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ASX RELEASE

Maiden Zinc Mineral Resource Estimate for Oropesa Tin Project.

Highlights

- Maiden Zinc Mineral Resource Estimate of 23.75mt @ 0.42% Zn (96% classified as Measured and Indicated Resources) has been reported for the Oropesa Project.
- The Tin Mineral Resource Estimate (Feb-2023) remains unchanged at 19.6mt @ 0.39% Sn.
- A by-product flow sheet recovering and producing a saleable zinc concentrate (~45%Zn) from a head grade of ~0.5%Zn has been developed, in addition to (and not effecting) the main tin concentrate recovery or production.
- Ore sorting test work at TOMRA laboratories also confirms an average +28% upgrade of zinc ore feed grades when processed with cassiterite.
- The zinc is highly correlated with tin mineralisation, resulting in the zinc conceptually being mined, crushed, ore-sorted, ground at no additional cost to a tin ore only operation.
- By-product flow sheet recovers zinc metal from material which would otherwise be sent to the tailings dam, proving strong environmental stewardship, responsible mining practices and likely economic benefits.
- The incremental capital and operating costs associated with producing zinc are likely to be relatively minor compared to overall project development costs, creating a strong economic basis for further zinc byproduct assessment.
- The company will now consider zinc for inclusion into the Oropesa Definitive Feasibility Study (DFS) Basis of Design.

Elementos (ASX: ELT) has reported a maiden Zinc Mineral Resource Estimate² (MRE) at its Oropesa Tin Project in Spain of 23.75mt @ 0.42% Zn (96% classified as Measured and Indicated Resources) following a detailed geological investigation into the continuity of the mineralisation.

The development of a by-product flow sheet to recover and produce a saleable zinc concentrate from material which would otherwise be sent to the tailings dam will deliver significant environmental, mining and economic benefits. Zinc production will not affect the main tin concentrate production at Oropesa.

Elementos Managing Director Joe David said -

"Whilst tin remains the primary mineral of interest at Oropesa it is now confirmed that zinc will also be in consideration as a by-product stream for the company, delivering a more financially robust project with stronger environmental and mining benefits."



TOMORROW'S TIN

"As a majority of this zinc mineralisation is already planned to be be mined and processed with our tin, we are pleased the metallurgical test work has shown that a relatively small additional circuit can recover zinc efficiently from a stream that would have otherwise ended up in the tailings dam as waste. This will not only lower the metal content in our tailings dam but make more efficient use of the ore body we plan on mining, which demonstrates our commitment to responsible mining practices."

"We will continue to evaluate the economics of the zinc by-product stream and consider it for inclusion in the Basis of Design of our DFS for the Oropesa Project. The data to date makes a strong case that the incremental capital and operating costs associated with producing a zinc concentrate are likely to be relatively minor compared to overall project development costs, creating a strong economic basis for further assessment."

The zinc flow sheet has been based on metallurgical test work conducted at the Wardell Armstrong International Ltd laboratories (UK), managed by Competent Person David Castro Lopez from consulting process engineering firm Minepro Solutions in Spain. The process has been developed following the completion of laboratory scale flotation tests, including open circuit and locked cycle tests, specifically targeting the recovery of zinc. The zinc occurs as the mineral sphalerite, (Zn,Fe)S and is mostly located in the same mining blocks as the tin mineralisation.

The Oropesa Tin Project's Zinc MRE has been completed by Elementos' geologists for the zinc mineralisation only. The Mineral Resource for tin, released on 14th February 2023² by Measured Group, has not been altered for this report and has been re-produced for reference in this update.

OROPESA 2023 MINERAL RESOURCE ESTIMATE - Zinc (0.05% Zn cut-off)				
Resource Classification	Zn%	Resource Tonnes	Contained Zinc Metal (tonnes)	
Measured	0.37	8,664,418	31,670	
Indicated	0.39	14,052,877	54,356	
Subtotal: Measured & Indicated	0.38	22,717,295	86,026	
Inferred	1.32	1,028,073	13,545	
Total	0.42	23,745,368	99,571	

The Mineral Resource Estimate for <u>zinc</u> is summarised in Table 1, and Figure 1.

Table 1. 2023 Oropesa Mineral Resource Estimate for Zinc at a 0.05% Zn cut-off (JORC 2012)

The Mineral Resource Estimate for <u>tin</u> remains unchanged and is summarised in Table 2 below.

OROPESA 2023 MINERAL RESOURCE ESTIMATE - Tin (0.15% Sn cut-off)				
Resource Classification	Sn%	Resource Tonnes	Contained Tin Metal (tonnes)	
Measured	0.36	7,418,212	26,801	
Indicated	0.41	11,113,471	45,012	
Subtotal: Measured & Indicated	0.39	18,531,683	71,813	
Inferred	0.38	1,070,700	4,021	
Total	0.39	19,602,383	75,834	

Table 2. 2023 Oropesa Mineral Resource Estimate for Tin at a 0.15% Sn cut-off (February 2023 MRE² Announcement)

The zinc resource has been estimated for the purposes of producing a by-product concentrate to primary tin concentrate production and should not be considered as a stand-alone Mineral Resource. The economic cut-

TOMORROW'S TIN

off grade that has been applied for resource estimation for zinc is 0.05% Zn due to the base assumption that the tin Resource will cover the vast majority of the cost base of mining and processing the minerals. The zinc resource has been estimated from within the same block model limits located within 16 separate domains that were defined for the estimation of the primary tin resource. The zinc mineralising event is closely related spatially to the primary tin mineralising event but has been interpreted to have occurred after the tin mineralising event. The zinc resource has been estimated as a separate resource to the tin resource for the purposes of maximising the recovery of zinc. There are a number of discreet mineralised zones where there is significant zinc mineralisation and no appreciable tin mineralisation (tin grades being <0.15% Sn). The higher-grade zinc zones have been assumed to be mined as ore (as opposed to waste) and would be blended with tin ore zones prior to the ore entering the crusher and the start of the mineral processing plant circuit. The updated MRE will likely be further assessed for conversion to JORC Ore Reserves, via techno-economic modification factors, during Oropesa's Definitive Feasibility Study (DFS) which is currently underway.



Figure 1. Oropesa block model resource for zinc



Figure 2. Oropesa Resource Model plan coloured by 2023 Resource Classification²



Figure 3. Oropesa resource modelling domains (16)

TOMORROW'S TIN



Figure 4. Oropesa 2023 Mineral Resource Model with topography & 2022 Optimisation Study pit shell¹.

A comprehensive market announcement on the zinc mineralisation at Oropesa was released to the ASX on 3rd August 2023³.

TOMORROW'S TIN

Mineral Resource Statement

Overview of Oropesa

The Oropesa property represents a 13km² concession package (Investigation Permit No. 13.050) located approximately 75km northwest of Cordoba and 180km northeast of Seville, within the province of Andalucía, in southern Spain. Elementos currently holds a 100%[^] interest in the Oropesa property with registered title to the property with the Andalucia mining authorities under the Spanish Mining Act through its 100%¹ subsidiary Minas de Estaña de España SLU (MESPA).

Project Geology

The Oropesa deposit is located within the Espiel Thrust Sheet, at the western margin of the Peñarroya basin, a Carboniferous, trans-tensional basin that formed during the Late Carboniferous Hercynian/Variscan orogeny. The Espiel Thrust Sheet is located between Ossa-Morena Zone and Central Iberian Zone within the Iberian Massif in southern Spain.



Figure 5. Simplified Geology of the Iberian Massif

The Oropesa project area comprises intercalated sandstones and conglomerates with rare siltstones and shales. The sedimentary units have complex geometries, reflecting an active depositional environment and syn-sedimentary faulting. This geometry has been further complicated by a subsequent phase of deformation involving the re-activation of some basin-controlling faults as strike slip and reverse faults with associated folding of the stratigraphic package, producing upright to locally overturned bedding.

TOMORROW'S TIN



Figure 6. Regional Geology

Tin mineralisation (cassiterite with minor stannite) is the principle economic mineralisation at Oropesa. The tin mineralisation is replacement style, primarily occurring in granular sandstones at the contacts between the sandstone and conglomerate units, with up to three later phases of disseminated to semi-massive sulphide mineralisation. The zinc mineralisation (sphalerite, Figure 7) is associated with the sulphide replacement mineralisation. The mineralisation is volumetrically more significant as replacement style within the sandstones, however fault/structurally hosted mineralisation has also been interpreted as occurring within reverse thrust fault zones that bound and occur within the deposit. The tin-zinc mineralisation is associated with pervasive leaching of the host rocks and silica ± carbonate ±chlorite alteration.



Figure 7. Sphalerite (Zn) replacement mineralisation in ORPD-188



TOMORROW'S TIN

Geological Interpretation

The geometry of the Oropesa deposit is primarily the result of two major deformation phases, an initial strikeslip to extensional phase of deformation during basin formation followed by a strong contractional overprint.

The initial phase of basin formation produced a complicated geometry characterised by at least two major fault orientations: a basin-parallel, NW striking fault set, the original dip of which is still uncertain, and an oblique N-S striking, fault set with steep to subvertical dips. Both fault sets appear to have been active during basin formation, producing rapid lateral facies changes and the characteristic wedge-shaped stratigraphic packages interpreted from drill hole lithology logging.

Post sediment deposition tectonic activity appears to have been a key mechanism in providing structural conduits for mineralising fluids contemporaneously providing more permeable locations along the sandstone/conglomerate contact zones for the development of the ore body.

The geological interpretation of the Oropesa resource is based on the application of progressive analysis of the reported and observed data and the application of strike-slip restraining stepover geometries to the Oropesa deposit (McClay and Bonora, 2001). This model is based on the re-activation of basement structures by sinistral strike-slip movement in a northwest-southeast orientation that results in pop-up structures within the basin that are bounded by steep to shallow dipping reverse faults of similar orientation to the bounding structures but also can occur as pseudo-Riedel sheer structures between the bounding structures. This model can be used to explain the steeply dipping sedimentary boundaries adjacent to shallow dipping layers, separated by reverse thrust fault zones which are frequently located along the boundary between the sandstones and conglomerates (zones of weakness). The development of the thrust zones along the sedimentary boundaries enhances the permeability of these zones in preparation for the influx of mineralising fluids. This could explain the presence of a large proportion of the mineralisation at Oropesa along these lithological boundaries, albeit significantly deformed. The thrust planes promote the development of localised overturned folds.



Figure 8 Sinistral strike-slip restraining stepover geometries as modelled by McClay and Bonora (2001), superimposed on the Oropesa resource.

TOMORROW'S TIN



Figure 9 3D model of Oropesa mineral resource domains and interpreted major structures (looking northwest) based on sinistral strike-slip restraining stepover geometries

Controls on Mineralisation

Mineralisation at Oropesa is strongly lithologically controlled, with the majority of mineralisation occurring in sandstone as a replacement deposit (Figures 8–10). The more intensive mineralisation tends to occur close to the boundary between the sandstones and conglomerate, with overall contained tin reducing with increasing distance from lithological boundaries and interpreted mineralising conduit structures. Grainsize and stratigraphic position act as second-order controls. The boundary between the sandstone and conglomerate is intensely tectonised, possibly reflecting the rheological differences between the two distinctive lithologies, with original textures removed by the mineralisation.

In addition to the lithological controls, there are also several interpreted mineralised fault zones. The mineralised fault zones are commonly associated with zones of increasing deformation intensity. The mineralised fault zones are more readily recognised within the conglomerates.

TOMORROW'S TIN



Figure 10. Section A-A' depicting lithological and structural interpretation, zinc resource block model and 2m downhole composite zinc samples (block model clarification)

Timing of Mineralisation

Mineralisation occurred during the Variscan/Hercynian orogeny (Late Carboniferous-Permian). Mineralisation is suggested to have occurred syn-tectonically.

Exploration and Drilling Techniques

Eight drilling programs have been completed to compile the data in this report. Six drilling programs from 2010 – 2016 were completed as predominantly HQ diameter diamond drill (DD) holes, using a double tube recovery barrel. A small number of reverse circulation (RC) drill holes (12) and RC-DD tail drill holes (4) were carried out during the early phases of exploration (2012). Only intercepts from four RC drill holes have been employed in the development of the Mineral Resource Estimate. Further details of these drilling programs are reported in Mineral Resource Estimates released in 2015 and 2018. One RC and diamond twin hole has been completed.



TOMORROW'S TIN

Elementos completed an additional 57 diamond drill holes in 2020-22. The program consisted of PQ pre-collars (85.0mm ID) and HQ tails (63.5mm ID). Triple tube recovery barrels were employed on the HQ drilling. A total of 320 drill holes have been completed at Oropesa. Diamond drill core has been logged for geology, mineralisation, core recovery and RQD.

Measurements are taken systematically downhole between core blocks. Average drill core recovery from 2010-2016 was 92%. Average drill core recovery from 2020-21 was 98.5%. Average drill core recovery from 2022was 92.6%.

All drill core has been photographed.

Drill hole survey data is recorded in the 1989 ETRS Spanish Datum (ETRS89) and ED50 Datum.

Sampling and Sub-sampling Techniques

Drill core samples and sample intervals up until August 2012 were selected based on visual recognition of mineralisation. Drill core samples after August 2012 were selected based on visual recognition and NITON portable XRF data. Whole core was split using a core saw operated by trained company personnel. The samples were recorded and submitted to an ISO-accredited ALS facility in Seville for preparation.

Sampling and Analysis Methods

Prior to 2020, the ALS facility in Seville followed procedure PREP-31 to weigh, dry and crush samples, and then take a further 250g split to be further pulverised so that >85% passed through a 75 micron mesh. Prepared samples were sent to ALS Laboratory, Vancouver, Canada for analysis for tin by glass fusion X-Ray fluorescence (XRF).

For the 2020-22 drilling programs the ALS facility in Seville followed procedure CRU-31 to weigh, dry and crush the samples where 70% <2mm. A 1000g sample was split and pulverised to 85% passing 75 microns. Prepared samples were sent to the ALS laboratory in Galway, Ireland for analysis for tin by peroxide fusion, ICP-AES (ME-ICP81X).

Duplicate samples were selected from sample pulps by company personnel up until April 2012. Following April 2012 the duplicate samples were selected for analysis by ALS as part of their internal QAQC procedures. The ALS sample selection procedure was similar to that adopted earlier by the company.

Routine industry standard QAQC procedures have been in place following drill hole ORPD059 (drilled in 2011), and 81% of drill hole intersections within the mineralisation wireframes are supported by QAQC data. The samples collected prior to the implementation of QAQC procedures were prepared and analysed at the same ALS laboratory facilities (Seville and Vancouver), and mineralised intersections and grade distributions are visually comparable to adjacent data supported by QAQC procedures (up until 2016).

From 2011 to 2016, the QAQC procedures featured the insertion of field blanks, CRM samples and duplicates, at a combined rate of approximately 6% in every batch sent to the laboratory. QAQC procedures for the 2020-22 programs featured the insertion of accredited standards and blanks at an insertion rate of approximately 5% in every batch to the laboratory.

Resource Estimation Methodology

TOMORROW'S TIN

For this Mineral Resource estimate, Elementos has completed the following:

- modelled the zinc mineralisation horizons as a series of domains in 3D using Micromine Software;
- the Mineral Resource Estimate is based on 16 discreet mineralised domains modelled within the overall mineralised zone:
- created 2m composite samples for each drill hole per intersected domain and undertaken statistical analysis of these.:
- reviewed the sample composite data for grade outliers based on histogram analysis, a top cut of 16% Zn was applied and a 0.002% Zn bottom cut was applied:
- undertaken geostatistical analyses to determine appropriate interpolation algorithms;
- undertaken a Quantitative Kriging Neighbourhood analysis to test the sensitivity of the interpolation parameters;
- interpolated zinc grades and density data into the block model using Micromine Software;
- visually and statistically validated the estimated block grades relative to the original sample results (Figure 10); and
- reported the Mineral Resource according to the terminology, definitions and guidelines given in the JORC Code.

The zinc resource has been estimated as a by-product to primary tin concentrate production and relates to the ore that is present in ore blocks that have a cut-off grade of 0.05% Zn. The ore blocks are identical ore blocks to the ones that were used to estimate the tin MRE in February 2023². An estimated tin and zinc grade is available for each ore block located within each of the 16 domain boundaries that comprise the resource.

No other by-products have been estimated as part of this Mineral Resource estimate.

No deleterious elements have been estimated for the Mineral Resource estimate.

Block dimensions are 2m x 2m x 2m. These dimensions were chosen to be similar to the down hole sample spacing and to enable a more accurate resource estimate based on the nature and interpretation of the complex mineralised resource domains, geological boundaries and structural features. This dimension was also chosen to enable a more realistic mining schedule to be developed in the next phase of work.

Selective mining units have not been modelled as part of this Mineral Resource estimate.

No significant correlation relationships were found between modelled variables during raw statistical analysis (between tin and zinc results).

Bulk Density

Approximately 2700 density measurements have been taken across the deposit. The data has been separated into fresh, transition and oxide zones based on observations made during drill core logging. The density data was collected using the weigh in air/weigh in water method.

Cut-off Grade for Mineral Resource Estimate Reporting

TOMORROW'S TIN

A cut-of grade of 0.05% Zn and a zinc price of US\$2,500/t was used for the Mineral Resource Estimate. A cut-of grade of 0.15% Sn and a tin price of US\$30,000/t was used for the Mineral Resource Estimate. Table 3 and Table 4 provides details of the assumptions used for open cut pit optimisation studies that were carried out to determine the cut-off grade. Figure 11 shows the updated 2023 MRE grade tonnage curves for zinc.

INPUT	VALUE
	0-20m at 20°
Overall Pit Wall Angle	10 -100m from 43-49°
	>100m from 50-58°
Mining Recovery	94%
Mining Dilution	8%
Ore Dilution Grade Sn & Zn %	0%
Crusher Split, -10mm mass yield	30%
Crusher Split, +10mm mass yield	70%
Ore Sorter Feed Mass Vield (Sn + 7n)	9.34% x In(Feed Sn grade x 100) +
	76.23%
Ore Sorter Feed Recovery (Sn)	94.30%
Ore Sorter Feed Recovery (Zn)	94.30%
Concentrate Output Sn Grade	62.40%
Concentrate Output Zn Grade	43.50%
Concentrate Metal Recovery Sn	74.2%
Concentrate Metal Recovery Zn	60.0%
Cut-off Grade Sn%	0.15%
Cut-off Grade Zn%	0.05%

Table 3. Open cut pit and processing plant operating assumptions and modifying factors (updated from March 2022¹)

TOMORROW'S TIN

INPUT	UNITS	VALUE (US\$)
Topsoil Stripping and Management	\$/bcm	\$3.24
Waste Mining (inc D&B) < 1km haul	\$/Waste t	\$1.60
Ore Mining (inc D&B) < 1km haul	\$/Ore t	\$1.83
Additional Cost for Waste Haulage > 1km	\$/0re t/100m	\$0.016
Additional Cost for Ore Haulage > 1km	\$/0re t/100m	\$0.018
Waste Depth Penalty	\$/t/10 vertical m	\$0.012
Ore Depth Penalty	\$/t/10 vertical m	\$0.013
Pit Dewatering	\$/Total Mined t	\$0.001
Grade Control Drilling	\$/Ore t	\$0.165
Crushing, Screening and TOMRA Ore Sorter Cost	\$/TOMRA Feed t	\$0.75
TOMRA Ore Sorter Rejects Disposal	\$/TOMRA Rejects t	\$0.99
Process Plant Costs	\$/Feed t	\$18.34
Final Void Rehandle & Shaping	\$/Waste t	\$0.66
Pit, Dump & Infrastructure Rehabilitation	\$/Total Mined t	\$0.09
Processing Plant Rehabilitation	\$/Ore t	\$0.03
General and Administration Costs	% of OPEX	7.5%
Freight	\$/conc.T	\$100.43
Smelting	\$/conc.T	\$650
Sustaining Capital	\$/Total Mined t	\$0.15
Contingency	% of OPEX	5.0%

Table 4. Open pit optimisation input cost assumptions (updated from March 2022¹)

TOMORROW'S TIN



Figure 11. Grade tonnage curves for zinc for Oropesa Mineral Resource Estimation

Classification of Mineral Resources

- Resources are in domains that display reasonable to low geological confidence, where blocks are typically within 100m of sample data and bound by the maximum extents of the mineralisation wireframes. These areas require infill drilling to improve the quality of the geological interpretation and local block grade estimates to a level suitable for mine planning. Data quality, geological confidence, sample spacing and the interpreted continuity of grades controlled by the deposit has permitted Measured Group to classify the block model in the Measured, Indicated and Inferred Mineral Resource categories, as follows;
- Measured Mineral Resources are where block grades are based on multiple drill hole intercepts, where there is typically 20m spacing and where there is good continuity shown by both assay grades and the resource wireframes.
- Indicated Mineral Resources comprise the blocks the blocks in where there is a reasonable level of geological confidence in well drilled areas of the model and typically up to 70m beyond these areas.
- Inferred Mineral Resources are in domains that display reasonable to low geological confidence, where blocks are typically within 100 m of sample data and bound by the maximum extents of the mineralisation wireframes. These areas require infill drilling to improve the quality of the geological interpretation and local block grade estimates to a level suitable for mine planning.



TOMORROW'S TIN

Mining and Metallurgical Methods and Parameters Considered To-date

The assumptions for the mining method involve extraction by traditional truck and shovel operations. Waste rock will be proportionally returned as back fill to the open pit as the mine advances from northwest to southeast. A mining dilution rate of 0% has been included in the assumptions.

An overall geotechnical slope angle of 46°.

Pilot plant metallurgical test work finalised in 2022 achieved tin recovery of approximately 74.1% producing a 61.4% Sn concentrate. In 2023 further metallurgical studies, including flotation open circuit and locked cycle tests, achieved zinc recovery of approximately 60% producing a 43.5% Zn concentrate.

Elementos' Board has authorised the release of this announcement to the market.

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ABOUT ELEMENTOS

Elementos is committed to the safe and environmentally conscious exploration, development, and production of its highgrade tin projects. Elementos owns two world class tin projects with large Mineral Resource bases and significant exploration potential in mining-friendly jurisdictions.

Led by an experience-heavy management team and Board, Elementos is positioned as a pure tin platform, with an ability to develop projects in multiple countries. The company is well-positioned to help bridge the significant supply shortfall in coming years. This shortfall is being partly driven by increasing global interest in electrification, green energy, automation, electric vehicles and the conversion to lead-free solders as electrical contacts.

Competent Persons Statement:

The information in this report that relates to Mineral Resources is based on information compiled and reviewed by Mr Chris Creagh, who is a Member of the Australasian Institute of Mining and Metallurgy and is employed by Elementos Ltd. Mr Creagh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources. Mr Creagh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.'

The information in this announcement that relates to Metallurgical Results is based on and fairly reflects, information compiled by David Castro Lopez, a Competent Person who is a Member of the Institute of Materials, Minerals and Mining ("IMMM", a Recognised professional Organisation) and who is an employee of MinePro Solutions S.L. Mr Castro Lopez has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the metallurgical test work activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). The Company confirms that the form and context in which the information is presented has not been materially modified and it



TOMORROW'S TIN

is not aware of any new information or data that materially affects the information included in the relevant market announcements, as detailed in the body of this announcement.

ASX Limited has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

References to Previous Releases

The information in this report that relates to the Mineral Resources and Ore Reserves were last reported by the company in compliance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Mineral Resources, Ore Reserves, production targets and financial information derived from a production target were included in market releases dated as follows:

- 1 "Optimisation Study Oropesa Tin Project", 29th March 2022
- 2 "Oropesa Tin Project 2023 Mineral Resource Update", 14th February 2023
- 3 "Elementos confirms zinc mineralisation and by-product potential at Oropesa Tin Project", 3rd August 2023

References

McClay, K, Bonora, M: 2001. Analog models of restraining stepovers in strike-slip fault systems. AAPG Bulletin, v 85, No. 2, 27p

The company confirms that it is not aware of any new information or data that materially affects the information included in the market announcements referred above and further confirms that all material assumptions underpinning the production targets [and financial information derived from it, together with all material assumptions and technical parameters underpinning the Ore Reserve and Mineral Resource statements contained in those market releases, continue to apply and have not materially changed.

JORC Code, 2012 Edition – Table 1

SECTION 1 SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections) Mineral Resource Report, Oropesa Tin Project, Spain –November 2023.

Criteria	JORC Code explanation	Commentary
Criteria Sampling techniques	 JORC Code explanation 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. 	 Commentary Samples for this Mineral Resource Estimate have been collected from eight drilling programs. Sampling for geochemical assays that were used for this report are from drilling undertaken from the surface. The assay data used for this resource estimate is predominantly diamond drill core of HQ diameter (316 drill holes) with a small number (4) of reverse circulation holes. The drill holes have been located by differential GPS with down hole surveys using a Reflex single shot camera for each drill hole at intervals between 25 – 50m. The drill holes are plotted on sections oriented perpendicular to the mineralisation, in a northeast-southwest direction. The sections are located from 20m – 100m apart allowing interpretation at similar intervals. Tin (cassiterite) is the principal mineralisation of economic importance at Oropesa. The cassiterite is rarely visible to the naked eye. Historical mineral resource estimates have reported a strong relationship between tin mineralisation (cassiterite) and sulphide mineralisation, which includes the zinc sulphide sphalerite. Mineralogical studies indicate tin mineralisation occurring before the zinc mineralisation but being emplaced by the same mechanisms in predominantly the same locations. High levels of oxidation of the sulphide mineralisation to iron oxides has been observed near the surface (gossans) and within sub-vertical fault zones. Drilling data indicates that these highly oxidised zones can contain significant quantities of tin mineralisation (cassiterite) but little or no zinc mineralisation. There are also zones of significant levels of zinc mineralisation with little or no tin mineralisation hut this is not a common occurrence. The principal
		mineralisation, but this is not a common occurrence. The principal cassiterite mineralisation within the transitional and fresh zones can be recognised by silicification, leaching and chlorite alteration of the host
		sandstones and to a lesser extent within conglomerates, with finely

Criteria	JORC Code explanation	Commentary
		disseminated to semi-massive sulphides (pyrite ±sphalerite ± arsenopyrite) with late-stage infill colloform and/or vuggy quartz. Physical or chemical weathering of the fine- grained sulphides has been observed as small voids (pitting) in the host rocks.
		• Samples were selected based on visual observations and results from portable NITON XRF examination of the drill core. Samples were split into half core with a minimum sample weight of approximately 1kg. All samples have been prepared and analysed in a certified commercial laboratory.
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). 	 Eight drilling programs have been completed to date and data from each of these programs has been used to complete the Mineral Resource estimate. Six drilling programs from 2010 – 2016 were completed as predominantly HQ diameter diamond drill (DD) holes. A small number of reverse circulation (RC) drill holes (12) and RC-DD tail drill holes (4) were carried out during the early phases of exploration (2012). Only intercepts from 4 RC drill holes have been employed in the development of the resource estimation. 46 DD drill holes were completed in 2020-21 with a further 11 in-fill DD drill holes completed in 2022 for a total number of 320 drill holes.
		 Diamond core drilling consisted of PQ pre-collars (85.0mm ID) and HQ tails (63.5mm ID). Core recovery up until 2016 was by double tube barrel. Core recovery post 2016 was bytriple tube recovery barrels. Standard diamond drill bits were used. One RC and diamond twin hole has been completed
		Drilled core is not oriented.
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 	 The maximum drill core extracted was 3.1m. Diamond drill hole core was logged for geology, mineralisation, core recoveries and RQD. Measurements were taken systematically downhole between core blocks. Average drill core recovery from 2010-2016 was 92%. Average drill core recovery from 2020-21 was 98.5%. Average drill core recovery for 2022 was 92.6%. The mineralisation occurs predominantly in more porous, softer sandstone
	whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	 units. A mineralisation depth prediction table was used in the 2022 drill program to assist the drillers in preparing to drill the mineralised zones and maximise recoveries. Visual assessment of the drill core shows that core recovery is variable with

Criteria	JORC Code explanation	Commentary
		zones of lower recoveries often noted in zones of significant oxidation, mineralisation or structure. No clear relationship exists between tin grade and recovery.
		• Triple tube core barrels were used in the drilling programs post 2016 to enhance drill core recovery
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. 	 Geological and geotechnical logging (RQD and core recovery) was carried out for all core. All data has been entered electronically. Qualitative (lithological) and qualitative (geotechnical) logging has been completed for all core. All drill core has been photographed. The 2022 drill core was photographed
	• The total length and percentage of the relevant intersections logged.	both wet and dry. The core is photographed within core boxes, which are identified by drill hole number and start and finish depths. Drill run depths are marked on core blocks.
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 out compliant stages to maximize 	 Whole core was split using a core saw operated by trained Company personnel. The samples were recorded and submitted to an ISO-accredited ALS facility in Seville for preparation. Prior to 2020 the ALS facility followed procedure PREP-31 to weigh, dry and crush samples, and then take a further 250g split to be further pulverised so that >85% passed through a 75 micron mesh. Prepared samples were sent to ALS Laboratory, Vancouver, Canada for analysis. For the 2020, 21 and 2022 drilling programs the ALS facility in
	 Cuanty 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. 	Seville followed procedure CRU-31 to weigh, dry and crush the samples where 70% <2mm. A 1000g sample was split and pulverised to 85% passing 75 microns. Prepared samples were sent to the ALS laboratory in Galway, Ireland for analysis.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Duplicate samples were provided by the Company following drill hole ORPD- 059 until the end of 2016. Duplicate sample post 2016 were selected from the prepared samples for analysis by ALS as part of the internal QAQC procedures
Quality of assay data and	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• ALS Vancouver analysed the pre-2020 samples for tin by glass fusion X-Ray fluorescence (XRF)
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the	• ALS, Galway, Ireland, analysed the 2020-21 and 2022 samples for tin by

Criteria	JORC Code explanation	Commentary
laboratory tests	 parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 peroxide fusion, ICP-AES (ME-ICP81X). Routine industry standard QAQC procedures have been in place following drill hole ORPD059 (drilled in 2011). 82% of drill hole intersections within the mineralisation wireframes are supported by QAQC data. The samples collected prior to the implementation of QAQC procedures were prepared and analysed at the same ALS laboratory facilities (Seville and Vancouver), and mineralised intersections and grade distributions are visually comparable to adjacent data supported by QAQC procedures (up until 2016). From 2011 to 2016 the QAQC procedures featured the insertion of field blanks, CRM samples and duplicates, at a combined rate of approximately 6% in every batch sent to the laboratory. QAQC procedures for the 2020-21 and 2022 programs featured the insertion of accredited standards and blanks at an insertion rate of approximately 5% in every batch to the laboratory. ALS Galway selected sample repeats for the 2020-21 and 2022 programs in accordance with their internal procedures. A limited number of samples from the 2020-21 program were submitted for check assay for tin by XRF. A total of 46 samples were submitted from the 2020-21 and 2022 programs for laboratory comparison of the ICP-AES method. The Competent Person considers the assay data from the drill core to be accurate, based on the generally accepted industry standard practices, and
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 A number of site visits were made to the project area by SRK (UK) in the preparation of the previously reported geological resource estimates up to and including 2018. For the 2021, 2023 and current report, Company representatives and Measured Group personnel have made numerous site visits which has entailed a review of exploration procedures, detailed examination of historical drill core, site inspections, definition and modification of geological modelling concepts and procedures as required and the collection of relevant information from on-site personnel. The geological logging and drilling program supervision has been carried out by senior Company geologists and other experienced personnel as required.

Criteria	JORC Code explanation	Commentary
		 Drill core is available for verification at the Company's facility in Fuente Obejuna, Spain.
		 Geological data is recorded on laptop computers onto a standardized Excel logging template employing the Company's coding system. Data is uploaded on a daily basis onto a commercial "cloud" data storage system.
		• Asay data is uploaded directly from the commercial laboratory (ALS) into the Company's data base, utilizing Geobank software. All assay data has been validated. No adjustment has been made to the original assay data as received from ALS.
<i>Location of data points</i>	• 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.	 Drill collars have been located using a differential GPS. The drill holes not previously surveyed by this method in the historical geological resource estimates were picked up during the 2020-21 drilling program.
	 Specification of the grid system used. Quality and adequacy of topographic control. 	 Downhole surveys (dip and azimuth) have been collected using a single shot tool. Measurements were made at 25 – 50m intervals, depending on ground conditions.
		 Drill hole survey data is recorded in the 1989 ETRS Spanish Datum (ETRS89) and ED50 Datum.
		• The level of topographic control is from a photogrammetry survey completed in 2021 which has an accuracy of ± 10cm.
Data spacing and distribution	 Data spacing 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 drilling pattern is sufficiently dense to establish geological and grade continuity for the geological resource at a reasonable level of confidence. Drill holes are oriented perpendicular to the strike of the known mineralisation.
		 Zinc grade within the Oropesa deposit varies throughout the deposit and appears as higher and lower grade patches within the deposit. Lateral continuity and trends are not as predictable as grade trends between top to bottom contacts of the mineralisation. The nature of the style of the mineralisation, being a replacement deposit, suggests by virtue of that style, that the continuity of the mineralisation is determined by the frequency of structural conduits intersecting the more favourable lithological units (sandstones), the distance that the mineralising fluids have travelled from the

Criteria	JORC Code explanation	Commentary
		structural conduits and the prevailing conditions within the host rocks.
		• Closer drill hole spacing makes resource continuity and grade prediction easier. For Oropesa, the grade variability between drill holes will be greater than down the drill holes. To counter this variability and regions of lower drill hole spacing, a downhole sample composite of 2m has been used to better determine grade variability laterally and vertically within the deposit.
<i>Orientation of data in relation to geological structure</i>	 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 	 Where applicable, drill hole orientation is approximately perpendicular to known mineralisation. Drill holes are typically angled between 45° and 85° from horizontal. Intersection angles with the mineralisation range from 45° to perpendicular.
23ineralized structures is considered to have introduced a samplin should be assessed and reported if material.	23 ineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• The orientation of the drilling is not considered to have introduced any bias to the sample data or resource estimate.
Sample security	• The measures taken to ensure sample security.	• Transport of core samples to the ALS preparation facility in Seville is carried out by Company personnel. All drill core and crushed reject samples are stored in the Company's secure warehouse facility in Fuente Obejuna, Spain. The warehouse has restricted access to Company personnel only and is connected to the local police by a security alarm system.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Data used in previous resource estimates up until 2018 was validated by SRK (UK). Validation checks on the 2020-21 and 2022 data were carried out by Company and Measured Group personnel. Data was excluded or corrected as considered appropriate. The Competent Person is confident that the excel database is an accurate reflection of the drilling and sampling data.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Geological Resource Report, Oropesa Tin Project, November 2023

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. 	Elementos Limited announced to the ASX the acquisition of Minas De Estaño De España, SLU ("MESPA or the Company") from TSX-V listed Eurotin Ltd on 31 July 2018: (Acquisition of the Oropesa Tin Project) MESPA has registered title to the Oropesa project property with the Andalucia mining authorities (Permit number 13.050), under the Spanish Mining Act. The property is a 13km ² concession in Andalucía, southern Spain, located 75 km northwest of Cordoba and 180 km northeast of Seville. In April 2022 the Company filed an updated Exploitation Permit application, Environmental Impact Study and Restoration plan with the Andalucian authorities for the Oropesa property. Under Spanish Law an Exploitation Concession is granted for a 30-year period and may be extended for two further periods of 30 years each and up to a maximum of 90 years. Completing and filing the Exploitation Application prior to the expiration of the Investigation Permit allows the Company to remain in compliance with its title for the Oropesa property.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	Instituto Geológico y Minero de España ("IGME") conducted an exploration program in southern Spain between 1969–1990, including geological mapping and geochemical surveys, which led to the discovery of tin on the Oropesa property in 1982. Additional tin exploration targeted Oropesa and the neighbouring La Grana property during 1983–1990, which included further mapping, stream sediment sampling, geochemical soil sampling, geophysical surveys, trenching and initial drilling.
Geology	• Deposit type, geological setting and style of mineralisation.	The Oropesa deposit is characterised by replacement-style mineralisation occurring contemporaneously with the reactivation of syn-sedimentary and basin-controlling and subordinate faults within the Carboniferous Peñarroya Basin. The Peñarroya Basin was formed during the Hercynian/Variscan Orogeny. The faults have acted as conduits for mineralising fluids that have dispersed predominantly within sandstones along the boundary of a complexly folded

Criteria	JORC Code explanation	Commentary
		sequence of sedimentary rocks. Subordinate fault-hosted mineralisation is also present.
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. 	 This report is an update of five previous geological resource estimates. Listing all the detailed material pertaining to the historical reports and for this update would not add any further material understanding of the deposit and geological resource. No detailed exploration results are included in this report.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Weighted averaging based on core length and tin grade has been applied to compositing drill hole assay data. A top-cut of 16% Zn has been applied to the high grade assays. A bottom-cut of 0.002% Zn has been applied to the low-grade assays. No metal equivalent values are reported.
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 (eg 'down hole length, true width not 	 This report is based on analytical data from ALS, Seville on drill core analyses only. All drill core analytical data used in this report are based on downhole widths only. The drill holes have been targeted to intersect the mineralisation perpendicular to the known mineralisation boundaries. Drill holes are typically angled between 45° and 85° from horizontal.

Criteria	JORC Code explanation	Commentary
	known').	Intersection angles with the mineralisation range from 45° to perpendicular.
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. 	n/a
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.	n/a
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.	n/a
Further work	 The nature and scale of planned further work (eg 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. 	• The potential for additional replacement and structurally controlled mineralisation remains open along strike and around the margins of the deposit. Several north-northwest/south-southeast trending IP geophysical anomalies are located sub-parallel to the main mineralised zone within the licence boundaries. It is noted that the geological model used to guide the development of the mineralisation wireframes has significant implications for exploration in the immediate vicinity as well as within the surrounding district.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Geological Resource Report, Oropesa Tin Project, November 2023

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	• SRK (UK) performed a number of database validation checks on the Company's digital database for all drill hole data used in previous resource estimations up until 2020. All new data from the 2020-21 and 2022 exploration programs, which was reported in resource estimations up until February 2023, had undergone a series of validation checks by Company and Measured Group personnel. In 2023 the Company introduced a proprietary validated database utilising Geobank software. No material issues have been identified in the final database.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	• For the historical estimates SRK (UK) completed two site visits, in 2012 and 2015. The Measured Group Competent Person carried out a site inspection in February 2020. The site visit was used for the 2021 and 2023 MRE. No site visits were made during the 2020-21 drilling campaign due to the restrictions on international travel and additional implications from the advent of the COVID-19 pandemic in March 2020. Site visits were made during the 2022 and 2023 drilling campaign by the Company Competent Person. Site visits were used to review exploration procedures, examine the site, inspect select drill core examples, interview personnel and any other relevant information.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mineralised boundaries for the current resource estimate have been determined primarily on tin grade whilst honouring the significance of lithological boundaries and structural corridors on tin mineralisation continuity. Top and bottom of mineralised horizons have been determined by a lower grade cut-off of 0.05% Sn to assist in the development and continuity of the wireframe external and internal boundaries. Company personnel created 3D solid wireframes from selected intervals using the Wireframe feature in Micromine Software.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along	• The mineralisation has been modelled from 16 separate features (domains).

Criteria	JORC Code explanation	Commentary
	strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	Each feature is continuous based on mineralisation (Sn grade) continuity, lithological and structural controls and zones of intensive pervasive alteration (limited use).
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. 	 For this resource estimate, Elementos has completed the following: modelled the zinc mineralisation horizons as a series of domains in 3D using Micromine Software; created 2m composite samples for each drill hole per intersected domain and undertaken statistical analysis of these; reviewed the sample composite data for grade outliers- based on histogram analysis, a top cut of 16% Zn and bottom cut of 0.002% Zn was applied; undertaken geostatistical analyses to determine appropriate interpolation algorithms; undertaken a Quantitative Kriging Neighbourhood analysis to test the sensitivity of the interpolation parameters; interpolated zinc grades and density data into the block model using Micromine Software; visually and statistically validated the estimated block grades relative to the original sample results; and reported the mineral resource according to the terminology, definitions and quidelines given in the JORC Code.
	• 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 zinc resource estimate comprises Measured, Indicated and Inferred categories. These resource categories have the same boundaries to the resource categories estimated for tin by Measured Group in February 2023 (see 2023 Mineral Resource Update).; Zinc is a by-product and has been estimated in conjunction with the main tin resource (see 2023 Mineral Resource Update, 14th February 2023) No other by-products have been estimated as part of this resource estimate although the data has been assayed and resides in the company resource database. No deleterious elements have been estimated for the resource estimate although the data has been assayed and resides in the company resource database.

Criteria	JORC Code explanation	Commentary
	• The assumptions made regarding recovery of by-products.	• Block dimensions are 2x2x2m. These dimensions were chosen to be similar to the down hole sample spacing and to enable a more accurate resource estimate based on the nature and interpretation of the complex mineralised resource domains, geological boundaries and structural features. This dimension was also chosen to enable a more realistic mining schedule to be developed in the next phase of work.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	 Selective mining units have not been modelled as part of this Mineral Resource estimate.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• No significant correlation relationships were found between modelled variables during raw statistical analysis (e.g. between tin and zinc results)
	• Any assumptions behind modelling of selective mining units.	• The limits on the block model domains are constrained by a 0.05% tin cut-off grade, and lithological and structural wireframes that represent the complex tectonic and lithological nature of the deposit.
	• Any assumptions about correlation between variables.	• Based on histogram analysis, a 16% Zn high grade cut-off and 0.002% Zn low grade cut-off were used.
	• Description of how the geological interpretation was used to control the resource estimates.	 Visual checks were carried out along sections and in 3D to compare model block grades with drill hole data. Mean model grades were compared with mean sample grades along a series of pre-defined sections, as presented on validation plots. Block estimate grades were also compared to the mean of the composite samples. Based on these checks the Competent Person has
	• Discussion of basis for using or not using grade cutting or capping.	accepted the grades in the block model based on the visual, sectional and validation results.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	

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.	Tonnages are estimated on a dry basis
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	Basic economic considerations for extraction and processing have been applied to determine which portion of the block model has reasonable prospects for economic extraction by open-pit mining methods. To do this the geological resource has been subject to a high-level pit optimisation study to assist with determining the potential depth to which an open pit operation could be considered viable and reported above a suitable cut-off grade for resource reporting.
		The mine planning exercise for this updated Mineral Resource envisages a medium-sized open pit operation to a depth of approximately 230m. The open pit design was based on a cut-off grade of 0.15% Sn. The cut-off grade for zinc as a by-product is 0.05% Zn
<i>Mining factors or assumptions</i>	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The assumptions for the mining method involve extraction by traditional truck and shovel operations. Waste rock will be proportionally returned as back fill to the open pit as the mine advances from northwest to southeast. A mining dilution rate of 0% has been included in the assumptions. A tin price of US\$30,000/t and a zinc price of US\$2,500/t has been employed.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions	Metallurgical test work was conducted by Wardell Armstrong Ltd (UK), that successfully produced a zinc concentrate through a secondary flotation circuit, which was integrated into the primary tin processing plant's sulphide flotation circuit. The zinc circuit followed a conventional approach to zinc sulphide flotation, encompassing a rougher stage with subsequent regrinding of rougher concentrates, followed by four cleaner stages, ultimately yielding a marketable concentrate. To evaluate the process's performance, open circuit and locked cycle tests were carried out using conventional flotation agents and regimes.

Criteria	JORC Code explanation	Commentary	
		INPUT	VALUE
			0-20m at 20º
		Overall Pit Wall Angle	10 -100m from 43-49°
			>100m from 50-58°
		Mining Recovery	94%
		Mining Dilution	8%
		Ore Dilution Grade Sn & Zn %	0%
		Crusher Split, -10mm mass yield	30%
		Crusher Split, +10mm mass yield	70%
		Ore Sorter Feed Mass Yield (Sn + Zn)	9.34% x In(Feed Sn grade x 100) + 76.23%
		Ore Sorter Feed Recovery (Sn)	94.30%
		Ore Sorter Feed Recovery (Zn)	94.30%
		Concentrate Output Sn Grade	62.40%
		Concentrate Output Zn Grade	43.50%
		Concentrate Metal Recovery Sn	74.2%
		Concentrate Metal Recovery Zn	60.0%
		Cut-off Grade Sn%	0.15%
		Cut-off Grade Zn%	0.05%
		Operating Assumptions and Modifying Factors	

Criteria	JORC Code explanation	Commentary		
	•	INPUT	UNITS	VALUE (US\$)
		Topsoil Stripping and Management	\$/bcm	\$3.24
		Waste Mining (inc D&B) < 1km haul	\$/Waste t	\$1.60
		Ore Mining (inc D&B) < 1km haul	\$/Ore t	\$1.83
		Additional Cost for Waste Haulage > 1km	\$/0re t/100m	\$0.016
		Additional Cost for Ore Haulage > 1km	\$/0re t/100m	\$0.018
		Waste Depth Penalty	\$/t/10 vertical m	\$0.012
		Ore Depth Penalty	\$/t/10 vertical m	\$0.013
		Pit Dewatering	\$/Total Mined t	\$0.001
		Grade Control Drilling	\$/Ore t	\$0.165
		Crushing, Screening and TOMRA Ore Sorter Cost	\$/TOMRA Feed t	\$0.75
		TOMRA Ore Sorter Rejects Disposal	\$/TOMRA Rejects t	\$0.99
		Process Plant Costs	\$/Feed t	\$18.34
		Final Void Rehandle & Shaping	\$/Waste t	\$0.66
		Pit, Dump & Infrastructure Rehabilitation	\$/Total Mined t	\$0.09
		Processing Plant Rehabilitation	\$/Ore t	\$0.03
		General and Administration Costs	% of OPEX	7.5%
		Freight	\$/conc.T	\$100.43
		Smelting	\$/conc.T	\$650
		Sustaining Capital	\$/Total Mined t	\$0.15
		Contingency	% of OPEX	5.0%
		Pit Optimisation Input Cost Assumptions		
Environmental	Assumptions made regarding possible waste and process residue disposal	Waste rock will be placed in waste dumps adja	cent to the open pit	and be
factors or	options. It is always necessary as part of the process of determining	placed as incremental back-fill within the open	pit as operations pe	rmit.
assumptions	potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts.	Tailings from the processing plant will be stored (sulphide bearing and clean).	l in two separate fac	cilities
	particularly for a greenfields project, may not always be well advanced, the	The Competent Person is not aware of any envi	ronmental factors th	nat would

Criteria	JORC Code explanation	Commentary
	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.	preclude the reporting of this updated Mineral Resource estimate.
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.	Approximately 2,700 density measurements have been taken across the deposit. The data has been separated into fresh, transition and oxide zones based on observations made during drill core logging.
	• 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.	The density data was collected using the weigh in air/weigh in water method.
	• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). 	 Resources are in domains that display reasonable to low geological confidence, where blocks are typically within 100m of sample data and bound by the maximum extents of the mineralisation wireframes. These areas require infill drilling to improve the quality of the geological interpretation and local block grade estimates to a level suitable for mine planning. Data quality, geological confidence, sample spacing and the interpreted continuity of grades controlled by the deposit has permitted the classification of the block model in the Measured, Indicated and Inferred Mineral Resource categories. The resource categories for this estimate are based on the same boundaries as reported for the MRE for tin released in February 2023. The categories are based on the following criteria;
		 Measured Mineral Resources are where block grades are based on multiple drill hole intercepts, where there is typically 20m spacing and where there is good continuity shown by both assay grades and the resource wireframes.
	• Whether the result appropriately reflects the Competent Person's view of the	 Indicated Mineral Resources comprise the blocks in where there is a reasonable level of geological confidence in well drilled areas of the model and typically up to 70m beyond these areas.
	deposit.	 Inferred Mineral Resources are in domains that display reasonable to low geological confidence, where blocks are typically within 100 m of sample data and bound by the maximum extents of the mineralisation wireframes.

Criteria	JORC Code explanation	Commentary
		These areas require infill drilling to improve the quality of the geological interpretation and local block grade estimates to a level suitable for mine planning.
		• This classification was prepared by and reflects the views of the Competen Person.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	No audits or reviews of the most recent Mineral Resource Estimate (2023 ²) for tin was carried out.
<i>Discussion of relative accuracy/ confidence</i>	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	 The Oropesa deposit is an open pit mining target which is at a relatively advanced stage of drilling and geological understanding. Selective in-fill drilling from surface and updated geological interpretation and modelling in 3D has added further confidence to the local scale geometry of the mineralisation and grade distributions in the resource model.
	• 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.	r