JORC RESOURCE ESTIMATE – Additional Information for ASX LR 5.8.1

ASX Release

30 January 2018

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As announced on 9 January 2018, **Valor Resources Limited** ("**VAL**" or the "**Company**", ASX: VAL) Is pleased to report a substantial increased JORC (2012) Mineral Resource Estimate including a maiden Measured Resource Estimate ("Resource Estimate") for the Berenguela Copper-Silver Project ("Berenguela Project").

Further to the ASX Announcement dated 9 January 2018, MB Geologia consultant, Mr. Marcelo Batelochi (AusIMM), provides a summary of the information contained in the announcement dated 9 January 2018 for the purposes of listing rule 5.8.1.

<u>Resource Estimate Highlights</u>

- **80% overall increase in Total Resources.**
- **37% increase in total contained copper to approximately 772M lbs of Cu.**
- **37% increase in total contained silver to approximately 127M oz of Ag.**
- **45% increase in total contained zinc to approximately 286M lbs of Zn.**
- **Maiden Measured Resource: 7.71Mt at 1.60% CuEq**
  - **Indicated Resources: 28.23Mt at 1.24% CuEq**
  - **Inferred Resources: 9.98Mt at 1.15% CuEq**
  - **TOTAL: 45.92Mt at 1.27% CuEq (cut-off of 0.50% CuEq)**

BERENGUELA TECHNICAL REPORT INDEX

1 EXECUTIVE SUMMARY

This report was prepared to provide a JORC - 2012 Technical Report on the Berenguela Project, a Copper/Silver/Zinc/Manganese deposit, located in the Altiplano of South-eastern Peru. The Berenguela Mineral concessions is 100% owned by “Sociedad Minera Berenguela – SOMINBESA S.A.”, which is 100% controlled by Valor Resources.

This Report was prepared by independent Consultant Mr. Marcelo Antonio Batelochi (MB Soluções em Geologia e Mineração Ltda) at the request of Mr. Ernesto Lima, Chief Operating Officer and is considered current as of January 2018. The purpose of this Report is to provide an independent, JORC – 2012 Technical Report on the Berenguela Project. MB understands that this report may be used for internal decision-making purposes and will be filed as required under AuSIMM and ASX regulations. The Report may also be used to support public equity financings. The reported contents in this Report has been prepared in full conformance and compliance with the JORC – 2012 Standards of Disclosure for Mineral Projects and in force as of the effective date of this Report. Mr. Batelochi, as a competent person under the terms of JORC 2012, conducted three site visits during 2017, reviewed and verified historical information, and reviewed the sampling program as part of the on-site review.

Based on complete 2017 RC drilling data available as of October 20, 2017; the grade and amount of the Berenguela Mineral Resource indicates reasonable prospects for eventual economic extraction as summarized. MB is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the following Mineral Resource estimate:

Class	Volume (m3)	Density (t/m3)	Tonnes	Ag g/t	Cu %	Mn %	Zn %	Pb %	CuEq
Measured	3,347,375	2.302	7,706,610	103.79	0.989	8.676	0.335	0.048	1.653
Indicated	12,276,250	2.299	28,226,128	80.45	0.734	5.161	0.296	0.066	1.266
Med + Ind	***15,623,625***	***2.300***	***35,932,737***	***85.46***	***0.788***	***5.915***	***0.304***	***0.062***	***1.349***
Inferred	4,409,125	2.262	9,972,535	87.90	0.670	2.145	0.203	0.095	1.193
Total	***20,032,750***	***2.292***	***45,905,272***	***85.99***	***0.763***	***5.096***	***0.282***	***0.069***	***1.315***

Table 1: Mineral Resource Estimate – January 2018

1.1 Introduction

The Berenguela Property consists of fourteen (14) mineral concessions totaling 6,594.21 hectares. The Berenguela Deposit is located in the *Altiplano* of South-eastern Peru at an elevation of 4200 metres and lies west of the town of Juliaca, Lake Titicaca, and Puno. The UTM location of the centre of the property is 8,268,600 N and 332,600 E. The property lies at latitude 15° 40’ S and longitude 70° 35’ W. The property is further located in the Province of Lampa, and the district of Puno. Santa Lucia, the closest town to the property, lies approximately 7 kilometres to the Southwest along the main road between Juliaca and Arequipa.

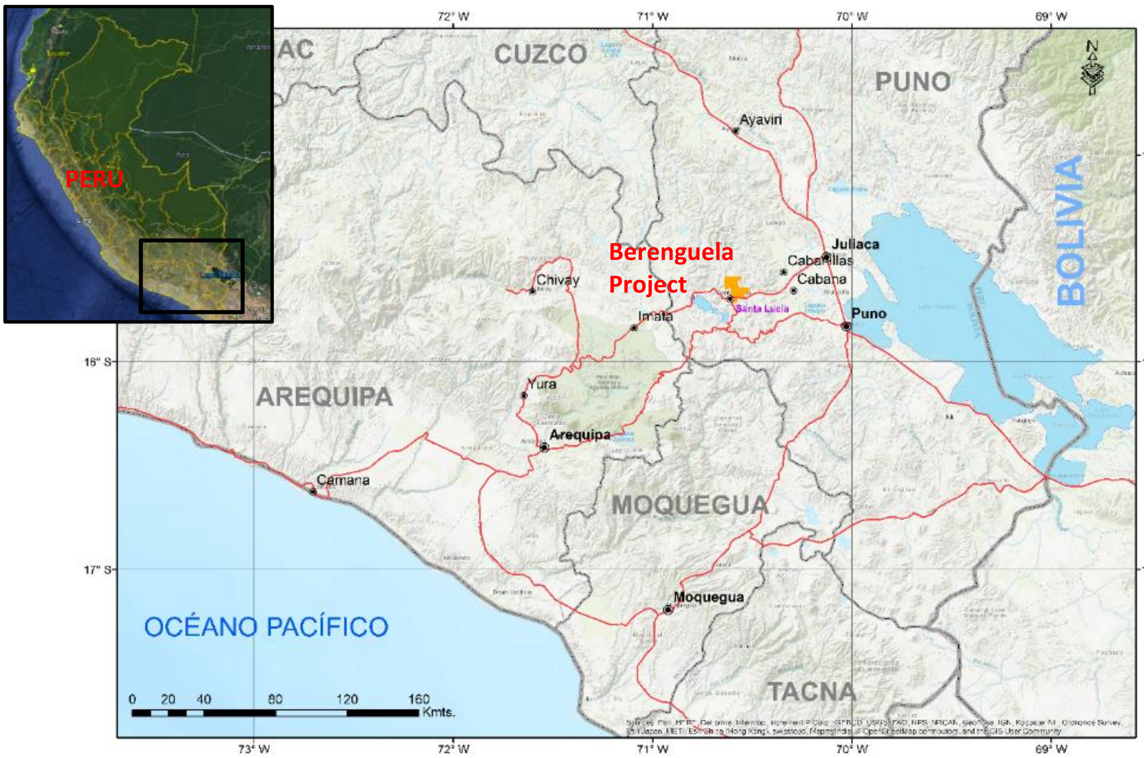


Figure 1: Berenguela Location Map

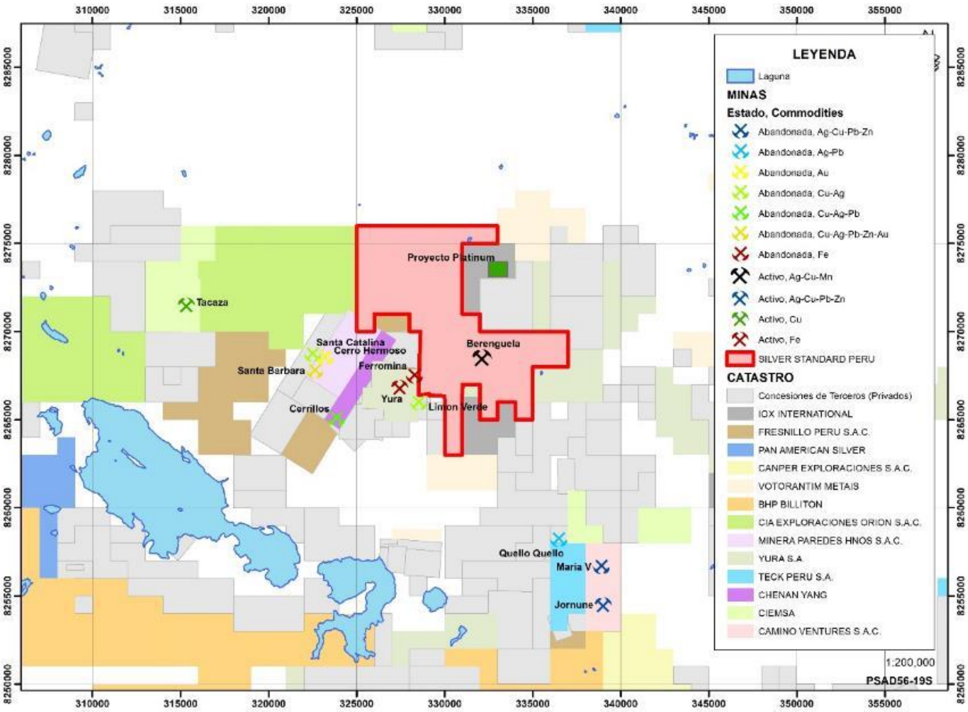


Figure 2: Map of Mineral Concessions at Berenguela

The Berenguela Deposit has been continually explored since Colonial times. The most active period of development dates back to 1906 when it became the property of the Lampa Mining Company ltd. This company formed in 1907 in Liverpool England, and had been mining in a limited way at other mines in the area when it acquired the Grundy properties in 1913. In 1917 the company first started making a profit by exporting and smelting ores in a blast furnace bought from the previous owners, the Grundy's. During the period June 1957 to June 1958, production at the Berenguela mine was 21,153 tonnes with Ag grades of 22.07 oz/t (686.44 grams), 30 % Mn, and 1.91 % Cu. In the 1940 to 1950 efforts were made to obtain a by-product from Manganese.

The American Smelting & Refining Co. (ASARCO) took a purchase option on these properties for a year from August 1965 to September 1966, in which period the first important studies of these deposits were made.

Later the Cerro de Pasco Corporation took out a purchase option on the same deposit between November 4, 1966 to November 4, 1968, limiting its activities to estimating reserves and carrying out metallurgical research at the La Oroya laboratory. Finally, Charter Consolidated took out a purchase option in December 1968 which lasted until December 1970. In this period, it carried out 56 diamond drill holes over a total length of 3,386 m.; metallurgical research and a feasibility study were also conducted. Due to failure to fulfil the schedule of operations set forth in the General Mining Law, these deposits reverted to the State and on January 19, 1972 passed on to Minero Perú as special rights.
In 1995, a policy of privatisation was adopted by the Peruvian ministry responsible for Minero Peru, with the result that the Berenguela Property was offered for sale by the state company. Kappes, Cassiday & Associates (KCA) purchased Berenguela in 1995 by competitive bid and formed a private Peruvian company, Sociedad Minera de Berenguela S.A. (SOMINBESA) to manage the project. Dan Kappes and Mike Cassiday are the majority shareholders in SOMINBESA (Kappes, Cassiday & Associates: Berenguela.com).

In March of 2004, Silver Standard entered into an option agreement with SOMINBESA (KCA) to purchase 100% of the Silver resources contained in the Berenguela Project. The option agreement required payments of cash and shares, the completion of an exploration program and the completion of a 43-101 compliant resource estimate (Silver Standard Press Release, March 2004). Silver Standard completed the exploration drill program in July of 2005 after completing 222 reverse circulation drill holes. In November 2005 the KCA transferred its share to Fossores, an entity incorporated by Silver Standard to hold 100% of the SOMINBESA shares.

In May 2017 Valor Resources completed the acquisition of 100% of SOMINBESA shares obtaining control of SOMINBESA.

1.2 Geology & Geological Interpretation

The Berenguela property is situated within the Western Cordillera of the Andes mountain chain which, since the Late Cretaceous, has been formed through various geologic processes related to collisional plate tectonics where Pacific oceanic crust has been subducted beneath the South American continental plate. The regional geology of the Western Cordillera in southern Peru is dominated by volcanic and sedimentary rocks of Cenozoic to Quaternary age. In the region that lies west of Lake Titicaca, referred to here as the Santa Lucía district, there are several large erosional or structural 'windows' in the volcano-sedimentary terrain where folded and thrust-faulted Paleozoic and Mesozoic sedimentary strata are exposed. The Berenguela Ag-Cu-Mn deposit lies at the centre of one of these areas of exposed Mesozoic sedimentary rocks.

Clark *et al.* (1990) observed that most of the metallic deposits of the Santa Lucía district are hosted by *Tacaza Group* volcanic rocks or underlying Mesozoic sedimentary strata. They also concluded that most of the base and precious metal epithermal mineralization in the region accompanied or closely followed the eruption of these volcanics. As well, the mineral deposits of the district show a close association with Late Oligocene, calc-alkaline, mafic to intermediate intrusions. North of Santa Lucía there are several bodies, tens of metres in strike length, of semi-massive to massive magnetite ± biotite ± garnet which are believed to be representing replacement-style mineralization that developed in red-bed clastic facies rocks of the *Ayavacas Formation* proximal to the margins of the Limón Verde monzogabbro, dated at 30.3 Ma (Wasteneys, 1990). Also found along the south-eastern margin of this mafic intrusion is a fine-grained diorite stock that locally shows propylitic alteration and elsewhere hosts stockwork veinlets of biotite ± magnetite. Veinlets of chalcopyrite-pyrite, with malachite and chrysocolla in weathered outcrops, cut *Ayavacas Formation* carbonate facies rocks adjacent to this intermediate stock. Clark *et al.* (1990) consider the hydrothermal activity that occurred at Limón Verde to be Late Oligocene in age (ca. 26.4-28.1 Ma) and related to the magmatism that generated the local intrusions.

The Berenguela Ag-Cu-Mn deposit comprises several WNW-trending bodies of massive, patchy and fracture-controlled Manganese oxide replacement mineralization (Figure 5). Silver, copper and lesser zinc are enriched in the manganiferous rocks. Although base or precious metal mineral phases, particularly sulphides, are rarely observable in the old workings. Based on an age date of 26.8 Ma obtained for a relatively unaltered trachyandesite dyke cutting Mn oxide veinlets in one of the pits, the Berenguela mineralization has been inferred to be contemporaneous with the late Oligocene mineralization found at Limón Verde (Wasteneys, 1990).

The deposit trends in a WNW direction for more than 1,200 metres along a 'whale-back' ridge that extends between two northerly trending valleys, the Andamarca *pampa* and the Juncopampa *pampa,* and has been drilled to a maximum depth of about 100 m below surface. The eastern and western limits of the deposit roughly correspond to where steep slopes truncate the ridge and descend to the *pampa* valleys some 200 m below the ridge-crest. Moderately to locally isoclinally folded limestones, dolomites and marls of the Middle Cretaceous *Ayavacas Formation* of the *Lagunillas Group* are the dominant lithologies exposed along the ridge and are the host rocks of the Ag-Cu-Mn mineralization.

The type section of the *Ayavacas Formation* shows the formation having a thickness of about 100 m and consisting of about 40 m of carbonate facies rocks in the central section which are overlain by 10 m of reddish siltstones and marls and underlain by a lower sequence of clastic facies rocks comprising 30-35 m of brick-red sandstone and 15 m of red-bed siltstones. In the deposit area, the carbonates are often difficult to recognize due to the extensive and pervasive replacement by Manganese and less abundant iron oxides. Individual carbonate beds range in thickness from tens of centimetres up to several metres, with dolomitic beds predominating, and are generally massive, fine-grained and rarely fossiliferous. Intraformational dissolution breccias were observed in a few outcrops, but are not extensive on surface.

Ore mineralogy studies done by Asarco in the 1960's (Strathern, 1969) resulted in four main types of mineralization being defined by the international miner:

1. Brown Ore*; hard, manganiferous rock with high dolomite content but with comparatively high Copper and intermediate Silver contents.*
2. Yellow Ore*; orange and red coloured, altered limestone comprising greater than 50% Mn oxides by volume together with hydrated Fe oxides.*
3. Yellow, Friable Ore*; clay-rich, altered carbonate with less than 50% Mn oxides by volume and having relatively high Ag contents. Referred to as* panizo *by early miners.*
4. Low-grade*; yellow, friable material with minor Manganese and less than 1% combined metals; this represents the low-grade mineralized material throughout the mine.*

The massive to semi-massive Mn oxide rock of Asarco's so-called *brown ore* can be readily identified in the extensive open-cut workings of the old mine and can be recognized in drill hole samples by its high concentrations of manganese, >15% Mn.

A variety of hydrated iron oxides (goethite, hematite and limonite) are also typically present in varying proportions in this rock. Exactly how copper and silver occur in this ore type is not known. Within the ore-hosting sequence of intercalated dolomite, limestone, marl and siltstone beds, dolomitic carbonate is volumetrically the dominant lithofacies and also appears to be the lithofacies that most commonly hosts the Mn alteration and Cu-Ag mineralization. Another feature of the metasomatized carbonates is that neither quartz nor calc-silicate minerals which are typically found in skarn deposits have been observed.

In addition to the manganiferous replacement-style mineralization, there is also a paragenetically late, vein-style mineralization that consists of vuggy calcite-jasper veins hosting minor amounts of malachite, azurite, covellite, chrysocolla, chalcopyrite, pyrite and native Silver (see Fletcher *et al.,* 1989). This form of mineralization may simply represent the local remobilization of Copper and Silver from the Mn-rich metasomatized rocks into low-temperature fluids that then formed the volumetrically minor silica veins and breccia matrices.

1.3 Sampling & Sub-Sampling Techniques

Prior to the 2017 drilling campaign, 222 drill holes from Reverse Circulation (RC) drilling had been completed at the Berenguela Deposit. These drill holes totaled 18,972 metres and were drilled on a regular grid pattern. The drill program expanded the areas of known mineralization to the east and subsequently the resource of the deposit and the objective of the drill program was to delineate the deposit for resource estimate.

Silver Standard Resources (SSR), during the 2004 and 2005 RC drill programs, sampled the drill holes on one-metre intervals. RC drill samples were collected at the drill site by the drill crews.

The RC drill holes were sampled from collar to total depth. Sampling intervals were dependent on the drilling equipment selected, the density of samples required and not based on geological controls or other features of the zone of interest. RC drill crews collected 18,476 samples and 1,035 sample duplicates for a total of 19,511 samples.

The drill holes were laid out on 50x50 metres spacing pattern covering the total mineralized area reported on the Mineral Resources statement. As is normal with RC drilling there were occasional samples that were not recovered, however, sample recoveries were of 98.6 percent for the whole drill program.

The 2017 RC drilling campaign was conducted by Valor's wholly owned Peruvian subsidiary, SOMINBESA, and completed 69 drill holes. The campaign totalled 9,109.00 metres with 8465 samples and 434 control samples (QAQC). The total is 291 drill holes from RC drilling, with 28,018 metres (Table 1).

Phase	Type	No. DH	Metres Drilled	No. Assays	No. Density	Percent Checked
2004	RC	57	5,063.00	4,917	0	4%
2005	RC	165	13,846.00	13,714	0	4%
2010	DD	17	5,546.20	1,907	0	2%
2015	DD	11	1,875.70	1,522	1,462	40%
2017	RC	69	9,109.00	8,465	0	100%
Total		**318**	**35,439.90**	**30,525**	**1,462**	**32%**

Table 2. Quantitative Summary of Drilling Campaign of Berenguela Deposit

1.4 Drilling

Silver Standard conducted a 4-phase exploration program at Berenguela, that, in 2004, 2005 and 2010 concentrate on drilling, and in 2015 geophysics, stream sediments, soil sampling, beyond the drilling. Valor Resources completed a 9,109 metre RC Drilling program in 2017.

Berenguela Historical drilling:

1. 2004 consisted mainly of drilling with the drilling completed 55 drill holes, 5,063.00 metres, 4,917 samples and 664 control samples (QAQC);
2. 2005 entailed mainly reverse circulation (RC) drilling with some surface mapping and limited surface sampling. Completed 166 drill holes, 13,846.00 metres, 13,714 samples and 2,059 control samples (QAQC);
3. 2010 consisted of diamond drilling (DD) focused on near mining exploration to add mineral resources on targets identified based on mapping and mineralization models. Completed 17 drill holes, 5,546.20 metres, 1,907 samples and 258 control samples (QAQC);
4. 2015, 11 diamond drilling (DD) drill holes, 5 of them twin drill holes (in reality 6 drilling - BED-003 redone to BED-003A) to validate 2004/2005 RC drilling, 5 of them near mining to confirm extension of the mineralization, acquiring data for (geo) metallurgical tests and density determinations. Completed 11 drill holes, 1,875.70 metres, 1,522 samples, 1,432 density determinations and 111 control samples (QAQC).
5. 2017, reverse circulation (RC) drilling, completed 69 drill holes, 9,109.00 metres, 8,465 samples and 434 control samples (QAQC).

2017 RC Drilling at Berenguela

The sample preparation, analyses and security for Berenguela Deposit drilling campaign followed almost the same procedures. The main difference was the lab utilized for analyses. Samples from 2004/2005 RC drilling and 2010 DD Drilling samples were analysed at ALS Chemex, and 2015 DD Drilling and 2017 RC Drilling at SGS Laboratories. Differences on RC/DD drilling techniques is out of the scope of this report, but for laboratories there are differences on analytical procedures and the chemical elements analysed on drilling campaigns. For resource database, this consolidation of main elements in a unique value for grade estimates followed a precedence between chemical analyses.

Data verification and validation (including QA/QC) at Berenguela Project was performed for the drilling campaigns. For the 2004/2005 drilling campaign it was conducted by McCrea J. and was reported in the Competent Person Report, which is included in this text. The 2010 and 2015 drilling campaigns were carried out internally by the Silver Standard technical team and reported on the company's internal reports, but without any Competent Person endorsement, which were read and also compiled by M. Batelochi. The 2017 drilling campaign was verified and validated by M. Batelochi through two field visits and a daily remote monitoring of all activities from the field team as well as emails and conference calls.

1.5 Sampling Procedure

The samples were collected by the drill crews and split three times. They were split using a Jones Splitter, down to 1/8th size. The sample size ranges from approximately 2 to 10 kilograms. Approximately every 40th sample had field duplicate sample collected. The samples were tagged with the hole number and depth, and then sent to the warehouse for further preparation where SSR Peru personnel prepared the samples for shipment to the assay lab.

2017 Sample Logging at Berenguela Site Warehouse

The 2017 sample preparation, analyses, and security for Berenguela Deposit drilling campaign followed almost the same procedures as 2004/2005 and 2010. The primary difference was choice of laboratory. In 2004/2005 RC drilling, and 2010 DD drilling, samples were analysed at ALS Chemex. In 2015 DD drilling and 2017 RC drilling, samples were analysed at SGS Laboratories. Any differences in sampling procedures is due the differences of RC and DD drilling techniques. Differences in RC/DD drilling is out of the scope of this report, but for laboratories there are differences on analytical procedures and the chemical elements analysed on drilling campaigns.

1.6 Data Verification Sampling Analysis

For the Company’s 2017 drilling campaign the sampling followed a standard procedure as outlined by Valor Resources technical staff.

In resume, samples are acquired from the cyclone placed in two plastic bags for each 1.0-metre advance which is appropriated tagged. The material is quartered using a riffle splitter, to maximum homogeneity.

From the first Splitter pass (2 trays) one of the trays (tray 1) is placed into a bag for logging (chip logging) and the remaining is divided into two samples A and B, approximate weight of 2 to 4 Kilos to be sent to the laboratory and to the file respectively. In case of duplicates sample A is split again.

The samples are properly bagged, placing the label with the respective sample number. This is done for the main laboratory, external laboratory if necessary, and filing purposes.

The sample for logging is placed in the chip box, into two divisions which correspond to a fine material and chips.

The logging of the samples follows the procedure as required by JORC 2012 compliance.

Logging place with natural light or inside the core shed using illuminators of 1,000 Watts.

Form filled with the identification of the RC drilling, date, geologist etc.

Placed the position of contacts and type of mineralization, lithology, alteration, and other geological features are recorded in the logging format according to their symbology.

The Sample preparation was performed by the preparation facility at SGS Peru in Arequipa.

RECEPTION - Samples are received and checked with sample form from Berenguela.

DATA ENTRY – SGS following an internal procedure to generated CCONS where customer data is entered, then the “Pre-sheet” worksheet is printed.

CODIFIED - checked again the physical sample vs client's form.

WEIGHT - samples are weighed on line with the barcode reader.

DRYING - at 105 ° C controlled.

PRIMARY CRUSHING - Final product ~¼" (6 mm).

SECONDARY CRUSHING - Final product at -10 # (2mm) at 90% p80.

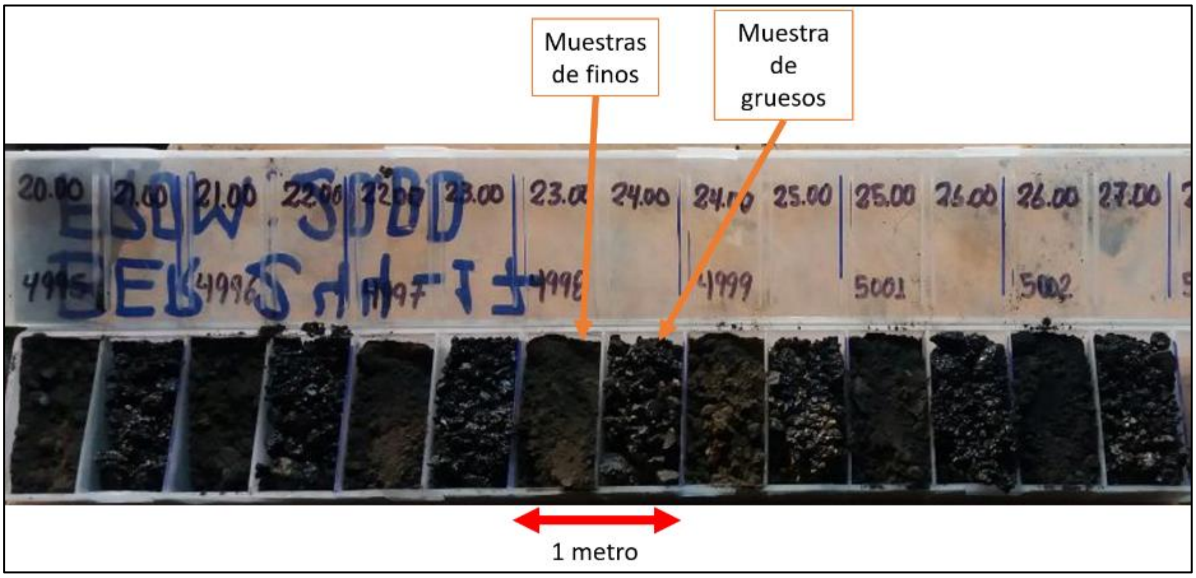
HOMOGENIZED pre-homogenized and again using riffle splitter.

RIFFLE SPLITTER - Successive reduction size until obtaining approx. 250g and the reject it is stored.

PULVERIZED - Pulverized 250g with final product -140 # at 90% p80.

Assays were processed by SGS – Callao – Peru accredited to ISO Standards, that the samples are transported internally from Arequipa to SGS Callao facilities. The analysis is carried out for 2 main Multi Element Analysis procedures: SGS-MN-ME-41 - ICP40B and SGS-MN-ME-41 - AAS41B as reported by SGS.

The 2017 RC drilling results of the regular submission of certified reference material (standards) are used to identify problems with specific sample batches and long-term biases associated with the primary assay laboratory. The results were reviewed from three different standards (CDN-ME-4, CDN-HZ-2 and CDN-ME-12) used during the 2017 drilling campaign. The standards were inserted in the overall sample stream of drill cores at a rate of approximately one standard for every 50 drill core samples (2%).



Chip Sample Box for Logging at SGS Peru (2017)

The 2017 RC drilling results of the regular submission of coarse duplicates are used to identify problems with precision sample batches with the primary assay laboratory. The duplicates were inserted in the overall sample stream of drill cores at a rate of approximately one duplicate for every 30 drill core samples (3.3%). Field duplicate samples were analysed using basic statistics, scatter, percent relative difference plots and precision chart applying Hyperbola function for silver (Ag ppm); copper (Cu %); zinc (Zn %); and lead (Pb %) grades.

1.7 Estimation and modelling techniques (Grade Shell Wireframes and Block Modeling)

The grade shells 3D modelling was performed individually for grades: Ag (ppm), Cu (%), Zn (%) and Mn (%) following the geological and structural characteristics of the deposit.

It was most critical work during this mineral resources estimates, there were some challenges to output the 3D Modelling:

• To better understand and maintain the geological and chemical reliability of the ore bodies, it was decided to perform the grade shell wireframes separated for each element. It was an important exercise at that time to understand better the mineralization controls and geometry.

• The author decided, to carry out a traditional 3D modelling for silver and copper (most critical ones), vertical sections spaced in 20 metres. Based on these results, the author decided to carry out horizontal sections spaced half a bench (2.5) using composite samples as a support of this interpretation (same height support samples and section), which was in accordance with what the author considered to be the best model (logically, 2.5 m spaced sections is a short term model). Then, the wireframe was performed by extrusion of horizontal sections (1.25m corridor).

The reference grades applied for grade shell wireframes were:

• Cu % -> 0.25 (different from preliminary model – Oct 2017);

• Ag (g/t) -> 25;

• Zn % -> 0.50; and

• Mn% -> 2.0.

The grade shell domains were codified as follow:

• Silver Grade Shell: Eastern Domain (Ag1 – 1); Western Domain (Ag2 – 2) – traditional model;

• Copper Grade Shell: Eastern Domain (Cu1 – 11); Western Domain (Cu2 – 12) – traditional model;

• Manganese Grade Shell: Eastern Domain (Mn1 – 1001); Western Domain (Mn2 – 1002) – implicit modelling; and

• Zinc Grade Shell: Eastern Domain (Zn1 – 101); Western Domain (Zn2 – 102) – implicit modelling.

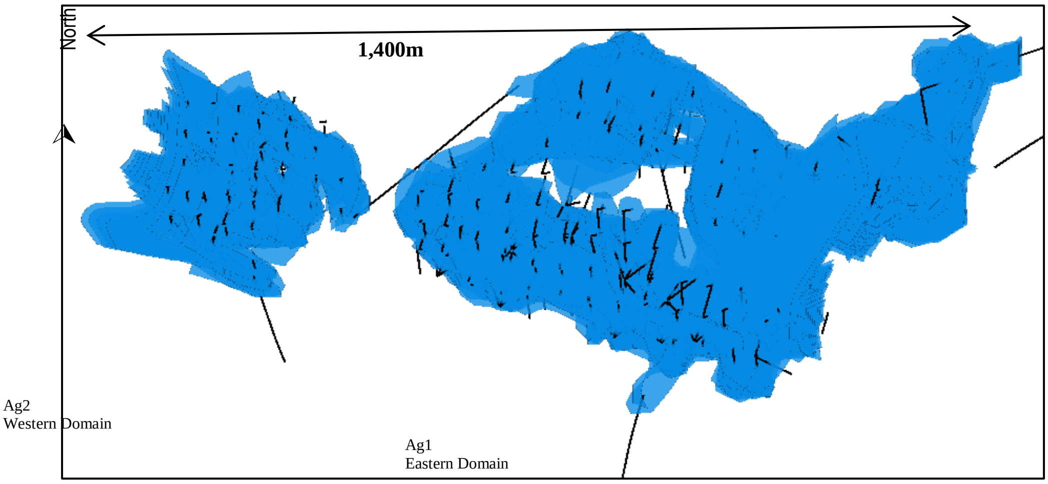


Figure 3 - 3D Grade shell wireframes for Silver – Extruded Horizontal section 1.25m corridor

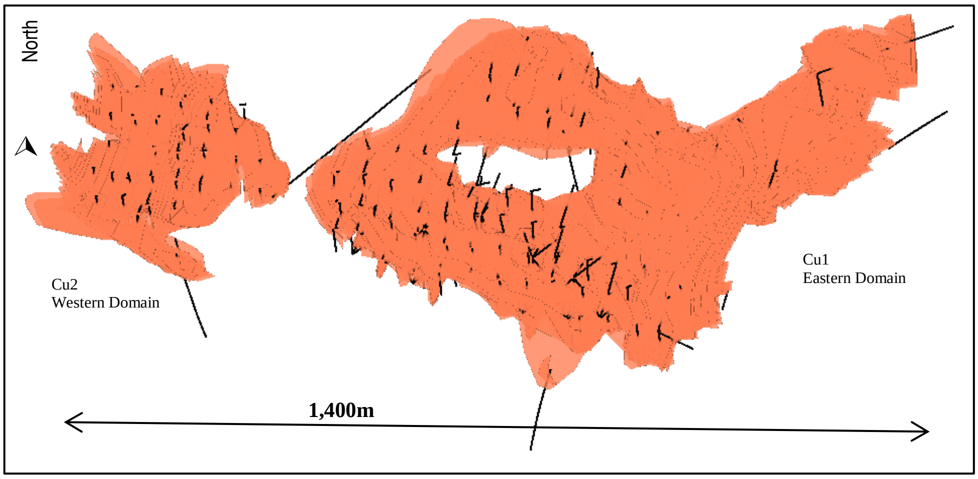
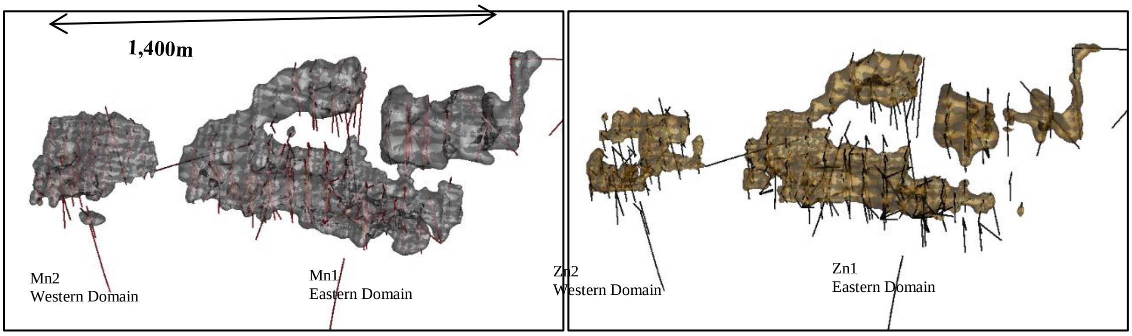


Figure 4- 3D Grade shell wireframes for Copper – Extruded Horizontal section 1.25m corridor.



Manganese Grade Shell

Zinc Grade Shell

Figure 5- 3D Grade shell wireframes for Manganese and Zinc – Implicit Modelling

A block model was created to cover the ore domains extended laterally beyond Final Pit limit with the parameters displayed below in the table below:

Parent Block	X	y	z
Origin	331400	8268200	4000
Block Size	5	5	5
No. Cells	318	160	60
Rotation	0°		

Table 3: Block Model Dimension

The methodology used to create the block model was based on the grade shell geometry to subsidise the mineral resource estimated of Berenguela Deposit flagged Percent of Parent Cells (no subcells applied).

Block grades are estimated by three consecutive Ordinary Kriging (OK) runs, performed by parent cells, using hard boundary of the composite, applying the spatial variability based on the fitted variogram and inside (“Ore”) and outside of the wireframes (“Waste”). The reason for estimating inside and outside the wireframes is that each estimated grade has linked to different percent of “Ore” on a block, then after the grade estimates, the support (percent) was changed to the block scale (not from percent) by weighing the percentages and grades inside and outside the wireframes (outside is not Zero). Then, this block grade is used to calculate the copper equivalent grade.

The key parameters of the estimation are chosen after initial preliminary tests. The critical estimates are the number of composites used for the estimates where eight sectors is optimum.

The search radii are related to the semi-variogram ranges for first and second runs, for the third is using a large neighbourhood to fill non-estimated blocks. The resume the parameters by neighbourhood are following:

•1st Neighbourhood with search radius value varying according to fit 85-90% of the sill of the variograms, minimum number of samples 4, maximum 32, 8 sectors, and minimum 3 drill holes in a grid of 120° spaced 3D continuity.

•2nd Neighbourhood search radius 2x Neighbourhood 1, minimum number of samples 4, maximum number of samples 32, with eight sectors, and minimum 2 drill holes – 2D continuity.

•3rd Neighbourhood represents the search ellipsoid to estimate remain blocks, 1500x1500x100 metres; minimum of 1 sample, maximum of 4.

Mineral resources for the Berenguela Deposit have been reported above a 0.5 % of eq Cu (Equivalent Copper) cut-off grade. The percent model was converted into block basis calculating the metal content (Percent x Grade) divided by 100. Then all individual variables were weighted based on the same volume to calculate the equivalent grade.

The stated resources are not materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues, unless stated in this report, to the best knowledge of the author. There is no known mining, metallurgical, infrastructure, or other factors that materially affect this resource.

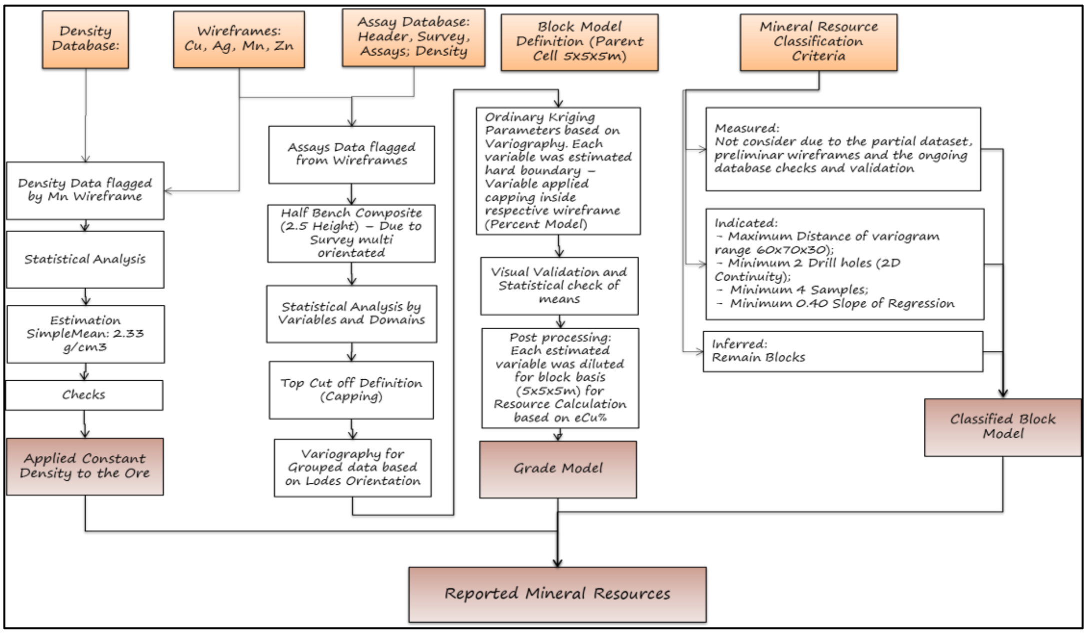


Figure 6: Berenguela - 2017 Mineral Resource Standard Procedure

1.8 Mining and Metalurgical Methods

Kappes, Cassiday & Associates (KCA) developed a preliminary flowsheet which was based on leaching followed by electrowinning of Copper, extraction of Silver by Cyanide leach followed by Merrill Crowe process and finally extraction of MnO_2 by electrowinning.

Since the 1960's, markets for specialty manganese products have developed that make a recovery of this metal economically important. KCA has directed its work towards developing a wet chemical leach process for recovery of manganese along with the copper and silver. Once manganese recovery is included, costs and revenues both increase to the point where manganese becomes the most important economic constituent.

The ore will be ground, pumped into agitated tanks in slurry form, and leached with sulfuric acid and sulfur dioxide. The pregnant solution will be separated from the solids and clarified. From this solution, copper will be recovered by the standard solvent extraction electrowinning (SX-EW) process, or alternatively by simple crystallization to produce copper sulfate. The copper-free solution will be purified and sent to a manganese electrowinning section where manganese dioxide will be produced. A portion of the depleted solution will be sent to evaporation ponds, and then to a crystallizer, to produce manganese sulfate (which is extensively used as a fertilizer). Solids from the initial acid leach will be subject to a normal cyanide leach process where silver will be dissolved, precipitated on zinc dust, and refined to bullion. The KCA (Kappes, Cassiday & Associates) flow sheet is in figure below:

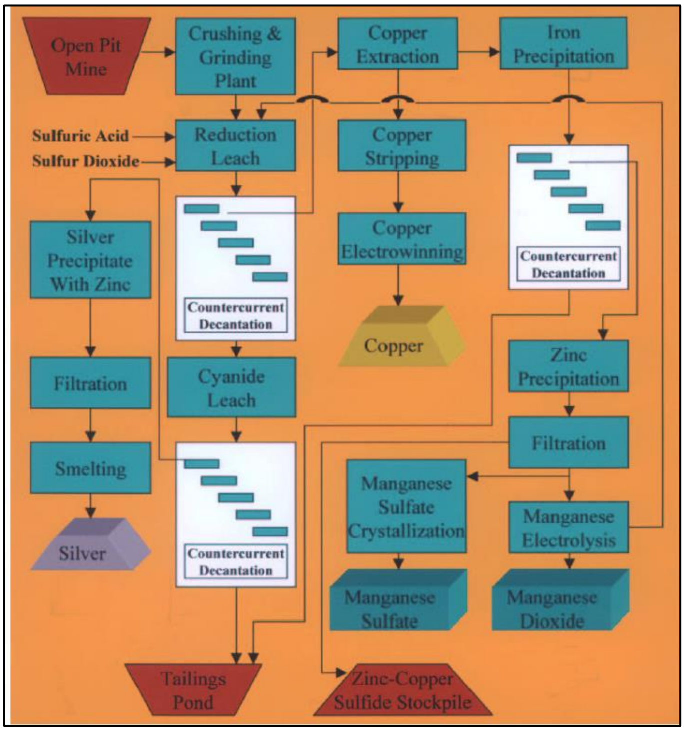


Figure 7: Process flowsheet

All of the process steps are currently in commercial use in EMD production plants elsewhere in the world. The individual steps of the process have been tested on the bulk ore sample at KCA's Reno facility. Recovery routinely exceeds 90% for all three metals. For economic evaluation purposes, recovery is targeted at 80% for manganese, and 85% for silver and copper.

The hydro-metallurgical process to recover all metals appeared to be promising but in the recent time with the subdued commodity price, a much larger throughput may be needed to support the operation.

2 SUMMARY - 2018 MINERAL RESOURCES AUDIT - JORC CODE (2012 EDITION)

An early 2017 technical review was carried out during the period of 25th January 2017 to 10th February 2017, analyzing the information provided in a digital data room and technical staff support by Silver Standard Resources Inc. (Toronto Stock Exchange - TSX: SSO and on the NASDAQ Global Market - NASDAQ: SSRI) for the purposes of confirming the initial 43-101 resource estimate for JORC Compliance. The review covered the following main activities:

- Detailed documental analysis of Silver Standard data room;
- Field Visit, including site visit and revision of selected cores, storage of cores, pulps, coarse rejects; and
- Validation of Mineral Resources and adjust information from NI 43-101 to JORC 2012 form.

The main recommendation was to carry out a complete review of Mineral Resources updating the 3D models (geological and grade shells) considering structural (fault models) and Manganese Models had already been performed by Silver Standard and complete with Silver and Copper grade shell models for Mineral Resources estimates update. It also recommended testing the applicability of advance geostatistical tools as conditional simulation for risk assessment during the feasibility studies. These recommendations were completed as part of the 2017 drilling campaign.

Included in the results of the 2017 RC drilling campaign is a Berenguela Copper/Silver/Zinc deposit Mineral Resources estimates report which refers to a 2017 geostatistical study and block grade estimation. This report presents the partial results of 2017 drilling campaign performed by M. Batelochi based on the provided data from SOMINBESA (Sociedad Minera Berenguela S.A.) geologists, which are in compliance with 2012-JORC Code to inform to ASX stock exchange.

The summarized procedure for the estimates consists in (Table 1):

- Check and validation of provided data;

- Database including 2004/2005 RC Drilling, 2015 DD Drilling and 2017 RC Drilling campaign (BER-280 – there are more 12 drill holes in the lab to be updated);

- Grade shell wireframes, using reference grades as follow:

  - CU Wireframe - Cu % -> 0.20;
  - AG Wireframe - Ag (g/t) -> 25;
  - ZN Wireframe - Zn % -> 0.50;
  - MN Wireframe - Mn% -> 2,0;

- EDA (Exploratory Data Analysis) for Variables and Domains;

- Sample composites based on the half bench (2.5 metres height) of samples due to the multiples azimuth and dip of the drill holes, the half bench composite is an appropriated technique;

- top grade capping definition – treatment of outliers;

- Variography in 3 directions - N15E; N80W and vertical, based on main directions defined by the geology;

- Creating an empty full cell model. A consistent cell size for all models of 5 m x 5 m x 5 m Parent Cells;

- Density was estimated by Nearest Neighbour controlled by Manganese Wireframe, for the author is the best mineralogical control for densities;

- Grade Estimation - Ordinary Kriging Parameters based on Variography. Each variable was estimated hard boundary – Variable applied capping inside respective wireframe (Percent Model). Grade estimates were performed inside (“Ore”) and outside of the wireframes (“Waste”);

- Grade estimates validation – visual inspection and Nearest Neighbour comparison;

- Classification into Measured, Indicated and Inferred based on mathematical combination of: variogram ranges, slope of regression and number of samples used to estimate a block; and

- Post processing, diluting the grades to a block basis (5 x 5 x 5 m) to calculate the equivalent Copper Grade with valuation of Silver and Zinc.

Copper Equivalent Calculations & Recoveries Assumptions

The calculation formula used to calculate the reported Copper Equivalent (CuEq %) is as follows:
Cu Eq (%) = Cu G (%) + ((Ag G / 10000) x Ag P x C x ReAg) / (Cu P x ReCu) + (Zn% x Zn P x ReZn) / (Cu P x ReCu)

<u>Equation Key:</u>

Cu G = Copper grade %
Ag G = Silver grade in g/t
Ag P = Silver price in USD per troy ounce: US$17.23
C = Conversion of tonnes to ounces, 1 tonne = 10^6/31.1035=32150.7465 ounces
ReAg = Expected recovery of silver = 50%
Cu P = Copper price at US$7,202.00 per tonne
ReCu = Expected recovery of copper = 85%
Zn% = Zinc Grade %;
Zn P = Zinc price = US$3,377.00 per tonne;
ReZn = Expected recovery of zinc = 80%
See Table 1 for further information on metals grades and drilling intervals.

The metal's price assumptions were calculated using spot prices taken from the London Metals Exchange (LME) on Friday, 5th January 2018.

Metallurgical test work has been completed on multiple Berenguela ore samples by independent laboratories and consulting groups. Recovery rates are based on historical work conducted on Berenguela ore samples, as well as guidance from Valor's metallurgical consultants. Valor's metallurgists were consulted regarding the potential for Cu, Ag and Zn recovery based on historical metallurgical work in order to confirm Reasonable Prospects for Eventual Economic Extraction. A Quality Assurance-Quality Control (QAQC) analysis has been conducted to confirm mineralisation, which showed positive intervals. Based on historical metallurgical work and QAQC, it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

Competent Persons Statement

The technical information in this release is based on compiled and reviewed data by Mr. Marcelo Batelochi. Mr. Batelochi is an independent consultant with MB Geologia Ltda and is a Chartered Member of AusIMM – The Minerals Institute. Mr. Batelochi has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which is 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. Batelochi consents to the inclusion in the report of the matters based on their information in the form and context in which it appears. Mr. Batelochi accepts responsibility for the accuracy of the statements disclosed in this release.

MARCELO ANTONIO BATELOCHI (CP), Brazilian, Geologist, holds a degree in 1991, Bachelor of Honors from School of Geology at UNESP - São Paulo State University, Brazil. More than twenty years of experience in the mineral resource evaluation of Iron, Copper/ Gold, Nickel, Bauxite, REE and PGE Deposits, as employee of Rio Tinto (12 years), Vale (4 years), Ferrous Resources (6 years) and One year as Independent Consultant ("MB Geologia"). Member of the Australasian Institute of Mining and Metallurgy and is qualified as a Chattered Profession of Geology and Mineral Resources (Qualified to assign JORC and NI-43-101 Mineral Resource Reports).

The Following Table and Sections are provided to ensure compliance with JORC Code (2012 Edition)

TABLE 1 – Section 1: Sampling Techniques and Data

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr>
<td>Sampling techniques</td>
<td>

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.

</td>
<td>

In the Berenguela Deposit are 307 drill holes, 34,795.9 metres drilled, collected 30,525 assays and 1,462 density determination.

<table>
<tr><th>Phase</th><th>Type</th><th>No. DH</th><th>metres Drilled</th><th>No. Assays</th><th>No. Density</th><th>Percent Checked</th></tr>
<tr><td>2004</td><td>RC</td><td>57</td><td>5,063.00</td><td>4,917</td><td>0</td><td>4%</td></tr>
<tr><td>2005</td><td>RC</td><td>165</td><td>13,846.00</td><td>13,714</td><td>0</td><td>4%</td></tr>
<tr><td>2010</td><td>DD</td><td>17</td><td>5,546.20</td><td>1,907</td><td>0</td><td>2%</td></tr>
<tr><td>2015</td><td>DD</td><td>11</td><td>1,875.70</td><td>1,522</td><td>1,462</td><td>40%</td></tr>
<tr><td>2017</td><td>RC</td><td>69</td><td>9,109.00</td><td>8,465</td><td>0</td><td>100%</td></tr>
<tr><td>Total</td><td></td><td>318</td><td>35,439.90</td><td>30,525</td><td>1,462</td><td>32%</td></tr>
</table>

The deposit was drilled off on a regular grid pattern and a wide range of azimuth and dips.
The drill program expanded the areas of known mineralization to the east and south and subsequently increased resources on the deposit.
The objective of the drill program was to delineate the ore envelopes (wireframes) on deposit for quantify and qualify the Mineral resources.
Silver Standard Resources (SSR) drilling:

2004 and 2005 Reverse Circulation drill programs, sampled the drill holes on one-metre intervals;
2010 Diamond Drilling for exploration near deposit potential areas, sampled 1.0-1.5 metres truncated on geological discontinuities;
2015 Diamond Drilling for exploration near deposit potential areas and 2005 twin drill holes for Metallurgical tests, sampled 1.0-1.5 metres truncated on geological discontinuities;

Valor Resources 2017 RC Drilling campaign sampled the drill holes on one-metre intervals;
RC and DD drill samples were collected at the drill site by the drill crews.
The RC and DD drill holes were sampled from collar to total depth. Sampling intervals

</td>
</tr>
</table>

Criteria	JORC Code explanation	Commentary
		were dependent on the drilling equipment selected, the density of samples required and not based on geological controls or other features of the zone of interest. • 2004 - consisted 55 drill holes, 5,063.00 metres, 4,917 samples and 664 control samples (QAQC); • 2005 - entailed mainly reverse circulation (RC) drilling with some surface mapping and limited surface sampling. Completed 166 drill holes, 13,846.00 metres, 13,714 samples and 2,059 control samples (QAQC); • 2010 - consisted of diamond drilling (DD) focused on near mining exploration to add mineral resources on targets identified based on mapping and mineralization models. Completed 17 drill holes, 5,546.20 metres, 1,907 samples and 258 control samples (QAQC); • 2015 - Completed 11 drill holes, 1,875.70 metres, 1,522 samples, 1,432 density determinations and 111 control samples (QAQC) • 2017 - performed reverse circulation (RC), completed 69 drill holes, 9,109.00 metres, 8,465 samples and 443 control samples (QAQC) • The drill holes were laid out on a 35x50-metre pattern to cover the known areas of mineralization and test the limits of mineralization. • As is normal with RC drilling there were occasional samples that were not recovered, however, sample recoveries were of > 95 percent for the whole drill program.
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.).*	• Two drill programs were run almost back to back, one in the late fall of 2004 and the second ran from March 1st after the rains decreased and ended in early May 2005. • AK Drilling International of Lima was the contractor who performed the drilling for both programs. • During the first program fifty seven (57) RC holes were drilled and during the second program one hundred and sixty five (165) RC holes were drilled totalling 222 holes. • AK Drilling used a 4x4 buggy mounted RC drill accompanied by a 4x4 support and water truck. The contractor typically had 3 personnel on the drill rig on each 12 hour shift, a driller and two helpers. None of their personnel helped with the sampling however they would assist SSR samplers at times. • 2015 Drill program using diamond drill, where is under validation and consolidating the information • 2017 Drill program started on June and ends on September, performed by AK Drilling International of Lima was the contractor and AK Drilling used a 4x4 buggy mounted RC drill accompanied by a 4x4 support and water truck. The contractor typically had 3 personnel on the drill rig on each 12 hour shift, a driller and two helpers. None of their personnel helped with the sampling however they would assist SSR samplers at times

Criteria	JORC Code explanation	Commentary
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.*	• Drilling conditions ranged from difficult to good. Drilling through dry highly Manganese replaced limestone was good however clay altered carbonates when wet posed difficult drilling conditions. Where the rock was dry typically in the upper 20-50 metres drilling conditions were good and drilling was done without water. When the rock was wet at depth and clay zones were encountered drilling conditions were difficult. When these conditions were encountered the drillers had to inject water along with additives. • During the first part of the first drilling program the drillers had numerous lost intervals. They learned how to drill the property by the end of the first program increasing recoveries and improving penetration rates. They learned that by using additives along with water and a face sampling hammer clay zones could be drilled while still recovering sample. A typical reason why there were zones with no recovery was that clay would clog the hammer and or tubes and the drillers would continue to drill. This usually occurred on night shift when the driller didn't want to take the time to check either the drill rods, tubes leading to the cyclone or the hammer. During the second program when it appeared that there might be clogging they immediately switched to water injection.
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.*	• Lithology, alteration, veining, mineralisation and weathering were logged from the RC chips and stored in Data shed. Chips from selected holes were also placed in chip trays and stored in a designated building at site for reference
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 RC Drill crews collected the samples and the samples were split 3 times, using a Jones Splitter, down to 1/8th size. • The sample size ranges from approximately 2 to 10 kilograms. Approximately every 40th sample had a second, field duplicate sample collected. • The samples were tagged with the hole number and depth and then sent to the warehouse for further preparation were SSR Peru personnel prepared the samples for shipment to the assay lab.

Criteria	JORC Code explanation	Commentary
	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.* • *For geophysical tools, spectrometres, handheld XRF instruments, etc., the parametres 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.*	• The samples were prepared and tagged for shipment to the assay lab and blanks and standards were inserted into the sample stream at a rate shown at table below:

Number of Control Samples

Phase	Blanks	Duplicates	Standards								Total
			Yellow (Amarillo)	Blue (Azul)	Red (Rojo)	Green (Verde)	CDN-ME-4	CDN-HZ-2	CDN-ME-12	Total	
2004	240	137	101	94	92	0	0	0	0	287	664
2005	768	522	327	0	328	114	0	0	0	769	2,059
2010	96	90	0	0	0	0	36	0	36	72	258
2015	37	30	0	0	0	0	17	16	11	44	111
2017	96	192	0	0	0	0	49	49	48	146	434
Total	**1,237**	**971**	**428**	**94**	**420**	**114**	**102**	**65**	**95**	**1,318**	**3,526**

Percentage of Control Samples

Drilling Programme	Blanks	Duplicates	Standards								Total
			Yellow (Amarillo)	Blue (Azul)	Red (Rojo)	Green (Verde)	CDN-ME-4	CDN-HZ-2	CDN-ME-12	Total	
2004	4.9%	2.8%	2.1%	1.9%	1.9%	0.0%				5.8%	14%
2005	5.6%	3.8%	2.4%		2.4%	0.8%				5.6%	15%
2010	5.0%	4.7%					1.9%		1.9%	3.8%	14%
2015	2.4%	2.0%					1.1%	1.1%	0.7%	2.9%	7%
2017	1.1%	2.3%					0.6%	0.6%	0.6%	1.7%	5%
Total	**4.1%**	**3.2%**	**1.4%**	**0.3%**	**1.4%**	**0.4%**	**0.3%**	**0.2%**	**0.3%**	**4.3%**	**12%**

Ratio of Original Sample and Control Samples

Drilling Programme	Blanks	Duplicates	Standards								Total
			Yellow (Amarillo)	Blue (Azul)	Red (Rojo)	Green (Verde)	CDN-ME-4	CDN-HZ-2	CDN-ME-12	Total	
2004	1/20.5	1/35.9	1/48.7	1/52.3	1/53.4					1/17.1	1/7.4
2005	1/17.9	1/26.3	1/41.9		1/41.8	1/120.3				1/17.8	1/6.7
2010	1/19.9	1/21.2					1/53.0		1/53.0	1/26.5	1/7.4
2015	1/41.1	1/50.7					1/89.5	1/95.1	1/138.4	1/34.6	1/13.7
2017	1/88.2	1/44.1					1/172.8	1/172.8	1/176.4	1/58.0	1/19.5
Total	**1/24.7**	**1/31.4**								**1/23.2**	**1/8.7**

- 2004/2005 Drilling Programme:
  - Four different standards were utilized in the drilling program. SSR Peru staff deliver the samples to the ALS Chemex Labs depot in Arequipa and the samples were shipped to Lima, Peru for preparation. The assay pulps were shipped to ALS Chemex Labs in North Vancouver for analysis.
  - The Samples were prepared using a standard sample preparation (PREP-31) to produce a 250-gram pulp.
  - The analyses performed were four acid "near total" digestions with a 27 element ICP analysis (ME-ICP61).
  - Samples over the maximum for Silver, Copper or Manganese were analysed using Atomic Absorption (AA62b) and very high Silver samples were analysed using a

Criteria	JORC Code explanation	Commentary
		fire assay procedure with a gravimetric finish (Ag- GRA21) ○ Employed a comprehensive Quality Control/Quality Assurance (QA/QC) program during the drill program on Berenguela. The program included: standards, blanks, field duplicates and outside lab check assays as described above with the sampling procedures. Following the drill program, the author compiled the QA/QC data for the 2004 and 2005 drill programs and completed a summary of the QA/QC program results. The QA/QC summary contains recommendations for the improvement of QA/QC results, which included checking for Standard Reference Material (SRM) failures and contaminated blanks and follow up with corrective action. Other recommendations were to improve sample handling to reduce labelling errors. • 2010, 2015 and 2017 Drilling Programmes: ○ Three different standards were utilized in the drilling program... ○ The Sample preparation was performed by the preparation facility at SGS Peru in Arequipa, following the procedure ○ RECEPTION - Samples are received and checked with sample form from Berenguela; ○ DATA ENTRY – SGS following an internal procedure to generated CCONS where customer data is entered, then the "Presheet" worksheet is printed ○ CODIFIED - checked again the physical sample vs client's form; ○ WEIGHT - samples are weighed on line with the barcode reader; ○ DRYING - at 105 ° C controlled; ○ PRIMARY CRUSHING - Final product ~¼" (6 mm); ○ SECONDARY CRUSHING - Final product at -10 # (2mm) at 90% p80; ○ HOMOGENIZED pre-homogenized and again using riffle splitter; ○ RIFFLE SPLITTER - Successive reduction size until obtaining approx. 250g and the reject it is stored; ○ PULVERIZED - Pulverized 250g with final product -140 # at 90% p80. ○ Assays were processed by SGS – Callao – Peru accredited to ISO Standards that the samples are transported internally from Arequipa to SGS Callao facilities. The analysis is carried out for 2 main Multi Element Analysis procedures: SGS-MN-ME-41 - ICP40B and SGS-MN-ME-41 - AAS41B as shown details reported by SGS.
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 included surface samples to confirm the mineralization at Berenguela. • James A. McCrea, in 2005, collected four randomly located surface grab samples (BER-01 to BER-04) from the property. Each sample location was surveyed with a GPS.

Criteria	JORC Code explanation	Commentary
	data verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	Samples were taken over an area of approximately 1 square metre. Approximately 2 kilograms of material was taken from each sample site. The four samples were taken to represent different areas of the Berenguela Deposit. • The author carried out a visual comparison (quick logging and grade checks) between 5 twin diamond drill carried out in 2015 for Sliver Standard that show an excellent correlation between 2004/2005 RC Drilling (used for Mineral Resources Report) and 2015 diamond drilling (new information which will be included to the next Mineral Resource Evaluation). • M. Batelochi collected 100 samples of high grade for checking the precision of high grade values of Copper and Silver that it will threated before long.
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.*	• Topographic survey was done of the property which included locating all roads, drill holes, claim boundaries, and topographic features in sufficient detail. • 2004, 2005 and 2010 - A local surveyor did the work using a Total Station Laser instrument. Data during the day was loaded into the instrument and downloaded later directly into a computer for plotting. • 2015 and 2017 - Differential Global Positioning System (DGPS) with millimetre accuracy
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.*	• The RC have been drilled up to a maximum 180 vertical metres below surface on an irregular35 m x 50 m drill pattern, using same platform to drill several holes in a pattern of "umbrella's wire". • The data spacing and distribution is sufficient to demonstrate spatial and grade continuity of the mineralised domains to support the definition of Inferred and Indicated Mineral resources under the 2012 JORC code. • Drill hole samples have been composited to a nominal half bench composite (2.5 metres height) interval for the resource estimates.
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 majority of drilling is orientated with a 350 – 20 degree azimuth and 45-50 dip northeast, but there are significant vertical orientated drill holes. The table below shown the quantitative of drilling orientations:

Criteria	JORC Code explanation	Commentary

Campaign	From Azimuth	To Azimuth	From Dip	To Dip	Nb DrillHoles	Meters Drilled
2005	0	0	-80	-90	96	7,895.6
	0	14	-45	-60	47	5,215.6
	6	10	-43	-44	8	795.0
	30	45	-45	-50	4	1,009.1
	90	90	-90	-90	1	600.0
	123	123	-45	-45	1	81.0
	173	200	-45	-55	75	7,855.5
	186	186	-44	-44	1	84.0
	210	220	-50	-50	2	648.4
	208	208	-43	-43	1	118.0
	331	331	-45	-45	1	43.0
	348	348	-55	-55	1	110.0
2015	0	0	-90	-90	6	612.0
	69.7	69.7	-45	-45	1	320.0
	133.7	133.7	-45	-45	1	261.7
	179	179	-45	-45	1	255.0
	198.3	198.3	-45	-45	1	225.8
	241.8	241.8	-44	-44	1	201.2
2017	0	0	-90	-90	3	420.0
	0	15	-46	-75	18	2,292.0
	15	15	-44	-45	4	643.0
	50	50	-45	-65	9	990.0
	50	50	-44	-45	3	360.0
	150	150	-65	-65	1	140.0
	150	150	-43	-45	3	350.0
	195	195	-75	-75	1	80.0
	195	195	-45	-74	13	1,630.0
	195	195	-43	-43	1	150.0
	215	215	-50	-70	2	220.0
	230	230	-44	-45	2	200.0
	290	290	-61	-61	1	120.0
	330	330	-45	-66	6	635.0
	330	330	-45	-45	2	235.0

- Non intercepts the mineralisation at a reasonable high angle of intersection, that the regularization and composites are a big challenge for Mineral Resources Estimates.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• The RC samples are stored in a warehouse in Chorrillos, near Lima - Peru, and the cores from DD campaigns are stored in Santa Lucia. Competent Person visited both warehouses and conclude that the Chorrillos one is adequate to store the sampling. • The Santa Lucia one is adequate but need better organization. Samples were stored

Criteria	JORC Code explanation	Commentary
		and preserved in the warehouse in Chorrillos, metropolitan Lima region– Peru, in a dry and ventilated place.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Geology audits and site visit were completed in 2005 by James A. McCrea, P.Geo, independent consultants to review sampling procedures and QAQC practices. This visit concluded the sampling to be at an industry standard, and of sufficient quality to carry out a Mineral Resource Estimation. • In 2017, this author visited the project and revised the NI-43101 Mineral Resources carried out by James A. McCrea, endorsing his conclusion and recommended an immediate revision of Mineral Resources, updating with the 2011/2015 diamond drilling information and the geological knowledge, which improved considerably since 2005. • SOMIBESA staff which are fulltime dedicated to receiving the remaining chemical analysis of 12 drill holes and consolidate 2017 drilling campaign database including QAQC and update of grade shell domains. This staff in also in charge of validating historical data, searching and organizing on Silver Standard data room all relevant information of the project. • After finalized the 2017 drilling campaign and consolidated historical data, it is strong recommended an updating of the Mineral Resources Estimates, reporting Measured Mineral Resources for the feasibility studies of the deposit. • The suggestion of previous audit related to the poor precision of Copper and Silver high grade, SOMIBESA collected 100 samples to carry out duplicate studies and to understand the poor precision reported in 2005.

TABLE 1 – 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.*	• The Berenguela Property encompasses approximately 141.33 hectares situated in the eastern part of the Western Cordilleran of south-central Peru and consists of two mineral concessions. The Berenguela concessions are located within the Department of Puno and lie within Peruvian National Topographic System (NTS) map area Lagunillas, No. 32-U. The centre of the Berenguela concessions is at 15° 40' South Latitude and 70° 34' West Longitude
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In March of 2004, SSR entered into an option agreement with SOMINBESA (KCA) to purchase 100% of the Silver resources contained in the Berenguela Project. SSR performed exploration drill program from 2004 to 2005. • In 2017 SSR purchased 100% of Berenguela deposit and carried out an infill RC drilling.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Based on the distribution and form of the potentially economic bodies of Mn-Cu-Ag-Zn mineralization within the structurally deformed limestone formation there is little doubt that Berenguela represents a type of epigenetic, replacement-type ore deposit (Clark et al., 1990). Silver- and Copper-mineralized veins of quartz and/or carbonate appear to be a very minor component of the deposit. What is debateable at Berenguela is whether or not, or to what extent, supergene processes played a role in the formation of the deposit. • More specifically, is the extensive development of Manganese oxides the result of the surface oxidation of hypogene manganiferous carbonates (manganocalcite and/or rhodochrosite) which had replaced calcite and dolomite adjacent to fractures in the precursor limestone and where Silver, Copper and Zinc were deposited as sulphides synchronous with or subsequent to the Mn-carbonate replacement

Criteria	JORC Code explanation	Commentary
		event. Or are the Mn- and Fe-oxides the direct metasomatic products of a hydrothermal system marked by strongly oxidized fluids enriched in Ag, Cu. • Considering that the replacement-type ore bodies at Uchucchacua have vertical extents of up to 300 metres, one could presume that good exploration potential still exists at Berenguela for the discovery of hypogene Ag-Cu-Mn mineralization at depths of 150 metres or greater. A possible indication of additional and extensive metasomatic alteration at depth is represented by the thick gypsum zone that has been intersected by several of the deeper holes in the deposit. (Strathern, 1969) While this gypsum may be of sedimentary origin, it could also be explained as forming a well-developed zone of sulphate alteration (perhaps originally occurring as anhydrite) that is related to a high level intrusion which exsolved a large volume of sulphur-rich fluids and/or vapour
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.*	• Drill hole information has not been included here due to the large quantity of information. This information is included in the full JORC Technical Report, completed in January 2018, and available electronically in the Berenguela data room.
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*	• Drill hole information has not been included here due to the large quantity of information. This information is included in the full JORC Technical Report, completed in January 2018, and available electronically in the Berenguela data room.

Criteria	JORC Code explanation	Commentary
	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.*	
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').*	• Since few drill holes completed at Berenguela are longer than 150 m, there are few accounts of hypogene, sulphide-rich mineralization. However, this is not to say that such mineralization does not exist in altered limestones at greater depths.
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.*	• Drill hole information has not been included here due to the large quantity of information. This information is included in the full JORC Technical Report, completed in January 2018, and available electronically in the Berenguela data room.
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.*	• Weekly and Monthly reports are not included due to the large quantity of information. This information is available in digital basis in the project data room.
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.*	• 2004/2005: ○ SHAFT SINKING OR PITTING PROGRAM: During the course of the pitting Kappas Cassidy indicated that they might want to sample the mined material from each pit. After that decision was made the pits were filled in with dump rock that was close by. Each metre pile was then left (Figure 9 2) along the access road so that they could be sampled in the future. • 2015: ○ MAPPING: A local mapping program covering all Silver Standard concessions, extended to west of the concessions to understand the geology of surround areas at Limón Verde and Ferromina deposits and extrapolate the anomalies Ag/Cu and Au to define

Criteria	JORC Code explanation	Commentary
		better the mineralization controls. The mapping performed at scale 1: 5000 in a period of 3 months, outlining lithological, alteration and mineralization features, also highlighting areas with economic potential. During the mapping, 370 geochemical samples of rock were extracted, rock chip type, channel and dumps; in different points of the concessions and outside of this to know and check the geochemical signatures, also searching new interest targets. ○ STREAM SEDIMENT SAMPLING: In the northern zone of the Silver Standard concessions, there are volcanic rocks (intercalation of andesitic lavas and volcanic agglomerates) with no indication of hydrothermal alteration and without the presence of mineralization; therefore, a stream sediment sampling program was carried out to discard any type of mineralization. 25 stream sediment samples were extracted to evaluate the potential in the North Zone. ○ SOIL SAMPLING: In the Western of SSR concessions, historical values such as rock results indicate that there is potential for Au-Cu-Ag mineralization, due to the low density of outcrops in the area it was defined 9 lines azimuth N35°, spaced 200 metres acquiring samples every 40 metres, in a total of 6160m linear metres (all lines) and 157 soil geochemical samples. This sampling was carried out in 2 months in 2015: 103 samples in August and 54 samples in September. ○ The results of the 103 samples showed anomalous values of Cu and Ag, but no good secondary dispersion, and no high correlation between rocks (from mapping) and soils samples. ○ GEOPHYSICS: The geophysical acquiring data was in 2009 and 2010, by Induced polarization – IP (Cargabilidad) but the detailed treatment of data was performed in 2015, that was found the anomalies with high chargeability coincided with the structural interpretation and the mineralization depth using the geophysical chargeability anomalies ranges of 50m, 100m, 200m and 300m for which it was proposed 8 drill holes.

Criteria	JORC Code explanation	Commentary
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.*	• Berenguela deposit remain open at depth and there are other orebodies near the deposit. • Items 4 to 8 are compilations of various sources of information found on SSR Data room. Mainly on Geology/Mineralization items are some conflicting interpretations among several authors, but it was decided to leave them to foment the continuous geological discussion of the project and improvements. For environmental and social aspects also keeping attempt for issues and opportunities; • Sampling, preparation, chemical analysis techniques and validation, require a continuous improvement, any inconsistence of grades vs geology during re-logs or re-interpretation of the ore domains should be re-analysed; • Selecting 2.5% of 2010, 2015 and 2017 drilling samples to send to 3rd laboratory, to perform interlab duplicates; • Strong recommended a specific database software management. While not having this software is recommended constant supervision and backup trying to minimize the risk of corrupting the database; • Carry out an additional density measurement campaign, collecting samples of 2010/2015 drill cores, as well as retrieving the density determinations made by SGS as duplicates and reinterpreting them (The author did not find the data in the SSR data room, but were mentioned in the internal report of Becerra, J. (2016). For additional DD drilling is recommended to add budget for density determination;

TABLE 1 – Section 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Database integrity</td><td>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.</td><td>The database was checked 32% against the original raw data with respect to drill collar locations and down-hole surveys, and final drill hole depths. SOMIBESA team finished 100% check in November 2017. Table below shown this validation:
<table>
<tr><th>Phase</th><th>Type</th><th>No. DH</th><th>Metres Drilled</th><th>No. Assays</th><th>No. Density</th><th>Percent Checked</th></tr>
<tr><td>2004</td><td>RC</td><td>57</td><td>5,063.00</td><td>4,917</td><td>0</td><td>4%</td></tr>
<tr><td>2005</td><td>RC</td><td>165</td><td>13,846.00</td><td>13,714</td><td>0</td><td>4%</td></tr>
<tr><td>2010</td><td>DD</td><td>17</td><td>5,546.20</td><td>1,907</td><td>0</td><td>2%</td></tr>
<tr><td>2015</td><td>DD</td><td>11</td><td>1,875.70</td><td>1,522</td><td>1,462</td><td>40%</td></tr>
<tr><td>2017</td><td>RC</td><td>69</td><td>9,109.00</td><td>8,465</td><td>0</td><td>100%</td></tr>
<tr><td>Total</td><td></td><td>318</td><td>35,439.90</td><td>30,525</td><td>1,462</td><td>32%</td></tr>
</table>
All data with respect to sample intervals has been (overlaps and duplicate records) have been verified.
No issues were identified with the data.</td></tr>
<tr><td>Site visits</td><td>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.</td><td>Mr Marcelo A. Batelochi is a member of The Australian Institute of Mining and Metallurgy and is a Competent Person who has visited this site three times in 2017 to confirm and ensure JORC (2012) Compliance.
In the opinion of the competent person, the drilling, sampling and mining practices used on site have been done according to international best practices.</td></tr>
<tr><td>Geological interpretation</td><td>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.</td><td>The mineralized zone on the property is bowl shaped and elongated in an east west direction.
The grade shells 3D modelling was performed individually for grades: Ag (ppm), Cu (%), Zn (%) and Mn (%) following the geological and structural characteristics of the deposit, applying techniques of implicit and traditional methodologies.
It was most critical work during this mineral resource estimates, in which, it was listed some challenges to output the 3D Modelling:</td></tr>
</table>

Criteria	JORC Code explanation	Commentary

	• *The factors affecting continuity both of grade and geology.*	• In order to better understand and maintain the geological and chemical reliability of the ore bodies, it was decided to perform the grade shell wireframes separated for each element. It was an important exercise at that time to understand better the mineralization controls and geometry;
		• The bodies were performed by implicit modelling, however, the author not considered validated (geologically and ~ 30% of waste samples inside). Then it was carried out other tests with no success, at that time;
		• The author decided, to carry out a traditional 3D modelling for Silver and Copper (most critical ones), vertical sections spaced in 20 metres. But, it still did not look good (according to the author), then decided on carry out horizontal sections spaced half a bench (2.5) using composite samples as a support of this interpretation (same height support samples and section), which was in accordance with what the author considered to be the best model (logically, 2.5 m spaced sections is like short term model). Then, the wireframe was performed by extrusion of horizontal sections (1.25m corridor).
		  • The reference grades applied for grade shell wireframes were:
		    ○ Cu % -> 0.25 (different from prelaminar model – Oct 2017);
		    ○ Ag (g/t) -> 25;
		    ○ Zn % -> 0.50
		    ○ Mn% -> 2.0

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 Berenguela Ag-Cu-Mn-Zn deposit trends in a WNW direction for more than 1,400 metres along a whale-back ridge that separates two valleys, the broader one being to the south. • The eastern and western limits of the deposit roughly correspond to where steep slopes truncate the ridge and descend to the pampa valleys some 200 metres below the ridge-crest. • Moderately to isoclinally folded limestones and dolomites of the Cretaceous-age Ayavacas Formation are the dominant lithologies exposed along the ridge and host the deposit mineralization.
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*	• The updated mineral resource estimates refer to a geostatistical studies and block grade estimation incorporating 2017 RC drilling campaign (Figure 1 1), encompassing the following activities: ○ complete documental review of Mineral Concession, Regional and Local Geology;

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr>
<td></td>
<td>
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 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.
The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

</td>
<td>

database and QAQ of 2004/2005 RC Drilling, 2015 DD Drilling and 2017 RC Drilling campaign;
grade shell wireframes, using reference grades as follow:

CU Wireframe - Cu % -> 0.25;
AG Wireframe - Ag (g/t) -> 25;
ZN Wireframe - Zn % -> 0.50
MN Wireframe - Mn% -> 2,0

EDA (Exploratory data Analysis) for Variables and Domains;
Sample composites based on the half bench (2.5 metres height) of samples due to the multiples azimuth and dip of the drill holes, the half bench composite is an appropriated technique;
top grade capping definition – treatment of outliers;
Variography in 3 directions - N15E; N80W and vertical, for Copper, Silver, Manganese, Zinc and Lead based on main directions defined by the geology;
Creating an empty full cell model. A consistent cell size for all models of 5 m x 5 m x 5 m Parent Cells as shown table below.
<table>
<tr><th>Parent Block</th><th>x</th><th>y</th><th>z</th></tr>
<tr><td>Origin</td><td>331400</td><td>8268200</td><td>4000</td></tr>
<tr><td>Block Size</td><td>5</td><td>5</td><td>5</td></tr>
<tr><td>Nb Cells</td><td>318</td><td>160</td><td>60</td></tr>
<tr><td>Rotation</td><td>0°</td><td colspan="2"></td></tr>
</table>

Flagging the model using the mineralised codes listed at Item 14.3 – Page 184;
Density was estimated by Nearest Neighbourhood controlled by Manganese Wireframe, for the author is the best mineralogical control for densities;
Grade Estimation - Ordinary Kriging Parametres of Copper, Silver, Manganese, Zinc, three runs, based on Variography. Each variable was estimated hard boundary – Variable applied capping inside respective wireframe (Percent Model)
grade estimates validation – visual inspection, swath plots and Nearest Neighbourhood;
Classification into Measured Indicated and Inferred based on Mathematical combination of: variogram ranges, slope of regression and number of samples used to estimate a block;
Post processing of grades, change of support, converting the partial blocks to total blocks (5 x 5 x 5 m) - like: [AgOreOK * PercAgOre + AgWstOK * PercAgWst]/[PercAgOre + PercAgWst). Then calculated the block equivalent Copper grade with valuation of Silver and Zinc.

</td>
</tr>
</table>

Criteria	JORC Code explanation	Commentary
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages were calculated using dry density basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A reference grade of 0.50 eCu% (equivalent Copper Grade) was used to report mineral resources. It is considered for calculus diluted Cu, Ag, Zn grades in a block support (Grades were estimated inside the solids on Percent Model). Cu Eq (%) = Cu G (%) + ((Ag G / 10000) x Ag P x C x ReAg) / (Cu P x ReCu) + (Zn% x Zn P x ReZn) / (Cu P x ReCu) Where: Cu G = Copper grade % Ag G = Silver grade in g/t Ag P = Silver price in USD per troy ounce: US$16.795 C = Conversion of tonnes to ounces, 1 tonne = 10^6/31.1035=32150.7465 ounces ReAg = Expected recovery of Silver = 50% Cu P = Copper price at US$6,426.00 per tonne ReCu = Expected recovery of Copper = 85% Zn% = Zinc Grade %; Zn P = Zinc price = US$3,150.00 per tonne;
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.*	Base of Calculus / Units / Price-LME / Rec (%) Concentrate Cu / US Dollars per tonne / 6,510.00 / 0.85 Ag / US Dollars and cents per troy ounce / 16.635 / 0.5 Zn / US Dollars per tonne / 3,349.00 / 0.8 LME (London Metal Exchange) Prices on 6TH Oct 2017.
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*	• Kappes, Cassiday & Associates (KCA) developed a preliminary flowsheet which was based on leaching followed by electrowinning of Copper, extraction of Silver by Cyanide leach followed by Merrill Crowe process and finally extraction of MnO_2 by electrowinning.

Criteria	JORC Code explanation	Commentary
	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.	• Further information regarding metallurgical factors can be found in Section 1.8 of this Report. • Lab work and test results are held by the company in digital form within the company's data room.
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.*	• An environmental permit was obtained from the Ministerio de Minas, in Lima in order to drill and was amended in order to sink shafts. A blasting permit was also obtained in order to sink the shafts • Environmental Evaluation (EA - Evaluación Ambiental) - Approved by the MINEM on November 5, 2004 - The execution of 492 DDH and RC drill holes in 164 platforms was approved. The average depth approved was 200 m. - Validity: schedule of activities of 02 years and 02 months - Expiry date: December 31, 2006. • Semi-detailed Environmental Impact Study (EIAsd - Estudio de Impacto Ambiental semidetallado) - Approved by the MINEM on March 9, 2010 - The execution of 133 DDH drill holes in 133 platforms was approved. The average depth approved was 300 m. - Validity: 02 years - Expiry date: March 9, 2012. • Environmental Impact Statement (DIA - Declaración de Impacto Ambiental) - Approved by the MINEM on March 17, 2015 - The execution of 100 DDH drill holes in 20 platforms was approved. The average depth approved was 500 m. - Validity: 02 years - Expiry date: September 17, 2017. • 1st Sustainability Technical Report (ITS) - Modified DIA - Approved by the MINEM on October 26, 2015 - Modified the DIA, changing the location of 15 platforms of the 20 approved initially by the DIA. - Validity: The approved by the DIA is maintained - Expiry date: September 17, 2017. • 2nd Sustainability Technical Report (ITS) – Modified DIA - Approved by the MINEM on August 25, 2017

Criteria	JORC Code explanation	Commentary
		- Modified the DIA, changing the location of 08 platforms of the 20 approved initially by the DIA. - Validity: It extends 1 year to the approved by the DIA - Expired: September 17, 2018.
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.*	• An extensive database of density measurements was recorded at 2015 drilling campaign, collecting 1462 samples, used on this mineral resources estimates. This data has been organised in the Berenguela data room.
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.*	• The Mineral Resource classification was carried out by mathematical script based on the spatial distribution of the data, number of samples to estimate a block, semivariogram range and Slope of Regression of Copper, Silver and Zinc ordinary kriging outputs. Blocks estimated with more than one variable, considered minimum values among them. • Measured Mineral resources were those tons coming from block estimated on first neighbourhood, at least 6 Samples and Maximum of 16, using octant search and minimum of 3 Drill Holes and slope of Regression >= 0.85. • Indicated Mineral resources were those tons coming from block estimated at least 4 Samples and Maximum of 16, using octant search and minimum of 2 Drill Holes and slope of Regression >= 0.5; • Inferred Mineral resources were those with tons coming from blocks which did not meet the requirements for block classification as measured and indicated. • There are some "spotted dogs" on Measured Mineral Resources due to this mathematical classification that suggested to make manual adjustment on next mineral resource estimates...
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	
Discussion of relative	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an*	• Berenguela Mineral Resource update reached the objective of increasing Mineral Resources with a re-conceptualization of reported on 2005, mainly extension of

Criteria	JORC Code explanation	Commentary
accuracy/ confidence	*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 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.*	mineralisation and the valuation of Copper and Zinc, reporting equivalent Copper (eqCu considering Cu, Ag and Zn) instead only Silver reported on 2005, due to the maturation of the knowledge of the mineralization of the deposit, also with the incorporation of the data from 2010 and 2015 DD Drilling as well as with the 2017 RC infill drilling. • As result of 2007 these updates and upsides, the Mineral Resources for Berenguela deposit are estimated to total 45.9 million tonnes containing 772 million pounds of Copper, 126 million ounces of Silver, 289 million pounds of Zinc restricted on concession "Berenguela" and "Berenguela 97". It represents an increase of 44% on containing Silver (2005 – 88 Moz) and 86% on Copper (414 Mlb). This reported Mineral Resources honoured the best practices of mineral resource evaluation in the mineral industry. The procedures used are aligned to the jorc-2012 and other international codes. • Sampling and assaying are adequately and have been carried out using industry standard QA/QC practices. These practices include sampling, assaying, chain of custody of the samples, sample storage, standards, blanks, and duplicates, but are not limited on these. • The Wireframes models are reasonably constructed and generally representative of the extents and limits of the mineralization. After finished them, as continuous improvement notes that the mineralization shapes of Copper and Silver ones need a fine tuning on the edges, but not interferer on the Mineral Resources numbers and it is in accordance with imprecision of Inferred. • The estimation procedures employed at Berenguela including compositing, top-cutting, variography, block model construction, and interpolation to be reasonable and in line with good practices on industry standard practice. • The classification criteria to be reasonable, although somewhat aggressive with respect to the "Slope of Regression" reference parameters (0.85 Measured and 0.50 Indicated) that need further investigation with classification criteria based on risk assessment measurements (as simulation or Uniform Condition). • The metallurgical test program to date has undertaken in a scoping study and the reference values assumed for Equivalent Copper (0.50 %) are adequate for this Mineral Resources Approach, but for the Ore Reserves it is necessary a complete programme for better define the parameters. MB visualizes a possibility to reduce the Cu eq cut-off grade to 0.20%, as examples of several open pit Copper projects on friable material that upside the project in 820 million pounds of Copper (+ 6% of this report) that could impact positively the deposit

Criteria	JORC Code explanation	Commentary
		• Also, this Mineral Resources Model is robust enough to support Valor Resources' decision-making for the continuity the feasibility studies on Berenguela Deposit that has robustness for the mineral reserves, mine planning, metallurgy and geometallurgy sampling.