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ASX Release
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Hobbs Pipe 1 update

Increase and upgrade of existing JORC Resource plus new JORC Resource from 1st two drill holes

Revised Conceptual Exploration Target

Sovereign Gold Company Limited (**Sovereign Gold**) (ASX: SOC) commissioned an independent review by Geosun Pty Ltd[1] (**Geosun**) of exploration work completed to date, together with an updated geological computer model of Hobbs Pipe 1. As a result of this work by Geosun, Sovereign Gold is pleased to announce an improved JORC Resource estimate at Mt Adrah Hobbs Pipe 1 of **650,027 ounces gold (1.23 g/t) @ 0.75 g/t cut-off**.

In addition, this work has resulted in a revised **Conceptual Exploration Target for Hobbs Pipe 1 of 80 - 104M tonnes at 1.23 g/t – 1.37 g/t for 3.2M to 4.6M ounces contained gold** developed by Geosun.

The potential quantity and grade of exploration targets is conceptual in nature. Other than the declared Mineral Resource there has been insufficient exploration to define a further Mineral Resource and it is uncertain if further exploration will result in the determination of a further Mineral Resource.

Key conclusions from the Geosun study include:

- **650,027 ounces gold (1.23 g/t) @ 0.75 g/t cut-off**
- **JORC Resource upgrade has included an increase in Resource in the Measured and Indicated category.**
- **Revised Conceptual Exploration Target of 80–104M tonnes at 1.23 g/t – 1.37 g/t for 3.2M to 4.6M ounces contained gold**
- **Drilling underway to test the strike extent of the Hobbs 1 Pipe to the ESE, which is expected to further increase the JORC Resource**

Highlights from recent drill work on Hobbs Pipe 1

GHD001	Visible mineralisation observed throughout entire hole depth of 1,030m
	886m @ 1.2 g/t Au continuous intercept from surface
GHD004	Approximate true width of Hobbs Pipe 1 ~110 metres
Resources	650,027 ounces gold (1.23 g/t) @ 0.75 g/t cut-off
Exploration Target	80–104M tonnes at 1.23 g/t – 1.37 g/t for 3.2M to 4.6M ounces contained gold

Cut-off g/t	0.75			0.50		
Category	**Tonnes**	**Grade (g/t)**	**Ounces**	**Tonnes**	**Grade (g/t)**	**Ounces**
Measured	2,594,018	1.21	100,915	3,171,396	1.10	112,161
Indicated	7,597,962	1.24	302,912	9,279,890	1.13	337,147
Inferred	6,175,436	1.24	246,199	7,731,847	1.12	278,419
Total	16,367,416	**1.23**	**650,027**	20,183,133	**1.12**	**727,727**
Initial JORC Inferred estimate was 239,000 oz at 1.13 g/t at 0.5 g/t cut-off (Rankin 2005)						

[1] Geosun Pty Ltd is a privately-owned Melbourne, Australia based mining consulting company that provides multi-disciplinary services to clients in the global mining resources industry.

Further Work Underway

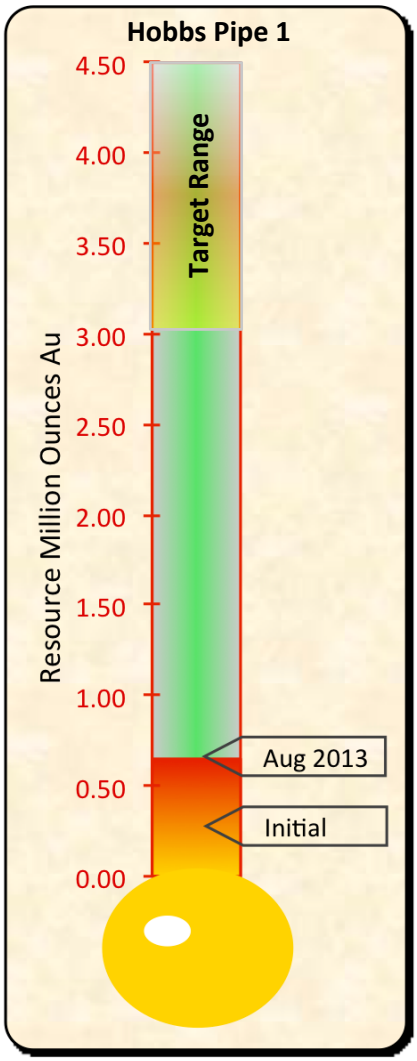
Sovereign Gold has a comprehensive program on Hobbs Pipe 1 comprising:

- Additional 2 deep drill holes designed to determine the strike length of the pipe, now estimated to be 250-300m (an increase from initial estimates of 200m):
  - GHD005 will test strike length toward the ESE (inclined to 75°); and
  - GHD006 will test the strike length toward the WNW (inclined to 78°)
- Metallurgy Report: results from test work on suitability to BIOX® process technology underway (metallurgy tests to date confirmed 9-10% free gold; 95% recovery of remainder in sulphide flotation concentrate)
- Bond Ball Mill Work Index (BBMWI) test
- A review of mining methodology

In addition, Sovereign Gold will undertake a 3DIP review of further targets in close proximity (within 500m) of Hobbs Pipe 1, seeking to confirm the position and strike of additional structures similar to Hobbs Pipe 1.

Revised Exploration Target

Geosun completed an extensive review of Hobbs Pipe 1 and created a computer geological model of the mineralisation. This resulted in a revised Conceptual Exploration Target of **80 - 104M tonnes at 1.23 g/t – 1.37 g/t for 3.2M to 4.6M ounces contained gold** including the current JORC estimate of 650,027 ounces at a grade of 1.23 g/t at .75 g/t cut-off reported in this report.



The potential quantity and grade of exploration targets is conceptual in nature. Other than the declared Resource there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a further Mineral Resource.

The limits of Geosun's assessment were based on a Conceptual Exploration Target of 1,200m to 1,300m deep, 100m to 120m wide and a strike length of 220m to 250m.

The Exploration Target is not an extrapolation of the existing resource and is conceptual in nature and the potential quantity and grade of exploration targets is also conceptual in nature.

Geosun has also reviewed the objectives of Sovereign Gold for the August/ September 2013 drill program to grow the overall inventory to over 3.1 million ounces of gold. This objective is within the range considered in the Conceptual Exploration Target.

This objective should not be viewed as an estimate of Mineral Resources or Ore Reserves. However, it is based on experience gained in developing the current JORC estimate of 650,027 ounces at a grade of 1.23 g/t at .75 g/t cut-off and additional knowledge being gained from the current exploration program.

Careful consideration of the following factors in an ongoing drilling strategy will provide additional support for the upper range of the exploration target:

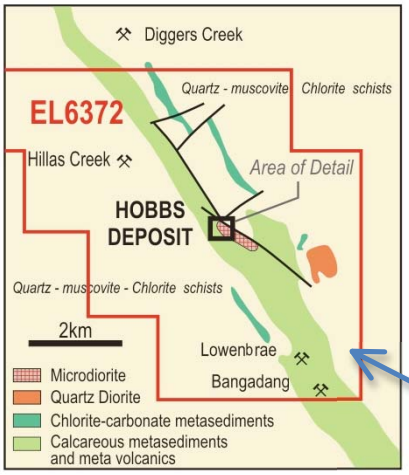
- the number and spacing of drill holes planned and optimized;
- the likely strike and depth extent of the mineralisation delineated; and
- the likely widths of any mineralisation to be encountered and average resource grades.

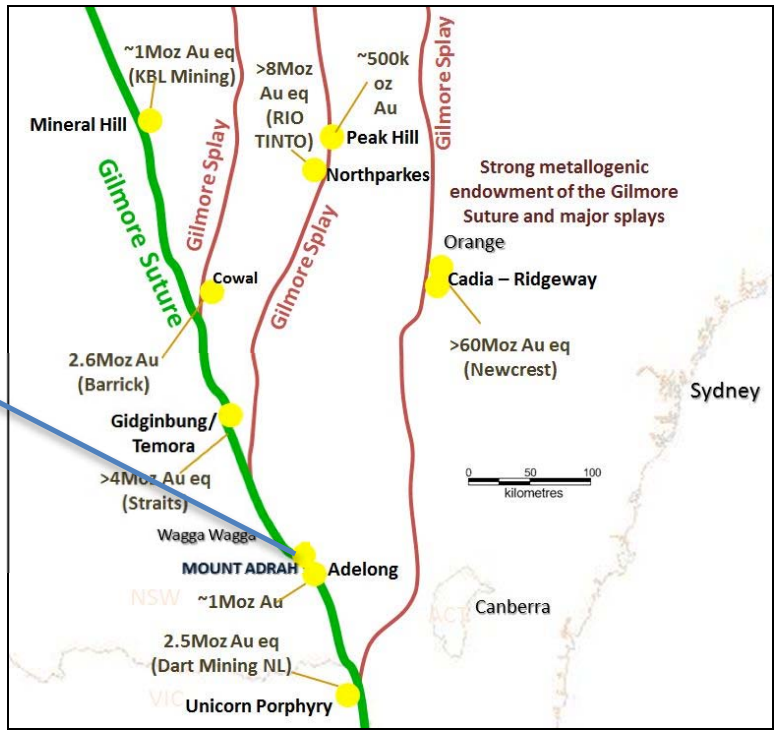
In the following table the low and high range of grade and volume estimates for the Conceptual Exploration Target (excluding the current Resource) developed by Geosun are highlighted.

Limits used in estimating the Conceptual Exploration Target are: 1,200m to 1,300m deep, 100m to 120m wide and a strike length of 220m to 250M.

Grade Cut-off	Tonnes	Mean Grade	Au (Ounces)	Grade Cut-off	Tonnes	Mean Grade	Au (Ounces)
0.50	59,801,803	1.23	2,365,152	0.50	150,808,884	1.13	5,478,670
0.75	49,003,171	1.36	2,142,904	0.75	124,771,237	1.25	5,014,115
1.00	40,839,645	1.45	1,904,099	1.00	92,656,732	1.37	4,081,007
1.25	30,975,760	1.55	1,543,808	1.25	60,388,772	1.50	2,912,174
1.50	15,848,668	1.72	876,518	1.50	21,971,062	1.77	1,250,242
1.75	7,131,700	1.83	419,647	1.75	7,062,812	2.06	467,751

The above table does not include the current Mineral Resource of 650,027 ounces gold (1.23 g/t) @ 0.75 g/t.





Location map and geological setting, EL 6372

Location of Mount Adrah relative to several world- class gold deposits situated on the Gilmour Suture and associated splays.

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Resource Estimate Method

Geosun Pty Ltd (**Geosun**) was commissioned by Sovereign Gold Company Limited to perform an updated JORC Resource Estimate, previously prepared by SMGC staff (Rankin 2005). The report summarises the result of updated JORC resource estimation based on the last electronic data received by Geosun on 14 August 2013 including data from drill holes GHD001 and GHD004.

Statistical analysis has demonstrated that the mineralization zone contains homogeneous grade population composited to 2m interval with acceptable levels of variation and outliers. No top cut was applied at this stage due to low nugget effect and homogeneous nature of deposit but later it may be applied. Bulk density 2.78 g/cm^3 was selected based on the density values received for this type of rocks.

A block model was created using GSLIB software incorporating 5×5×5m blocks. Directional variograms and Ordinary Kriging were used to estimate the grade blocks, monitored by range of influence, elliptical search distance radius and grade continuity of the mineralization.

From geostatistical analysis, the mineralized zone has demonstrated low nugget effect, good grade and geological continuity with sufficient number of data density and spacing to support the definition of Mineral Resource and Reserve, and the classifications applied under the JORC code (2012 edition). JORC resource estimate category for measured, indicated and inferred resources reported in this report is suited for publication in the public domain and classified according to Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

Variography performed on the Rankin 2005 data set exhibit isotropy although anisotropy is not clear at this stage due to lack of data density and spacing. The increased data density from new drill holes GHD001 and GHD004 have improved grade continuity, nugget effect and exhibited anisotropy, which have allowed resources to be classified with higher confidence.

The nugget effect is approximately 30% and Sill approximately 70% which demonstrates that the deposit is less nuggetty in nature. The results of the variography and the neighbourhood search were utilized to determine the most appropriate search parameters. A 2m composite file was used in a geostatistical study using Kriging Neighbourhood Analysis that enabled Ordinary Kriging (OK) to be used as the main interpolation method.

Anisotropy is detected with major range of influence axis 50m and minor axis 30m range of influence with Elliptical search based on the range of influence determine optimum block grade creation to be used for Kriging interpolation.

Geostatistical analysis is carried out in two steps. First step is to use geostatistical method to re-analyse the Rankin 2005 data set and validate the results, and second step is, to perform geostatistical analysis for all data set including drill holes GHD001 and GHD004 to assess variogram parameters for the use of Kriging interpolation. The variogram estimated in various directions confirms low nugget effect (30%) and high-grade continuity (up to 30m) from surface to a depth of 1029.6m. Resource estimation was aimed at the mineralized zone, as defined by the drilling and used an assigned density (from similar rock at GCR's Adelong deposit) of 2.78 for in-situ rock.

Qualifying Statements

The information in this report that relates to Exploration Information is based on information compiled by Michael Leu a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists together with Dr Andrew White, a Fellow of the Australian Institute of Geoscientists and Jacob Rebek and Dr Kris Butera, Members of the Australian Institute of Geoscientists.

Mr Leu and Jacob Rebek are qualified geologists and are directors of Sovereign Gold Company Limited; Dr White is a director of Gossan Hill Gold Limited; and Dr Kris Butera is CEO and director Gossan Hill Gold Limited.

Geostatistical block modeling was carried out by independent consultants, Geosun Pty Ltd by Mr Suresh Tripathi using GSLIB mining software incorporating 5×5×5m blocks. Mr Tripathi is an experienced resource-modelling consultant and is a director of Geosun Pty Ltd. He is a member of Australasian Institute of Mining and Metallurgy.

Mr Leu, Jacob Rebek, Dr White, Dr Butera and Mr Tripathi have sufficient experience, which is relevant to the style of mineralization and type of deposit under consideration and to the activity, which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Resources. Mr Leu, Jacob Rebek, Dr White, Dr Butera and Mr Tripathi consent to the inclusion in this report of the Exploration Information in the form and context in which it appears.

The following table provides explanations required under JORC 2012

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.*	• ½ Core HQ
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Consistent cut distance relative to mark up or orientation line
	• *Aspects of the determination of mineralisation that are Material to the Public Report.*	• Fire Assay Gold. Au is predominantly held in sulphides within disseminated sericite-sulphide alteration. Gold is occaisionally visible in quartz veins
	• *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.*	• ½ Core HQ was sent to ALS laboratories on a 2m composite basis and was pulverised to produce a 30g charge for fire assay (Au_AA25), and 4 acid digestion for 48 element ICP-AES and ICP-MS analysis (ME-MS61)
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).*	• Diamond, un-oriented HQ core (Vertical hole)

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Lithological and geotechnical logging, photography
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• HQ triple tube
	• *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.*	• HQ triple tube utilized – no relationship has been observed between core recovery and grade with the data currently available
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.*	• Yes core has been logged both geologically and geotechnically to a level of detail to support appropriate Mineral Resource estimation
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• Yes, logged and photographed
	• *The total length and percentage of the relevant intersections logged.*	• 100%
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• ½ Core cut with a core saw
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• Not applicable at this stage of the program
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• High quality and appropriateness of sample preparation technique
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Consistent sampling at 2m composite level given known grade homogeneity and observed mineralisation
	• *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.*	• Appropriate measures taken – half core remaining if further analysis warranted

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Yes, sample sizes are appropriate to the grain size of the material being sampled
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.*	• ALS, appropriate techniques of fire assay for gold and ICP-AES and ICP-MS for multi-element analysis. Techniques considered total for the type of mineralization sampled.
	• *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.*	• Not relevant at this stage of the program
	• *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.*	• Internal standards and blanks not used at this early stage
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Not relevant at this stage of the program
	• *The use of twinned holes.*	• The density of historic drilling does not require twin drilling to confirm grades
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Not relevant at the current stage of the project
	• *Discuss any adjustment to assay data.*	• There is no adjustment to assay data
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.*	• Current drilling sited using hand held GPS. Digital survey tool used for down hole surveying
	• *Specification of the grid system used.*	• MGA94 (Zone 55)
	• *Quality and adequacy of topographic control.*	• A digital topographic file is available in .dxf format

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Not relevant to current drilling.
	• *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.*	• Drill spacing of drilling suitable for mixed measured/inferred/indicated resource
	• *Whether sample compositing has been applied.*	• 2m composite samples have been employed due to the relative homogeneity of the down hole data
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.*	• Current drilling has had a vertical/steeply inclined hole not amenable orientation
	• *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.*	• Given the style and nature of the mineralization observed thus far, drill angle relative to structure or vein orientation is not considered a relevant at this stage with respect to sample bias
Sample security	• *The measures taken to ensure sample security.*	• Current core samples are securely stored at a private facility
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Not undertaken at this stage

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.*	• EL6372 wholly owned by subsidiary Gossan Hill Gold Limited and held under Tasman Goldfields NSW Pty Ltd

Criteria	JORC Code explanation	Commentary
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Tenure is current and in good standing
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historic work undertaken by Getty Oil, Cyprus Australis, Michelago and Golden Cross Resources led to a JORC defined Mineral Resource estimate. Soils, airborne magnetics, RAB, Airtrack, RC, Diamond Drilling, Resource estimation. Work was undertaken to a high standard but there was a lack of conceptualization and testing of geological models
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Epizonal Intrusion Related Gold System located along the Gilmore Suture on the edge of a buried pluton
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*	**Hole GHD001 - Mount Adrah Hobbs Pipe 1** Hole ID: GHD001; Easting (m): 583496; Northing (m): 6104591; RL (m): 375; Grid: MGA94 Zone 55; Collar Azimuth: -; Collar Dip: -90°; Total Depth (m): 1029.6 **Hole GHD004 - Mount Adrah Hobbs Pipe 1** Hole ID: GHD004; Easting (m): 583428; Northing (m): 6104480; RL (m): 362; Grid: MGA94 Zone 55; Collar Azimuth: 20°; Collar Dip: -77°; Total Depth (m): 1030.1
	• *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.*	• Information provided for holes GHD001 and hole GHD004; previous historic holes have been substantially reported in previous releases and repeating this data does not add to the understanding of this report

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Uncut
	• *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.*	• Not relevant at this time
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• None used
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.*	• Approximate true width ~110 metres, approximate minimum depth 900 metres
	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• The geometry is not currently known but is being tested by planned drilling
	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• down hole lengths reported, approximate true width ~110 metres
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.*	• Map is included in report; plans and sections have been substantially reported in previous reports.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Aggregate reporting is appropriate as mineralisation is disseminated evenly through the magmatic / intrusive rock

Criteria	JORC Code explanation	Commentary
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.*	• The company is currently undertaking metallurgical and Caveability studies. Results will be disclosed as they come to hand
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Test for lateral and depth extensions, resource delineation and for further mineralised monzodioritic pipes via geochemical orientation, geophysical survey and further 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.*	• All future exploration work is commercially sensitive and will not be released to the market until results are available

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.*	• Limited checks of laboratory assay certificates against the database identified no errors
	• *Data validation procedures used.*	Data validation included checks for: • Overlapping intervals • Missing collars • Missing surveys • Unreasonable downhole deviations • Unreasonable high-density values • Duplicate records and negative records

Criteria	JORC Code explanation	Commentary
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• S Tripathi is planning to visit on Saturday 24 August 2013 to inspect the site and relevant core
	• *If no site visits have been undertaken indicate why this is the case.*	• On going process
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	• The geology of the Mt Adrah Hobbs Deposit is well understood from drill hole data and mapping, continuity of grade along down hole and detailed geological logging of drill core
	• *Nature of the data used and of any assumptions made.*	• Data exhibit good symmetric distribution and took into consideration geological trends observed from drill data
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	• The cut off grade of .50g/t and .75g/t are considered appropriate to classify mineral resources into JORC resource
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	• Mineralisation is structurally controlled and appears to be continuous from surface to down drill hole
	• *The factors affecting continuity both of grade and geology.*	• Au is predominantly held in sulphides within disseminated sericite-sulphide alteration. Gold is occasionally visible in quartz veins and spatial continuity have been established both in grade and geology from drill hole data
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 extent and variability of the Mineral Resource is still open but length (along strike) 230m, width 100m and depth 1200m has been observed

Criteria	JORC Code explanation	Commentary
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.*	Estimation undertaken in WinGSLIB • Kriging method using of 5m x 5m x 5m blocks was undertaken including extreme grade values. The maximum distance of extrapolation from data point is 30m for inferred resources, 20m for indicated resources and 10m for measured resources are considered after demonstrating the continuity of grade and geology. Spherical model was fitted to experimental directional variogram • Variogram parameters: – C0: 0.20 – C1 (Spherical): 0.35 – C2 (Spherical): 0.05 – Major direction 50m – Intermediate direction 30m – Minor range 25m • Estimation parameters: – Min samples –5 • Max and optimum sample 10
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• Previous estimates were not available and no legacy production records are available
	• *The assumptions made regarding recovery of by-products.*	• No other variables were considered in the estimate, as this is an early stage project
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	• No other variables were considered in the estimate, as this is an early stage project
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• Block size was 5m by 5m horizontal, vertical block size was 5m • Average sample spacing from 10m to 30m and search employed from 10m to 30m

Criteria	JORC Code explanation	Commentary
	• *Any assumptions behind modelling of selective mining units.*	• Modeling of selective mining units has not been undertaken at this stage
	• *Any assumptions about correlation between variables.*	• No other variables were considered in the estimate, as this is an early stage project
	• *Description of how the geological interpretation was used to control the resource estimates.*	• Only drill data which are spatially correlated from estimated variogram are considered along with sample space, density and continuity of grade and geology
	• *Discussion of basis for using or not using grade cutting or capping.*	• High grades are spatially limited and important. Grades >20 g/t were restricted to a radius of 5m for each block estimates. Grades >20 g/t that fell outside of the 5m radius were capped at 20 g/t. This effectively restricted very high grades to within single blocks
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• No reconciliation data is available for the Adrah project as no official production has taken place
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are based on dry tonnes
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The mineral resources were reported at a range of cut-off grades as the project is in an early stage and comprehensive metallurgical test work has not been undertaken from which a reasonable economic cut-off grade can be derived

Criteria	JORC Code explanation	Commentary
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.*	• S Tripathi's opinion is that this is a reasonable assumption but should not be regarded as rigorous at this early stage. The current Mineral Resources includes the dilution defined by the 5m by 5m by 5m volume (support effect). It does not include the additional dilution due to the information effect and due to practical mining constraints • A review of mining methodology is being undertaken
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.*	• Metallurgy Report: results from test work on suitability to BIOX® process technology underway (metallurgy tests to date confirmed (9-10% free gold; 95% recovery of remainder in sulphide flotation concentrate)
Environmen-tal factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions.*	• Waste and process residue disposal options have been considered at conceptual level. It is assumed that due to known mining activity in the proximity to the Mt Adrah project that environmental impacts will be addressed with due process but should not preclude the project from progressing to potential economic extraction

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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.*	• Density measurements were undertaken using the dry weight / wet weight method
	• *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.*	• Density measurements were fairly evenly spread throughout the entire drillhole and density distributions for different lithological units showed little difference
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Densities were estimated in the block model using ordinary Kriging and were not constrained to individual lithological units due to the fairly uniform nature of densities over the entire deposit
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	• High confidence in the quality of data justified in Measure/Indicated classification
	• *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).*	• Geological and grade continuity has been demonstrated at 5 m grid spacing over the Mt Adrah Hobbs deposit. The continuity of grade and geology has been demonstrated for the Mt Adrah Project
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Appropriate geostatistical methodology was applied based on the Mt Adrah Hobbs Deposit by Competent Person (S Tripathi)
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No external audits or reviews have been carried out to date

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	• The ordinary Kriging is used as data exhibit good grade continuous to the down holes direction and horizontally. Kriging method was employed to address confidence on the estimates. Further geostatistical methods will be validated on additional ongoing drilling once samples is completed in due time
	• *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.*	• The slope of regression applied to guide the classification of the Mineral Resource appropriately takes the quality and hence accuracy of the block estimates into consideration
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Production data is not available for Mt Adrah project, which precludes comparison of the Mineral Resource with production data