2308_Lode - GE_J 2308_Lode - GE_M 2308_Lode - GE_P 2308_Lode - GE_C 2308_Lode - GE_S 2308_Lode - GE_S	Ordinary Kriged	Narrow lode with extensive spatial continuity and log normal sample population with minimal internal dilutuion. Ordinary kriged interpolant represents composites well over the extensive distances within this domain, because of the sparse nature of composites this is an inferred domain.
2308_Lode - GE_C 2308_Lode - GE_N 2308_Lode - GE_O	Indicator Kriged	Interpolant selected to control bivariate data set bound within domain. Grade Bins of > 2.5g/t 0.75 to 2.5g/t and < 0.75 g/t were selected as these populations displayed a low coefficient of variance. The sub domains were created with Leapfrog's RBF interpolant to identify spatial continuity of like grade populations. Each new sub domain has had it's own variography and estimation parameters developed.

Estimation was undertaken within parent cell blocks of Y: 16 mN, X: 16 mE, Z: 16 mRL, with sub-celling of Y: 2.0 mN, X: 2.0 mE, Z: 2.0 mRL to ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were completed for each mineralised domain BM vs Wireframe. All domains showed less than 1% volume difference.

All domain estimates were based on parameters underpinned by geological logging (lithology, mineralogy, and veining) within domains using a nominal cut-off grade of 0.3 ppm Au. Hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain.

A three-pass estimation search strategy was employed for all domains. Identical estimation search parameters were employed using Ordinary Kriging (OK), Inverse Distance Squared (ID2) Inverse Distance Cubed (ID3) and Nearest Neighbour (NN) as a comparative validation tool for all domains.

An example is the GMZ 0.75-2.0g/t subdomain has a maximum distance range of 200m in the major direction, with the number of neighbourhood composites ranging from a minimum of a minimum of 7 to a maximum of 12 samples, restricted to 4 samples per hole in the first pass.

The range was increased to a maximum of 300m in the major direction for the second pass with other parameters staying the same.



For the third pass the maximum range was increased to 3000 m in the major direction, with the number of neighbourhood composites ranging from a minimum of 1 to a maximum of 7 samples, with no maximum sample restrictions per hole.

Estimation pass is one of the criteria used for resource classification.

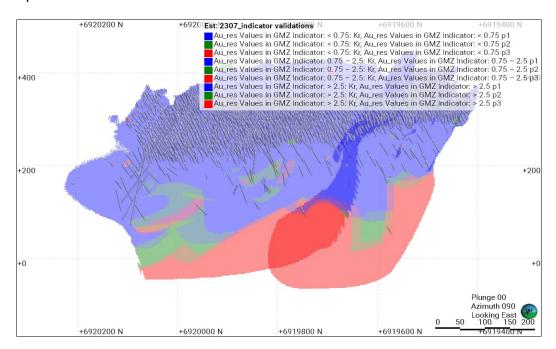


Figure 32: Long section of 2311\_Lode-GMZ Indicator combined sub-domains coloured by pass number, compared to composites. Blue denotes blocks estimated in the first pass.

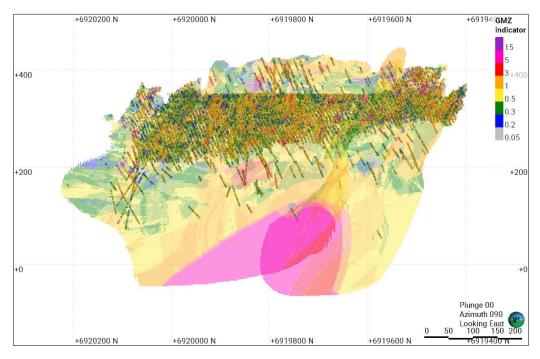


Figure 33: Long section of 2311\_Lode-GMZ Indicator combined sub-domains blocks coloured by gold grade (ppm), compared to composites coloured by gold grade (ppm)



Validation of the estimation outcomes was completed by global and local bias analysis (swath plots) and statistical and visual comparison (cross and long sections) with input data.

Example of the predominant 2311\_Lode-GMZ values used for MRE reporting in RED vs data composites in BLACK. (Figures 33-35).

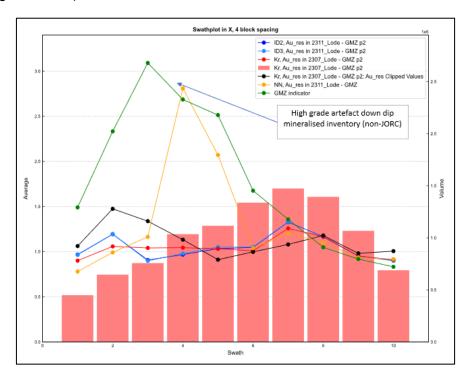


Figure 34. Swath plot by easting at 64m (4 Parent Blocks) spacing for the 2311\_Lode-GMZ combined subdomains; black points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms

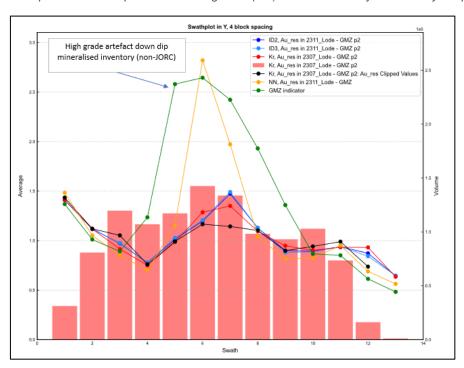


Figure 35. Swath plot by northing at 64m (4 Parent Blocks) spacing for the 2311\_Lode-GMZ combined subdomains; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms



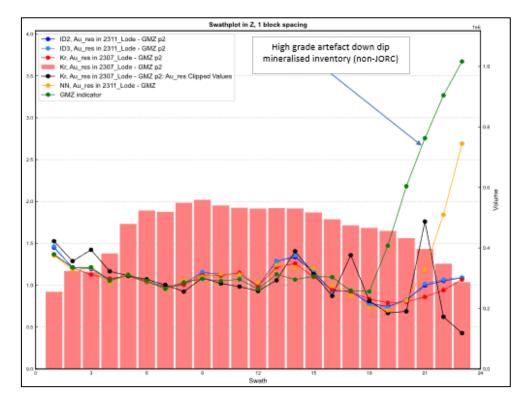


Figure 36. Swath plot by elevation at 16m (1 Parent Block) spacing for the 2311\_Lode-GMZ combined subdomains; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms

Validation for the predominant 2311\_Lode - GMZ domain indicates globally the estimate performed -5% compared to average composite grade and -8% when compared to the declustered grade.

The 3D block model was coded with density, weathering and Mineral Resource Classification prior to evaluation for Mineral Resource reporting.

#### **Bulk density**

Bulk density values were derived from 463 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth.

Samples were taken nominally between 1 m to 350 m downhole to provide a representative density profile across oxidation states. The methodology for density measurements is not recorded in the MS Access database; however, Spartan personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (57), transitional (60) and fresh (346) drill core samples.

Additional bulk density readings a further 51 validated measurements were taken from 7 drill holes completed at Never Never during 2022 representing regolith and lithological units. Analysis considered various lithologies, weathering profiles and mineralised vs unmineralized fresh rock intervals. Results indicated averages used previously are appropriate.

Due to the statistical variation in bulk density values by lithology, bulk densities were averaged, and a default assigned to each weathering unit. The following bulk density values were determined and applied in the block model:



Oxide: 1.80 t/m³
 Transitional: 2.61 t/m³
 Fresh: 2.79 t/m³

## **Resource Classification Criteria**

Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the estimation passes and were the stage of project assessment, amount of drilling undertaken, current understanding of mineralisation controls and mining selectivity within an open pit vs underground mining environment.

In SPR's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.

Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning the Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade estimations (sensitivity analysis).

#### Indicated Mineral Resources were defined:

- Via manual polygon and informed where a strong to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
- Where blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 40 m or less or where drilling was within approximately 40 m of the block.
- Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the first estimation pass.

#### Inferred Mineral Resources were defined:

- Via manual polygons and informed where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
- Where drill spacing averaged a nominal 40 m or greater
- Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the second and/or third estimation passes.



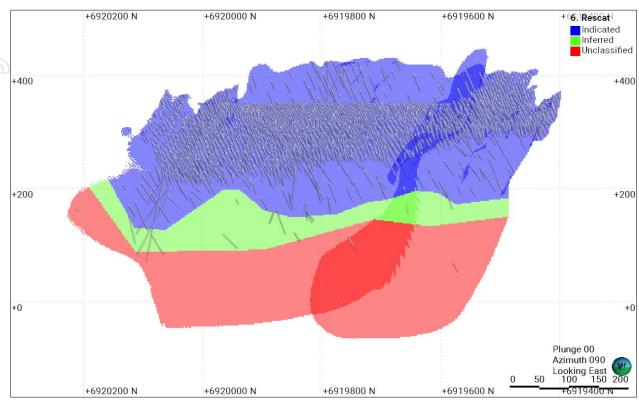


Figure 37. Plan view of the 2311\_Lode - GMZ domain, coloured by Resource Classification and compared to the relative composites used to estimate the domain.

Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained Unclassified for drill targeting.

The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.

# Reporting Cut-off grade

The Mineral Resource estimate cut-off grade for reporting of open pit gold resources at Gilbey's was 0.5 ppm gold. The reported open pit resource was constrained by an A\$2,800 pit shell.

The Mineral Resource estimate cut-off grade for reporting of underground gold resources was 1.0 ppm gold below the A\$2,800 pit shell. The reporting cut-off grade is in line with Western Australian peers for reporting bulk underground resources.

Tonnages were estimated on a dry basis.



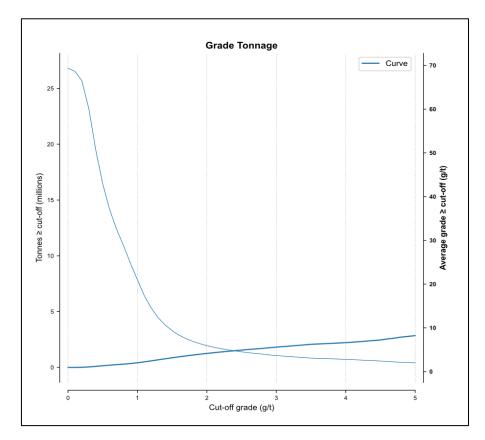


Figure 38: Gilbey's MRE Grade/Tonnage Curve.

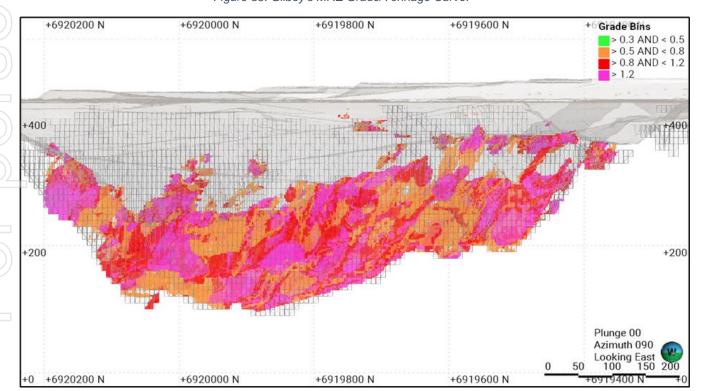


Figure 39: Gilbey's Deposit Long Section Highlighting reportable resource (IND+INF >0.5g/t Au) – note underground resources are outside the pitshell projected towards the viewer.



# Assessment of Reasonable Prospects for Eventual Economic Extraction

The Gilbey's Deposit is located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant.

Open pit and underground mining methods were assumed at Gilbey's Deposit. No mining dilution or minimum mining widths were assumed or applied within the Mineral Resource or during reporting. The transition point between open pit and underground will be further assessed in ongoing studies.

SPR considers the reported open pit material would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework.

The reported underground material would fall within the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in a bulk underground mining framework given the current gold price environment.

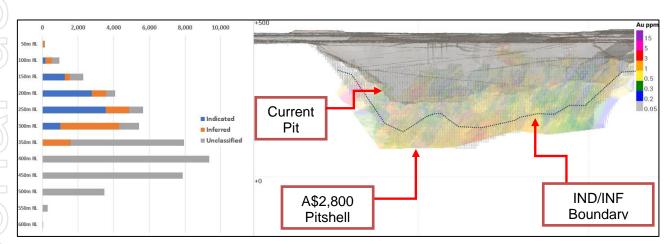


Figure 40: Gilbey's MRE showing Ounces per Vertical Metre (IND+INF only)

#### **Mining and Depletion**

Gilbey's has had three stages of mining. From 1999 to 2023 by Equigold focusing on near surface oxide resources. Total mined was <u>4.39mt at 1.54g/t for 218koz</u>.

Spartan resources re-commenced mining operations at Gilbey's and satellite deposits from 2019 to November 2022 when the operation was placed on care and maintenance. Total mined from Gilbey's was <u>9.56mt at 0.91g/t for 279koz.</u> The 2312 MRE performed well globally over this period -3% ounces verses DOM.

Noting ore within shales was successfully separated and stockpiled during the mining process. A blending strategy was employed to minimize impacts on metallurgical recoveries.

The MRE for Gilbey's has been depleted by final pit surveys.

#### **Metallurgical Factors and Assumptions**

Black shales occurring within the mineralised sequence are known to result in lower recoveries. The black shales have been modelled using implicit methods (Leapfrog) and were flagged into the block model. A gold recovery of 77% has previously been used, which is at the lower end of original metallurgical test work that was undertaken in 2016.



During 2023, an extensive metallurgical test work program is currently in progress with samples from the Gilbey's Deposit. The test work program includes comminution test work, gravity and leach gold extraction at various grind sizes and leach times as well as pre-robbing test work to provide additional metallurgical recovery data.

The new samples will target areas of the deposit to provide spatial infill coverage from the shale, non-shale and head grade ranges within the deposit. Note that not all black shales encountered at Gilbey's and / or Dalgaranga are carbonaceous and have no related recovery issues.

Ongoing drilling programmes are aimed at providing additional details and confirm the test results from the DFS. These results will be used to supplement the 2016 Gilbey's metallurgical test work results for mainly fresh materials.

No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.

## **Environmental Factors**

The deposits being assessed are situated on a granted Mining Lease within an operating mine site and have no identified areas of Environmental concern or consideration. Vegetation clearance is managed under permit.

No environmental factors are applied to the Mineral Resources or resource tabulations.

# Plymouth and Sly Fox Gold Deposits - Mineral Resource Estimate Update

The Mineral Resource Statement for the Plymouth and Sly Fox Mineral Resource Estimates (MREs) was prepared during November 2023 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

Plymouth and Sly Fox are previously mined satellite deposits on the south-east extension of the Gilbey's Complex.

During 2023, a Gilbey's Complex Geological Model was completed by Spartan Geologists involved with mining operations over the last three or more years. Detailed stratigraphy, regolith and major faults were modelled using all available data using Leapfrog Geo software.

The Geological model formed the basis for mineralised domains for Plymouth and Sly Fox, which were combined into a single block model. The MRE contains 12 mineralised domains for Plymouth (75% of volume within two domains, and 3 mineralised domains within Sly Fox (97% volume within one domain).

Mineralised domains were informed by RC, DD and RCDD only, of which 734 drill holes generated 7,095 sample composites for estimation within the interpreted mineralised envelope. Samples were predominantly from RC drilling (96.5%), with diamond drilling contributing 3.5%.

No additional drilling has been completed since mining operations ceased in 2022. In 2024 drilling will focus on testing high-grade plunge trends and conversion of Inferred resources to potentially establish satellite underground ore sources.



In the opinion of the Competent Person (CP) the MRE is a reasonable representation of the local gold Mineral Resources where close-spaced grade control drilling has been conducted and global gold Mineral Resources within the Sly Fox and Plymouth Deposits.

Plymouth and Sly Fox are formally reported by the Company Resource under the combined 'Gilbey's Complex' MRE table, which, along with associated JORC table 1 included in the <u>Gilbey's Mineral Resource Estimate - December 2023 Update</u> report.

Mineral Resources are reported below topography and comprise oxide, transitional and fresh rock. Mineral Resources are reported below.

Table 14. Plymouth and Sly Fox MRE Dec 2023.. Reported by Mining Type and Resource Classification - combined open pit (>0.5g/t Au within a A\$2,800 pitshell) and underground >1.0g/t Au, below a A\$2,800 pitshell) \*

	PLYMOUTH/SLY FOX GOLD DEPOSITS						
Open P	Open Pit Resource >0.5gpt, constrained by A\$2,800 Pit Shell						
Category	Tonnes (Mt)	Grade (Au gpt)	Ounces (Koz)				
Measured							
Indicated	0.5	1.79	27.6				
Inferred	0.1	1.51	4.4				
TOTAL	0.6	1.74	32.0				
Under	ground Resource >1.0g	pt Au below A\$2,800 P	it Shell				
Measured							
Indicated	-		-				
Inferred	1.0	1.85	59.0				
TOTAL	1.0	1.85	59.0				
	PLYMOUTH/SLY FOX GOLD DEPOSITS						
Measured							
Indicated	0.5	1.79	27.6				
Inferred	1.1	1.82	63.4				
GRAND TOTAL	1.6	1.81	91.0				

Table 15. Plymouth and Sly Fox MRE Dec 2023, reported by Material Type and Resource Total. - combined open pit (>0.5g/t Au constrained with an A\$2,800 pit shell) and underground >1.0g/t Au, below the A\$2,800 pit shell) \*

	PLYMOUTH/SLY FOX GOLD DEPOSITS – MATERIAL TYPE												
Catagory			Transitional		Fresh		Total						
Category	egory	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz
In	ndicated	0.4	1.79	24.9	0.2	2.59	19.9	3.0	6.80	655.9	3.7	5.93	700.7
	Inferred	0.0	0.88	1.3	0.0	0.85	1.2	1.4	5.56	249.6	1.5	5.28	252.1
	TOTAL	0.5	1.70	26.2	0.3	2.32	21.1	4.4	6.41	905.5	5.2	5.74	952.9

<sup>\*</sup>NB Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

This MRE includes Inferred Classified Mineral Resources, which are unable to have economic considerations applied to them, and there is no certainty that further drilling will enable them to be converted to Measured or Indicated Classified Mineral Resources.



## **Drilling techniques**

Drilling has been completed from surface using RC, DD, RCDD, RAB and AC drilling techniques. All DD and RCDD holes were oriented. Recent drilling over the project area commenced in 2017 with an initial focus on Sly Fox. In 2021, 4 RCDD holes were completed at Sly Fox, and 1 RCDD at Plymouth. Resource and Grade Control RC drilling at Plymouth included 113 holes in 2021 and 196 holes in 2022.

The RC drilling used a nominal 5½ inch diameter face-sampling hammer. Diamond drilling was completed using a combination of PQ, HQ or NQ drill diameters, dependent on depth.

All drilling collar locations were picked up by company personnel using a differential global positioning system (DGPS). All reported coordinates were referenced to grid system MGA\_GDA94 Zone 50. The topography is relatively flat at the location of drilling. Downhole surveys were completed using gyroscopic survey tools at 30m increments or less.

## **Historical drilling**

The area covering Plymouth and Sly Fox was initially broadly covered by RAB drilling in 1997 by Equigold NL. Spartan Resources followed up anomalous grades with AC drilling in 2016, initially discovering Sly Fox, then Plymouth in 2017.

All areas included in the MRE are now considered sufficiently supported by recent SPR drill information.

# Sampling and sub-sampling techniques

Using a cone splitter, 1 m RC samples were split and collected at the drill rig, with each RC sample weighing approximately 3-5 kg. The DD core was sawn half lengthways with the left-hand side of the core consistently sampled.

The RC and AC chips were geologically logged over 1 m intervals. The DD holes were logged to geological boundaries in addition to being structurally and geotechnically logged. Drilling intersected oxide, transitional and primary mineralisation to a maximum downhole depth of 500m below surface at Sly Fox and 150m at Plymouth.

Sample recovery and metreage were visually assessed and recorded if significantly reduced.

Routine checks for correct RC sample depths were undertaken and sample recoveries were visually checked for recovery, moisture and contamination. The cyclone was flushed with compressed air and manually cleaned at 30 m intervals. The RC samples collected were all predominantly dry.

The Company's QAQC protocols include the collection and analysis of field duplicates and the insertion of appropriate commercial standards (certified reference materials) and blank samples. Insertion rates are 4/100 samples for CRMs, 2/100 for blank samples and 2/100 for field duplicates.

#### **Historical sampling**

Sampling methods used by historical operators are assumed to be in line with industry standards at the time.



Historical information is restricted for RAB drill holes; however, it is understood that RAB samples were typically analysed as 4 m composites, excluding collar samples, which range in sample length from 1 m to 4 m.

AC samples were 2-4m composite samples (3 – 5 kg per sample) with a 1m EOH sample. Anomalous gold values (>100ppb) for composites were resampled to 1m intervals.

All AC and RAB samples were excluded from the MRE.

## Sample analysis method

Various assaying methods have been employed for drilling at Plymouth and Sly Fox.

Pre-2022 all RC and DD samples from resource drilling were analysed using fire assay. For RC samples the entire sample was oven dried at  $105^{\circ}$ C for at least 12 hours. Samples >3 kg were riffle split 50:50 with the excess discarded. Samples up to 3 kg were then pulverised to 85% passing minus 75 µm using a LM5 ring mill. The DD samples are prepared as follows at MinAnalytical Laboratory: The entire sample was oven dried at  $105^{\circ}$ C for a minimum 2 hours, as required. Samples >3 kg were crushed to nominal minus 2 mm and Rotary split to produce a 3 kg sample for pulverising (excess crushed material retained). Samples up to 3 kg, were pulverised to 85% passing minus 75 µm using a LM5 ring mill. Fire Assaying was conducted using a 50g charge.

Before mid-2018, GC RC samples were also sent to MinAnalytical, with analysis by conventional Fire Assay methods. Subsequently, GC RC samples have either been sent to MinAnalytical, with Photon Assay being used for analysis, or to the Dalgaranga Mine Site Laboratory for Pulverising and Leach (PAL) analysis.

The subset of GC RC samples sent to the Dalgaranga Mine Site Laboratory for PAL analysis are prepared as follows: The drill chips are oven dried. A split of  $250-500\,\mathrm{g}$  of material is taken for PAL analysis (no crushing undertaken due to the RC drill chips being sufficiently comminuted for PAL analysis). Samples where analysis were analysed by the PAL1000 for 65 minutes. A 100 ml solution is collected and centrifuged. A 10 ml aliquot is then collected and assayed for gold by AAS technique. The PAL method is considered to be a partial recovery method.

Since 2022 all RC and DD samples (including Plymouth RCGC) were sent to ALS Global Ltd in Canning Vale, Perth for analysis by PhotonAssay. PhotonAssay is considered a non-destructive next-generation technique that uses high-energy X-rays. This technology continues to provide faster, more accurate analytical results with reduced emissions and ensures the operator protection by removing hazardous chemicals in the analytical process.

Samples are dried, and if the sample weight is greater than 3 kg, the sample is riffle split. For PhotonAssay, the sample is crushed to nominal 85% passing 2 mm, linear split, and a nominal 500 g subsample is taken (method code PAP3502R). Quality control samples are also analysed, including certified reference materials, blanks and sample duplicates.

For Plymouth, QAQC of photon assaying via fire assaying method is restricted to 2 holes, however performance at across the Dalgaranga Gold Project has demonstrated a strong correlation between the two methods.

# **Historical analysis**

No information is available in the database for historical sample analysis, however assuming aqua regia and fire assaying was used to industry standards at the time.



## **Geology and geological interpretation**

Regionally, the Dalgaranga project lies in the Archaean Dalgaranga Greenstone Belt in the Murchison Province of Western Australia.

Most gold mineralisation at the Gilbey's Main deposit is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining, hosted by a volcaniclastic-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Zone). The Never Never prospect is located at the northerly extension of the Gilbey's Main Zone which trends north east— south west and dips moderately to steeply to the north west.

Plymouth and Sly Fox are located on a south-eastern limb of an anticline, broadly orientated north west – south east, although mineralisation is located on different trends. Plymouth has a higher degree of structural complexity with north-west, south-east and north-east, south-west trending lodes that demonstrate numerous fault offsets. Sly Fox is a more continuous north-west, south-east mineralised trend.

During 2023 a Gilbey's Complex Geological Model was completed by Spartan Geologists involved with mining operations over the last three or more years. Detailed stratigraphy, regolith and major faults were modelled using all available data using Leapfrog Geo software.

While all drill types were used for building the model, RAB and AC drilling data were excluded from mineralisation estimation owing to the style of drilling and potential for sampling bias.

SPR believes mineralisation at Dalgaranga is largely structurally controlled, with data indicating crosscutting structures introducing gold into the stratigraphic package. Shale units provide a reasonable mineralisation definition proxy, with mineralisation existing on the hangingwall of a siliceous shale unit. A highly foliated volcaniclastic unit in proximity to a cross-cutting structure appears to host higher concentrations of gold mineralisation.

Using a nominal 0.3 g/t gold cut-off grade to guide the geological and grade continuity of the interpreted mineralisation, a total of 15 mineralised domains were created.



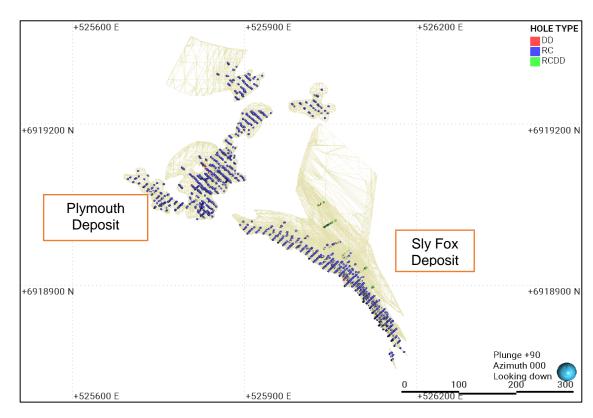


Figure 41: Plymouth and Sly Fox Mineralised Domains - Plan View

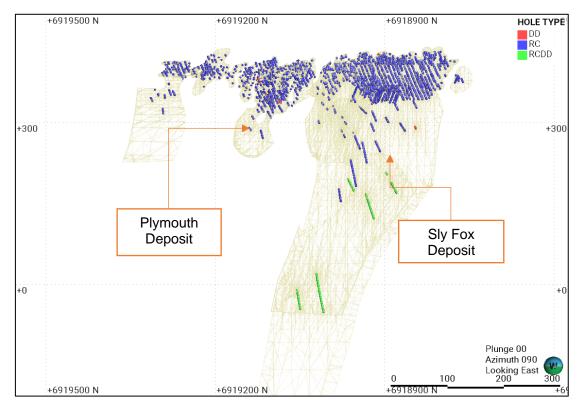


Figure 42: Plymouth and Sly Fox Mineralised Domains - Long Section Looking north east



# **Estimation methodology**

Sample data were composited to a 1 m downhole length using a best-fit method following analysis of the sample length frequency. Top-caps (anomalously high grades were reassigned a lower grade in line with the remainder of the grade population, not removed from the data set) were applied to the composites prior to block grade estimation.

Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains. Top-caps were initially applied on a global basis within individual domains to limit the potential influence of obvious statistical outliers (Table 16).



Table 16. Summary of the top caps applied by domain.

Lode	Mean	Max grade	CV	Cut grade	New mean	New CV
2308_Lode - SF_MZ	1.38	139.89	2.13	25	1.34	1.48
2308_Lode - SF_F_A	0.79	4.75	1.18	N/A	N/A	N/A
2308_Lode - SF_H_A	0.74	6.33	1.09	N/A	N/A	N/A
2308_Lode - Ply_A	2.22	55.29	1.83	40	2.21	1.76
2308_Lode - Ply_B	1.52	20.09	1.50	13	1.49	1.40
2308_Lode - Ply_C	1.29	14.89	1.25	7	1.25	1.09
2308_Lode - Ply_D	1.06	9.54	1.36	N/A	N/A	N/A
2308_Lode - Ply_E	1.08	10.29	1.61	N/A	N/A	N/A
2308_Lode - Ply_F	1.56	44.00	2.41	25	1.44	1.75
2308_Lode - Ply_G	1.67	42.08	2.65	20	1.43	1.63
2308_Lode - Ply_H	0.57	4.95	1.48	N/A	N/A	N/A
2308_Lode - Ply_I	1.08	3.72	1.00	N/A	N/A	N/A
2308_Lode - Ply_J	1.06	16.24	2.26	12	0.97	1.87
2308_Lode - Ply_K	1.16	6.21	1.21	N/A	N/A	N/A
2308_Lode - Ply_M	1.07	8.59	1.58	N/A	N/A	N/A

Exploratory Data Analysis (EDA) and variography of the capped and composited gold values was completed within each domain and correlated well with spatial and statistical observations made by SPR resource geologists. All EDA was completed in Leapfrog Geo with third party review in Datamine's Supervisor software. The data was exported for further visual and graphical review.

An example highlighted is the predominant Sly Fox domain 2308\_Lode-SF\_MZ; the variogram used to estimate this domain can be seen in Figure 42-44.

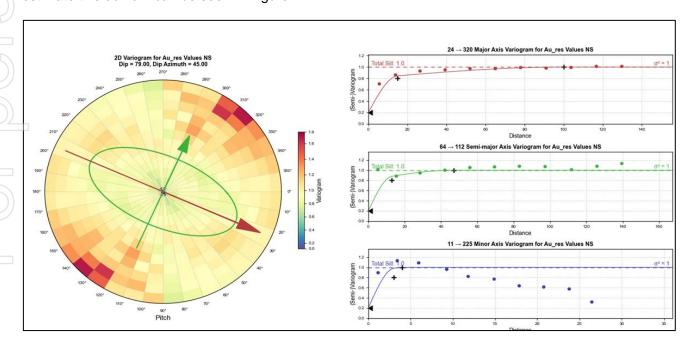


Figure 43: 2308\_Lode-SF\_MZ domain variography



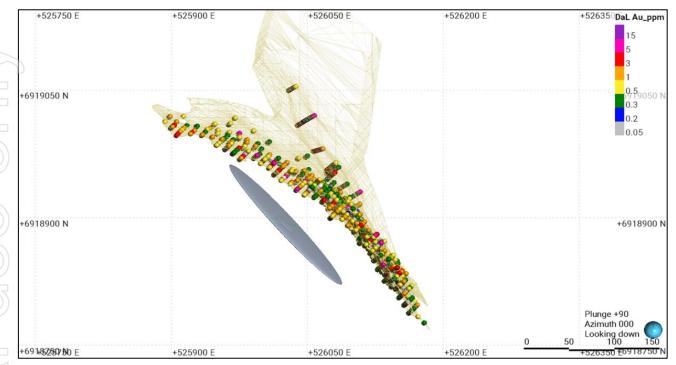


Figure 44: 2308\_Lode-SF\_MZ domain variography

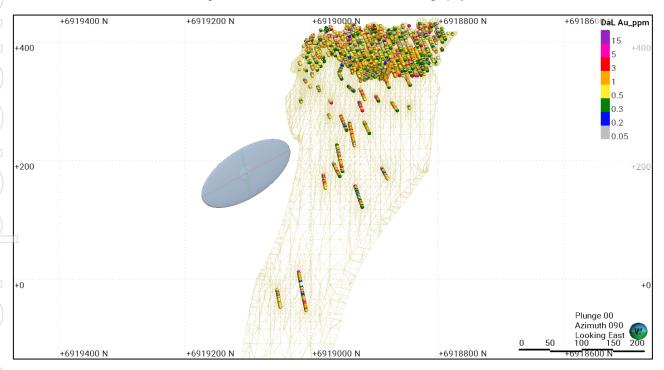


Figure 45: 2308\_Lode-SF\_MZ domain variography

Estimation test work was completed on all domains, using multiple techniques (Inverse Distance squared and cubed, Ordinary Kriging, Nearest Neighbour, Dynamic Anisotropy). Both soft and hard boundaries between domains were also completed.

The final methods determined to provide the most representative estimate are outlined in table 17.



Table 17. Final estimation techniques by domain

Domain	Final Estimation Method	Commentary
2308_Lode - SF_MZ	Dynamic anisotropy with kriged weighting	The crescent shaped geometry of Slyfox responded well to dynamic anisotropy by displaying the most representative relationship of composites.  Dynamic anisotropy is a local moderation of the search ellipsoid as determined by the geometry of the domain near each block and leverages the variogram search distances and nugget.
2308_Lode - SF_F_A	Inverse distance squared and isotropic weighting	Small lode without any discernable grade trend.
2308_Lode - SF_H_A	Ordinary Kriged	Tabular hanging wall lode that modelled strongly in variography and validated best fit with the ordinary kriging.
2308_Lode - Ply_A 2308_Lode - Ply_B 2308_Lode - Ply_D 2308_Lode - Ply_E 2308_Lode - Ply_E 2308_Lode - Ply_F 2308_Lode - Ply_G 2308_Lode - Ply_H 2308_Lode - Ply_I 2308_Lode - Ply_I 2308_Lode - Ply_J 2308_Lode - Ply_K 2308_Lode - Ply_K 2308_Lode - Ply_M	Inverse distance squared and isotropic weighting	Soft boundary estimation where composites of all Plymouth lodes were shared as one mineralised system and event have been assumed. No grade trends were determined through variography indicating poor grade spatial relationships and increased inherent variability, even though this lode had grade control drilling. The isotropic approach is a last resort estimation and resource classification reflects this.

Estimation was undertaken within parent cell blocks of Y: 10 mN, X: 10 mE, Z: 10 mRL, with sub-celling of Y: 1.0 mN, X: 1.0 mE, Z: 1.0 mRL to ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were completed for each mineralised domain BM vs Wireframe. All domains showed less than 1% volume difference.

All domain estimates were based on parameters underpinned by geological logging (lithology, mineralogy, and veining) within domains using a nominal cut-off grade of 0.3 ppm Au. For Sly Fox, hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain. For Plymouth, soft boundaries have been used for clustered mineralised domains for estimation purposes due to the fragmented nature as defined by close-spaced RCGC drilling.

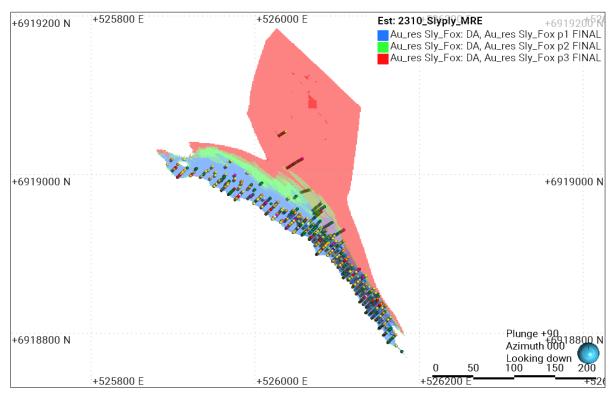
A three-pass estimation search strategy was employed for all domains. Identical estimation search parameters were employed using Inverse Distance Squared (ID2) Inverse Distance Cubed (ID3) and Nearest Neighbour (NN) as a comparative validation tool for all domains.

The predominant Sly Fox domain 2308\_Lode-SF\_MZ had a maximum distance range of 66m in the major direction, with the number of neighbourhood composites ranging from a minimum of 7 to a maximum of 12 samples, restricted to 3 samples per hole in the first pass.

The range was increased to a maximum of 100 m in the major direction for the second pass with other parameters remaining the same as the first pass.

For the third pass the maximum range was increased to 750 m in the major direction, with the number of neighbourhood composites ranging from a minimum of 1 to a maximum of 7 samples, with no maximum sample restrictions per hole.







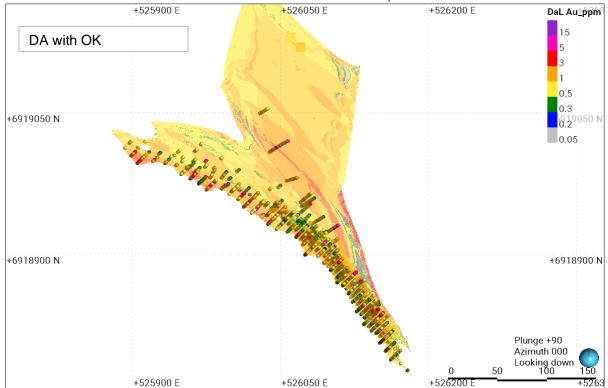


Figure 47: Plan view of the 2308\_Lode-SF\_MZ domain blocks coloured by gold grade (ppm), compared to composites coloured by gold grade (ppm)



Validation of the estimation outcomes was completed by global and local bias analysis (swath plots) and statistical and visual comparison (cross and long sections) with input data.

Example of the predominant Sly Fox domain 2308\_Lode-SF\_MZ values used for MRE reporting in RED vs data composites in BLACK. (Figure 47–Figure 49).

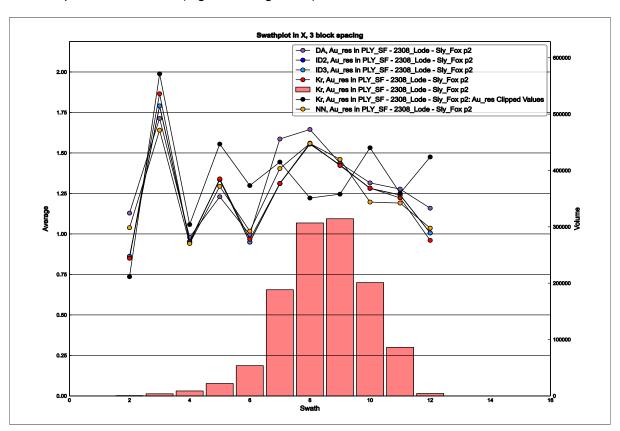


Figure 48. Swath plot by easting at 30m (3 Parent Blocks) spacing for the 2308\_Lode-SF\_MZ domain; black points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms



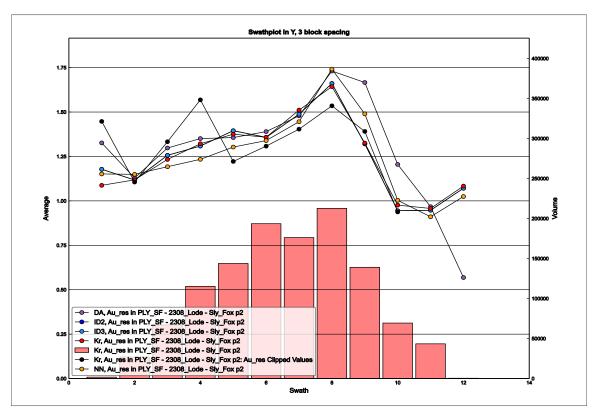


Figure 49. Swath plot by northing at 30m (3 Parent Blocks) spacing for the 2308\_Lode-SF\_MZ domain; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms

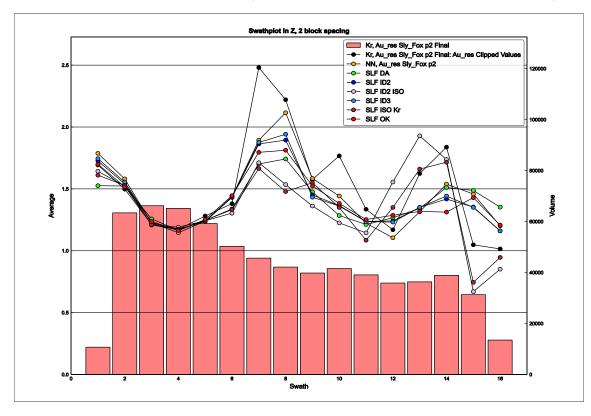


Figure 50. Swath plot by elevation at 20m (2 Parent Blocks) spacing for the 2308\_Lode-SF\_MZ domain; blue points are sample composites and red points are block grades (OK). The data density is shown by the pink histograms



Validation for the predominant 2308\_Lode-SF\_MZ domain indicates the estimate performed within 4% when compared to the composites globally for all estimation methods.

The 3D block model was coded with density, weathering and Mineral Resource Classification prior to evaluation for Mineral Resource reporting.

## **Bulk density**

Bulk density values were derived from 463 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth.

Samples were taken nominally between 1 m to 350 m downhole to provide a representative density profile across oxidation states. The methodology for density measurements is not recorded in the MS Access database; however, Spartan personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (57), transitional (60) and fresh (346) drill core samples.

Additional bulk density readings a further 51 validated measurements were taken from 7 drill holes completed at Never Never during 2022 representing regolith and lithological units. Analysis considered various lithologies, weathering profiles and mineralised vs unmineralized fresh rock intervals. Results indicated averages used previously are appropriate.

Due to the statistical variation in bulk density values by lithology, bulk densities were averaged, and a default assigned to each weathering unit. The following bulk density values were determined and applied in the block model:

Oxide: 1.70 t/m³
 Transitional: 2.60 t/m³
 Fresh: 2.79 t/m³

#### **Resource Classification criteria**

Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the stage of project assessment, amount of drilling undertaken, current understanding of mineralisation controls and mining selectivity within an open pit vs underground mining environment.

In SPR's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.

Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning the Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade estimations (sensitivity analysis).

Indicated Mineral Resources were defined:

 Via manual polygon and informed where a strong to moderate level of geological confidence in geometry, continuity and grade was demonstrated.



- Where blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 40 m or less or where drilling was within approximately 50 m of the block.
- Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the first estimation pass.

#### Inferred Mineral Resources were defined:

- Via manual polygons and informed where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
- Where drill spacing averaged a nominal 40 m or greater
- Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the second or third estimation passes.
- The assigned underground resource for Sly Fox was downgraded to Inferred reflecting lack of drill density adequately defining shoot geometry.

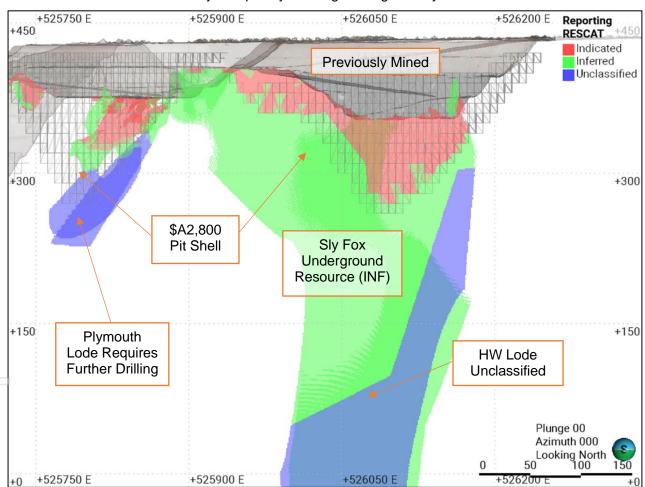


Figure 51. Long Section (looking north-east) block model, coloured by Resource Classification

Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained Unclassified for drill targeting.

The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.



# **Reporting Cut-off grade**

The Mineral Resource estimate cut-off grade for reporting of open pit gold resources at Plymouth and Sly Fox was 0.5 ppm gold constrained by the A\$2,800 grade shell (also applied to Gilbey's)

The Mineral Resource estimate cut-off grade for reporting of underground gold resources was 1.0 ppm gold. The reporting cut-off grade is in line with Western Australian peers for reporting unconstrained underground resources.

Tonnages were estimated on a dry basis.

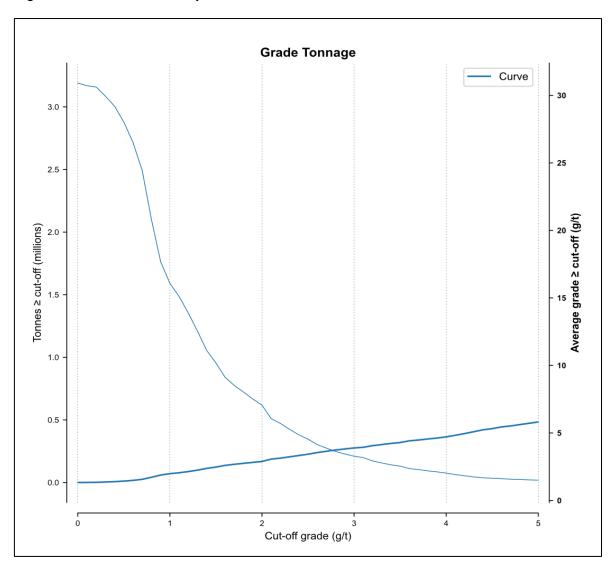


Figure 52: Grade / Tonnage Curve



# Assessment of Reasonable Prospects for Eventual Economic Extraction

The Plymouth and Sly Fox Gold Deposits are located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant.

Open pit and underground mining methods were assumed at Plymouth and Sly Fox deposits. No mining dilution or minimum mining widths were assumed or applied within the Mineral Resource or during reporting. The transition point between open pit and underground will be further assessed in ongoing studies.

SPR considers the reported open pit material would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 195 m below surface.

Given the grade and lode thickness of 5-15m of the Sly Fox shoot at depth, the reported underground material would fall within the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an underground mining framework given the current gold price environment.

## **Mining and Depletion**

Plymouth has been partially mined from January 2022 to Dalgaranga shifting to care and maintenance in November 2022. with ore blended with Gilbey's Main Zone.

Only oxide and transitional ore were mined, with <u>214kt at 1.21g/t for 8,310 ounces</u> produced, which reconciled 98% tonnes, 122% grade and 120% of ounces verses reserves. Ore was blended with other sources, mainly Gilbey's Main Zone.

Sly Fox was mined as an open pit by Spartan Resources over a period of 11 months from August 2018 to June 2019. Ore was blended with other ore sources, mainly Gilbey's Main Zone.

The majority of material mined was oxide and transitional, with minor fresh ore. Declared ore mined (>0.5g/t Au) was 329.7kt at 0.93g/t for 9,843 ounces, which reconciled 89% tonnes, 93% grade and 83% of ounces verses reserves.

The MRE for Plymouth and Sly Fox has been depleted by final pit surveys.

## **Metallurgical Factors and Assumptions**

Metallurgical test work was completed on Sly Fox composite drill samples by Spartan in 2017, using the Dalgaranga processing plant flowsheet.

Total metallurgical recoveries of up to 98% were received from the oxide zone, while fresh rock recoveries of up to 93% were achieved with the same grind size and leach times expected from the proposed plant. Black shale hosted mineralisation, which comprises a minor part of the Sly Fox deposit, also returned good recoveries (89%).

Gravity gold recoveries were also very high ranging from 30% in the oxide zone to 60% in the fresh shale samples (See Table 18 for metallurgical recovery data and details of the metallurgical composites).

In addition to the excellent metallurgical recoveries, the tests have shown that the reagent consumption is in line with the projected consumptions from the Gilbey's Deposit.



Table 18: Sly Fox / Plymouth metallurgical test work data

7	Composite #	Gold Grade (g/t)	Gravity Gold Recovery	Gold Recovery after 12hrs	Gold Recovery after 24hrs	Gold Tail Grade (g/t)	Cyanide Consumption kg/t	Lime Consumption kg/t
	WH7704	1.51	30%	97.7%	98.1%	0.03	0.40	1.90
	WH7705	2.20	55%	92.8%	93.1%	0.14	0.36	0.33
	WH7706	1.58	60%	89.1%	89.1%	0.13	0.73	1.93

As both Plymouth and Sly Fox deposits were blended through the Dalgaranga, it is difficult to ascertain accurate metallurgical performance. Reported PAL results indicated an average 91.2% recovery.

No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.

# **Environmental Factors**

The deposits being assessed are situated on a granted Mining Lease within an operating mine site and have no identified areas of Environmental concern or consideration. Vegetation clearance is managed under permit.

No environmental factors are applied to the Mineral Resources or resource tabulations.



#### References

Historical assay results referenced in this release have been taken from the following ASX releases:

- ASX: SPR release 24 July 2023 "Never Never Resource Increases to Over 720koz"
- ASX: SPR release 12 September 2023 "25,000m Multi-Rig Drilling Program Underway"
- ASX: SPR release 23 October 2023 "Visible Gold Intercept Logged 130m Below......"
- ASX: SPR release 14 November 2023 "Spectacular new high-grade gold intercepts..."

Exploration Target referenced in this release taken from the following ASX release:

within a tonne of rock. Also equivalent to parts per million (ppm).

ASX: SPR release – 6 February 2023 "Never Never Gold Deposit Exploration Target"

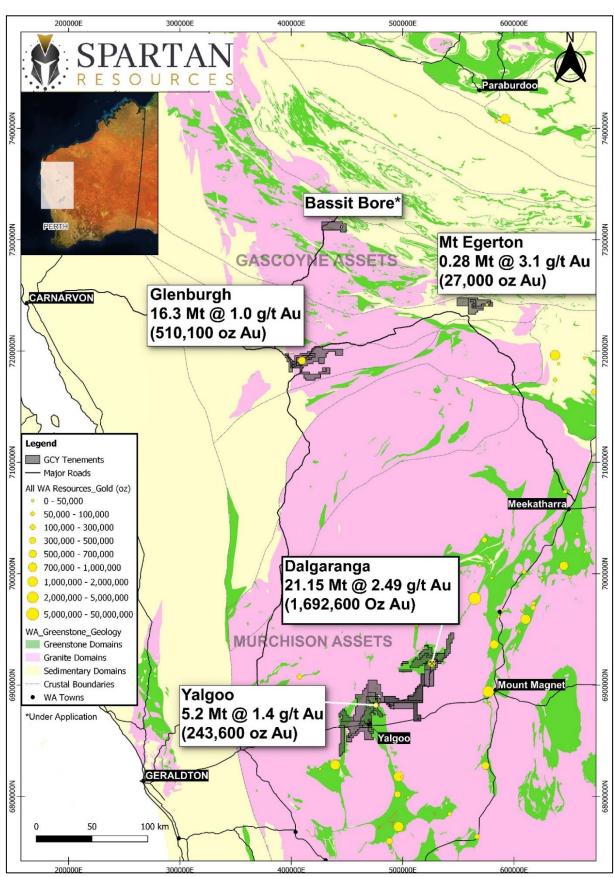
# Glossary of terms used in this release

"MRE" =	Mineral Resource Estimate – a mathematical estimate of the contained metal in a deposit
"VG" =	$\label{thm:condition} \mbox{Visible Gold - Gold mineralisation visible to the human eye and typically found in areas of gold-associated mineralisation}$
"RC" =	Reverse Circulation - a drill type involving percussive hammer drilling using air pressure to "lift" cuttings to surface
"DD" =	Diamond Drilling - a drill type that cuts a semi-continuous "core" of rock using rotational methods and diamond bits
"PC" =	Pre-Collar - a short RC drillhole at the start of a DD drillhole or "tail".
"DT" =	Diamond Tail – the remainder of a drillhole, completed using Diamond drilling, that begins with an RC Pre-Collar
"AA" =	Awaiting Assay – assays for the drill samples are in transit to, or in process, at the assay laboratory
"top-cut" =	Upper limit applied to assays to reduce the undue influence of (typically) one individual high-grade assay result when reporting a composite interval grade across many assay results.
"g/t" =	grams per tonne - accepted unit of measurement used to describe the number of grams of gold metal contained

Hanging Wall - the overhanging mass of rock above you when standing in the position of the orebody/target

"NSR" No Significant Result





Spartan Resources Limited Project Locations.



#### **Authorisation**

+61 8 9481 3434

This announcement has been authorised for release by the Board of Spartan Resources Limited.

## For further information, please contact:

Investor inquiries: Simon Lawson Managing Director and CEO Media inquiries: Read Corporate Nicholas Read +61 8 9388 1474

#### **BACKGROUND ON SPARTAN RESOURCES**

Spartan Resources Limited (ASX: SPR) is an ASX-listed gold company which is currently undergoing a transformational restructure and repositioning as an advanced exploration company with a rapid pathway back into production at its Dalgaranga Gold Project, located 65km north-west of Mt Magnet in the Murchison District of Western Australia.

Dalgaranga produced over 70,000oz of gold in FY2022 before being placed on care and maintenance in November 2022 to implement an operational reset designed to preserve the value of its extensive infrastructure and Resource base while developing a new, sustainable operating plan.

This approach is underpinned by the exceptional high-grade Never Never gold discovery, which was made in 2022 just 1km from the existing 2.5Mtpa carbon-in-leach processing facility and the main open pit at Dalgaranga. The Company has moved to rapidly unlock the potential of this significant discovery, which comprises a current JORC Mineral Resource of 952,000oz at an average grade of 5.74g/t.

In February 2023, the Company announced an 18-month exploration and strategic plan (the "365" strategy) targeting:

- A +300koz Reserve at a grade exceeding 4.0g/t Au at Never Never;
- A +600koz Resource at a grade exceeding 5.0g/t Au at Never Never;
- The development of a 5-year mine plan aimed at delivering gold production of 130-150koz per annum.

This updated strategy is centred around an aggressive exploration program at Never Never designed to target Resource expansion, Reserve definition and near-mine exploration drilling targeting Never Never "lookalikes".

In addition to its near-mine exploration at Dalgaranga, Spartan is actively exploring more than 500km² of surrounding exploration tenements and also owns the advanced 244koz Yalgoo Gold Project, where permitting activities are well advanced to establish a potential satellite mining operation at the Melville deposit.

In addition to Dalgaranga and Yalgoo, the Company's 527koz advanced exploration and development project at Glenburgh–Mt Egerton, located ~300km north of Dalgaranga, has the potential to be a second production hub.

The Company is committed to safe and respectful operation as a professional and considerate organisation within a diverse and varied community. Our people represent our culture and our culture is always to show respect to each other and to our community, to respect the unique environment we operate within and to show respect to all of our various stakeholders.



# **GROUP MINERAL RESOURCES:**

# **Total Group Mineral Resources**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	0.26	0.89	7.5
Indicated	30.04	1.79	1,727.6
Inferred	13.86	1.75	777.3
GRAND TOTAL	44.16	1.77	2,512.4

Table A1: Group Mineral Resource Estimates for Spartan Resources Limited (at various cut-offs)

# **Murchison Region Mineral Resources (DGP & YGP)**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	0.3	0.89	7.5
Indicated	16.3	2.43	1,271.9
Inferred	11.0	1.97	695.9
TOTAL	27.59	2.23	1,975.3

**Table A2**: Combined Mineral Resource Statement for the Murchison Region, includes the Dalgaranga Gold Project (DGP) and Yalgoo Gold Project (YGP). The Archie Rose Gold Deposit is now included in the Murchison Region Mineral Resource.

# **Dalgaranga Gold Project (DGP)**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	0.50	1.0	15.2
Indicated	12.36	2.2	892.5
Inferred	3.85	2.2	275.6
TOTAL	16.70	2.2	1,183.3

**Table A3:** The DGP includes in-situ mineral resources for the Never Never Gold Deposit, the Gilbey's Complex Group of Gold Deposits located within 2km of the Dalgaranga Processing Plant.



# **Never Never Gold Deposit Mineral Resource Estimate (DGP)**

NEVER NEVER GOLD DEPOSIT – MINING TYPE							
"Open Pit" Resource >0.5gpt Au <270mRL							
Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)				
Indicated	1.09	2.46	86.3				
Inferred	0.18	1.08	6.2				
TOTAL	1.27	2.27	92.5				
"Underç	"Underground" Resource >2.0gpt Au >270mRL						
Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)				
Indicated	2.58	7.40	614.5				
Inferred	1.31	5.86	245.9				
TOTAL	3.89	6.88	860.4				
TOTAL NEV	ER NEVER GO	OLD DEPOSIT -	MINING TYPE				
Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)				
Indicated	3.67	5.93	700.7				
Inferred	1.49	5.28	252.1				
GRAND TOTAL	5.16	5.74	952.9				

**Table A4:** The Never Never Gold Deposit includes in-situ the Gilbey's North and Never Never Lodes. Reporting cut-off grades are 0.5g/t Au for Open Pit defined mineral resources and 2.0g/t Au for Underground defined mineral resources.

# "Gilbey's Complex" Mineral Resource Estimate (DGP)

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	0.26	0.89	7.5
Indicated	9.28	1.38	410.8
Inferred	6.44	1.55	321.5
TOTAL	15.99	1.45	739.8

**Table A5**: Gilbey's Complex Mineral Resource Estimate Statement for combined in-situ resources for open pit (>0.5g/t Au constrained with an A\$2,800 pit shell) and underground >1.0g/t Au, below the A\$2,800 pit shell)

Gilbey's Complex includes Four Pillars, West Winds, Gilbey's East, Plymouth and Sly Fox which were all updated for the December 2023 Release. Additional areas not currently reported are Gilbey's South, GSP Zone and MME Zone, which will be included in following updates.



# **Archie Rose Gold Deposit Mineral Resource Estimate (DGP)**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Inferred	1.21	1.01	39.1
TOTAL	1.21	1.01	39.1

Table A6: Archie Rose Initial Mineral Resource statement for in-situ resources above 0.5g/t Au.

No material changes have been made to the Archie Rose deposit MRE since they were released by Spartan in September 2022. As such the details of the MRE can be found in ASX release dated 8 September 2022 and titled "Group Gold Resources Increase by 15.6% to 1.37Moz with Resource Grade up by 29%".

# Yalgoo Gold Project (YGP)

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	3.35	1.49	160.4
Inferred	1.88	1.37	83.2
TOTAL	5.24	1.45	243.6

**Table A7:** The YGP includes in-situ mineral resources for the Melville and Applecross Gold Deposits. Reporting cut-off grades are g/t Au.

No material changes have been made to the Melville or Applecross Gold Deposit MRE, as a whole the "Yalgoo Gold Project", since they were released by Spartan Resources in December 2021. As such the details of those individual MRE can be found in ASX release dated 6 December 2021 and titled "24% increase in Yalgoo Gold Resource to 243,613oz strengthens Dalgaranga Growth Pipeline".

# **Gascoyne Regional Project - Mineral Resources (GRP)**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	13.73	1.03	455.7
Inferred	2.84	0.89	81.4
TOTAL	16.57	1.01	537.1

**Table A8:** Gascoyne Region Total Mineral Resource statement includes the Glenburgh Gold Project (GGP) and the Mt Egerton Gold Project (EGP)

No material changes have been made to the Mineral Resource Estimates of the Glenburgh Gold Project or the Mt Egerton Gold Project since they were released by Spartan Resources in May 2021. The detail of the Glenburgh MRE can be found in ASX release dated 17 December 2020 and titled "*Group Mineral Resources Grow to Over 1.3Moz*". Detail for the Mt Egerton MRE can be found in ASX release dated 31 May 2021 and titled "2021 Mineral Resource and Ore Reserve Statements".



# **Glenburgh Gold Project (GGP)**

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	13.5	1.0	430.7
Inferred	2.8	0.9	79.4
TOTAL	16.3	1.0	510.1

**Table A9:** The Glenburgh Gold Project Mineral Resource Estimate for in-situ resources above 0.25g/t Au for open pit defined mineral resources and above 2.0g/t Au for Underground defined mineral resources.

# Mt Egerton Gold Project (EGP)

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)	
Indicated	0.23	3.4	25.0	
Inferred	0.04	1.5	2.0	
TOTAL	0.27	3.1	27.0	

**Table A10:** The Mount Egerton Gold Project Mineral Resource Estimate for in-situ resources above 0.70g/t Au for open pit defined mineral resources.

# **Competent Persons Statement**

The Mineral Resource estimates for the Dalgaranga Gold Project (including the Gilbey's North and Never Never (collectively the "Never Never deposits"), Gilbey's, Plymouth and Sly Fox Deposits referred to in this announcement titled "Never Never Hits 952,000oz @ 5.74g/t, Dalgaranga Moves To Next Level At 1.7Moz" is based on information compiled under the supervision of Mr Nicholas Jolly. Mr Jolly is a geologist with over 25 years relevant industry experience, and a full-time employee of Spartan Resources Limited and is a Member in good standing of the Australian Institute of Geoscientists. Mr Jolly has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that was 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 (The Joint Ore Reserves Committee Code – JORC 2012 Edition). Mr Jolly consents to the inclusion in this report of the matters based on his 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 this market announcement and that all material assumptions and technical parameters underpinning the estimate in this announcement continue to apply and have not materially changed.

The Mineral Resource estimates for the Archie Rose deposit referred to in this presentation are extracted from the ASX announcement dated 8 September 2022 and titled "Gold Resources increase by 15.6% to 1.37Moz with Resource Grade up by 29%". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

Information in this announcement relating to exploration results from the Dalgaranga Gold Project (Gilbey's, Four Pillars, West Winds, Plymouth, Sly Fox and Gilbey's North / Never deposits) are based on, and fairly represents data compiled by Spartan's Senior Exploration Geologist Mr Monty Graham, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Graham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are



undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Graham consents to the inclusion of the data in the form and context in which it appears.

The Mineral Resource estimate for the Yalgoo Gold Project referred to in this announcement is extracted from the ASX announcement dated 6 December 202 and titled "24% Increase in in Yalgoo Gold Resource to 243,613oz Strengthens Dalgaranga Growth Pipeline". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

The Mineral Resource estimate for the Glenburgh Project referred to in this announcement is extracted from the ASX announcement dated 18 December 2020 and titled "Group Mineral Resources Grow to Over 1.3M oz". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

The Mineral Resource estimate for the Mt Egerton Project referred to in this announcement is extracted from the ASX announcement dated 31 May 2021 and titled "2021 Mineral Resource and Ore Reserve Statements". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

Information in this announcement relating to exploration results for the Glenburgh and Mt Egerton Gold Projects is based on, and fairly represents, data compiled by Spartan's Senior Exploration Geologist Mr Monty Graham, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Graham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Graham consents to the inclusion in this announcement of the data relating to the Glenburgh and Mt Egerton Gold Projects in the form and context in which it appears.

#### **Forward-looking statements**

This announcement contains forward-looking statements which may be identified by words such as "believes", "estimates", "expects', "intends", "may", "will", "would", "could", or "should" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management of the Company. These and other factors could cause actual results to differ materially from those expressed in any forward-looking statements.

The Company cannot and does not give assurances that the results, performance or achievements expressed or implied in the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.



# JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

# Dalgaranga Gold Project: Never Never Gold Deposit (Dec 2023)

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

Criteria	Commentary
Sampling techniques	<ul> <li>The Never Never Project Area was previously drilled as part of sterilisation drilling for waste dumps. Exploration drilling commenced in December 2021 following up a historic AC drilling intercept. Resource Development drilling commenced in February 2022 when significant mineralisation intersections were encountered.</li> <li>Two drilling campaigns have been completed at Never Never in 2023: March to June, and August to December.</li> <li>The majority of drill holes have a dip of -60°but the azimuth varies.</li> <li>RC drilling was used primarily as pre-collars for the second campaign. Samples were still collected and used to obtain 1 m samples which were split by a cone splitter at the rig to produce a 3 – 5 kg sample. Zones of interest were shipped to the laboratory for analysis via 500 g Photon assay.</li> <li>Where DD was undertaken or as DD tails extending RC holes ½ core was sampling while for HQ or NQ holes with analysis via 500 g Photon assay.</li> <li>Current QAQC protocols include the analysis of field duplicates and the insertion of appropriate commercial standards and blank samples. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.</li> </ul>
Drilling techniques	<ul> <li>RC drilling used a nominal 5 ½ inch diameter face sampling hammer.</li> <li>The DD was undertaken from surface or as DD tails from RC pre-collars. A number of diamond wedge holes were cut off primary parent holes – up to 30m separation was achieved.</li> <li>Core sizes range from NQ, HQ or PQ (to allow geotechnical and/or metallurgical samples to be collected).</li> </ul>
Drill sample recovery	<ul> <li>RC sample recovery is visually assessed and recorded where significantly reduced. Negligible sample loss has been recorded.</li> <li>DD was undertaken and the core measured and orientated to determine recovery, which was generally 100% in transitional / fresh rock.</li> <li>RC samples were visually checked for recovery, moisture and contamination. A cyclone and cone splitter were used to provide a uniform sample, and these were routinely cleaned.</li> <li>RC Sample recoveries are generally high. No significant sample loss has been recorded.</li> </ul>

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Criteria	Commentary
Logging	<ul> <li>Detailed logging exists for most historic holes in the data base. Current RC chips are geologically logged at 1 metre intervals and to geological boundaries respectively. RC chip trays have been stored for future reference.</li> <li>RC logging recorded the lithology, oxidation state, colour, alteration and veining.</li> <li>DD holes have all been additionally logged for structural and geotechnical measurements.</li> <li>The DD core photographed tray by tray wet and dry and have been labelled appropriately for reference <holeid_mfrom_mto_wet dry="">.</holeid_mfrom_mto_wet></li> <li>All drill holes being reported have been logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC chips were cone split at the rig. Samples were generally dry.</li> <li>A sample size of between 3 and 5 kg was collected. This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected.</li> <li>RC samples are dried. If the sample weight is greater than 3 kg, the sample is riffle split.</li> <li>The DD core has been consistently sampled with the left-hand side of the core sampled. Some diamond holes were submitted as whole core.</li> <li>Samples are coarse crushed to 2 mm prior to photon assaying.</li> <li>Field duplicates were collected during RC drilling – the methodology has changed to full intervals through the target zone per drill hole. Duplicates are submitted for analysis based on primary assay results – guidelines are mineralised intercept (&gt;0.25ppm Au +/-10m footwall / hanging wall either side).</li> <li>Further sampling (lab umpire assays) are conducted if it is considered necessary – policy is for 3% of grading assays greater than 0.2 ppm Au are selected for Fire</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>RC and DD samples were sent to ALS Global Pty Ltd for analysis, by Photon Assay. A 500 g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.</li> <li>For Photon Assay, the sample is crushed to nominal 85% passing 2 mm, linear split and a nominal 500 g sub sample taken (method code PAP3502R).</li> <li>The 500 g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.</li> <li>Additional Bulk Density measurements were taken from DD core by ALS Global staff (method code OA-GRA08), across material types (Laterite, oxide, transitional, fresh) lithologies (shales, schists, porphyries) and mineralised zones. Results were in line with project averages contained within the database.</li> <li>Field QAQC procedures include the insertion of both field duplicates and certified reference 'standards' and 'blank' samples. Assay results have been satisfactory and demonstrate an acceptable level of accuracy and precision. Laboratory QAQC involves the use of internal certified reference standards, blanks, splits and replicates. Analysis of these results also demonstrates an acceptable level of precision and accuracy.</li> <li>Umpire assaying for 2022 has been received and analysed, a strong correlation for Photon vs Fire Assay methods has been observed. Umpire assaying for 2023 drilling has been selected, with a focus on spatial location within the mineralised zones.</li> <li>For the August to December 2023 campaign, results to date for Dalgaranga are discussed in the Gilbey's section. Final samples for QAQC have been selected and submitted to the laboratory. The Spartan December QAQC report is due in January 2024.</li> </ul>



Criteria	Commentary
	No downhole geophysical tools etc. have been used at Dalgaranga.
Verification of sampling and assaying	<ul> <li>At least 3 Company personnel verify all intersections.</li> <li>No twinned holes have been drilled to date by Spartan Resources, however, multiple orientations have tested the mineralised trend, each verifying the geometry of the mineralised shoot. In 2023, drilling orientation has been optimised based on the updated MRE.</li> <li>Field data is collected using Log Chief on tablet computers. The data is sent to the Spartan Database Manager for validation and compilation into a SQL database server.</li> <li>All logs were validated by the Project Geologist prior to being sent to the Database Administrator for import into SPR's database.</li> <li>No adjustments have been made to assay data apart from values below the detection limit which are assigned a value of half the detection limit (positive number) prior to estimation.</li> </ul>
Location of data points	<ul> <li>The RC and DD hole collars have been surveyed by DGPS.</li> <li>All RC and DD holes completed in 2023 had continuous gyro down holes surveys at the completion of each hole.</li> <li>The grid system is MGA_GDA94 Zone 50, all future MRE will be conducted in MGA (previous a local grid was used)</li> </ul>
Data spacing and distribution	<ul> <li>Initial drilling was conducted on 25 m – 100 m north-east aligned grid spacing which aligns with the main Gilbey's trend and stratigraphy.</li> <li>Defining the orientation of the Never Never gold deposit saw alternative drilling orientations used to pin down the strike and geometry, which included drilling north-east, south-east, and north-south orientation.</li> <li>Current drilling is targeting Inferred, Mineral Inventory and gaps within the Indicated where required. Drilling is also targeting outside the MRE at the lateral and vertical extents with variable drill spacing.</li> <li>The mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Drilling sections are orientated perpendicular to the strike of the mineralised host rocks at Dalgaranga. This varies between prospects and consequently the azimuth of the drill holes also varies to reflect this. The drilling is angled at between -50 and -60° which is close to perpendicular to the dip of the stratigraphy, some of the deeper diamond holes have a steeper dip due to platform availability.</li> <li>Never Never demonstrates a west-northwest trend, compared to the main Gilbey's trend, which appears spatially related to a shale unit with the same or similar orientation. Never Never appears bound by north-south trending faults, however the full strike extent has not been fully tested.</li> <li>No orientation-based sampling bias has been identified in the data – drilling to date indicates the geological model is robust, and in places conservative.</li> </ul>



Criteria	Commentary
Sample security	<ul> <li>Chain of custody is managed by Spartan Resources. Drill Samples are dispatched weekly from the Dalgaranga Gold Project site.</li> <li>Currently Beattie Haulage delivers the samples directly to the assay laboratory in Perth. In some cases, Company personnel have delivered the samples directly to the lab.</li> </ul>
	<ul> <li>DD core is transported directly to Spartan's core storage facility in Perth for mark up and logging. From September 2023, Spartan established an additional core processing facility on site for mark up and logging.</li> <li>Core is processed by ALS and All Point Sampling, prior to analysis.</li> </ul>
Audits or reviews	<ul> <li>Data is validated by the Spartan DBA whilst loading into database. Any errors within the data are returned to relevant Spartan geologist for validation.</li> <li>Prior to interpretation and modelling, all data has been visually validated for erroneous surveys or collar pick-ups.</li> <li>Outlier logging intervals of marker horizon lithologies such as shales and veining are checked against chip trays or core photos.</li> </ul>
	<ul> <li>Core photos have been reviewed against logging and assays.</li> <li>Any fixed errors have been returned to the Spartan DBA to update the master data set.</li> <li>An audit has been undertaken by SPR of the ALS core cutting and sampling processes – no issues have been noted. A separate lab audit of the ALS photon assay facility at Consington was also conducted in March with no issues noted.</li> </ul>
	facility at Cannington was also conducted in March with no issues noted.  • SPR's Monty Graham (Senior Exploration Geologist) is the Competent Person for Sampling Techniques, Exploration Results and Data Quality.
Page 72 of 96	



# Section 2 Reporting of Exploration Results

# Dalgaranga Gold Project: Never Never Gold Deposit (Dec 2023)

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Dalgaranga Gold project is situated on Mining Lease Number M59/749 and the Never Never Gold Deposit is located on this lease.</li> <li>The tenement is 100% owned by Spartan Resources Limited.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>The tenement areas have been previously explored by numerous companies including BHP, Newcrest and Equigold.</li> <li>Previous mining was carried out by Equigold in a JV with Western Reefs NL from 1996 – 2000.</li> </ul>
Geology	<ul> <li>Regionally, the Dalgaranga project lies in the Archean aged Dalgaranga Greenstone Belt in the Murchison Province of Western Australia. At the Gilbey's deposit, most gold mineralisation is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining within a volcaniclastic-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Zone).</li> <li>The Gilbey's Main and Gilbey's North prospect trends north-east – south-west and dips moderately-to-steeply to the north-west while Sly Fox deposit trends south-east – north-west and dips steeply to the south-west. These two trends define the orientation of the limbs of an anticlinal structure, with a highly disrupted area being evident in the hinge zone.</li> <li>At the Sly Fox deposit gold mineralisation occurs in quartz veined and silica, pyrite, biotite altered schists.</li> <li>The Plymouth deposit lies between Gilbey's and Sly Fox within the hinge zone of anticlinal structure – mineralisation at Plymouth is related to quartz veins and silica, pyrite, biotite altered schists.</li> <li>At Hendricks and Vickers gold mineralisation occurs in quartz-pyrite veined and altered zones hosted in basalts</li> <li>The Never Never Gold Deposit appears to be an intersection between a significant lode structure and the mine sequence – the mineralisation plunges moderately to the north-west and is characterised by strong quartz – sericite – biotite alteration, with fine to very fine pyrite sulphide mineralisation. Visible gold has been logged in multiple diamond drill (DD) holes to date.</li> </ul>
Drill hole Information	<ul> <li>Prior to 2023, a total of 41,669 m of drilling from 551 drill holes was available for Geological Modelling and the Dec 2022 MRE.</li> <li>For the 2023 March to June campaign, a total of 19,909m of drilling from 61 holes were completed for the Never Never June 2023 MRE update.</li> <li>For the 2023 August to December campaign, a total of 13,814m of drilling from 28 holes were completed for the Never Never December 2023 MRE update.</li> <li>19 x RCDD, 6 x DD and 3x DD wedge holes are being reported.</li> <li>Collar details have been previously published by Spartan Resources.</li> </ul>



Criteria	Commentary
Data aggregation methods	<ul> <li>For previously reported drilling results the following is applicable:         <ul> <li>All reported assays have been length weighted if appropriate.</li> <li>A nominal 0.5 ppm Au lower cut off has been applied to the RC and DD results, with up to 3m internal dilution (&gt;0.5 ppm Au) included if appropriate.</li> <li>High grade Au intervals lying within broader zones of Au mineralisation are reported as included intervals.</li> </ul> </li> <li>The top-cap for Never Never has been evolving as the resource has grown. The initial top-cap for the January 2023 MRE was 50gpt Au – this was applied to drilling results from March to June. The June MRE used a 75g/t Au top-cap – this was applied to all drilling reported to December 2023.</li> <li>No metal equivalent values have been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The mineralised zones at Dalgaranga vary in strike between prospects, but all are relatively steeply dipping.</li> <li>Drill hole orientation reflects the change in strike of the stratigraphy over the deposit and consequently the downhole intersections quoted are believed to approximate true width unless otherwise stated in the announcement.</li> <li>Never Never Gold Deposit utilised various drilling orientations due to the variable strike orientation of the mineralised domains present.</li> <li>The drillholes orientated east/west in some instances may be drilling along strike rather than perpendicular, as resource definition confirmed the orientation of the mineralisation. However, subsequent analysis indicated this did not provide a biased impression of the mineralisation, as drilling orientated north-south confirmed the geometry and tenor.</li> <li>Based on the MRE, drilling for the 2023 phase of surface drilling has been adjusted to optimise the intersection point through mineralisation.</li> <li>Diagrams included in the body of report relate to the Never Never MRE, see previous announcements for exploration results highlighting various diagrams.</li> </ul>
Diagrams	
Balanced reporting	<ul> <li>All related drilling results are being reported to the market as assays are received.</li> <li>Metallurgical results are reported as soon as test work has been completed and reported.</li> </ul>
Other substantive exploration data	Not applicable.
Further work	<ul> <li>Spartan is currently planning drilling programmes at Dalgaranga commencing in January 2024, including Never Never.</li> <li>Technical studies related to geotechnical and metallurgical test work remain ongoing and additional samples will be taken as drilling progresses for potential additional metallurgical test work and underground infrastructure locations.</li> <li>Mining studies have commenced, with a maiden reserve scheduled for 2024.</li> </ul>
Page 74 of 96	



# Section 3 Estimation and Reporting of Mineral Resources

# Dalgaranga Gold Project: Never Never Gold Deposit (Dec 2023)

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

Criteria	ommentary	
Database integrity	SPR's Nicholas Jolly (General Manager Exploration & Business Development) is appointed Competent Person for Section 3 Estimation and Reporting of Mineral Resources.	
	Drill logging data was entered into LogChief at the drill rig or in the geology office. LogChief integrates into Datashed, a Microsoft SQL Server database that stores user settings, allowing only approved data to be entered. All logs were validated by the Project Geologist prior to being sent to the Database Administrator for import into SPR's database.	
	Historical drilling data has been captured from historical drill logs. Drilling results were visually reviewed and validated in Micromine.	
	Drilling data was retained for exploration and resource definition drilling only. Reverse circulation (RC) chips were stored in sea containers in the geology lay-down yard and DD core was stored in SPR's Osborne Park core processing facility. Grade control RC chips were discarded once assays were received, and logging verified against the geological model.	
	The Datashed database was updated as new information was acquired, with cross-checks conducted by SPR's dedicated Database Administrator. External third-party reviews were previously undertaken in 2022 by Entech Mining.	
	<ul> <li>The data included all available drilling completed to date with the exception of seven RCDD holes, which were fully logged and surveyed with assays pending. SPR Resource Geologists performed the following database audit steps prior to commencing work on the MRE.</li> <li>Checking for duplicate drill hole names and duplicate coordinates in the collar table.</li> <li>Checking for missing drill holes in the collar, survey, assay, and geology tables based on drill hole names.</li> <li>Checking for survey inconsistencies including dips and azimuths &lt;0°, dips &gt;90°, azimuths &gt;360°, and negative depth values.</li> <li>Checking for inconsistencies in the 'From' and 'To' fields of the assay and geology tables. The inconsistency checks included the identification of negative values to be re-assigned to half the detection limit, overlapping intervals, duplicate intervals, gaps and intervals where the 'From' value is greater than the 'To' value.</li> </ul>	
	• The Competent Persons Mr Monty Graham (Sections 1 and 2) and Mr Nicholas Jolly (Section 3) have conducted multiple and regular site visits to Dalgaranga Operations	
Site visits	including the Never Never Gold Deposit during the recent 2023 surface drilling campaign. SPR Resource Geologist, Anthony Johns was site based for the duration of the 2023 drilling campaign monitoring drilling, logging and sampling practices.	
	• Mr Graham, Mr Jolly and Mr Johns inspected mineralisation exposures in operational pits (Dalgaranga) ~0.5 – 1.5 km to the south of Gilbey's North - Never Never, with mineralisation style and controls in operational pits considered analogous to Never Never's north-east striking domains ('GFin Extension Lodes').	



# Geological interpretation

- SPR used an exported MS Access database 'Gilbey's Datashed' from the in-house Datashed SQL database comprising 30,886 collar records in table 'Gilbey's\_Collars'. Of this total, 780 collar records are for the Never Never deposit, which has the following defined extents:
- MGA Northing: 6,919,963 mN 6,920,883 mN
- MGA Easting: 526,119 mE 527,119 mE.
- Using LeapFrog (GEO + EDGE) geological software, 391 different lithology codes were grouped to simplify into the following 8 codes:
  - Basalt
  - Dolerite
  - Schist
  - Shale
  - Intermediate Volcanics
  - Regolith
  - Transported
- Using all available drill data, a trend analysis was undertaken filtering through the various simplified lithology units. Shale was identified as the most consistent lithological unit at Dalgaranga. At Gilbey's North Never Never there is an intersection between the main Gilbey's trend shale (northeast-southwest) and the Gilbey's North Never Never shale which trends in a north-west orientation.
- Fault interpretation commenced with a level section drawing a line between the two shale trends. This line was then altered down dip with points to inflect the fault and maintain separation of shale trends and provide the basis for multiple domains. This fault was named the Gilbey's North Fault (GN Fault)
- Review of surface laterite RCGC data indicated a second domain fault which offset gold values and bound the west and north-west extents of Never Never mineralisation drilled to date. A second fault surface, termed the Never Never Fault (NN Fault) was modelled to create a western domain boundary.
- An initial litho-structural model was created in Leapfrog, with modelled shales informing the orientation of other units. Additional structural measurements were undertaken on available DD core, which assisted in improving the structural understanding of the deposit and the quality of the geological domaining.
- Offsets in the shale, together with corresponding offsets in gold values allowed the development of bounding domain faults. These were extended southwards towards Gilbey's GFin deposit, demonstrating continuity of the structural corridor.
- The Never Deposit is distinct from the traditional Gilbey's Mineralisation due to contrasting high silicification or flooding, strong sericite alteration with abundant fine-grained pyrite and regular visible gold grains logged (and inferred by grade proxy in RC chips) which is reflected in gold values significantly higher and consistent than Gilbey's Complex.
- Also, in contrast to Gilbey's base metal signature, portable X-ray fluorescence (pXRF) and geochemical analysis have not yet led to identification of any elemental proxies for mineralisation associated with the Never Never Deposit.
- With orientation trends established, mineralisation domains were created using grade values (nominal 0.3 ppm Au) supported by quartz, alteration and sulphide (py) logging primarily within the unweathered zone.
- Weathering surfaces were interpreted using the existing drill logging for oxidation state and extended laterally beyond the limits of the Mineral Resource model. SPR reviewed the weathering contacts in relation to mineralisation controls. There appears to be a subtle change in gold distribution above and below the Base of Complete



Oxidation (BOCO), where grades are less uniform indicating a degree of supergene enrichment. A variable depletion zone has been identified, which requires further RCGC definition. High-grade continuity improves below the Top of Fresh Rock (TOFR) boundary.

#### **Mineralised Domains - Laterite**

- A 1 3m thick Laterite domain sits at surface, blanketing the Gilbey's North and Never Never Deposits. The Laterite domain appears to be partially bound to the northwest by the Never Never Shale, with gold mineralisation demonstrating a similar orientation over 250 m strike and 100 m width (Figure 1). Mineralisation is strongest directly over the Never Never deposit.
- Fault offsets are clearly seen within the Laterite domain, which has assisted in modelling the Gilbey's North and Never Never faults and domains. Additional offsets are also noted further west, however further interpretation is required.
- Mineralised Domains include:
  - o 2306\_NN\_Lode\_Laterite Laterite Horizon

#### **Mineralised Domains - Eastern**

- Never Never eastern mineralisation domains were modelled on both sides of the GN Fault in the upper portions of the deposit. They were supported by drilling data, with higher grades and the orientation of mineralisation associated with the Never Never trend. The dimensions are approximately 55 m strike by 25 m width extending from near surface below the laterite blanket to 55 m below surface. Domains included in this trend are SG13 SG19.
- At approximately 6,920,350mN the orientation and tenor of the mineralisation changes to the Gilbey's trend. Dimensions are approximately 180 m strike by 1 m 8 m in width, extending from near surface to 190 m depth. All mineralised domains are constrained along strike by drilling but are open at depth:
- Mineralised Domains include:
  - o 2306 NN Lode SG11 Gilbey's North Lode
  - o 2306 NN Lode SG12 Gilbey's North Lode
  - o 2306 NN Lode SG20 Gilbey's North Lode
  - o 2306 NN Lode SG13 Never Never East Lode
  - o 2306 NN Lode SG14 Never Never East Lode
  - o 2306 NN Lode SG15 Never Never East Lode
  - o 2306 NN Lode SG16 Never Never East Lode
  - 2306 NN Lode SG17 Never Never East Lode
  - o 2306 NN Lode SG18 Never Never East Lode
  - o 2306 NN Lode SG19 Never Never East Lode



#### Mineralised Domains - Western

- The Never Never Oxide / Supergene domain sits above a variable depletion zone, with mineralisation interfingering into the shale unit on the eastern contact.

  Dimensions are approximately 75 m strike by 35 m width extending from surface to 55 m depth, where the BOCO extends to. The Never Never Supergene (SG21) domain sits unconformably over the Never Primary domain (HG01) however grade control drilling indicates the depletion zone is limited to discrete pockets.
- The Primary HG01 domain is the largest domain at Never Never and forms a continuous zone of high-grade mineralisation bound east and west by the GN and NN Faults.

  Dimensions are approximately 150 m strike by 20-30 m average width extending from the BOCO at 55 m below surface to 500 m below surface remaining open at depth.
- The 2023 Drilling defined two structural features which influence the geometry of Never Never. The first is a kink in the geometry for the HG01 lode which aligns with a break noted in the Gilbey's North lodes.
- The second structural feature is an east-west structure on the northern flank where thick mineralised intervals are abruptly terminated from surface as defined by drilling including recent deeper drilling including holes providing a clear boundary. This was confirmed by logging which identified a subtle but recognizable change in the stratigraphic package. This structural feature cause drilling deviation issues, which will require a change of drilling strategy going forward.
- A third structural feature was encountered in the August to December campaign, highlighting a flexure zone approximately 500m below surface. Within the flexure the orebody appears to narrow with reduced grade, below the flexure typical thick high-grade Never Never mineralisation is encountered. Further drilling is required to better define this feature and understand the relationship to gold mineralisation.
- A second minor Never Never domain (HG04) is located immediately adjacent to the Never Never Primary lode (HG01) and the GN Fault. Logging indicated a potential fault offset of the Never Never Primary Lode (HG01) below the BOCO, however the data to date is inconclusive. Dimensions are approximately 30 m strike by 18 m width extending from 90 m to 150 m below surface.
- Domains include:
  - 2306 NN Lode SG21 Never Never Oxide / Supergene
  - 2306 NN Lode HG04 Never Never Minor / Offset Lode
  - o 2312 NN Lode HG01 Never Never Primary Lode
- Factors which support the confidence of the geological and mineralised interpretation include:
- The significant amount of drilling, including the addition of DD and close-spaced grade control demonstrating consistent grades and geometry of the Never Never
  Deposit both along strike and down dip. The majority of drilling from the 2023 surface drilling campaign was diamond drilling, which allowed a significant amount of
  structural data to be collected and used in the interpretation. Some of the diamond drilling completed in 2023 was in close vicinity in previous RC holes, validating the
  grades and thicknesses from previous campaigns and MRE versions.
- A structural framework which has aided the geological and mineralisation interpretation, which is inferred from the discontinuity of stratigraphic shales as determined by drill density and structural data collected from diamond core during the 2022 and 2023 drilling campaigns.
- The majority of drilling Never Never below 200 m from surface intercepted mineralisation the exception has been 8 holes drilled along the northern flank of Never Never, identifying a sharp termination of thick zones of high-grade mineralisation which is also a subtle feature noted in geophysics.
- Based on Geological Intellectual Property retained within SPR which covers local knowledge of Dalgaranga and a wide range of West Australian gold deposits SPR



	considers confidence in mineralisation continuity and distribution, as implied within the MRE classification of Indicated and Inferred, ranges from strong to moderate, given the regularised drill pattern, drill centre spacing and multiple drilling orientations informing the MRE
Dimensions	<ul> <li>Never Never Lode System is a thickened plunging shoot extending from surface to below 600 m vertically below surface. The shoot is orientated west, trending west-southwest at depth striking approximately 150 m to 90 m with lode thickness ranging from 15 m to 50 m thick in the northern and central portion, thinning towards the southern flank to approximately 4-5 m.</li> <li>Never Never remains open at depth.</li> </ul>
	The Gilbey's North orientated domains extend 200 m northeast - southwest with variable thickness ranging from 1 m to 10 m. Mineralisation has been defined 175 m below surface and remains open at depth.
Estimation and modelling techniques	• Sample data were composited to a 1 m downhole length using a best-fit method following analysis of the sample length frequency. Top-caps (anomalously high grades were reassigned a lower grade in line with the remainder of the grade population, not removed from the data set) were applied to the composites prior to block grade estimation.
	• Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains. Top-caps were initially applied on a global basis within individual domains to limit the potential influence of obvious statistical outliers (table shown in the main body of text)
	• Of note is the change in top cut for HG01 from 50g/t Au (2212 MRE) to 75g/t Au (2306 MRE) due to consistent zones of high-grade gold mineralisation intercepted durin the 2023 drilling campaign. For the 2312 MRE data support for the HG01 domain increased to 100g/t Au.
	• Exploratory Data Analysis (EDA) and variography of the capped and composited gold values was completed within each domain and correlated well with spatial and statistical observations made by SPR resource geologists. All EDA was completed in Leapfrog Geo with third party review in Datamine's Supervisor software. The data was exported for further visual and graphical review.
	<ul> <li>Due to the lack of samples in each individual domain, proximity and similarities in orientation and mean domain grade, SG14 to SG20 were combined to produce one variogram. Following variographic analysis, anisotropic models were established for the following domains prior to estimation:</li> <li>2312_NN_Lode_HG01</li> <li>2306_NN_Lode_HG04</li> <li>2306_NN_Lode_SG21</li> <li>2306_NN_Lode_SG12</li> <li>2306_NN_Lode_SG12</li> <li>2306_NN_Lode_SG13</li> <li>2306_NN_Lode_SG14 to SG20 (Cluster)</li> <li>2306_NN_Lode_Laterite</li> </ul>
	<ul> <li>The majority of mineralisation at Never Never is contained in HG01 (95% of reportable metal); the variogram used to estimate this domain can be seen in the main body of text. Never Never HG01 has a very low nugget of 0.15 which reflects the high-grade nature of the Never Never Gold Deposit as demonstrated by drilling to date.</li> <li>Estimation test work was completed on all domains, using multiple techniques (Inverse Distance squared and cubed, Ordinary Kriging, Nearest Neighbour). Estimation test work included hard and soft boundaries, and Indicator test work on HG01 domain. The final methods determined to provide the most representative estimate were</li> </ul>
	Ordinary Kriging (OK) for all domains.



	• Estimation was undertaken within parent cell blocks of Y: 8 mN, X: 8 mE, Z: 8 mRL, with sub-celling of Y: 1.0 mN, X: 1.0 mE, Z: 1.0 mRL to ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were completed for each mineralised domain BM vs Wireframe. All domains showed less than 1% volume difference.
	<ul> <li>All domain estimates were based on parameters underpinned by geological logging (lithology, mineralogy and veining) within domains using a nominal cut-off grade of 0.3 ppm Au. Hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain.</li> <li>The exception is the grouped domains of 2306_NN_Lode_SG14 to SG20 which are the clustered Never Never domains on the eastern side of the GN Fault – the composite samples within these domains were grouped for top cap analysis and a soft boundary has been used between them for estimation purposes.</li> </ul>
	• A three-pass estimation search strategy was employed for all domains. Identical estimation search parameters were employed using Inverse Distance Squared (ID2) and Inverse Distance Cubed (ID3) as a comparative validation tool for all domains.
	• The predominant Never Never domain 2306_NN_Lode_HG01 had a maximum distance range of 80 m in the major direction, with the number of neighbourhood composites ranging from a minimum of 7 to a maximum of 12 samples, restricted to 3 samples per hole in the first pass.
	<ul> <li>The range was increased to a maximum of 160 m in the major direction for the second pass with other parameters remaining the same as the first pass.</li> <li>For the third pass the maximum range was increased to 640 m in the major direction, using a variable orientation (dynamic anastophy). The number of neighbourhood composites ranging from a minimum of 7 to a maximum of 30 samples, restricted to 3 samples per hole. Additional restrictions were placed on high-grade composites greater than 45g/t Au restricted influence of 15m. This criteria was introduced due to changing orientation of Never Never at depth and the decrease in available sample composites.</li> </ul>
	No selective mining units were assumed.
	No correlated variables have been investigated or estimated.
Moisture	Density and tonnage were estimated on a dry in situ basis.
Cut-off parameters	<ul> <li>The Mineral Resource estimate cut-off grade for reporting of open pit gold resources at Never Never was 0.5 ppm gold to 155m below surface. This elevation corresponds to preliminary pit designs completed by SPR on previous models using an open pit mining method and economic cut-offs applied from November 2022. The reported resource was not constrained by pit design.</li> <li>The Mineral Resource estimate cut-off grade for reporting of underground gold resources was 2.0 ppm gold from 155 m below surface. The reporting cut-off grade is in line with Western Australian peers for reporting unconstrained underground resources and align with early-stage mine designs and scheduling.</li> </ul>
	Given the grade distribution and concentration SPR expects a high resource to reserve conversion rate.
Mining factors or assumptions	<ul> <li>Open pit and underground mining methods were assumed at Never Never. No mining dilution or minimum mining widths were assumed or applied within the Mineral Resource. The transition point between open pit and underground will be included in ongoing studies.</li> <li>SPR considers the reported open pit material would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining</li> </ul>
	framework, with existing Dalgaranga pits currently excavated to 230 m RL (195 m below surface).  • Given the grade and thickness of the Gilbey's North - Never Never shoot at depth, the reported underground material would fall within the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an underground mining framework.



• The Never Never deposit is located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant. Mining approvals from the DMiRs was given in
late October with limited mining of laterite material completed prior to care and maintenance.
<ul> <li>A drone survey was completed over the mined portion of Never Never, with <u>27.8kt at 1.72 g/t Au for 1,536 oz</u> depleted from the MRE.</li> </ul>
• Reconciled mined ore was 53.8kt at 0.89g/t Au which represents 193% dilution of the variable thickness laterite profile and the mining equipment available.
• The stockpile has been partially processed with 36.7kt of Gilbey's North - Never Never blended with other stockpile ore and milled prior to full shut down. Blasted stocks
of laterite material remain in-situ to be recovered at the recommencement of operations.
Recent metallurgical recovery testwork conducted on samples from across the Never Never Gold Deposit show that Never Never high-grade material – being mineralised material
that could reasonably be expected to be mined—shows:
Average 92% overall metallurgical recovery in oxide material, with fresh material averaging above 92% through a standard gravity/Carbon-in-Leach ("CIL") process    Compared to the content of the c
flowsheet.
<ul> <li>Overall gravity recoveries or Gravity Recoverable Gold ("GRG") averages 20% in the oxide material and 31% in fresh material through a standard gravity concentration flowsheet.</li> </ul>
<ul> <li>Overall leach kinetics illustrates that more than 90% of the gold contained in high grade material in CIL feed leaches within 48hrs.</li> </ul>
In addition, test work on the Never Never high-grade material also shows that there are:
No material or significant recovery issues from any typical "deleterious elements", such as copper, lead, zinc, nickel or arsenic in the high-grade material.
<ul> <li>No material, or significant recovery issues from any "preg-robbing" material, such as carbonaceous material in graphitic shale</li> </ul>
Analysis of the 5-year-old 2.5Mtpa Dalgaranga Processing Plant ("DPP") shows:
The existing CIL process plant flowsheet is well suited in its current configuration to process the Never Never high-grade material.
<ul> <li>The comminution circuit is suitable for processing the Never Never high-grade material with upgrades as indicated in the original Dalgaranga Gold Project DFS.</li> </ul>
<ul> <li>Gravity, leaching, gold recovery, tailings and plant services are fit for purpose and only require minor refurbishment and capacity upgrades prior to start up.</li> </ul>
<ul> <li>The existing CIL circuit capacity is adequate at the anticipated treatment rates for the Never Never high-grade material.</li> </ul>
No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.
No environmental factors were applied to the Mineral Resources or resource tabulations.

Page 81 of 96



Bulk density	Bulk density values at the Never Never deposit was derived from 463 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth. In addition, a further 51 validated measurements were taken from 7 drill holes completed at Never Never during 2022.
	• Samples were taken nominally between 1 m to 350 m downhole to provide a representative density profile across oxidation states. The methodology for density measurements is not recorded in the MS Access database; however, Spartan personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (57), transitional (60) and fresh (346) drill core samples.
	• Since August, additional bulk density readings have been taken on recent diamond core representing regolith and lithological units. Analysis considered various lithologies,
	<ul> <li>weathering profiles and mineralised vs unmineralized fresh rock intervals. Results indicated averages used previously are appropriate.</li> <li>Due to the statistical variation in bulk density values by lithology, bulk densities were averaged, and a default assigned to each weathering unit. The following bulk density values were determined and applied in the block model:         <ul> <li>Oxide: 1.70 t/m3</li> <li>Transitional: 2.60 t/m3</li> </ul> </li> </ul>
	o Fresh: 2.80 t/m3
Classification	Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the stage of project assessment, amount of additional SPR drilling undertaken, current
	<ul> <li>understanding of mineralisation controls and mining selectivity within an open pit vs underground mining environment.</li> <li>In SPR's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.</li> </ul>
	• Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning the Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade estimations (sensitivity analysis).
	<ul> <li>In the case of HG01 an additional 7 holes pending assays were used when considering resource classification</li> </ul>
	Indicated Mineral Resources were defined:
	Via manual polygon and informed where a strong to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
	<ul> <li>Where blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 50 m or less or where drilling was within approximately 50 m of the block.</li> </ul>
	Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the first estimation pass.
	Inferred Mineral Resources were defined:
	Via manual polygons and informed where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated.
	Where drill spacing averaged a nominal 50 m or greater.
	Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the second or third estimation passes.



Audits or	A third-party external fatal flaw review of SPR's Dec 2023 Never Never MRE was conducted by an Independent Technical Expert with a focus on verification of technical
reviews	inputs and approaches to domaining, estimation and classification.
	No fatal flaws were identified with the Dec 2023 Never Never MRE.
5	• Recommendations were provided for improving the quality of the estimate, which were undertaken before finalising the MRE.
	<ul> <li>SPR completed laboratory audits on ALS Global's core cutting and photon assaying facilities</li> </ul>
Discussion of	Variances to the tonnage, grade, and metal tonnes of the MRE are expected with further definition drilling. It is the opinion of the Competent Person that the
relative	classification criteria for Indicated and Inferred Mineral Resources appropriately capture and communicate these variances and risks.
accuracy/	• The Mineral Resource Statement relates to local tonnes and grade estimates from surface to 50 m depth, and global tonnage and grade estimates below 50 m.
confidence	<ul> <li>No formal confidence intervals or recoverable resources were undertaken or derived.</li> </ul>
	A drone survey of open pit mining has been reconciled and depleted against the MRE.
	• The MRE is considered fit for the purpose of underpinning feasibility-level studies, including the Indicated Resource Classification mining reserves as per JORC guidelines.

JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

Dalgaranga Gold Project-Gilbey's Complex

(Incorporating Gilbey's Main, Gilbey's East, Plymouth, Sly Fox)

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

Criteria	Commentary
Sampling techniques	• The Dalgaranga gold deposits have been sampled using Trenches (TR) Rotary Air Blast (RAB) drilling, Air Core (AC) drilling, Reverse Circulation (RC) drilling and Diamond (DD) drilling over numerous campaigns by several companies and currently by SPR Resources (SPR). Grade Control (GC) RC drilling has been undertaken by SPR since 2018 (i.e., since commencement of mining) with the majority of holes drilled on a 10m x 7.5m grid over modelled mineralisation. The TR, RAB and AC samples have been excluded from gold interpolation for this Mineral Resource estimate since these sampling methods are considered to be of insufficient quality for the purpose of resource definition.
	<ul> <li>Sampling procedures followed by historic operators are assumed to be in line with industry standards at the time.</li> <li>During historical (pre-2017) resource drilling campaigns, RC drilling was used to obtain 1m samples which were split by either cone or riffle splitter at the rig to produce a 3 - 5kg sample. In some cases, a 4m composite sample of approximately 3 – 5kg was collected from the top portion of the holes considered unlikely to host significant mineralisation. The samples were transported to the laboratory for analysis via 25g Fire Assay. Where anomalous results were detected in the 4m composites, single</li> </ul>



Criteria	Commentary
	metre re-split samples were collected for subsequent analysis, also via 25g Fire Assay.
	• Pre 2021, the diamond drilling was undertaken as complete diamond holes or diamond tails to completed RC holes. The majority of the diamond holes were NQ core
	holes that were sampled by ½ core sampling while the HQ hole was ¼ core sampled. The samples are assayed using 50g charge fire assay with an AAS finish.
	• GC RC drilling, which commenced in 2018, collected samples at 1m intervals via a static cone split at the rig to produce a 2 - 4kg sample. The samples were sent to the
	Dalgaranga Site Lab or commercial Laboratory -MinAnalytical for analysis. At MinAnalytical the samples were initially analysed by Fire Assay and then, from mid-2018,
	by Photon Assay. At the Dalgaranga Site Lab samples were assayed using the Dalgaranga Mine Site laboratory using the Pulverise and Leach (PAL) assaying process.
	All recent Resource Definition drilling campaigns from 2021 (RC and DD) have used photon assaying as the primary gold technique.
Drilling	Resource definition RC drilling and RCGC drilling used a nominal 5½ inch diameter face sampling hammer.
techniques	The diamond drilling was undertaken as either core from surface, mud rotary to refusal, or from an RC pre-collar.
Drill sample	• RC sample recovery was visually assessed and recorded where significantly reduced. Very little sample loss was noted. The diamond drilling recovery was excellent with
recovery	very little or no core loss identified.
	• RC samples were visually checked for recovery, moisture and contamination. A cyclone and splitter were used to provide a uniform sample, and these were routinely cleaned.
	• DD drilling was undertaken, and the core measured and orientated to determine recovery, which was generally 100%. The diamond core has been consistently sampled
	with the left-hand side of HQ or NQ hole sampled, while for the HQ, the left-hand side of the left-hand half was sampled.
	• For recent DD from 2021, sampling of cut core regardless of diameter is the left-hand side of the core. Occasionally whole core sampling is conducted.
	Sample recoveries are generally high. No significant sample loss was recorded with a corresponding increase in gold present. Sample bias is not anticipated, and no
	preferential loss/gain of grade material was noted.
Logging	Detailed logging exists for most historic holes in the data base.
	• Current RC chips are geologically logged at 1m intervals and to geological boundaries respectively. Logging recorded the lithology, oxidation state, colour, alteration and veining.
	Resource Definition and Exploration RC drilling chip trays are photographed and stored for future reference.
	Drill chips from RCGC drill holes are not retained, with exceptions being retained to confirm lithological logging.
	DD drill holes have all been geologically, structurally, and geotechnically logged. The diamond core are photographed tray-by-tray, both wet and dry.
	All SPR drill holes were logged in full.
Sub-sampling	Diamond drilling completed by SPR was sawn as ½ core (for NQ) or ¼ core (for HQ) and sampled. Previous companies have conducted diamond drilling - it is unclear
techniques and	whether ½ core or ¼ core was taken by previous operators.
sample	• From 2021 all diamond core regardless of diameter is either ½ core or occasionally whole core sampled.
preparation	RC chips were riffle or cone split at the rig to produce a 2 - 4kg sample at 1m intervals. Samples were generally dry.



Criteria		Commentary
	•	At MinAnalytical the samples were analysed by either Fire Assay or from mid-2018, by Photon Assay. Both techniques involve drying the sample. For Fire Assay the sample is crushed and pulverised then assayed for gold using a 50g charge lead collection Fire Assay with AAS finish. For Photon Assay, the sample is crushed to nominal 85% passing 2mm, linear split and a nominal 500g sub sample taken (method code PAP3502R). The 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.  At the Dalgaranga Site Lab, a limited proportion (~15%) of RCGC samples were assayed using the PAL assaying process. The PAL technique involves drying of the drill chips, followed by a split to 250-500g of material, which is processed in the PAL1000 for 65 minutes; 100ml of solution is collected and centrifuged, 10ml aliquot is collected and assayed for gold by AAS technique.
	•	Field QAQC procedures call for the insertion of 1 in 25 certified reference materials (CRM) 'standards' and 1 in 50 field duplicates for RC and the insertion of "blank" samples. Diamond drilling has 1 in 25 CRMs included.
	•	From 2021, RC field duplicates were by target zone to collect representatives of mineralisation from hangingwall to footwall.
	•	Field duplicates were collected during RC drilling. Further sampling (lab umpire assays) is conducted if it is considered necessary.
	•	A sample size of 2 - 5 kg was collected from the original RC sample of 20 – 40kg depending on material density. This size is considered appropriate, and representative
		of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected, as an industry standard.
Quality of assay data and	•	All historical RC samples were analysed using a 25 or 50g charge Fire Assay with an AAS finish which is an industry sample for gold analysis. Modern (SPR) RC samples have been assayed either by Fire Assay or the Photon method.
laboratory tests	•	The DD sampling was assayed using Fire Assay with a 50g charge and an AAS finish. Additional quartz washes of the grinding mills are undertaken by the lab, before and after samples which contain visible gold.
	•	Photon Assay of RC grade control in 2018 and 2019 has utilised the same QAQC protocols to ensure quality of the assays, the non-destructive nature of the Photon Assay technique provides an alternative assay technique to Fire Assay and is considered a partial technique due to the fact matrix characteristics will alter the detection limits, this is not considered significant at a grade control level.
	•	The PAL assay method used at the Dalgaranga Site Lab is considered to be a partial method, with gold extraction dependent on a leaching process.
	•	Database query of grade control sample assay method indicates 36% by PAL (Aug 2018-Nov 2022), 2% by Fire Assay (Jan 2018-Aug 2018), 62% by Photon Assay (May 2018-Nov 2022). QAQC samples submitted equalled 4.7% of total submitted samples.
	•	No geophysical tools have been used at Dalgaranga.
	•	No QAQC results are available for historical (pre-SPR) sampling.
	•	SPR Field QAQC procedures include the insertion of both field duplicates and standards, as well as 'blank' samples. Laboratory QAQC involves the use of internal certified
		reference materials, blanks, splits and replicates.
	•	Analysis of the field duplicates for the period April 2020 to March 2021 shows that for the PAL and Photon assays, there is an acceptable degree of repeatability, with
		the average ACV being at 24% and 31%, respectively ('acceptable' range is 20% to 40%). The Fire Assay duplicate samples, also fall within the 'acceptable' range with an average ACV of 26%. The ACV is assessed only for samples returning a grade greater than 0.1g/t Au.



Criteria	Commentary
	• The PAL and Photon assay CRMs for April 2020 to March 2021 pass the accuracy test, with no significant bias being evident. However, all of the PAL and 2 out of 4 Photon CRMs fail the precision test for CRMs according to criteria laid out by Abzalov (2008). The Fire Assay samples pass both the accuracy and precision tests for CRMs.
	The blank samples returned satisfactory results for all assay methods and laboratories.
	• The actual insertion rates for duplicates are considered to be slightly too low, while those for blanks are deemed to be satisfactory. However, the insertion rates have increased significantly since 2020.
	• While precision appears to be a noteworthy issue for GC samples assayed by the PAL method, the QAQC results are believed to be sufficiently satisfactory to support the use of the drill assay data for Mineral Resource estimation. Greater than 90% of the gold metal reported in this Mineral Resource is informed by Resource Development (RDV) drilling analysed by Fire Assay and Photon methods, which returned relatively good QAQC results.
	• For 2023 drilling campaigns, review of Standards and Blanks for results to date are satisfactory – an overview can be found in the Gilbey's MRE technical report.
	• Fire Assay repeats of Photon assays were selected across all prospects with an emphasis on spatial separation. Entire mineralised intervals were selected with short buffer zones either side. Drill holes were selected from Never Never, Four Pillars, West Winds and Patient Wolf prospects – assays received to date continue to show a strong correlation with the photon method.
	<ul> <li>Field Duplicate samples from RC drilling using the same selection method have been submitted to the laboratory.</li> </ul>
	The Spartan December QAQC report is due in January following receipt of all results.
Varification of	Significant intersections were visually field verified by company geologists.
Verification of sampling and assaying	• No twinned holes have been drilled to date -ongoing GC drilling has confirmed mineralisation thickness and grade in primary material below pallid zone depletion for all deposits at Dalgaranga.
, ,	• Field data were collected using Field Marshal software on tablet computers for pre-2018 drilling campaign, post January 2018 the Geobank Mobile software was used to collect Geological logging data. The data pre-2018 was sent to Mitchell River Group for validation and compilation into an SQL database server, for post January 2018 the data was processed and validated by in-house database administration and compiled into the SQL database.
	<ul> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value, with a minimum floor value of 0.001g/t Au set in all such instances.</li> </ul>
	<ul> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value, with a minimum moor value of 0.001g/t Ad set in all such instances.</li> <li>Unsampled intervals denoted by a large negative value were reset to null values and were therefore ignored during estimation if included in the geological interpretation.</li> </ul>
	• Null or missing assay intervals were examined on a case-by-case basis. Some of these intervals cross known zones of mineralisation and in such instances no action was
	taken (i.e., null retained). In cases where the surrounding results and specific location supported the assumption that the assay intervals were not sampled due to a
	decision taken by a geologist on the lack of visible mineralisation, grade values of 0.001g/t Au were inserted.



Criteria	Commentary
Location of data points	<ul> <li>All drill hole collars were surveyed in the MGA94 Zone 50 grid.</li> <li>Historical collars were surveyed to within +/- 1m.</li> <li>SPR drill collars have been surveyed by DGPS equipment and mine site Surveyors. A down hole survey was taken at least every 30m in RC holes by electronic multi-shot tool by the drilling contractors. Gyro surveys have been undertaken on selected holes to validate the multi shot surveys. GC drill holes completed after August 2018, except for a few holes where equipment was not available, were surveyed with a minimum of two surveys per hole.</li> <li>All resource definition and exploration RC and DD holes completed from 2021 use a continuous gyro survey following the completion of each hole.</li> <li>As of 2023 all mineral resource updates are completed in the MGA94 Zone 50 grid (previously the Gilbey's Local Grid)</li> <li>An aerial topographic survey was flown in 2016. A 5m resolution DTM was used for Mineral Resource estimation and is considered appropriate. Monthly DTM and orthophoto images are collected via drone photography providing excellent ongoing control on topography.</li> </ul>
Data spacing and distribution	<ul> <li>Initial exploration by SPR was targeting discrete areas that may host mineralisation. Consequently, Resource drilling pre-2018 was not grid based. However, when viewed with historic data, the drill holes lie on existing grid lines and within 25m - 100m of an existing hole.</li> <li>Resource Definition drilling in most of the Dalgaranga Project areas is nominally at a 25m – 40m spacing but becomes less dense at depth.</li> <li>GC drilling has been to test areas of modelled resources and is generally at a spacing of 10m x 7.5m.</li> <li>The Resource Definition drill spacing in unmined volumes is sufficiently dense in areas where relatively long-range mineralisation continuity has been demonstrated, the best examples of this being the Gilbey's Main Zone (previously mined by Equigold) and at Sly Fox. Peripheral zones at Gilbey's, such as the Gilbey's Eastern Cutback, Gilbey's Starter Pit and Gilbey's South areas, have been proven by GC drilling to be much more discontinuous, and therefore difficult to model with high confidence using RDV data only. However, the mineralised zones have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification categories specified under the 2012 JORC Code.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>The majority of holes have a dip of -60 degrees optimised to intercept perpendicular to the strike of each particular gold deposit ruling out any material bias due to drill orientation.</li> <li>Gilbey's Main and East: 135 degrees azimuth (south east)</li> <li>Sly Fox: 225 degrees azimuth (south west)</li> <li>Plymouth 135/225 dependant on lode</li> <li>Additional orientations of drilling are incorporated based on available drilling platforms, and testing orientations of Four Pillars and West Wind prospects within the greater Gilbey's Complex.</li> </ul>
Page 87 of 96	



Criteria	Commentary
Sample security	<ul> <li>Chain of custody is managed by SPR. All drilling samples are collected immediately as drilled and stored in a designated area at the Dalgaranga mine site administration office. They are stored in closed bulk bags, numbered and ordered ready for transport.</li> <li>To ready the bulk bags for transport they are strapped to pallets, limiting the chance to tamper with sample bags during transport. The samples are sent once or twice weekly directly to MinAnalytical Laboratory via the company's preferred transport provider. Consignments are specific to SPR, thereby limiting potential security issues.</li> <li>RC samples collected pre-2018 were delivered daily to the Toll depot in Mt Magnet by SPR personnel. Toll delivered the samples directly to the assay laboratory in Perth. In some cases, company personnel have delivered the samples directly to the laboratory.</li> <li>From 2022 all samples were collected weekly from site by Beattie's haulage – RC samples were delivered directly to the lab, diamond drill core delivered to SPR's processing facility in Perth before submitted for cutting and dispatch to the assay laboratory.</li> </ul>
Audits or reviews	<ul> <li>Data pre-2018 was validated by Mitchell River Group prior to loading into the SQL database. Any errors within the data were returned to SPR for validation. Post 2018 all data is validated by an in-house DBA using Datashed SQL based software, including QAQCR analysis prior to export. All data collection and sampling protocols are to an industry standard and have passed independent technical review.</li> <li>An internal data audit is conducted by SPR resource geologists prior to commencing geological interpretation and estimation for each deposit.</li> </ul>
Page 88 of 96	



### Section 2 Reporting of Exploration Results

### Dalgaranga Gold Project-Gilbey's Complex

(Incorporating Gilbey's Main, Gilbey's East, Plymouth, Sly Fox)

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

Criteria	Commentary	
Mineral tenement and land tenure status	<ul> <li>The Dalgaranga Gold Operation is situated on tenement number M59/749. GNT (100% Spartan Resources - wholly owned subsidiary company) has a whole 100% interest in the tenement.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>	
Exploration done by other parties	• The tenement area has been previously explored by numerous companies including BHP, Newcrest and Equigold. Mining was carried out by Equigold in a JV with Western Reefs NL from 1996 – 2000.	
Geology	<ul> <li>Regionally, the Dalgaranga Gold Project lies within the Archean Dalgaranga Greenstone Belt in the Murchison Province of Western Australia.</li> <li>At the Gilbey's deposit, most gold mineralisation is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining within a volcaniclastic-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Zone and Sly Fox).</li> <li>The Gilbey's Main Zone trends north-east – south-west and dips moderately-to-steeply to the northwest on MGA94 Zone 50 grid while Sly Fox trends south-east – north-west and dips steeply to the north-east. These two trends define the orientation of the limbs of an anticlinal structure, with a highly disrupted area being evident in the hinge zone.</li> <li>Cross cutting structures to the main stratigraphic package are the main controls of gold mineralisation, with higher grades located proximal to their location.</li> <li>Lesser amounts of mineralisation outside of the volcaniclastic -shale-mafic zones are associated with highly discontinuous structures in the footwall and hanging wall of the sheared volcaniclastic -shale-mafic lithologies.</li> </ul>	
Drill hole Information	<ul> <li>Drill hole statistics included in the MRE:</li> <li>Gilbey's (including Gilbey's East) <ul> <li>7,466 total holes, including 7,409 RC (99.2%) and 57 DD/RCDD (0.8%)</li> <li>236,364 total samples, including 228,239 RC chips (96.6%) and 8,125 DD core (3.4%)</li> </ul> </li> <li>Sly Fox and Plymouth <ul> <li>734 total holes, including 725 RC (98.8%) and 9 DD/RCDD (1.2%)</li> <li>7,095 total samples, including 6,846 RC chips (96.5%) and 249 DD core.</li> </ul> </li> <li>It is not practical to summarise all the holes here in this release. Exclusion of the drill information will not detract from the understanding of the report.</li> </ul>	



Criteria	Commentary
Data aggregation methods	<ul> <li>Not applicable as a Mineral Resource is being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	Most drill holes are angled so that intersections are orthogonal to the expected orientation of mineralisation. It is interpreted that true width is approximately 70-100% of downhole intersections.
Diagrams	See main body of the report.
Balanced reporting	Exploration results are not being reported.
Other substantive exploration data	• All interpretations for Gilbey's, -Sly Fox and Plymouth mineralisation are consistent with observations made and information gained during mining at the Gilbey's open pit.
Further work	<ul> <li>Structural and geochemistry studies are ongoing to assist with targeting.</li> <li>Geological modelling of peripheral deposits at Gilbey's South, Gilbey's Starter Pit and MME are ongoing and will be incorporated into 2024 March quarter MRE updates.</li> <li>Drilling at Dalgaranga continued past the database closing date in late November 2023 into December. Resource definition, growth and technical drilling will resume in early 2024, targeting high-grade mineralisation for SPR's feasibility study and restart plan.</li> <li>SPR Geologists are currently planning the next drilling campaign, with targets including Never Never Four Pillars, West Winds, Sly Fox, and regional targets Arc and Patient Wolf. Drilling is scheduled to commence in January 2024.</li> </ul>
	woll. Drilling is scheduled to commence in January 2024.
Page 90 of 96	



### Section 3 Estimation and Reporting of Mineral Resources

### Dalgaranga Gold Project

(Incorporating Gilbey's Main, Gilbey's East, Plymouth, Sly Fox)

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

Criteria	Commentary
Database integrity	<ul> <li>For SPR drilling, geological and field data is collected using Field Marshall or Geobank Mobile software on tablet computers. Since 2021, all drill hole logging is collected using Log Chief using set look up tables for active data validation. Historical drilling data has been captured from historical drill logs.</li> <li>Pre-2018 the data is verified by company geologists before the data is sent to Mitchell River Group for further validation and compilation into a SQL database server. Historical data has been verified by checking historical reports on the project.</li> <li>Current data is verified by company geologists before being sent to the company database administrator for importing into Datashed SQL database. A number of validation scripts run various checks on the data which include, but are not limited to, checks for overlapping intervals, checks for missing data/records, visual checks on drill hole traces to identify any possible survey issues, checks for out-of-range values and checks of survey, assay and geology table depths relative to the recorded maximum depth of drilling.</li> <li>Spartan Resource Geologists run additional validation checks on the deposit data set prior to commencing geological interpretation and domaining steps.</li> <li>For 2023, Only RC and Diamond drilling are used for geological domaining and resource estimation. The predominant drill type used for estimation is RC, with a minor number</li> </ul>
Site visits	• The Competent Persons for Spartan Resources make regular trips to site during the year to review drilling, logging and sampling processes. (Monty Graham - data validation and exploration results, Nicholas Jolly - resource estimation and reporting)
Geological interpretation	<ul> <li>In 2023 the Gilbey's Complex was remodelled in LeapFrog, developing a litho-structural framework based on additional drilling data and understanding of the mineralised system at Dalgaranga by Spartan geologists previously involved with mining operations. Observable structural and grade trends were used to build mineralised domains as the basis for the MREs.</li> <li>The confidence in the geological interpretation is considered high, being based on previous mining history and visual confirmation in outcrop and within the Gilbey's, Plymouth and Sly Fox open pits.</li> <li>Gilbey's Main zone and Sly Fox have demonstrated reasonable grade continuity, while peripheral areas such as Gilbey's East have shown to host discontinuous mineralisation</li> </ul>
	and have been downgraded in confidence. Plymouth has demonstrated moderate confidence due to numerous faults offsetting mineralisation. These factors are considered during the resource classification process.  • Grade control drilling has confirmed overall geological continuity and is important for defining structures related to high grade mineralisation.
Dimensions	• The Gilbey's Mineral Resource has an overall north-east, south-west strike length of approximately 1,100m. The overall mineralised width of Gilbey's varies but for the majority is approximately 800m wide. The elevation extent of Gilbey's is from -100mRL to 450mRL (i.e., to roughly 550m below surface). Noting the current Gilbey's MRE excludes the



Criteria	Commentary
	Gilbey's South, GSP and MME peripheral areas which are fault-bound located at the south-west end of the deposit.
	• The Plymouth Mineral Resource has an overall north-east, south-west strike length of approximately 220m, with some localised north-west, south-east trending lodes. The
	average mineralised width is approximately 15m. The elevation extent of Plymouth is from 250mRL to 450mRL (i.e., to roughly 200m below surface).
	• The Sly Fox Mineral Resource has an overall north-west, south-east strike length of approximately 350m. The average mineralised width is approximately 25m. The elevation
	extent of Sly Fox is from 50mRL to 450mRL (i.e., to roughly 400m below surface).
Estimation and	All modelled mineralised domains were defined using drilling data including alteration, veining and an arbitrary 0.2g/t Au lower cut-off grade. Where available, dense grade
modelling	control drilling assisted in refining orientation for each lode in wider -spaced resource drilling.
techniques	Sly Fox MRE contains 3 mineralised domains, (97% volume in one domain); Plymouth MRE contains 12 mineralised domains, (75% volume in two domains)
	• Gilbey's Main (incl. Gilbey's East) contains 24 mineralised domains (73% volume in 2 domains). Due to the nature of gold distribution within the Gilbey's Main lodes, internal
	dilution <0.2g/t Au was included within the mineralised domains. To prevent grade smearing during the estimation process Indicator grade bins were established via
	geostatistical analysis to create sub-domains with ranges 0-0.3g/t Au, 0.3 – 0.8g/t Au, 0.8-2.5g/t Au, and >2.5g/t Au. Grade Bins were selected as these populations displayed
	a low coefficient of variance. The sub domains were created with Leapfrog's RBF interpolant to identify spatial continuity of like grade populations. Each new sub domain has
	had its own variography and estimation parameters developed.
	For each MRE Sample data were composited to a 1 m downhole length using a best-fit method following analysis of the sample length frequency. Assessment and
	application of top-capping for the estimate were undertaken on the gold variable in individual mineralised domains.
	Exploratory Data Analysis (EDA) and variography of the capped and composited gold values was completed within each domain and correlated well with spatial and
	statistical observations made by SPR resource geologists. All EDA was completed in Leapfrog Geo with third party review in Datamine's Supervisor software. The data was
	exported for further visual and graphical review.
	Top-caps were initially applied on a global basis within individual domains (or sub-domains) to limit the potential influence of obvious statistical outliers.
	• Sly Fox and Plymouth MREs are hosted within a combined Block Model, constructed within parent cell blocks of Y: 10 mN, X: 10 mE, Z: 10 mRL, with sub-celling of Y: 1.0 mN,
	X: 1.0 mE, Z: 1.0 mRL to ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were
	completed for each mineralised domain BM vs Wireframe. All domains showed less than 1% volume difference.
	• Gilbey's Main (incl. Gilbey's East) Block Model, constructed within parent cell blocks of Y: 16 mN, X: 16 mE, Z: 16 mRL, with sub-celling of Y: 2.0 mN, X: 2.0 mE, Z: 2.0 mRL to
	ensure the volumes of the wireframes and blocks within showed less than 5% difference. The model was not rotated. Volume checks were completed for each mineralised
	domain BM vs Wireframe. All domains showed less than 1% volume difference.
	• All domain estimates were based on parameters underpinned by geological logging (lithology, mineralogy, and veining) within domains using a nominal cut-off grade of 0.3
	ppm Au. Hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain.
	A three-pass estimation search strategy was employed for all domains. Identical estimation search parameters were employed using Ordinary Kriging (OK), Inverse Distance



Criteria	Commentary	
	<ul> <li>Squared (ID2) Inverse Distance Cubed (ID3) and Nearest Neighbour (NN) as a comparative validation tool for all domains.</li> <li>An example is the GMZ 0.75-2.0g/t subdomain:         <ul> <li>A maximum distance range of 200m in the major direction, with the number of neighbourhood composites ranging from a minimum of 7 to a maximum of 12 samples, restricted to 4 samples per hole in the first pass.</li> <li>The range was increased to a maximum of 300m in the major direction for the second pass with other parameters staying the same.</li> <li>For the third pass the maximum range was increased to 3000 m in the major direction, with the number of neighbourhood composites ranging from a minimum of 1 to a maximum of 7 samples, with no maximum sample restrictions per hole.</li> </ul> </li> <li>For Sly Fox, hard boundaries have been used for grade estimation wherein only composite samples within that domain are used to estimate blocks coded within that domain. For Plymouth, soft boundaries have been used for clustered mineralised domains for estimation purposes due to the fragmented nature as defined by close-spaced RCGC drilling.</li> <li>The predominant Sly Fox domain 2308_Lode-SF_MZ:</li></ul>	
Moisture	Density and tonnage was estimated on a dry in situ basis.	
Cut-off parameters	<ul> <li>The Mineral Resource estimate cut-off grade for reporting of open pit gold resources at Gilbey's, Plymouth and Sly Fox was 0.5 ppm gold. The reported open pit resources was constrained by an A\$2,800 pit shell.</li> <li>The Mineral Resource estimate cut-off grade for reporting of underground gold resources at Gilbey's and Sly Fox was 1.0 ppm gold below the A\$2,800 pit shell. The reporting cut-off grade is in line with Western Australian peers for reporting bulk underground resources.</li> <li>Tonnages were estimated on a dry basis.</li> </ul>	
Mining factors or assumptions	<ul> <li>Gilbey's has had three stages of mining. From 1999 to 2023 by Equigold focusing on near surface oxide resources. Total mined was <u>4.39mt at 1.54g/t for 218koz</u>.</li> <li>Spartan resources re-commenced mining operations at Gilbey's and satellite deposits from 2019 to November 2022 when the operation was placed on care and maintenance. Total mined from Gilbey's was <u>9.56mt at 0.91g/t for 279koz</u>. The 2312 MRE performed well globally over this period -3% ounces verses DOM.</li> </ul>	

Page 93 of 96



Criteria	Commentary
	<ul> <li>Plymouth has been partially mined from January 2022 to Dalgaranga shifting to care and maintenance in November 2022. with ore blended with Gilbey's Main Zone. Only oxide and transitional ore were mined, with 214kt at 1.21g/t for 8,310 ounces produced, which reconciled 98% tonnes, 122% grade and 120% of ounces verses reserves. Ore was blended with other sources, mainly Gilbey's Main Zone.</li> <li>Sly Fox was mined as an open pit by Spartan Resources over a period of 11 months from August 2018 to June 2019. Ore was blended with other ore sources, mainly Gilbey's Main Zone. The majority of material mined was oxide and transitional, with minor fresh ore. Declared ore mined (&gt;0.5g/t Au) was 329.7kt at 0.93g/t for 9,843 ounces.</li> <li>For Open pit areas Optimisation pit shells were generated in based on:         <ul> <li>Gold Price assumption of A\$ 2800/oz</li> <li>Spartan Dalgaranga cost experience for Mining, Processing and Administration</li> </ul> </li> </ul>
Metallurgical factors or assumptions  Environmental factors or assumptions	<ul> <li>Black shales occasionally occur within the mineralised sequence, some of which are carbonaceous and known to result in lower recoveries. During previous mining campaigns these zones were stockpiled separately. Shales have been modelled based on all available geological data and coded into the block model.</li> <li>As both Plymouth and Sly Fox deposits were blended through the Dalgaranga, it is difficult to ascertain accurate metallurgical performance. Reported PAL results indicated an average 91.2% recovery.</li> <li>Ongoing test work for the feasibility study is reviewing various ore types and blending strategies to optimise future mining scenarios.</li> <li>No assumptions were made regarding environmental restrictions.</li> </ul>
Bulk density	<ul> <li>Bulk density values were derived from 463 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth.</li> <li>Samples were taken nominally between 1 m to 350 m downhole to provide a representative density profile across oxidation states. The methodology for density measurements is not recorded in the MS Access database; however, Spartan personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (57), transitional (60) and fresh (346) drill core samples.</li> <li>Additional bulk density readings a further 51 validated measurements were taken from 7 drill holes completed at Never Never during 2022 representing regolith and lithological units. Analysis considered various lithologies, weathering profiles and mineralised vs unmineralized fresh rock intervals. Results indicated averages used previously are appropriate.</li> <li>Due to the statistical variation in bulk density values by lithology, bulk densities were averaged, and a default assigned to each weathering unit. The following bulk density values were determined and applied in the block model:         <ul> <li>Oxide: 1.70 t/m3</li> <li>Transitional: 2.60 t/m3</li> <li>Fresh: 2.79 t/m3</li> </ul> </li> </ul>



Criteria	Commentary	
Classification	The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resource Resource (No. 1)	
	Reserves' by the Joint Ore Reserves Committee (JORC).	
	• The Mineral Resource was classified as Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, geological understanding of mineralisation	
	controls and geological/mineralisation continuity.	
	Measured Mineral Resources were defined:	
	<ul> <li>Closed spaced grade control drilled zone with previous mine/mill reconciliation data.</li> </ul>	
	o Existing surveyed stockpiles	
	<ul> <li>Gilbey's GMZ contains unmined ore zones partially covered with grade control drilling – this has been downgraded from Measured to Indicated until coverage can be completed at a later date.</li> </ul>	
	<ul> <li>Plymouth also has unmined ore zones that could be considered for Measured category, however, have been downgraded to Indicated due to faulting regularly offsetting the orebody. Further drilling required.</li> </ul>	
	<ul> <li>Indicated Mineral Resources were defined:</li> </ul>	
	<ul> <li>Via manual polygon and informed where a strong to moderate level of geological confidence in geometry, continuity and grade was demonstrated.</li> </ul>	
	<ul> <li>Where blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 40 m or less or where drilling was within approximately 40 m of the block.</li> </ul>	
	<ul> <li>Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the first estimation pass.</li> </ul>	
	<ul> <li>The assigned underground resource for Sly Fox was downgraded to Inferred reflecting lack of drill density adequately defining shoot geometry.</li> </ul>	
	Inferred Mineral Resources were defined:	
	<ul> <li>Via manual polygons and informed where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated.</li> </ul>	
	<ul> <li>Where drill spacing averaged a nominal 40 m or greater</li> </ul>	
	<ul> <li>Where blocks were estimated with a neighbourhood largely informed by the maximum number of samples during the second and/or third estimation passes.</li> </ul>	
	Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained Unclassified for drill targeting.	
	The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.	
A	• In 2018, Cube Consulting had undertaken a number of validation checks on the database, which include, but are not limited to, checks for overlapping intervals, checks for	
Audits or reviews	missing data/records, visual checks on drill hole traces to identify any possible survey issues, checks for out-of-range values and checks of survey, assay and geology table	
IEVIEWS	depths relative to the recorded maximum depth of drilling. No major issues were detected.	
	SPR geologists run extensive audit checks on the dataset prior to commencing the MRE process.	
	<ul> <li>An external third-party consultant reviews and provides guidance on all steps of the resource estimation process</li> </ul>	



Criteria	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>The reported Mineral Resources constitute a local resource estimate. All Measured and Indicated Mineral Resources would be available for economic evaluation.</li> <li>Historical production data and reconciliation undertaken between Equigold mining, and Mineral Resources indicate an excellent correspondence with the Mineral Resource estimate in the Gilbey's Main Zone.</li> <li>An updated reconciliation review is underway to assess previous performance of the 2312 Gilbey's MRE.</li> </ul>
Page 96 of 96	