ULYSSES MINERAL RESOURCE SOARS 137% TO 760,000 OUNCES

Highly successful 2018 drilling allows estimation of significant high-grade gold resource and marks a key step towards Genesis' objective of becoming a substantial new gold miner

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Key Points:

- **The total Mineral Resource (Measured, Indicated and Inferred) for the 100%-owned Ulysses Gold Project near Leonora in WA now stands at:**

  7.1Mt @ 3.3g/t gold for 760,000 ounces of contained gold

- **137% increase (439,000 ounces) in total contained ounces and 10% increase in average grade from the previously announced February 2018 Mineral Resource.**
- **Measured and Indicated Mineral Resource at Ulysses increases by 162% (290,000 ounces) to 471,000 ounces.**
- **High-grade portion of resource estimated to contain:**

  4.1Mt @ 4.7g/t gold for 628,000 ounces

  - **Includes four high-grade shoots, containing:**

    1.6Mt @ 6.9g/t gold for 356,000 ounces

- **Resource remains open both at depth and along strike.**
- **Drilling continuing in a number of new areas targeting additional Resource growth.**
- **Feasibility work progressing with a Feasibility Study due for completion by mid-2019.**

Genesis Minerals Limited (ASX: GMD) is pleased to advise that it has taken a key step towards its objective of developing a substantial new Australian gold mine at its 100%-owned **Ulysses Gold Project** near Leonora in WA with the announcement of a **137% increase** in the Mineral Resource for the Ulysses deposit from 321,000oz to **760,000oz** of contained gold.

The updated Mineral Resource incorporates the results of the highly successful drilling program completed at Ulysses over the past six months, which has returned numerous high-grade intersections that confirmed and extended a number of high-grade gold zones (shoots).

The updated Measured, Indicated and Inferred Mineral Resource now totals **7.1Mt @ 3.3 g/t gold for 760,000 ounces of contained gold** (refer to Table 1 for full details), which represents a 137% increase in contained ounces and a 10% increase in grade when compared with the previously announced February 2018 Mineral Resource. Importantly, the higher-confidence Measured and Indicated component has increased by 290,000 ounces (162%) to 471,000 ounces.

The high-grade portion of the Mineral Resource, reported at a cut off of 2g/t gold (refer to Table 1 for full details) which will form part of the mining evaluation for the Feasibility Study is estimated to contain **4.1Mt @ 4.7g/t gold for 628,000 ounces**.

The high-grade shoots which form part of the overall Mineral Resource are estimated to contain **1.6Mt @ 6.9g/t gold for 356,000 ounces**. This represents a 66% increase in contained ounces and a 25% increase in grade for the high-grade shoots when compared with the February 2018 Mineral Resource.

These shoots are visually identifiable in drill chips and core and have been separately modelled and estimated to quantify the higher-grade shoots within the overall Mineral Resource estimate.

The Mineral Resource extends over a strike length of more than 2km and sits immediately below and along strike from the Ulysses Open Pits (see Figures 1 and 3).

The Resource envelope currently extends to ~500m below surface at its deepest point and is estimated to an average depth of ~320m below surface, with a gold endowment of +2,400 ounces per vertical metre (ovm) for the 260m interval from the 360mRL (base of the open pits) to the 100mRL (interval of highest drill density).

The depth of the Indicated portion of the Resource is shown in Figure 2 below.

Commenting on the Mineral Resource upgrade, Genesis Managing Director, Michael Fowler, said:

"This is a tremendous result for our shareholders and a major milestone for Genesis. Since acquiring the Ulysses Project three years ago, we have increased the Mineral Resource by 450 per cent from 138,000oz to 760,000oz, and we believe we have a lot further to go," he said.

"Drilling this year alone has added almost half a million ounces as we have greatly improved our understanding of the geometry and controls on the mineralisation – particularly the significance of the high-grade shoots within the overall Resource. This is typical of many West Australian gold systems and shows the enormous value that can be created through a focused and well thought-out exploration program.

"Given its grade and its prime location in one of WA's most well-endowed goldfields, proximity to high-quality infrastructure and a number of operating gold mines, Ulysses has rapidly emerged as a highly-valuable and strategic asset of the Company which we believe will clearly justify the development of a standalone mining and processing operation.

"Our strategy now is to continue drilling to grow the Resource inventory at Ulysses over the coming months in parallel with feasibility work, which is already well underway.

"There is obvious potential to grow the Mineral Resource along strike to the east and west as well as down-plunge, plus we have recently started drilling to test the shallow oxide potential at Orient Well NW, which has excellent potential to generate shallow ounces that could be included within our overall Mineral Resource inventory.

"Outside of that, there is enormous potential within our broader land-holding which we will systematically evaluate.

"We believe that having a two-pronged strategy of growing our Mineral Resource inventory towards the 1Moz mark and beyond, while at the same time crystallising the value of the project for shareholders through a Feasibility Study, is the best strategy for the Company moving forward. It is also the strategy that is most likely to maximise shareholder value and ensure we can continue to build a strategic asset base in the North-eastern Goldfields at a favourable time for the Australian gold sector."

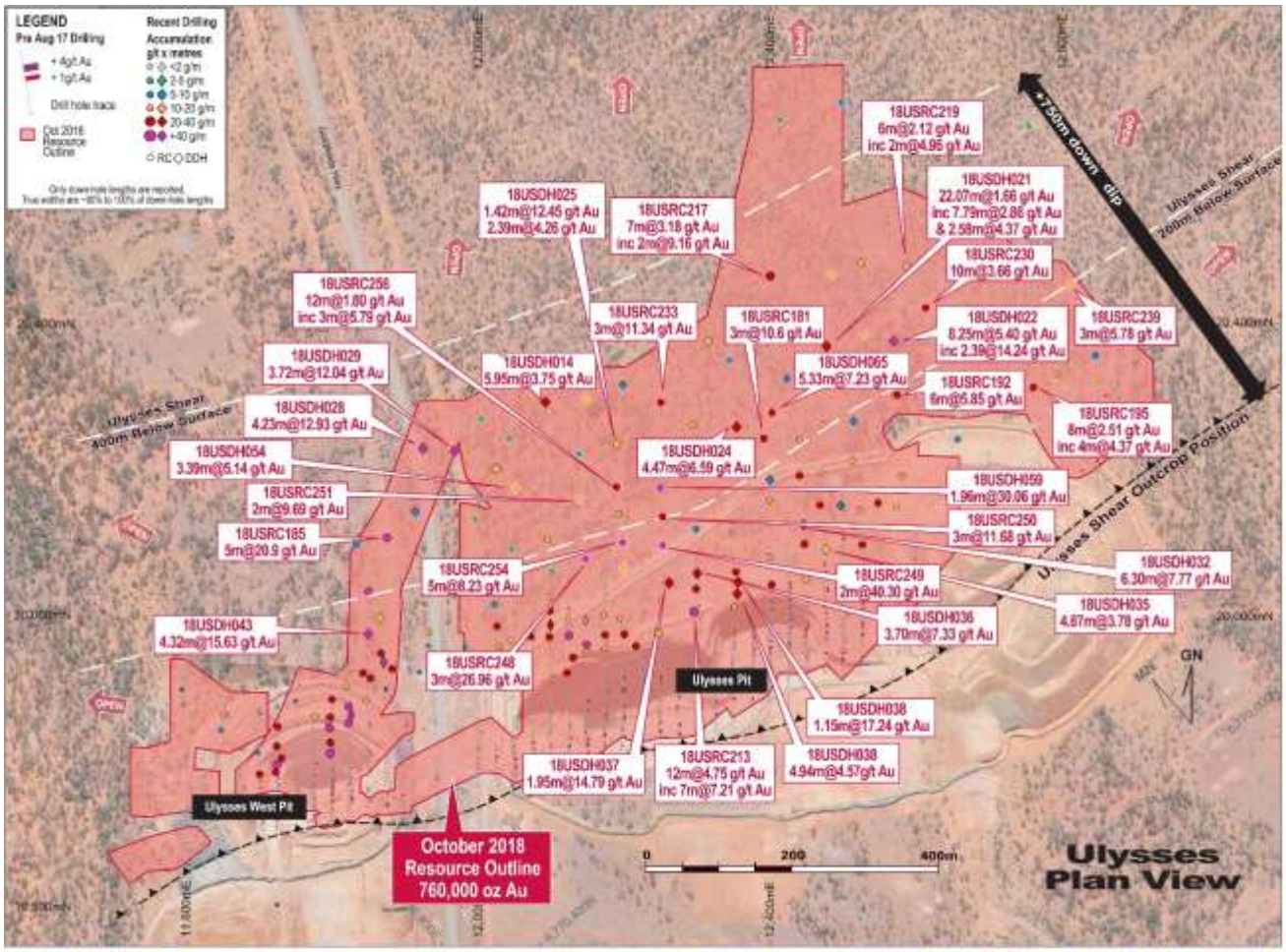

Figure 1. Plan view of the location of the Ulysses Mineral Resource projected to surface. The Mineral Resource outline is shown in red.

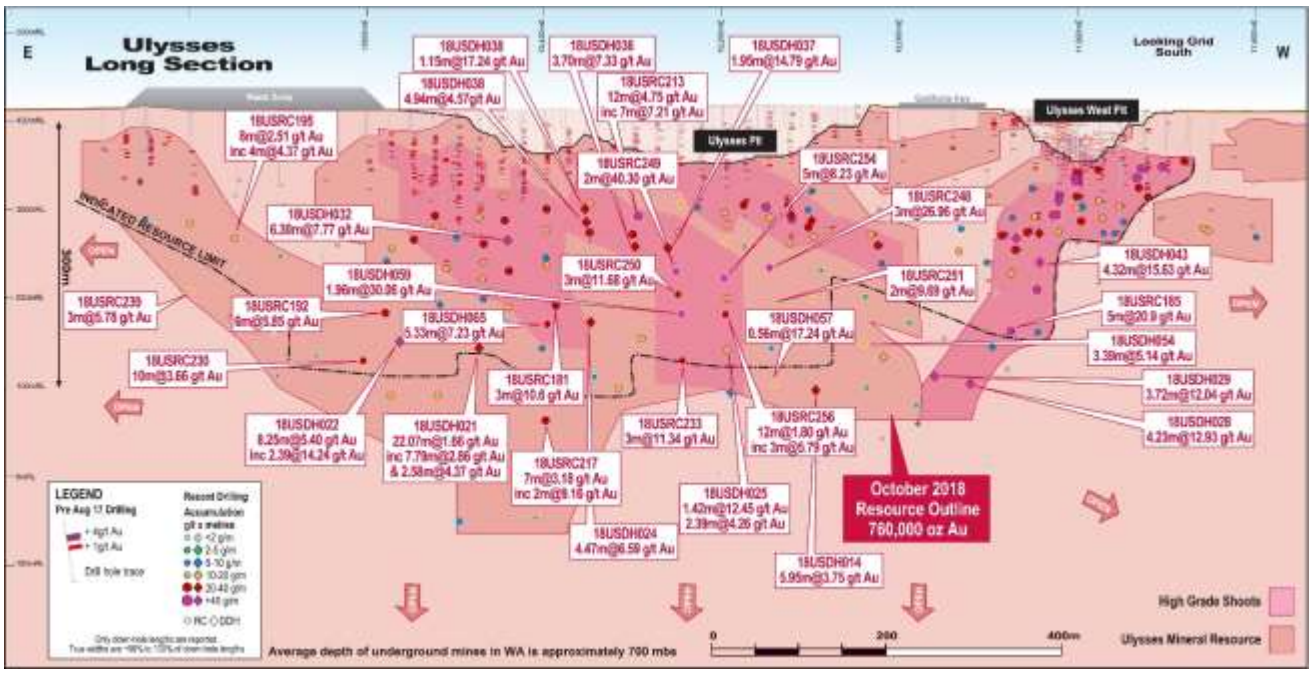

Figure 2. Projected Long Section in local grid showing the new Ulysses Mineral Resource (moderate red outline) with the high-grade portion of the resource showing in magenta. The Resource estimate extends for over 2,000m. Note the shallow depth of drilling compared to the average depth of underground mines in WA. Limit of Indicated Mineral Resource shown.

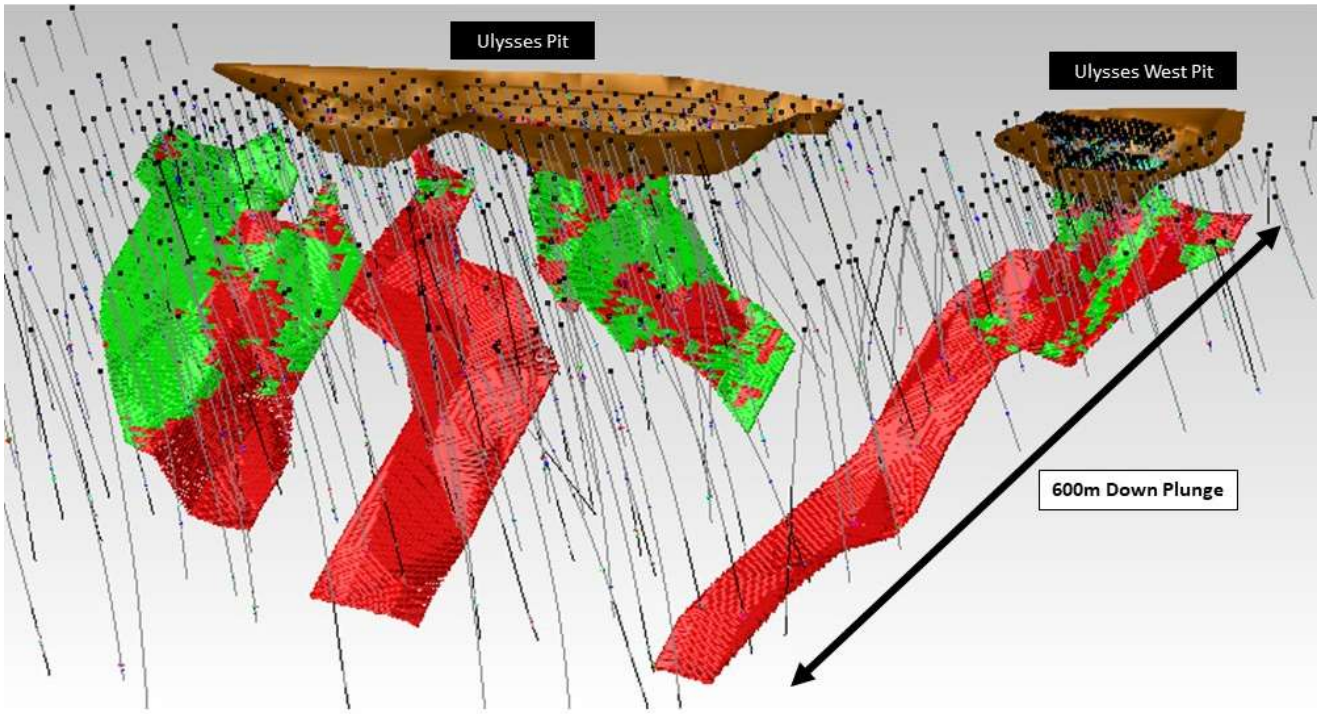

Figure 3. View looking towards the south-east showing the position of the modelled high-grade shoots.

Next Steps

Activities to be completed over coming months include:

- Upgrading the Inferred portion of the Ulysses Mineral Resource through in-fill drilling;
- Ongoing exploration to increase the overall Mineral Resource base and asset value for Ulysses with a focus on targeting immediate extensions along strike to the east and west and down-plunge;
- Completion of a maiden Ulysses Ore Reserve – planned for 1HCY2019; and
- Completion of Feasibility Studies on the Ulysses Mineral Resource with a view to making a decision on developing a long-term mine at Ulysses in 1HCY2019.

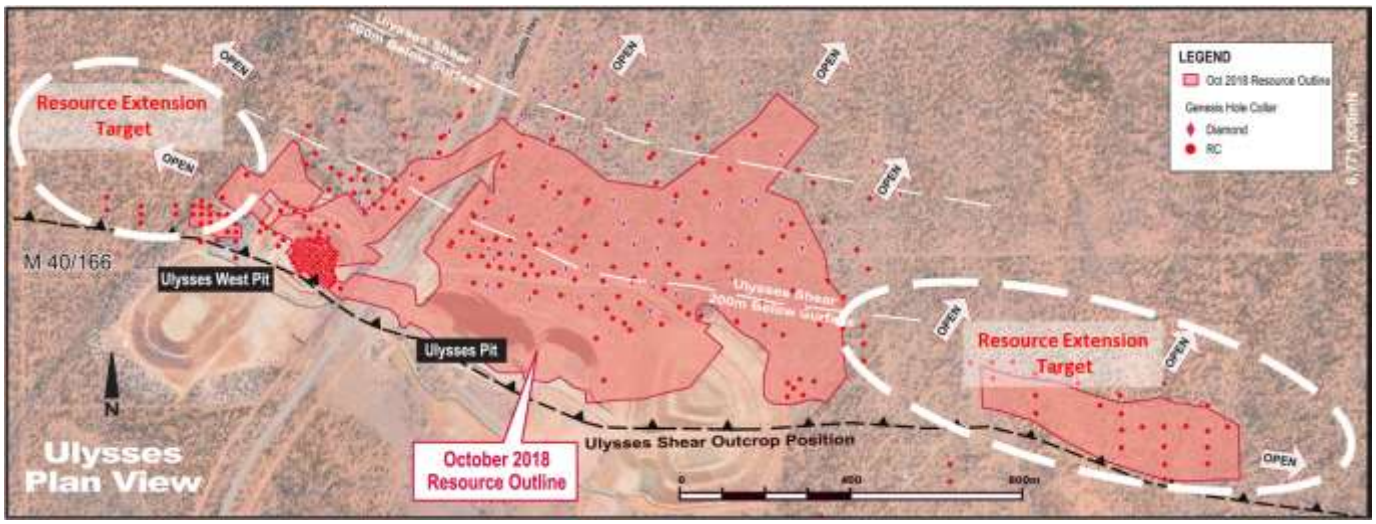

Figure 4. Plan view showing the Ulysses Mineral Resource (red outline) with area to be systematically drill tested highlighted.

Listing Rule 5.8.1

Pursuant to ASX listing rule 5.8.1, and in addition to the information contained in JORC tables, the Company provides the following in respect of the Ulysses Mineral Resource.

Mineral Resource Statement Overview

The Ulysses Project area has been held by a number of operators and has been drilled in several phases since initial discovery. Drilling has been focussed on the Ulysses deposit, with more regional exploration also completed.

Open pit mining was carried out in 2002 by a previous operator and Genesis carried out two phases of open pit mining in 2016 and 2017.

A Mineral Resource update for the Ulysses deposit was completed in October 2018 by Payne Geological Services Pty Ltd ("PayneGeo"). The update was required to incorporate the results of the major drilling program completed by Genesis which has confirmed and extended a number of zones of high-grade gold mineralisation.

The high-grade shoots within the deposit are visually identifiable due to the strong pyrite-silica-albite-biotite alteration that is present and they have been separately modelled and estimated to properly quantify the higher-grade shoots within the overall Mineral Resource estimate.

A summary of the updated 2018 Ulysses Mineral Resource is provided in Table 1 below:

Table 1. October 2018 Mineral Resource Estimate 0.75g/t Cut-off above 200mRL, 2.0g/t Below 200mRL

Type	Measured		Indicated		Inferred		Total		
	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Au Ounces
Oxide	6,000	2.1	143,000	1.6	146,000	1.6	**295,000**	**1.6**	**15,200**
Transition	6,000	3.1	364,000	1.9	234,000	1.6	**604,000**	**1.8**	**34,700**
Fresh	21,000	5.0	3,647,000	3.7	2,551,000	3.3	**6,220,000**	**3.6**	**710,500**
Total	**33,000**	**4.1**	**4,154,000**	**3.5**	**2,932,000**	**3.0**	**7,119,000**	**3.3**	**760,400**

October 2018 Mineral Resource Estimate 2.0g/t Global Cut-off

Type	Measured		Indicated		Inferred		Total		
	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Au Ounces
Oxide	4,000	2.5	26,000	2.8	22,000	2.2	**51,000**	**2.5**	**4,200**
Transition	5,000	3.3	114,000	3.1	20,000	2.2	**138,000**	**3.0**	**13,400**
Fresh	21,000	5.0	2,323,000	5.2	1,605,000	4.3	**3,949,000**	**4.8**	**610,800**
Total	**29,000**	**4.4**	**2,463,000**	**5.0**	**1,647,000**	**4.3**	**4,139,000**	**4.7**	**628,400**

October 2018 Mineral Resource Estimate High Grade Shoots

Type	Measured		Indicated		Inferred		Total		
	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Tonnes t	Au g/t	Au Ounces
HG Shoots	**21,000**	**5.2**	**1,398,000**	**6.4**	**187,000**	**10.8**	**1,606,000**	**6.9**	**356,100**

NB. Rounding errors may occur

Geology and Geological Interpretation

The Ulysses deposit lies within the Archaean-aged Norseman to Wiluna greenstone belt. Host rocks comprise a sequence of dolerite and basalt units. Gold mineralisation is associated with a strongly altered, distinctive assemblage of biotite-sericite-albite-pyrite ± carbonate alteration and quartz veining located within a regionally extensive WNW trending shear zone termed the Ulysses Shear. Depth of complete oxidation is approximately 30m to 40m with depth to fresh rock approximately 45 to 60m.

Within the shear zone, discrete zones of mineralisation are typically 2-12m in thickness and dip at 30-40^{o} to the north. A number of horizons of magnetic dolerite sills occur within the mafic stratigraphy at Ulysses, and where the main shear cuts through these units local thickening and increased grade are evident and form plunging shoots with good continuity of grade and thickness over considerable plunge lengths. The zones are visually distinct and typically display sharp boundaries to the mineralisation.

Drilling at Ulysses extends to a maximum depth of 460m below surface. The mineralisation has been interpreted and estimated to that depth and the mineralisation remains open over much of the 2.0km strike length of the deposit.

Drilling Techniques

The Ulysses drill database includes records for 2,153 drill holes for a total of 148,000m of drilling. The Mineral Resource is defined by 529 RC and 61 diamond drill holes for a total of 67,900m, the majority of which were angled at -60^{o} to grid south. The upper part of the deposit has been drilled at 25m by 25m spacings, with local in-fill to 12.5m spacings. Grade control drilling at Ulysses West has been carried out at 6.25m by 12.5m spacings. The lower portion of the deposit has been drilled at hole spacings of 40m to 80m on 25m spaced cross sections.

The majority of shallow resource drilling was completed by previous operators between 1993 and 2002. Genesis' drilling since 2015 has been concentrated on infill drilling in the Ulysses West pit area and on defining and infilling the major strike and depth extensions that have recently been defined.

Drill hole collars were surveyed in MGA coordinates using RTK GPS and were transformed to local grid for interpretation and modelling. Down hole surveys were recorded for the majority of holes using electronic multi-shot survey instruments.

Sampling and Sub-sampling Techniques

For RC drilling, a face-sampling hammer was used with samples collected at 1m intervals from mineralised zones with composite sampling of 4m or 5m in un-mineralised rocks. Samples were collected through rig-mounted or free standing riffle or cone splitters. Samples were reported to have been kept dry throughout the mineralised zones and visually determined recoveries were good.

Diamond drilling was completed using a HQ or NQ drilling bit for all diamond holes. Core selected from geological observation was cut in half for sampling, with a half core sample sent for assay at measured geological intervals.

Sample Analysis Method

Samples from all resource drilling were assayed at contract laboratories using a fire assay technique. The recent Genesis drilling was assayed at Intertek using a 50g fire assay.

Quality control data was collected from Genesis drilling and included the use of blanks, certified standards and field duplicates. Detailed review of the QAQC data determined that the results were satisfactory and that the drilling database was suitable for resource estimation.

The Genesis in-fill drilling supports the previous drill hole data suggesting that there is no problem with the spatial location and tenor of mineralisation defined in the historic drilling.

Estimation Methodology

The deposit was estimated using ordinary kriging ("OK") grade interpolation of 1m composited data within wireframes prepared using nominal 0.3g/t Au envelopes. In areas where consistent zones of high-grade mineralisation were present, shoots were interpreted using either visually identified alteration boundaries or 2g/t assay boundaries. These were modelled as five discrete shoots and lenses within the broader mineralisation envelopes and were estimated separately using hard boundaries.

Interpolation parameters were based on geostatistical analysis and considered the geometry of the individual lodes. A first pass search of 40m with a minimum of 10 samples and a maximum of 24 samples was used which resulted in 19% of the blocks being estimated. A second pass with a search range of 80m filled a further 48% of the blocks. Remaining blocks were filled with a 120m search and minimum of 2 samples.

High grade cuts were applied to different lodes and ranged from 10g/t to 35g/t. These had negligible impact on the estimated grade.

A Surpac block model was used for the estimate with a block size of 10m EW by 10m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m.

Bulk density values used in the resource estimate were based on determinations from drill core. Values applied to the model were 2.7t/m^3 for duricrust, 2.0t/m^3 for Oxide, 2.25t/m^3 for Transition and 2.85t/m^3 for Primary mineralisation and 2.9t/m^3 for Primary waste rock.

Mineral Resource Classification

Mineral Resource classification was considered on the basis of drill hole spacing and continuity of mineralisation. The portion of the deposit defined by Genesis grade control drilling at 6.25m by 12.5m spacing and displaying excellent continuity has been classified as Measured Mineral Resource. Within much of the deposit, drill hole spacing is at 25m by 25m with some infill to 12.5m. These areas showed reasonable continuity of mineralisation and predictable geometry and were classified as Indicated Mineral Resource. Indicated Mineral Resource was also assigned to areas drilled at a spacing of up to 60m where they were extensions of well drilled areas and where the geometry and grade distribution were consistent.

The peripheral areas of a number of the lodes were sparsely drilled and variably mineralised and were classified as Inferred Mineral Resource which was extrapolated to a distance of up to 40m past drill hole intersections.

Cut-off Grades

The shallow, sub-cropping nature of the deposit and previous mining studies suggests that good potential remains for open pit mining at the project. The maximum depth potential for open pit is considered to be approximately 200m, so above 200mRL (220m vertical) the Mineral Resource has been reported at a 0.75g/t Au lower cut-off to reflect potential exploitation by open pit mining.

The deeper mineralisation shows excellent continuity of high-grade gold mineralisation of sufficient tenor and thickness to have potential for underground mining. To reflect the higher cut-offs expected with potential underground mining, the resource below 200mRL has been reported at a cut-off grade of 2.0g/t Au.

Metallurgy

Metallurgical test work has been carried out for each phase of mining at Ulysses confirming that the ore is amenable to conventional cyanide leaching. Ongoing test work by Genesis has confirmed gold recoveries from primary ore to be ~88% to 91%. Further test work is ongoing.

Modifying Factors

No modifying factors were applied to the reported Mineral resources. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the planned mining evaluation of the project.

The reported Mineral Resource has been depleted to account for existing open pit mining.

ENDS

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COMPETENT PERSONS' STATEMENTS

The information in this report that relates to Exploration Results is based on information compiled by Mr. Michael Fowler who is a full-time employee of the Company, a shareholder of Genesis Minerals Limited and is a member of the Australasian Institute of Mining and Metallurgy. Mr. Fowler has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Fowler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Information in this report that relates to Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services and is a shareholder of Genesis Minerals Limited. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

JORC Table 1 Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Drill holes used in the estimate include 61 diamond holes (DD) and 529 reverse circulation holes. In addition a large amount of regional RAB (Rotary Air Blast) and air-core (AC) drilling has been completed; • The shallow RC and DD drilling was completed in 2000 and 2001 by Sons of Gwalia Limited (SGW); • Genesis RC and diamond drilling has included extensional drilling as well as grade control RC drilling in the Ulysses West pit area; • In the deposit area, holes were generally angled at -60^{o} south to optimally intersect the mineralised zones; • RC samples were collected in one metre intervals from a rig mounted cyclone and riffle splitter; • For RAB drilling, chips from each 1m interval were dumped on the ground and samples scooped from the chip piles; • For AC, RAB and some RC drilling, samples were composited into 2m or 3m intervals for assay with anomalous intervals resubmitted at 1m intervals. The majority of RC holes were sampled and assayed at 1m intervals; • DD core was cut using a diamond saw and half core samples submitted for analysis.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling used a face sampling bit; • Diamond drilling was carried out with HQ and NQ sized equipment with standard tube; • Conventional equipment was used for RAB and AC drilling.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Recoveries from historical drilling are not documented but for the SGW holes, drilling conditions, recoveries and sample size were reported to be good; • Diamond core recovery was recorded in the drill logs and was good; • Genesis RC and DD drilling reported excellent sample recoveries; • There appears to be no relationship between sample recovery and sample grades.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All diamond drill holes were logged for recovery, RQD, geology and structure. • RC, AC and RAB drilling was logged for various geological attributes. • All drill holes were logged in full.
Sub-sampling techniques	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• RC samples were collected from a rig mounted cyclone and splitter in one metre intervals and split using a multi stage riffle splitter;

Criteria	JORC Code Explanation	Commentary
and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• For historic RC and DD drill programs, samples were assayed at the Amdel laboratory in Kalgoorlie. Genesis samples were assayed at the Intertek laboratory in Perth. Samples were dried and a 1kg split was pulverized to 80% passing 75 microns; • No QAQC reports have been located for the historic drilling data; • Genesis drilling included extensive QAQC protocols including blanks, standards and duplicates. Results were satisfactory and supported the use of the data in resource estimation; • Sample sizes are considered appropriate to correctly represent the gold mineralisation based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• For SGW RC and DD drilling, analysis was by fire assay and atomic absorption spectrometry (AAS) finish at the Amdel laboratory in Kalgoorlie; • For Genesis drilling, analysis was by fire assay and atomic absorption spectrometry (AAS) finish at the Intertek laboratory in Perth; • The analytical technique used approaches total dissolution of gold in most circumstances. • Genesis drilling included extensive QAQC protocols including blanks, standards and duplicates. Results were satisfactory and supported the use of the data in resource estimation.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No independent verification of significant intersections has been carried out. • Multiple phases of drilling have confirmed the overall tenor and distribution of mineralisation; • Primary data documentation is electronic with appropriate verification and validation; • Data is well organized and securely stored in a relational database; • Assay values that were below detection limit were adjusted to equal half of the detection limit value.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collar coordinates used MGA Zone 51 datum with transforms to a local grid. • Drill hole collars have been accurately surveyed either by licenced surveyors or using differential GPS; • Topographic control is from detailed topographic survey in the vicinity of the resource and from drill hole collar surveys elsewhere.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• For RAB and AC drilling, the drill hole spacing is variable and up to 400m by 100m; • For RC and DD drilling, the hole spacing is largely 25m by 25m in the upper part of the deposit. The deeper portion of the deposit has been drilled at 40m to 80m hole spacings on 25m spaced cross sections; • During 2016/17, grade control drilling was undertaken at 6.5 drill spacing over a strike length of 140m in the western portion of the deposit; • The drilling has demonstrated sufficient

Criteria	JORC Code Explanation	Commentary
		• continuity in both geological and grade continuity to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code. • Samples used in the Mineral Resource were based largely on 1m samples without compositing. Compositing of DD holes was required to provide equal support during estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Holes were generally angled to grid south or to optimize the intersection angle with the interpreted structures. • No orientation based sampling bias has been identified in the data.
Sample security	• *The measures taken to ensure sample security.*	• Genesis samples were carefully identified and bagged on site for collection and transport by commercial or laboratory transport.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling and data procedures were audited by PayneGeo as part of the estimation program. • All work was carried out by reputable companies using industry standard methods.

JORC Table 1 Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The deposit is located within Mining Lease M40/166 which is owned by Ulysses Mining Pty Ltd • The Mining Lease was granted for a term of 21 years and expires 28 January 2022 • The tenements are in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The tenement was previously held in a joint venture between Sons of Gwalia Limited ("SWG") and Dalrymple Resources NL. The majority of drilling was completed by SWG between 1999 and 2001. • The project was acquired by St Barbara Limited ("SMB") in 2004. SBM work was limited to resource modelling and geological review.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Ulysses is an orogenic, lode-style deposit hosted within mafic rocks of the Norseman-Wiluna greenstone belt • Gold mineralisation occurs within a strong zone of shearing and biotite-sericite-pyrite alteration typically 5-10m true width. • High grade shoots have developed at the intersection of the Ulysses shear and magnetic dolerite sills within the mafic stratigraphy. • The shear zone strikes east-west and dips 30-40^{o} to the north.

Drill hole information	• *A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  • *dip and azimuth of the hole*
	  • *down hole length and interception depth*
	  • *hole length*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Results of previous exploration at the project are provided in numerous previous ASX releases. The most recent release is dated 25 September 2018.
		• Drill hole locations are shown on the map within the body of this ASX release.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Length weighted average grades have been reported; • No high-grade cuts have been applied to reported exploration results; • Metal equivalent values are not being reported.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g.'down hole length, true width not known').*	• Drill holes are angled to local grid south which is approximately perpendicular to the orientation of the mineralised trend.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• A plan showing the Ulysses drilling is included within this ASX release.
Balanced Reporting	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Drill hole collars were accurately surveyed using electronic instruments or differential GPS; • The majority of resource holes had down hole surveys. Genesis holes and many historic holes were surveyed by gyro or EMS, but for many other holes, the method is not known • The significant results of all resource drill holes have been previously reported. • Results of RAB and AC holes are not material to the project
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Regional exploration programs have been conducted including RAB drilling and geochemical sampling. The results have not been used in the Mineral Resource estimate.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work at the deposit will include extensional and infill drilling in the high grade portions of the deposit. • Along strike and down dip lode extensions are likely targets for further exploration. • Regional exploration results will be assessed to identify other targets.

JORC Table 1 Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data was captured electronically to prevent transcription errors. • Validation included comparison of gold results to logged geology to verify mineralised intervals.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Site visits were undertaken by the Competent Person in 2015 and 2016 to verify the extent of mining operations, locate drill collars from previous drilling, review grade control drilling and mining operations and to confirm that no obvious impediments to future project exploration or development were present.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is considered to be good, with highly continuous mineralised structures defined by good quality drilling. • The deposit consists of moderate dipping mineralised lodes which have been interpreted based on logging and assay data from samples taken at regular intervals from angled drill holes.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Ulysses Mineral Resource area extends over a strike length of 2,500m and has a vertical extent of 520m from surface at 420mRL to -100mRL.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.*	• Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades within the deposit. • Surpac software was used for the estimation. • High grade cuts of between 10g/t and 35g/t were applied to 1m composite data. • The parent block dimensions used were 10m NS by 10m EW by 5m vertical with sub-cells of 1.25m by 2.5m by 1.25m. The parent block size was selected on the basis KNA and were approximately 50% of the average drill hole spacing in the deposit area beneath the existing pit. • Historical production records were available for an open pit completed in 2002 and a portion of historic grade control data was available which largely confirms the current interpretations. • Production from the GMD mining in 2016 and 2017 compared well with the resource model. • Previous resource estimates have been completed and compare well with the current estimate. • No assumptions have been made regarding recovery of by-products. • No estimation of deleterious elements was carried out. Only Au was interpolated into the block model. • An orientated ellipsoid search was used to select data and was based on parameters derived from the variography. • An initial interpolation pass was used with a maximum range of 40m which filled 19% of blocks. A second pass radius of 80m filled 38% of the blocks and a third pass range of 120m filled the remaining blocks.

Criteria	JORC Code explanation	Commentary
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• A minimum of 10 samples was used for the first pass, and this was reduced to six and then 2 for the subsequent passes. A maximum of 24 samples was used for all passes. • Selective mining units were not modelled in the Mineral Resource model. The block size used in the model was based on KNA, drill sample spacing and lode orientation. • Only Au assay data was available, therefore correlation analysis was not possible. • The deposit mineralisation was constrained by wireframes constructed using a 0.3g/t Au cut-off grade in association with logged geology. • Internal high grade shoots were interpreted based on logged geology or a 2.0g/t cut-off grade. • The wireframes were applied as hard boundaries in the estimate. • For validation, trend analysis was completed by comparing the interpolated blocks to the sample composite data within 25m easting intervals and by 10m vertical intervals.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource above 200mRL has been reported at a 0.75g/t Au cut-off based on assumptions about economic cut-off grades for open pit mining. • Below 200mRL, the Mineral Resource has been reported at a cut-off grade of 2.0g/t Au to reflect potential underground mining.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• The deposit has previously been mined using selective open pit mining methods. It is assumed that further open pit mining is possible at the project. • Portions of the deposit are considered to have sufficient grade and continuity to be considered for underground mining. • No mining parameters or modifying factors have been applied to the Mineral Resource.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Metallurgical test work was undertaken by previous operators at the project and has been reviewed • Results of recent test work and current processing have demonstrated that good gold recovery can be expected from conventional processing methods.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable*	• The previous mining operation included the development of waste dumps at the site. • The area is not known to be environmentally sensitive and there is no reason to think that

Criteria	JORC Code explanation	Commentary
	prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	approvals for further development including the dumping of waste would not be approved.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density determinations were made on samples from drill core using the weight in air/weight in water method. • Bulk density values used in the resource were 2.0t/m^3, 2.25t/m^3 and 2.85t/m^3 for oxide, transitional and fresh mineralisation respectively.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The Mineral Resource was classified as Measured, Indicated and Inferred Mineral Resource on the basis of data quality, sample spacing, and lode continuity. • The Measured portion of the Mineral Resource was defined where robust continuity of mineralisation was evident across the area drilled by 6.25m spaced holes, confined to the lodes in the west of the deposit. • The Indicated portion of the Mineral Resource was defined where good continuity of mineralisation was evident and within the drilled area where hole spacing ranged from 25m by 25m or less in the well drilled portion to 40m-60m by 40m spacing in the deeper extensions. • The remaining portions of the deposit were classified as Inferred Mineral Resource due to poor grade continuity or sparse drilling. • The definition of mineralised zones is based on sound geological understanding producing a robust model of mineralised domains. This model has been confirmed by previous mining which supported the interpretation. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• A documented internal audit of the Mineral Resource estimate was completed by the consulting company responsible for the estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical*	• The Ulysses Mineral Resource estimate is considered to be reported with a high degree of confidence. The consistent lode geometry and continuity of mineralisation is reflected in the Mineral Resource classification. The data quality is good and the drill holes have detailed logs produced by qualified geologists.

Criteria	JORC Code explanation	Commentary
	or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Mineral Resource statement relates to global estimates of tonnes and grade. • The deposit is not currently being mined. Production records are available for the two phases of open pit mining completed at the deposit.