

Venturex Succeeds in Upgrading Supergene Copper Zinc-Resource at Sulphur Springs

New resource paves way for potential open pit development ahead of underground mine

Highlights

- Successful in-fill drilling program upgrades ~60% of the Inferred Supergene Resource to Indicated Resource with increased copper grade
- Indicated Supergene Resource of 0.3Mt at 4.5% Cu and 0.6% Zn, a 7% increase in copper grade
- Upgraded Total Indicated Resources at Sulphur Springs to 9.4Mt at 1.5% Cu and 3.8% Zn, a 12% increase in tonnage
- Global resource of 13.8Mt at 1.5% Cu and 3.8% Zn
- Updated Resource increases the confidence on the location and expected ore types within the area drilled of the planned open pit
- > Metallurgical test-work underway with results anticipated in Q2 2018.
- Environmental review document being finalised for submission to the EPA, with a decision anticipated in Q3 2018 – paving the way for a decision to proceed
- Exploration being planned to test extensions to the Sulphur Springs resource in Q2 2018.

Venturex Resources Limited (ASX: VXR) ("Venturex" or "the Company") is pleased to announce the updated Mineral Resource estimate for the Sulphur Springs copper-zinc deposit which forms part of its 100%-owned Sulphur Springs Project in WA.

The in-fill drilling program completed at Sulphur Springs last year has been highly successful with the Company being able to achieve the following:

- Confirmation of a high-grade supergene zone located on the western side of the Sulphur Springs deposit;
- Conversion of a significant portion of the Supergene mineralisation drilled into the Indicated Resource Category;
- Conversion of Inferred Resource located in the lower parts of the planned open pit into the Indicated Resource category; and
- Identification of increased exploration potential on the western margins of the resource, which is part of a growing exploration footprint at the project (see ASX release 27 November 2017).

Updated Sulphur Springs Resource Estimate

The updated Sulphur Springs Resource is an excellent outcome. The drilling and subsequent Resource modelling has confirmed the presence of an enriched Supergene zone of mineralisation in the upper parts of the Resource. This part of the Resource had previously been identified as amenable to open pit mining (see results of the Value Engineering Study which was released to the ASX on 16 February 2016).

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In addition to confirming the presence of the Supergene mineralisation, the drilling has facilitated a significant tonnage of material being promoted into the Indicated Resource category. This is a great outcome ahead of pending mine planning work streams that are to commence in the coming months.

The updated Resource estimate when viewed together with the growing exploration potential project allows the Company to continue to build momentum as it progresses towards a key decision to commit in the third quarter of 2018.

The updated Sulphur Springs Resource Estimate is tabled below, with all relevant disclosures provided within the attached Appendix.

Classification	Ore Type	k Tonnes	Cu %	Zn %	Ag ppm
Indicated	Fresh	5.7	1.4	4.0	18
	Transition	3.4	1.5	3.7	16
	Supergene	0.3	4.5	0.6	27
Sub Total		9.4	1.5	3.8	17
Inferred	Fresh	3.3	1.2	4.1	19
	Transition	0.8	1.6	3.1	16
	Supergene	0.3	2.8	1.5	17
Sub Total		4.4	1.4	3.7	18
Grand Total		13.8	1.5	3.8	18

Table 1: Sulphur Springs Global Resource Estimate

Note: totals may not tally due to rounding. The Resource has been reported at a cut-off grade of 0.4% copper and then less than 0.4% copper and greater than or equal to 2% zinc.

The updated resource has been prepared by Independent consultant, Mil Min Pty Ltd ("Mil Min").

Project Update

Metallurgical samples taken from the infill drilling programme were submitted to ALS Metallurgy in February and testing is underway. The programme of test work is being supervised by Lycopodium Minerals and results are anticipated in Q2 2018.

The Company is finalising the Environmental Review Document for submission to the EPA in April. A decision from the EPA is anticipated in Q3 2018.

The Company will update shareholders as information on these key milestones becomes available.

Management Comment

Venturex's Executive Director Anthony Reilly said: "The updated Mineral Resource estimate marks another key step in advancing the Sulphur Springs Project towards development. The in-fill drilling program completed last year has allowed us to achieve our objective of upgrading a significant portion of the Inferred Supergene Resource sitting above the main massive sulphide unit to the higher-confidence Indicated category.

"We now have a very solid resource base at Sulphur Springs which underwrites the base case mining scenario outlined in the Value Engineering Study published in February last year."

"In addition, both the in-fill drilling programme and airborne HEM survey have identified the potential for extensions to the known resources at Sulphur Springs and we are currently planning the next stage of exploration to test these target areas in the upcoming field season Q2 CY18. I look forward to updating investors as information from these programmes comes to hand."





Discussion of Key Changes

Mineralisation types: The recently completed Sulphur Springs drill program has provided increased geological information and confidence as to the location and expected mineralisation in the western portion of the deposit (that was drilled in 2017).

An additional 14 diamond drill holes (See Appendix 1) supports the updated Sulphur Springs Resource estimate (see ASX release 18 January 2018). The drilling has resulted in the following changes which are reflected within the updated resource and account for the majority of the changes within the updated estimate.

<u>Supergene / Transitional Boundary</u>: Drilling has increased the confidence on the geometry and location of the Supergene mineralisation in the area drilled. The Supergene mineralisation is interpreted as a narrow blanket overlying the top of the main massive sulphide unit. The main massive sulphide unit is the primary host to mineralisation at Sulphur Springs. The Supergene mineralisation is identified to thicken from the west to the east (see Figures 1 and 2). Drilling has resulted in some material (~200kt) previously interpreted as Supergene being moved to the Transitional ore domain. These changes are illustrated on the Figure 1 below, with the current and previous supergene interpretations superimposed with available drilling.

<u>Transitional / Primary Boundary</u>: Holes drilled on the eastern side of the program area have resulted in a reinterpretation of the Transitional / Primary mineralisation boundary. This is interpreted to be a result of the mineralisation's proximity to a change in surface topography in this area which also corresponds to the interpreted position of the Main Fault, which offsets the orebody. The revised Transitional / Primary boundary, updating the massive sulphide interpretation and a review of the SG applied to Transitional material largely accounts for the increase in material being classified as Transitional mineralisation within the updated Resource estimate.

Resource Classification: Drilling has converted ~1.1Mt of material into the Indicated Resource category. The increase in Resource classification has occurred in two areas, these include:

- Immediate Supergene area which was a key focus of the drill program. Within this area ~300kt of
 mineralisation has been converted to Indicated Resource. This equates to an Inferred to Indicated
 conversion of ~60% for Supergene mineralisation located on the western side of the Resource. On a
 global basis this equates to an Inferred to Indicated conversion of ~40%. The balance of the Inferred
 Supergene mineralisation is located on the eastern side of the Resource which was not part of the
 2017 drill program.
- Targeted infill and conversion to Indicated Resource of blocks located within the lower portions of the planned open pit that were previously classified as Inferred.

Of the ~1.1Mt of material that has been promoted into the Indicated resource category ~300kt is within the Supergene area with the balance largely coming from additional drill holes drilled into targeted infill areas. The change in Resource classification is illustrated in Figure 3, where the impact of additional drilling on the Indicated resource can be seen.





Figure 1: Updated Supergene interpretation. The updated Supergene interpretation is shown as a solid pink area at the base of the weathering (green line), with the previous interpretation shown as a dashed blue line.

Figure 2: Updated Transitional / Primary boundary. The interpreted position of the Transitional / Primary boundary is shown as a solid brown line, with the previous interpretation shown as a dashed brown line.







Figure 3: Indicated Resource Blocks: Image on the left shows the Indicated Resource blocks within the 2016 Resource estimate. The image on the right shows the area promoted to Indicated Resource, the main areas promoted are defined by red outlines. The image looks to the north with only holes from the 2017 program shown.



Summary of Key Information

Location and Tenure

The Sulphur Springs Resource is located in the Pilbara region of Western Australia. The Resource is situated on tenements that are 100% owned by Venturex Resources (see Figure 4). The Company has an existing access agreement in place with the traditional owners.

Figure 4: Sulphur Springs location map.







Geology

Sulphur Springs is a volcanogenic massive sulphide (VMS) zinc copper deposit located in the central east of the Archean Pilbara Craton, in the north west of Western Australia. The mineralisation lies within the Kangaroo Caves Formation of the Sulphur Springs Group of volcanic and sedimentary rocks. The regional metamorphic grade is low with many original volcanic and depositional features preserved.

There is a high degree of confidence in the interpretation of Sulphur Springs as it is based on detailed surface mapping which drilling has demonstrated to continue at depth.

The Sulphur Springs mineral deposit is a single strata bound VMS mineralising event which has been off-set into two massive sulphide lenses (East and West) by a post mineralisation sub vertical fault. Strike length (east-west) is 500 metres with economic mineralisation up to 16 metres true width to a depth of 400 metres. Each lens dips to the north at approximately 45-55°. Underlying the massive ore is a volcanic rock sequence which contains disseminated copper mineralisation that will be recovered by the open pit and may contain economic grades.

Drilling techniques

The recently completed drill program drilled 14 holes using a combination of RC pre-collars with diamond tails. The diamond drilling was of PQ and HQ size.

Sampling and analysis methods

Diamond core was logged in the field. Sample intervals were identified by the field geologist with core being cut by diamond saw. Sample was then sent for laboratory analysis. Analysis was undertaken with a four acid digest with ICP/AES finish and 30g fire assay for precious metals. Ore grade analysis was applied to the high grade copper and zinc intersections.

Interpretation and Estimation Methodology

Interpretation of the key geological domains was undertaken on cross section matched to the available drill hole spacing. Sectional interpretations were then balanced in plan view at ~20m level intervals. Amongst others, the geological domains interpreted were lithology and mineralisation type. The estimation employed inverse distance techniques using SURPAC 6.8 software.

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About Venturex Resources Limited

Venturex Resources Limited (ASX: VXR) is an exploration and development company with two advanced Copper Zinc Projects near Port Hedland in the Pilbara region of Western Australia. The two projects are the Sulphur Springs Project which includes the Sulphur Springs Project, Kangaroos Caves Resource plus 27km of prospective tenements on the Panorama trend and the Whim Creek Project which includes the Resources at the Whim Creek, Mons Cupri and Salt Creek mines together with the Evelyn project and 18,100 ha of prospective tenements over the Whim Creek basin. Our strategy is to work with our partners Blackrock Metals to expand and extend the existing 4 tonne per day oxide copper heap leach and SXEW operation at Whim Creek, identify other near term production options at Whim Creek, Mons Cupri and Sulphur Springs and fully optimise the Sulphur Springs Project have it shovel ready to take advantage of forecast improvements in base metal prices.

Competent Person Statement

The information in this report that relates to Mineral Resources is based on information compiled or reviewed by Mr David Milton, of Mil Min Pty Ltd. Mr Milton is a Member of the Australasian Institute of Mining and Metallurgy. Mr Milton has sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaking to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources". Mr Milton consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.





Appendix 1: Sulphur Springs drill plan.



Appendix 2: Resource Tables

Classification	Ore Type	k Tonnes	Cu %	Zn %	Ag ppm
Indicated	Fresh	5.7	1.44	4	18
	Transition	3.4	1.54	3.7	16
	Supergene	0.3	4.48	0.6	27
Sub Total		9.4	1.58	3.8	17
Inferred	Fresh	3.3	1.18	4.1	19
	Transition	0.8	1.63	3.1	16
	Supergene	0.3	2.82	1.5	17
Sub Total		4.4	1.38	3.7	18
Grand Total		13.8	1.5	3.8	18

Note: Totals may not balance due to rounding. The resource is reported at a cut-off grade of 0.4% copper and then less than 0.4% copper and greater than or equal to 2% zinc.





Appendix 3: JORC disclosure tables

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 The deposit was sampled with a combination of reverse circulation (RC) and diamond drill (DD) holes completed on a variable spacing across the deposit to a maximum vertical depth of depth of approximately 800 metres. The RC drill holes were sampled via an industry standard cyclone and riffle splitter system from the recovered sample. Diamond drill core was sampled using standard cut half core or where metallurgical samples taken quarter core was used. Industry standard reverse circulation (RC) drilling produced whole meter RC drill samples split at the rig using a cone splitter producing samples of approximately 3kgs. Diamond drilling completed to industry standard using predominantly NQ size core. Diamond core was orientated, aligned and cut on geologically determined intervals in the range 0.15 to 2.1 metres. The whole samples from the drilling were individually weighed, dried, stage crushed and pulverized to nominally minus 75 microns or 200 mesh (total preparation) to produce a pulp which was sub-sample for analysis.
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	 Prior to 2002 only diamond drilling was used to evaluate mineralisation (approximately 75% of informing information comes from diamond drilling) using mostly NQ size with some BQ, TT56 and HQ size. Drill core was generally structurally orientated for geotechnical and mineralisation structural information purposes. Post 2002 a combination of RC drilling using face sampling equipment and diamond drilling has been used.
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. 	 All operators recorded diamond drill core recovery as a percentage of measured recovered core versus drilled distance. Recoveries were generally high except for cavity zones in the oxide zone. On average through the resource estimated zone core recoveries average better than 99%. RC samples were weighed, the weights were recorded on field sheets and compared to laboratory received weights. The locations of intervals of damp or wet samples or low recovery were recorded and entered into the database. The cyclone and splitter were routinely inspected and cleaned during the drilling ensuring no excessive material build-up. Care was taken to ensure the split samples were of a consistent volume. There are no detected or material bias or relationships of sample recovery and grade.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 Diamond drill holes were geologically logged in their entirety and photographed. Representative areas of diamond drilling was logged for geotechnical purposes. RC drill holes were all qualitatively logged and representative sieved and washed chips collected and stored in chip tray samples. Logging by all operators was at an appropriate detailed quantitative standard to support future geological, resource, reserve estimations and technical/economic studies. All holes were logged in full.



Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Diamond core was sawn with a diamond saw and half core samples (quarter core in some metallurgical holes) taken for assay. 1 metre RC samples were collected and split off the drill rig using a splitter. Approximately 90% of the samples were dry in nature. In areas of no mineralization these 1m samples were composited to 4m samples. The sampling techniques for collection of the sample to be submitted to the assay facility for both diamond drilling and RC drilling are of consistent quality and appropriate. Venturex and previous operators had on site during drilling and sampling operations, technically competent supervision and procedures in place to ensure sample preparation integrity and quality. Some field duplicates were taken for RC drilling but not for diamond drilled samples. The sample sizes are considered appropriate given the relatively fine grained nature of the sulphide mineralisation which is not nuggetty in nature, the sampling methodology and the percent assay value ranges involved.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Over the project life 4 different Perth based assaying facilities have been used. Analytical techniques involve either a three or a four acid digest with a multi-element suite ICP/MS finish (30g FA/AAS for precious metals). Samples were split into high sulphide and low sulphide types on submission to ensure appropriate digestion and quality analysis. Sulphur was determined by Leco methods. All methods of analysis are considered to provide "total" assay values. No geophysical tools were used to determine any element concentrations reported. QAQC using re submitted pulps and external check assays, blind blanks and reference standards has been applied to samples assayed. Depending on the operator between 5 and 10% of the assays relate to QA/QC procedures. An independent analysis of intra and inter laboratory bias and precision was undertaken in 2007 by CBH. The results of this and subsequent QAQC work indicate no material bias to assay results used by this report.
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. 	 Prior to 2011, verification procedures are not documented. However inspection of retained core indicates that recorded locations of mineralisation are correct. Post 2011, significant intersections were checked by the senior company officers. Significant intersections are also verified/ by portable XRF data collected in the field and cross-checked against the final assays when received. No specific twinned holes have been drilled. A range of primary data collection methods were employed since 1989. Since 2007, data recording used a set of standard Excel templates on a data logger and uploaded to note book computer. The data is sent to Perth office for verification and compilation into an SQL database by the in-house database administrator. Full copies are stored offsite. Full data base verification of all historical information was completed in 2007 by CBH. All data is loaded and stored in DataShed data base. The historical data (pre-2007) has been adjusted with all negative assays, representing below detection assays, were converted to positive assays of half stated assay detection limit.
Location of	 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. 	 A full independent resurvey of all pre-2007 hole positions was completed by a licensed surveyor for CBH in 2007. Post 2007, all hole collar coordinates have been picked up by



Criteria	JORC Code explanation	Commentary
data points	 Specification of the grid system used. Quality and adequacy of topographic control. 	 CBH/Venturex employees using a DGPS with all co-ordinates and RL data considered reliable. Downhole surveys were performed on all holes by either single shot Eastman camera or reflex gyro readings at 10-50 metre down hole intervals. The grid system used for the location of all drill holes is MGA_GDA94, Zone 50. Topographic control is provided by combination of external survey control, photogrammetry analysis and DGPS reading.
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. 	 Due to access for drill sites drilling patterns vary from nominally 40m by 40m to 30m by 30m in the plane of the mineralisation. The current spacing is adequate to assume geological and grade continuity of the mineralised domain to an Indicated and Inferred resource level. No compositing has been applied to the exploration results.
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. 	 The Sulphur Springs drilling azimuth is largely orientated perpendicular to the mineralised strike direction. Limitations imposed by the rugged terrain dictates that some drilling is conducted at angles not perpendicular to the dip of the mineralised system. Given the dominantly strata bound nature of the mineralising system, no material, orientation based sampling bias has been identified in the resource estimation data.
Sample security	The measures taken to ensure sample security.	 Independent audits of the data in 2002 and 2006 concluded that the sampling protocols were adequate. Post 2011, the chain of custody is managed by Venturex. The samples are transported by Venturex personnel to Whim Creek, stored in a secure facility and collected from site by Toll IPEC and delivered to the assay laboratory in Perth. Online tracking is utilized to track the progress of batches of samples.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Independent audits of the sampling techniques and data were completed as part of previous and current feasibility studies in 2002 (McDonald Spiejers Pty Ltd), 2006 (Golders and Associates), 2008 (Zilloc Pty Ltd) and 2011 (Snowden). The studies were comprehensive and cover all industry standard issues. There does not appear to be any significant risk in accepting the data as valid.



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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Sulphur Springs is located wholly within Mining Lease M45/494 and Venturex Resources Limited has a 100% interest in the tenement. The tenement is within the Njamal Native Title Claim (WC99/8). The tenement is subject to two third party royalties. The tenement is a granted Mining Lease, is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Previous exploration has been conducted at Sulphur Springs by Sipa Resources Limited in conjunction with Ashling Resources, Homestake Limited and Outokumpu since 1985 under various joint ventures and CBH Resources Limited from 2005.
Geology	Deposit type, geological setting and style of mineralisation.	 The Sulphur Springs zinc-copper deposit is hosted by the Kangaroo Caves Formation, a volcano-sedimentary sequence within the north – north-easterly trending tectonostratigraphic domain known as the Lalla Rookh – Western Shaw Corridor (LWSC) in the central east of the Archaean Pilbara Craton. The deposit is a well-preserved example of an Archaean volcanogenic massive sulphide (VMS) style deposit in a low grade metamorphic terrain.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 Not Applicable (NA). No new exploration data being released. This report relates to only previously publicly reported and recorded information.
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. 	 All reported assays have been length weighted. No top cut has been applied. For reporting exploration results, a nominal 0.25% copper and 2.0% zinc lower cut-off has been applied. High-grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.
Relationship between mineralisation	 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 	Previous reports highlight down hole intercept and true widths.



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	statement to this effect (e.g. 'down hole length, true width not known').	
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. 	See long section in previous ASX release dated 18 November 2012.
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. 	All representative results have been reported or publicly released.
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. 	 Previous feasibility studies (2002 and 2013) outline project geological characteristics and features with respect to possible mining methods, metallurgical characteristics, possible treatment routes, geotechnical and rock characteristics, ore densities, and potential deleterious or contaminating materials.
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 	 No further work of an exploration nature is proposed at this time of reporting.



Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Independent audits of the sampling techniques and data integrity were completed as part of previous feasibility studies in 2002 (McDonald Spiejers Pty Ltd), 2006 (Golders and Associates), 2008 (Zilloc Pty Ltd) and 2011 (Snowden). The studies were comprehensive and investigated the reliability of the database. No database integrity issues have been found. Comparison of assay values reported on original certified assay sheets from the laboratory against the dataset records revealed no anomalies. The data base has a tabulation of original assay source and keeps a history of any variation/modification.
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. 	A site visit has been undertaken by the Competent Person in December 2017 and no issues of any material nature for this resource estimate were observed.
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. 	 A very high degree of confidence in the interpretation is based on detailed surface mapping (out crop is almost 100% with little vegetation or alluvium cover) which clearly shows the principal rock types, mineralisation distribution and structural (fault) features. Extensive company and academic studies over a 22-year period have characterized this mineralisation as a well preserved Volcanogenic Massive Sulphide (VMS) deposit. Drilling has demonstrated the continuity of the surface feature at depth. All surface mapping, drill hole geological and assay data used as basis of interpretation and extent of resource estimate. Cross sectional interpretations were made mainly at 20m spaced sections which increase to 40m spaced at extreme ends of the mineralisation. The sectional interpretations included all major rock and ore types. The sections were then balanced at either 10m or 20m vertical intervals in plan-view horizontally honouring the surface geology and controlled by drilling intercepts at depth. No alternative interpretations have geological support. The economic mineralisation is spatially related to the sulphide bearing rock types and events. VMS deposits have good continuity on a deposit scale. Locally the sulphide bearing rocks have varying tenors of sulphide minerals which vary in both vertical and lateral extent in fresh rock. Latter stage fault and weathering effect have affected the distribution patterns also on a local scale. There is a separate less than 5m true thickness massive sulphide zone recognized in the overlying chert (hanging wall). Ore types which form separate domains for grade interpolation are massive sulphide, both main and hanging wall, stock work and disseminated zones which can be of a fresh, transitional or supergene type. Oxide material is recognized but not estimated due to lack of informing 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 Mineral Resource covers a single VMS sulphide mineralizing event which has been disrupted pot mineralisation by a N-S sub vertical reverse fault into two off-set massive sulphide lenses (East and West), with the West block up faulted and outcropping. Total strike length (east-west) is approximately 500 metres, horizontal cross strike width is 60-



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. 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 (e.g. 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 about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 125 metres (maximum true width of approximately 16 metres) to a vertical depth of 400 metres. Each lens dips to the north at approximately 45-55°. Underlying the massive sulphide ore type is a volcanic rock sequence which has disseminated and stock work (stringer) ore type sulphide mineralisation. The massive sulphide and stock work ore types may contain economic grades. The Sulphur Springs Mineral Resource Estimate considers observations, comments and methods of previous estimates completed by Outokumpu (2002), CBH (2009) and Venturex (2102). No production has occurred at this deposit. The estimates have included all principal metals associated with the mineralisation where sufficient data is available. The principle revenue potential elements are copper, zinc, silver, lead and gold. Other elements estimated were sulphur, iron, arsenic, barium, bismuth, cadmium, cobalt, mercury, manganese, nickel and antinomy. A block model has been generated. Parent cell measures 10 metres (X axis), 10 metres (Y) and 10 metres (2) with sub-cells of 2.5 metres (X), 2.5 metres (Y), 2.5 metres (Z), appropriate given an average drill spacing of 30 metres. The estimation is based on interpolation of grades using appropriate inverse squared and cube interpolations using SURPAC. The interpolation is ellipsoidal and the directional features and search radii varies within the ore type domains Minimum samples required to make an estimate vary from 2 to 20 according to ore type domain. Discretization was set to 5(Y) by 5(X) by 2(Z). No selective mining consideration made in modelling. A high confidence correlation between sulphur grade and S.G which was used to predict ore block density when S grade is greater than 1%. Weaker correlations exist between other major and minor assays but were not used in estimation considerations. Resource estimate related to ore type domains based on massive, sulphide, disseminated sulphide and super gene zones for each lens and zone. These ha
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 estimated on a dry basis. Moisture content in ore is negligible.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• The Mineral Resource estimate is reported at 0.4% Cu or 2% Zn, this being an economic cut-off considered by Venturex to be relevant to long term revenue considerations.
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. 	 No assumption or modification to the resource has been made with consideration to mining methods factors. The resource estimate is an in-situ estimate. A minimum intersection width of 2m has been applied to massive sulphide zone.



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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. 	 No assumption or modification to the resource has been made with consideration to metallurgical factors. The resource estimate is an in-situ estimate.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield 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.	 Estimate includes rock type, weathering type and in-situ sulphur content of materials. No assumption or modification of the resource has been made in consideration of environmental factors.
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. 	 Densities used in the calculation are based on around 3500 specific gravity determinations were carried out on whole diamond core samples of representative of all the different rock and ore types. Assays pertain to the same interval measured. Density measurements were conducted on site by the classical water immersion method, using the total core for each sample. Check determination were made at the assay laboratories which confirmed the accuracy of the determinations. The rocks are homogenously solid with negligible pore space. Metals of economic consideration and the basis of this estimate are only related to sulphide bearing rock. The high correlation confidence between sulphur grade and measured density has allowed the use of estimation of sulphur grades to predict rock density used in the tonnage estimates.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineral Resource classification into Inferred and Indicated categories is based on a combination of average weighted distance from sample points, true distance, drill density and geological interpretation confidence. No portion of the resource was of Measured category. Appropriate account of the confidence in the tonnage/grade estimates and the supporting interpretation of the controlling geological factors and estimation method has been used for these classifications. It is the opinion of the Competent Person that the resource classifications reflect their confidence in the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• No review or audit of this estimate has been undertaken. The estimate is similar to previous estimates in its grade, tonnage and classification types. The greatest difference from previous estimate lies in the treatment of the main mineralisation envelope as a single contiguous zone of sulphide mineralisation rather than 20 separate zones and recognizing supergene and transitional ore types.
Discussion of relative accuracy/	• 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	• The model has been validated visually against drilling and statistically against input data sets on a domain and on swath plot basis. The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the



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confidence	 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. 	 2012 JORC code. The statement relates to global estimates. No production data is available to compare resource statement with.