

7 May 2020

## Positive Economic Study for the Oropesa Tin Project paves pathway to development.

An Economic Study (Study) completed by Elementos (ASX:ELT) has positioned the company's wholly owned Oropesa Project in Spain as a globally signifcant new tin development with a prospective annual production of 2,440 tonnes of tin metal over a 14-year mine life.

At a tin price of US\$19,750/tonne, the mine could potentially generate an annual gross revenue of more than US\$48 million against a forecast operating cost of US\$28 million per year or cash cost of US\$11,534/tonne of metal. The estimated capital development cost is US\$52.2m including a 20% contigency<sup>1</sup>.

Readily executable, the development concept proposes a simple open-cut mining operation and conventional processing facility producing tin concentrates which would be shipped to smelters in Europe and Asia.

The Study valuation also found a base case pre-tax NPV<sub>8%</sub> of approximately US\$92m and post tax NPV<sub>8%</sub> of approximately US\$66m. The pre-tax Internal Rate of Return is approximately 25% and the payback period is approximately four years.

Elementos Chairman Mr Andy Greig said the next steps would be to complete a Definitive Feasibility Study and finalise environmental permitting.

"The Study demonstrates that Oropesa has the potential to deliver attractive financial returns at a relatively low capital cost, it's an excellent opportunity to create value-uplift potential for shareholders as the project is advanced towards development," Mr Greig said.

"We're also confident of enhancing the project's economics through further drilling to expand and upgrade the size of the existing resource and lower the overall waste-to-ore ratio for the project."

Mr Greig said the Study was prepared at a level of accuracy equivalent to an advanced Scoping Study but a number of the work streams in the Study have been undertaken to a more detailed standard of evaluation and definition.

"The Study, completed by a team of independent consultants, follows extensive drilling, geological, geotechnical, feasibility and metallurgical test work programs over more than ten years" he said.

<sup>&</sup>lt;sup>1</sup> Forecast numbers are necessarily approximate. Please see cautionary statements on page 3 of this release

### ASX:ELT

### **TOMORROW'S TIN**

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

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#### COMPANY PROFILE

Listed on the ASX in 2009, Elementos is committed to the safe and environmentally-conscious exploration and development of high-grade tin resources. Elementos controls two tin projects:

- Oropesa (100%) located in Spain, a new globally significant tin deposit which is being fast tracked towards development; &
- Cleveland (100%) located in Tasmania, Australia, a deposit of open cut and underground mineable tin and copper resources, and a separate underground porphyry tungsten deposit.

Led by an experience-heavy management team and Board, Elementos is positioned as a diversified tin platform, with an ability to develop exciting projects in multiple countries.

As tin stocks hover at historic lows and trade below the 10-year average, the company is well-positioned to help bridge the significant supply shortfall in coming years. This shortfall is being partly driven by increasing demand for tin in renewable energy and electric vehicle applications.

#### CAUTIONARY STATEMENTS

The Economic Study (Study) referred to in this announcement has been undertaken for the purpose of assessing the technical and economic viability of developing the Oropesa Tin Project. The Study has been completed to an overall Scoping Study level of accuracy of +/- 35%. It should be noted that a number of the work streams in the Study have been undertaken to a more detailed standard of evaluation and definition.

The Study is preliminary in nature, it includes inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Ore Reserves, and there is no certainty that the Study outcomes will be realised. Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into an Ore Reserves estimate.

While the estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues, the Company is not aware of any such issues. The quantity and grade of reported Inferred Resources are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.

The Study outcomes, production target and forecast financial information are based on information that are considered to be at Scoping Study level. The information applied in the Study is insufficient to support the estimation of Ore Reserves. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target will be realised. Further exploration work and evaluation studies are required before Elementos will be in a position to estimate any Ore Reserves or provide any assurance of an economic development case.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Study. The Study is based on the Measured, Indicated and Inferred Resources as estimated by SRK in the Mineral Resource Estimate released on the ASX on 31st July 2018, "Acquisition of the Oropesa Tin Project". Elementos is not aware of any new information

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or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.

Of the Mineral Resources scheduled for extraction in the Study mine production plan, approximately 4% are classified as Measured, 78% as Indicated and 18% as Inferred. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. Inferred Resources do not contribute to the production schedule in the first two years of operations and only 1% in the first nine years of the proposed development. The production plan includes Inferred Resources in the latter stages of the production schedule.

This release contains a series of forward-looking statements. The words "expect", "potential", "intend", "estimate" and similar expressions identify forward-looking statements. Forward-looking statements are subject to known and unknown risks and uncertainties that may cause the actual results, performance or achievements to differ materially from those expressed or implied in any of the forward-looking statements in this release that are not a guarantee of future performance.

Statements in this release regarding the Elementos business or proposed business, which are not historical facts, are forwardlooking statements that involve risks and uncertainties. These include Mineral Resource Estimates, metal prices, capital and operating costs, changes in project parameters as plans continue to be evaluated, the continued availability of capital, general economic, market or business conditions, and statements that describe the future plans, objectives or goals of Elementos, including words to the effect that Elementos or its management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by Elementos, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements.

Elementos has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that it will be able to fund the development of the Oropesa Tin Project upon successful delivery of key development milestones. The detailed reasons for these conclusions are outlined throughout this ASX release and in Appendix 1 (JORC Code 2012, Table 1. Consideration of Modifying Factors). While Elementos considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Economic Assessment Study will be achieved. To achieve the range of outcomes indicated in the Economic Assessment Study, pre-production funding in excess of US\$70m will likely be required. There is no certainty that Elementos will be able to source that amount of funding when required. Discussions with potential funders have confirmed that a project of this scale will be able to be funded with a combination of Debt and Equity. The company is confident that the capital costs are sufficiently low that raising the required equity will be possible. The company continues to have the full support of its existing largest shareholders and is working with potential offtake partners, brokers, private equity firms and traditional funders to ensure that the Company will be in a position to fund the project as needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Elementos' shares. It is also possible that Elementos could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Oropesa Tin Project. This could materially reduce Elementos' proportionate ownership of the Oropesa Tin Project.

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the Production Target and forecast financial information are based have been included in this ASX release.



### **ECONOMIC STUDY SUMMARY**

# **OROPESA IN PROJECT**



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### 1.0 INTRODUCTION

### 2.0 Study team

The following report is an Economic Study (Study) on Elementos' wholly owned Oropesa Tin Project located in Spain. The Study is based on the development of an open-cut mine, processing plant, tailings storage facility and infrastructure to support a 750,000 tonne per annum (tpa) mining operation over a mine life of 14 years. The operation will produce highquality tin concentrate for sale to commercial smelters in Europe and Asia.

The Study, based on a tin price of US\$19,750 per tonne, demonstrates a real, pre and post-tax Net Present Value at an 8% discount rate of approximately US\$92 million and US\$66 million, respectively. The pre and post-tax Internal Rate of Return (IRR) is approximately 25% and 22%, respectively. The capital payback period is approximately four years. Capital development costs have been estimated at US\$52.2 million including a 20% contingency.

The Study is based on a culmination of extensive drilling, geological, geophysical, geotechnical and metallurgical test work programs spanning more than ten years.

The Study has been completed to an overall Scoping Study level of accuracy of +/- 35%. It should be noted that a number of the work streams in the study have been undertaken to a more detailed standard of evaluation and definition. A full technical report will be available within 45 days of this announcement on the Elementos website and will be lodged on SEDAR (www.SEDAR.com) as a requirement of British Columbia Securities Commission Securities Law. The Study has been prepared by independent consultants, including:

*Optimal Mining Solutions* Mine design and schedule

IGAN Consultores Pit optimisation, mining capital and operating costs

Wardell Armstong Metallurgy and process design

Soluciones, Concentradores Y Procesos de Ingeniería Process design, capital and operating costs

Measured Group and Optimal Mining Solutions are responsible for compilation of the full technical report.

Elementos was responsible for the preparation of the financial model and tin price forecasts.

### 3.0 PROJECT DESCRIPTION & LOCATION

Elementos acquired a 100% interest in the Oropesa tin project in December 2019 under a share purchase arrangement with Eurotin Ltd. Sondeos y Perforaciones Industrales del Bierzo, S.A. (SPIB), owner of the project prior to Eurotin's ownership, retains the following rights to the Oropesa project:

- A 1.35% net smelter royalty (NSR); and
- Once a decision to mine the Oropesa tin project is made, SPIB is to be provided an undiluting 4% equity ownership in the project.

The Oropesa deposit is located approximately 75km northwest of Cordoba and 180km northeast of Seville in the Cordoba Province, Region of Andalucía, in southern Spain (Figure 1). The Oropesa property comprises an exploration concession package (Investigation Permit No. 13.050) covering an area of 13.0km<sup>2</sup>. In October 2017, Eurotin applied for an Exploitation Licence. An Exploitation Concession, when granted, is valid for a period of 30-years and may be extended for two further periods of 30 years each and up to a maximum of 90 years.

The Exploitation Licence application must be accompanied by a proposed development plan and Environmental Impact Assessment (EIA), and these were submitted in January 2018. In March 2019, the Junta de Andalucia requested modifications to the EIA and development plan, and this work will be completed in 2020.

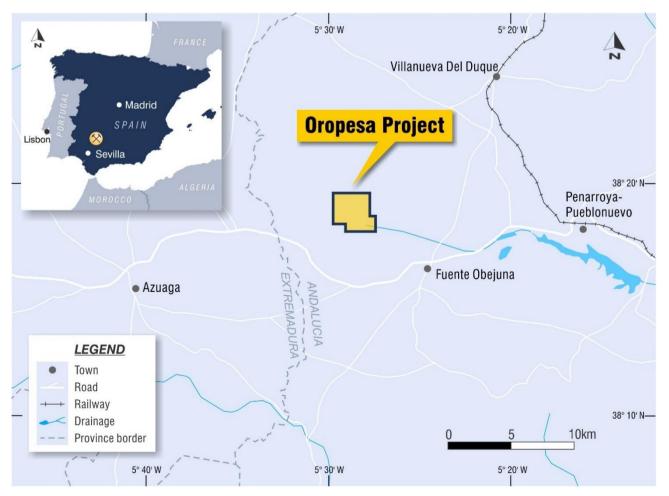


Figure 1. Oropesa location and Exploitation Licence Application area

### 4.0 GEOLOGY & MINERALISATION

#### 4.1 Geology

The Oropesa Project is located within the Iberian Massif which can be subdivided into six zones, based on differences in stratigraphy and structural history. Oropesa occurs near the north-eastern edge of the Ossa Morena Zone (Figure 2).

The Ossa Moreno Zone can be further subdivided into four main packages based on differences in age and depositional environment, including:

- Precambrian rocks of various type and affinity;
- Cambrian, rift-related sedimentary sequence;
- Ordovician to Devonian passive margin sequence; and

Mid-Devonian to Early Permian syn-orogenic (basin-fill) sequences, which includes the Peñarroya basin which hosts the Oropesa deposit.

The Oropesa Deposit consists of two main lithological units: interbedded conglomerate and sandstone.

The geometry of the Oropesa deposit is primarily the result of two major deformation phases, an initial strike-slip to extensional phase of deformation during basin formation followed by a strong contractional overprint. Overturned bedding suggests that the sedimentary sequence has undergone significant folding post-deposition. Modelling has identified closed to open recumbent folds that control the first order geometry of the deposit (Figure 3).

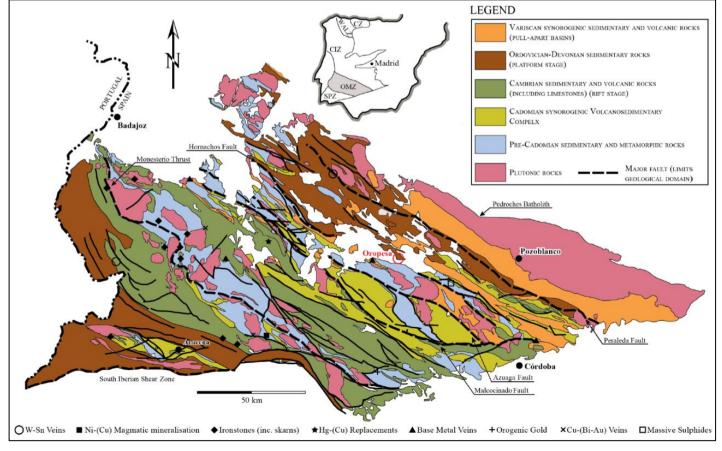


Figure 2. Geology of the Ossa Morena Zone

#### 4.2 Mineralisation

The Oropesa deposit is a replacement type deposit with subordinate fault-controlled mineralisation. It likely formed at relatively shallow depths (<5km) probably well above the granitic intrusion that was the likely source for the mineralising fluid.

Tin occurs predominantly as cassiterite (97%) with minor stannite (3%). The tin mineralisation is associated with sulphide mineralisation, dominantly pyrite and arsenopyrite, and pervasive silica alteration. There is a strong stratigraphic and lithological control on the distribution of mineralisation. The majority of the mineralisation occurs in the sandstone, proximal to adjacent conglomerate contacts. Volumetrically, lesser fault related mineralisation has also been identified and may represent possible mineralising fluid feeder conduits.

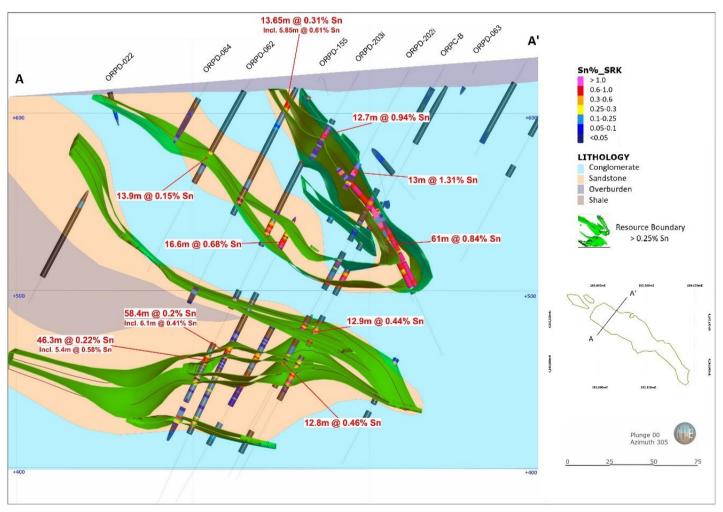


Figure 3. Cross-section of the Oropesa sub-basin looking northwest

### 5.0 HISTORICAL EXPLORATION

The Instituto Geológico y Minero de España (IGME) carried out exploration in the Orposea region between 1969 and 1990. Exploration activities including geological mapping and stream sediment geochemical surveys discovered the presence of tin on the present Oropesa property in 1982.

Exploration programs including soil geochemical analysis, geophysics and drilling conducted by government, private and public companies since the initial discovery have resulted in the definition of the current geological resource.

A total of 259 holes totalling some 53,726m have been completed at the Oropesa Project.

Drilling type	Count	Length (metres)
Diamond	243	51,193.8
Reverse circulation	12	1,610.0
Diamond and reverse circulation	4	922.2
Total	259	53,726.0

Table 1. Summary of Oropesa drilling

### 6.0 MINERAL RESOURCE STATEMENT

The Study is based on a 2012 Joint Ore Reserve Committee (JORC) compliant, Measured, Indicated and Inferred Resource estimate (MRE) prepared by SRK Consulting (UK) Limited (see ASX release, "Acquisition of the Oropesa Tin Project", 31st July 2018).

#### Notes:

- All figures are rounded to reflect the relative accuracy of the estimate;
- 2. Mineral Resources are not Ore Reserves and do not have demonstrated economic viability;
- The reporting standard adopted for the reporting of the MRE uses the terminology, definitions and guidelines given in the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012); and
- 4. The Mineral Resource is given on a 100% ownership basis.

JORC Mineral Resources Estimate (0.15% tin cut-off grade)				
Category	Million tonnes (Mt)	Grades (%Sn)	Contained Tin (t)	
Measured	0.33	1.09	3,585	
Indicated	9.01	0.53	47,320	

3.20

12.54

0.52

0.54

50,910

67,990

Table 2. Mineral Resources Statement

Inferred

Total

### 7.0 MINING

A mining study was carried out based on the MRE released in July 2018. The Measured, Indicated and a small portion of Inferred Resources were used for the optimisation studies to define the Production Target.

The Optimal Mining Solutions and IGAN scope of work for the mining study included:

- Mine planning criteria;
- Cut-off grade determination;
- Open pit optimisation to determine the pit shell for eventual economic extraction of the orebody;
- Mine design and scheduling;
- Mine infrastructure and layout;
- Mine production scheduling;
- Mining capital and operating cost estimation;
- Revenue and cost modelling; and
- Production Target determination.

The non-mining related optimisation inputs and modifying factors utilised were derived from studies, including:

- Processing costs for the plant designed by SCYPI/Wardell Armstrong;
- Metallurgical recovery factor of 70% by SCYPI/Wardell Armstrong;
- Average life of mine tin selling price of US\$19,750 per tonne (Elementos estimate);
- Average life of mine smelting charge of US\$450 per tonne (commercial smelter quote); and
- Transport and port handling costs provided by independent consultants

#### 7.1 Geotechnical and Dilution Assumptions

Pit slope angles were obtained from geotechnical investigation reports completed by CRS and SRK in the preparation of the "Proyecto De Explotación" application in 2017 (prepared by SCYPI), and an additional open cut specific geotechnical report prepared by Terratec (Informe estabilidad Oropesa Terratec) in late 2017. The geotechnical studies anticipate the impact of ground water on pit wall stability.

Taking into account structure, rock type and design orientation parameters with regards to geotechnical constraints, the following pit design criteria were used for the pit optimisation.

Description	Units	Value
One-way ramp width	metres	19
Ramp grade one-way ramp	%	12
Bench height	metres	15
Berm width – fresh and transitional materials	metres	8.2
Berm width – oxide material	metres	7.5
Face angle – fresh material	Degrees	80
Face angle – transitional material	Degrees	75
Face angle – oxide material	Degrees	55

Table 3. Key mining parameters

In addition, an ore dilution of 10% containing 0% Sn and a 5% ore loss factor were adopted.

#### 7.2 Cut-off Grade Determination

A cut-off grade was estimated using the assumptions outlined in the Study. A tin cut-off grade of 0.15% has been applied to the mining study. Key underlying assumptions for calculation of the cut-off grade are outlined in Table 4.

Parameter	Unit	Result
Tin price	US\$/t	19,750
Tin payable	%	98
Tin refining charges	US\$/wmt	450
Process plant recovery	%	70
Processing costs ROM ore	US\$/t	10.97
Other costs ROM ore	US\$/t	3.38
Ore: drill and blast	US\$/bcm	1.72
Waste: drill and blast	US\$/bcm	1.56
Ore: haulage up to 1,000m	US\$/bcm	2.30
Waste: haulage up to 1,000m	US\$/bcm	2.17
Extra haulage cost	US\$/bcm	0.04

Table 4. Cut-off grade criteria

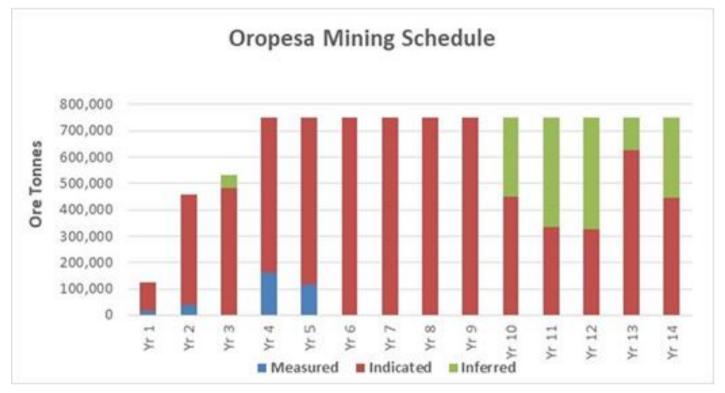
#### 7.3 Production Target

The Study is based on an annual ore feed rate of approximately 2,050 tonnes (t) per day, or approximately 750,000 tonnes per annum (tpa) to the process plant, to deliver average annual tin concentrate output of 3,940t (there are year-on-year variances depending on the mined grade of ore). A pit optimisation has been undertaken to determine the economic and physical characteristics of the deposit, and estimate appropriate ultimate pit limits. The pit optimisation utilised Whittle Software based on the assumptions outlined in this Study. The basic optimisation principle of the algorithm operates on a net value calculation for each block in the model (i.e. revenue from sales less total operating cost, being mining, processing, and general and administration costs) in order to determine to what extent the deposit can be mined profitably.

Table 5 presents the tonnes and grades of the Mineral Resources enclosed within the ultimate pit design and Figure 4 demonstrates the LOM mining schedule. The figures presented in this section are inclusive of Inferred Resources and thus do not constitute an Ore Reserve estimate that complies with JORC reporting requirements. The Mineral Resource is inclusive of ore dilution and recovery. A 0.15% Sn cut-off, the same considered in the Mineral Resource classification, is applied to the calculation of tonnages, grades and metal content. The overall conversion of Mineral Resource to the Production Target is 73%.

PRODUCTION TARGET (0.15% tin cut-off grade)				
Category	Million Tonnes (Mt)	Grades %Sn	Contained Tin (tonnes)	Proportion (% of total)
Measured	0.34	0.97	3,298	4
Indicated	7.40	0.52	38,594	78
Inferred	1.74	0.40	6,968	18
Total	9.48	0.52	48,860	100%

Table 5. Study production target



*Figure 4: Life-of-mine (LOM) production schedule based on 750,000 tonne per annum process plant* 

### 8.0 MINING PROCESSES

Mining will be undertaken using drill and blast, and conventional bulk mining methods utilising hydraulic excavators and dump trucks delivering ore to a run-of-mine (ROM) stockpile. Ore will be trucked directly from the blasted faces to the ROM stockpile and fed to a primary jaw crusher using a front-end loader.

The scale of the project indicates that the operation is best suited to a fleet comprising 55 tonne (Komatsu HD 465 or similar) and 91 tonne (Komatsu HD 785 or similar) rigid body dump trucks being loaded by a 6.7m<sup>3</sup> (Komatsu 1250 or similar) excavator. A mixed ancillary fleet will be used to support load and haul operations. Mining shifts will operate 16 hours per day on a 256 working days per year schedule.

It has been planned that both the open pit mine will be operated by a contractor under the supervision of an owner mining team. The owner team (outside of the plant and tailings) is likely to consist of an operations manager, a senior mining engineer and a geologist supported by two technicians for grade control.

The planned mining activities include:

- Clearing of vegetation, stripping of topsoil and removal to a storage location on site;
- Overburden removal to a separate storage facility. The overburden thickness averages approximately 3.55m and ranges from 0.25 to 15.3m in thickness;
- Haul road construction and sheeting of ramps;
- Drilling and blasting of ore and associated waste including pre-splits on final walls;
- Loading of ore and waste from the pits;

- Haulage of ore to the ROM pad; and
- Haulage of waste to the waste dumps or back into the pit for co-disposal with clean tailings.

The mine development used a total of four push-backs, or phases, designed to meet the following objectives:

• Enable the mining of high-grade mineralisation as early as possible;

Effectively reduce the stripping ratio in the initial mining stages;

- Balance the stripping ratio over the period of the mine life;
- Facilitate co-disposal of waste rock and clean concentrator tailings in depleted pit phases;
- Maintain a minimum mining width between the working phases; and
- Blend the high-grade and low-grade ore feeds over the lifeof-mine (LOM).

A life of mine schedule, employing detailed pit designs was generated with Spry mining scheduling and haulage software (Figure 5). Mine development will be in four phases commencing in the northwest and proceeding towards the southeast. The design outlines a pit of ~ 1,325m in length (northwest – southeast), an average of 375m width (northeast - southwest) and down to a final pit depth of 200 metres. The mine design takes advantage of the geometry of the geological resource with mine development being proposed as a series of terraces which results in an optimised waste:ore stripping ratio and a high resource conversion rate.

The Study demonstrates a life-of-mine strip ratio of 11.7:1 (waste to ore).

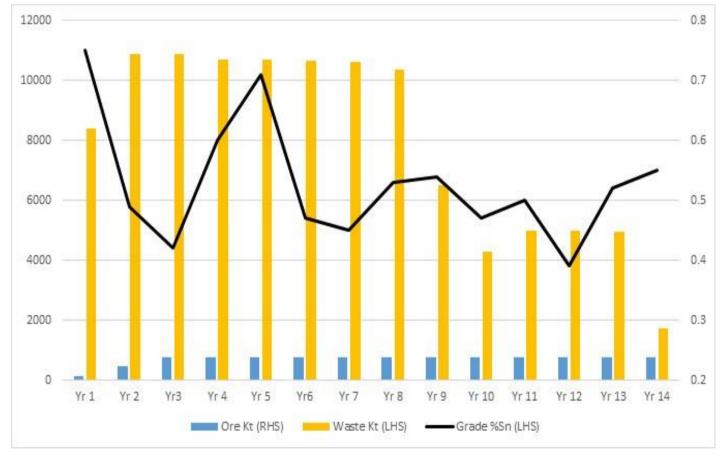


Table 6: Annual ore tonnes and tin grades, and waste movement on a diluted and recovered basis

YEAR 1 Phase one commences



YEAR 7 In pit back filling begins



YEAR 11 Phase four commences



*Figure 5: The pit shell and waste location at years 1, 5, 7, 9, 11, and 14 years of operations* 

YEAR 5 Phase two commences



YEAR 9 Phase three commences



YEAR 14 Final design



Inferred resources Indicated resources Waste

### 9.0 PROCESS FLOWSHEET & PLANT DESIGN

The Oropesa Project has been subject to a number of metallurgical test work and design programs. The mineral treatment plant proposed for Oropesa has been designed to recover tin as cassiterite from an ore also containing sulphides. The Study proposed the construction of a conventional crushing, ore sorting, grinding, sulphide flotation, gravity separation and tin flotation recovery circuit to produce highgrade tin concentrates for sale to commercial smelters.

#### 9.1 Testwork

#### 9.1.1 Gravity and flotation testwork (2009 - 2013)

SGS Mineral Services UK completed initial test work on the Oropesa project focused on gravimetric separation methods. Test work demonstrated that relatively fine grinding was required to liberate the tin, and due to the presence of sulphides and iron oxide mineralisation, both sulphide and tin flotation would be required. These early conclusions led to an initial programme of sulphide flotation, followed by gravity concentration and tin flotation on the -38 micron gravity tail to produce a tin concentrate. Additional work was carried out on attempts to produce copper and zinc products from the bulk sulphide concentrate, however these were unsuccessful.

#### 9.1.2 Pilot Plant Testing Program (2017)

In 2017, Wardell Armstrong International Ltd, Truro, United Kingdom, completed a comprehensive pilot plant test work program. The program included crushing, grinding, sulphide flotation, gravity concentration, tin flotation and a final ultra-fine gravity concentration stage.

Approximately 1.7t of PQ diameter core was tested from three metallurgical drill holes with a bulk sample head grade of 0.70% Sn, 10.5% S and 14% Fe. Base metals were minor at 0.10% Cu, 0.047% Pb, and 0.45% Zn, along with minor arsenic at 0.055% As, and silver at 9.8g/t.

#### 9.1.3 TOMRA Pre-Concentration Testwork (2019)

Ore pre-concentration test work has been carried out by TOMRA Sorting Solutions – Mining, at their facilities in Hamburg, Germany. The selected sensing technique for the material provided from Oropesa was the X-ray transmission sensor (COM Tertiary XRT sorter). The XRT sensor being selected because of the expected atomic density differences between product and waste material.

The results of the TOMRA XRT test program demonstrated the most significant ore upgrade occurs with the 10-25mm particle size fraction. Modelling of the results on a weighted average basis indicated a waste mass rejection of 25%, with a 24% increase in the tin grade of the feed to a processing plant, for a 92% recovery of the contained tin. (previously reported on 09 August 2019 - Oropesa TOMRA XRT Ore Sorting – Re-issue).

No additional metallurgical test work has been carried out on the TOMRA product sample. The Company expects to be able to achieve a slightly higher tin recovery from the process plant during full scale operations than that achieved during the pilot plant test work program. This is due to the overall ore feed grade to the processing plant from the ore pre-concentration circuit being higher than run-of-mine ore feed and taking into account contained tin losses that occur during the multiple sampling phases of the test work process.

Based on the test work results above, the following LOM plant design criteria have been assumed.

Parameter	Units	Value
Plant annual capacity	Tonnes / year	750,000
TOMRA tin recovery	%	92
Process plant tin recovery	%	76
Tin concentrate grade	%	62

Table7. Process Plant Design Criteria

#### 9.2 Process Description

SCYPI have designed a process plant with a capacity of 750,000tpa of ore feed using conventional gravity and flotation technology. The processing plant comprises key areas, including:

- Two-stage crushing (jaw and cone crushing) and screening;
- TOMRA XRT ore pre-concentration;
- Ball mill grinding;

- Sulphide flotation;
- Coarse and fine tin gravity separation;
- Tin flotation followed by concentrate dressing utilising ultra-fine gravity processes;
- Concentrate dewatering and drying for shipment; and
- Separation of sulphide and normal tailings, thickening and filtering for storage.

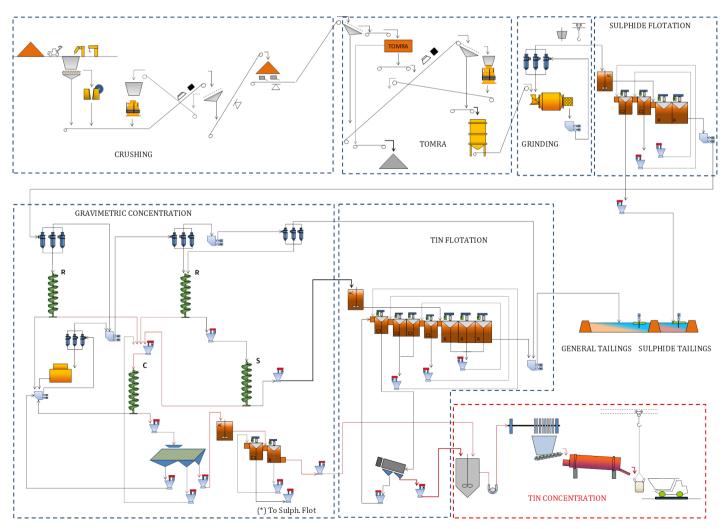


Figure 6. Oropesa Process Flowsheet

### 10.0 PROJECT INFRASTRUCTURE

The project has a relatively small footprint of 6.5km2 or 260 hectares. The ore will be mined from a single open pit and two waste piles will be located to the north and south of the open pit. A collecting pond will be located approximately 400m from the pit to collect run-off water from affected areas, such as the waste rock dumps, tailings dam and water from pit dewatering. The overburden pile will be located close to the waste rock and tailings pile in order to optimise progressive reclamation work.

#### 10.1 Tailings storage facility

Separate sulphide and clean tailings streams will be generated by the processing plant. Both tailings streams will be delivered to purpose-built storage facilities located adjacent to the proposed processing plant, including:

- Sulphide tailings: a sulphide rich tail will be generated by the processing plant. The sulphide tail will be deposited in conjunction with sludge generated from the water treatment plant in a dedicated tailings storage facility. The tailings storage will be sub-aqueous to minimise potential oxidation of the tailings and development of acid mine drainage. The sulphide tailings dam will be lined with HDPE to prevent leakage and underdrainage will be installed. Excess water will be recycled for re-use in the processing plant; and
- Clean tailings: clean tailings will be deposited by sub-aerial discharge. The clean tailings dam is expected to be operational for approximately three years, following which it is planned to be replaced by co-disposal of the clean tailings with waste rock from mining operations.

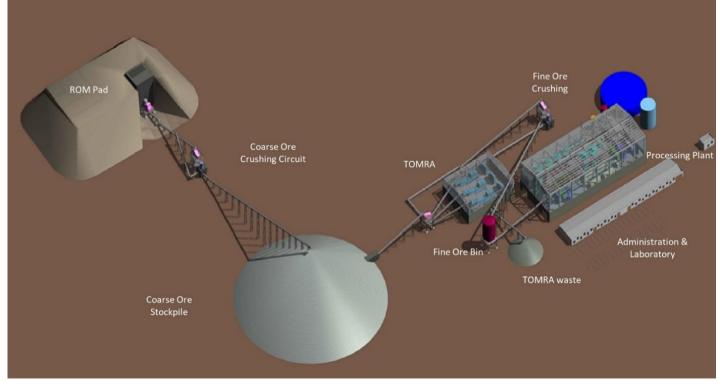


Figure 7. Processing Plant Layout

#### 10.2 Water supply and management

The Project will require approximately 230ML of water per annum to support planned operations, principally for the processing operations. These water supply requirements are expected to be met by a combination of ground water sources and surface water harvesting. Average annual rainwater capture has been calculated at 245,000m<sup>3</sup> per year. The combination of pit de-watering (190,000m<sup>3</sup> per year) and rainfall run-off has been calculated as more than sufficient to meet the annual mine requirements.

Water management within the operation will be carried out under conditions where no water shall leave the site without prior treatment suitable for discharge into the natural environment. The mining, processing circuit and infrastructure maintenance systems have been designed in closed circuit, where all the water that is required for the project is recovered and recycled in the operation.

The fresh water supply will be stored within a purpose-built water pond, with approximately 250,000m<sup>3</sup> of capacity. From this pond, fresh water is transferred to the process plant water storage tanks via a water treatment plant. Surplus run-off

water from non-affected lands will be collected in canals for the purpose of being diverted to public flow without coming into contact with any mining activities.

#### 10.3 Power supply

Power is required for the processing plant, and ancillary facilities. Total expected power installed capacity is 6.1MW. It is assumed that power is supplied by connection to the local grid which passes through the project site at an estimated price of US\$0.09c/kWh. Further evaluation of power supply options is required. Capital estimates used in this report are from a recently completed project located within the Andalucian Province where the operation was connected to the local power grid.

#### 10.4 Product transport and logistics

The concentrate will be shipped in containerised bulky bags by truck to European smelters or port for export. The trucking distance to the container port in Seville is approximately 185km.

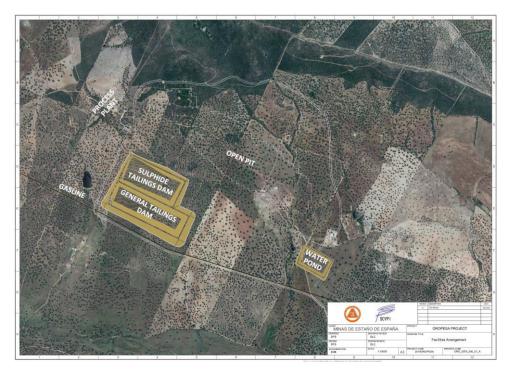


Figure 8. Project infrastructure layout

### 11.0 CAPITAL COSTS

The initial capital cost estimate to construct a new 750,000tpa process plant, including selected mobile equipment, site infrastructure, and all direct and indirect costs is US\$52.2 million This estimate includes a contingency of 20%. The major capital cost item for the project is the process plant and associated infrastructure. The process plant capital cost contains an estimate of the equipment cost, installation, instrumentation and control, piping, electrical and building costs. The costs are derived from either quotations from vendors and suppliers specifically sought for this project, and in some instances, data sourced from other projects or the SCYPI equipment cost database.

The Study assumes a contract mining model to keep the overall up-front development capital cost as low as possible.

The project's low capital costs are attributable to a range of factors, including:

- Close proximity to established infrastructure power lines, sealed national highways, local water supplies, and skilled local workforce;
- No requirement for on-site infrastructure such as accommodation camps and power plants; and
- A simple and conventional tin concentration production process.

The capital costs presented have been estimated to an overall accuracy of +/-20%, which is a high standard for this level of study, with the exception of the estimate to connect to the existing power grid (no official estimate received at the time of writing). The estimates exclude any escalation over the LOM.

Owners costs of \$0.88 million have been applied for the construction and commissioning period of the project to assist in the design, commission and ramp-up of the project. In addition, a first fills (\$0.4 million) and spare parts (\$0.67 million) allowance has been provided in the capital cost estimate.

Engineering, Procurement, Construction and Management (EPCM) costs have been estimated at 10% of direct costs which is typical of mining projects of this scale. An overall contingency of 20% of direct and indirect costs has been applied.

Cost area	US\$ million
Site preparation	0.44
Tailings facilities and water pond	3.34
Mine waste dumps	1.32
Open pit mining (including pre-stripping)	1.10
Land acquisition and general expenses	1.98
Process buildings	1.18
Auxiliary buildings	0.29
Auxiliary buildings equipment and furniture	1.04
Urbanisation and tracks	2.75
Infrastructure	5.17
Equipment	13.46
Engineering	1.78
Execution and assembly	2.63
Total Direct Costs	36.48
Assembly and start up staff	1.14
Owner's cost	0.88
First loads (3%)	0.40
Spare parts (5%)	0.67
EPCM (10%)	3.96
Total In-Direct Costs	7.05
Contingency (20%)	8.70
Total	52.23

Table 8. Pre-production capital cost estimates

Sustaining costs over the life of the project total approximately US\$5.0m.

The project will be progressively rehabilitated during operations with closure costs currently planned to be met by the sale of all processing plant and support equipment at the completion of operations.

### 12.0 OPERATING COSTS

The operating costs for the Study have been prepared by the Study participants. The majority of the mine-gate costs are associated with the mining operations (58%), processing plant facilities (29%) and the balance of the costs (13%) is attributable to vendor royalties, concentrate transportation, administration and marketing costs.

IGAN has obtained mining costs from contractor quotations. The mining costs are based on contractor rates for the majority of the mining equipment to significantly reduce the initial capital expenditure of the project. The total unit mining costs of the project have been estimated at US\$21.95/t of ore mined over the life of mine.

Area	<b>Unit cost</b> € per BCM	Notes
Waste: drill and blast	1.42	
Ore: drill and blast	1.56	
Waste: haulage up to 1,000m	1.98	Includes haul road, waste dump maintenance and watering
Ore: haulage up to 1,000m	2.09	Includes haul road, ROM pad maintenance and watering
Extra haulage cost	0.04	Per 100m over 1,000m

Table 9. Mining costs

SCYPI has established the processing operating costs based on processing 2,050t per day of ore and have been established based on budgetary quotations. The process operating costs consist of manpower, energy, consumables, reagents, spares and others required for operation of the mineral processing plant.

Cost Area	Unit cost US\$/tonne Processing plant feed (post TOMRA)
Management and administration staff	1.56
Treatment plant staff	2.57
Laboratory staff	0.47
Sub-total	4.58
Energy consumption	3.35
Grinding media	1.48
Reagents	3.56
Fuel	0.11
Operating material	0.99
Repair material	0.40
Laboratory consumables	0.15
Sub-total	10.04
Total operating costs	14.62

Table 10. Processing plant operating costs

Product transport costs include trucking the concentrate to smelters within Europe or Asia at an assumed cost of US\$90/t of concentrate.

Total average life-of-mine All-in-sustaining cost is approximately US\$11,790/t of metal.

A Net Smelter Royalty is payable at 1.35%.

Cost Area	US\$ million	US\$/tonne ROM Ore	US\$/tonne Sn Metal
Mining	208	21.95	6,092
Processing	104	10.97	3,055
General, Administration	18	1.90	528
and Marketing	18	1.90	528
Operating cost contingency	35	3.66	1,016
Mine gate costs	365	38.52	10,692
Concentrate Treatment	29	3.09	856
and transport	25	5.09	010
Total C1 Cash Operating	395	41.62	11,534
Costs		41.02	11,554
Depreciation and	57	6.04	1,675
amortisation	57	0.04	1,075
Total C2 Cash Operating	452	47.65	13,209
Costs			13,205
Royalties	9	0.92	255
Total C3 Cash Operating	460	48.57	13,464
Costs	400	-10.57	13,404
Sustaining capital	5	0.53	146
All-in-Sustaining costs ("AISC")#	408	43.06	11,790

Table 11. Total operating costs

Notes to Table 11:

- i. C1 Cash Cost is the sum of mining, processing, administration, transportation and off-site refining
- ii. C3 Cash Cost is the sum of C1 Cash Cost plus depreciation/amortization and royalties
- iii. # C1 cash costs plus royalty and sustaining capital

### 13.0 PRODUCT MARKETING

#### 13.1 Concentrate Quality

Oropesa is expected to produce a high quality, low iron, tin concentrate (containing 62% tin). The current test work has produced a concentrate that has a slightly elevated level of lead, sulphur and iron due to galena and siderite in the concentrate. The recommendation is to add a cleaner sulphide flotation cell to the gravity concentrate to remove the sulphides (including some minor stannite) and leach the final concentrate in acid to remove the siderite. This will be included in the final metallurgical feasibility study test work program. All other contaminant levels are low.

#### 13.2 Tin Market Overview

According to the International Tin Association (ITA), in recent times tin has experienced relatively stable production from a handful of significant miners and smelters with steady demand growth driven largely by increased use of tin solder in electronic applications, especially in China.

The USA-China trade dispute in 2019 and more recently the Covid-19 pandemic has had a short-term negative effect on the tin market affecting demand, stocks and prices. These short-term negative factors temporarily overshadowed the longer-term trend and future expectations of continued tin demand growth and ongoing supply issues.

The primary use of tin, includes:

- Solder Tin is the primary component of both leaded and lead-free varieties of solder used in electronics and continues to be the top use for the metal, representing approximately half of global consumption. The long-term outlook for solder usage remains positive as the threat of miniaturisation is countered by the expanding demand from electronic applications. Recent cyclical downturns in semiconductor sales coupled with the impacts of USA-China trade tensions have dampened the sector's growth in the short-term;
- Chemicals Tin use in chemicals overtook tinplate as the second largest tin application in 2019 and continues to grow in this respect. Important chemical applications of tin include PVC stabilisers, polyurethane foam manufacture and glass coatings;

- Tin Plating remained the third largest application for tin in 2019, despite the long-term trend of slow decline in the sector. The long-term outlook for tinplate is negative due to expected continuation of lower tin coating weights and competition from alternative packaging; and
- Other Other uses of tin, are dominated by lead acid batteries and usage in copper alloys, with relatively minor applications also in tin powders, wine capsules, tinned wire, and pewter.

Tin demand has grown steadily at an average annual rate of approximately 2% since 2009. This growth has been largely driven by the Chinese and emerging markets transition to high tin content lead-free solders. Solder in electronics is the largest end use for tin and accounts for 47% of tin consumption, followed by chemicals (18%) and tin plating (13%), according to ITA data for 2019. China is a major manufacturer of electronic products and the largest consumer of tin globally (45% in 2019). The Chinese economic slowdown, and USA China trade wars slowed tin demand in 2019, and the coronavirus pandemic will impact demand in 2020, despite the long-term fundamentals of demand remaining positive.

Primary mined tin supply is dominated by China and Indonesia while refined tin production is derived from China, Indonesia and Malaysia. Primary mined tin represents 68% of annual tin use with secondary sources recovered from tin alloys, notably solders, brass, bronzes and lead alloys account for 32% of tin use in 2019. Annual refined tin supply has been relatively stable for at least a decade hovering between 330ktpa to 370ktpa.

The ITA maintain their forecasts of a long-term gap between supply and demand which demonstrates new project supply is required to keep the market in balance.

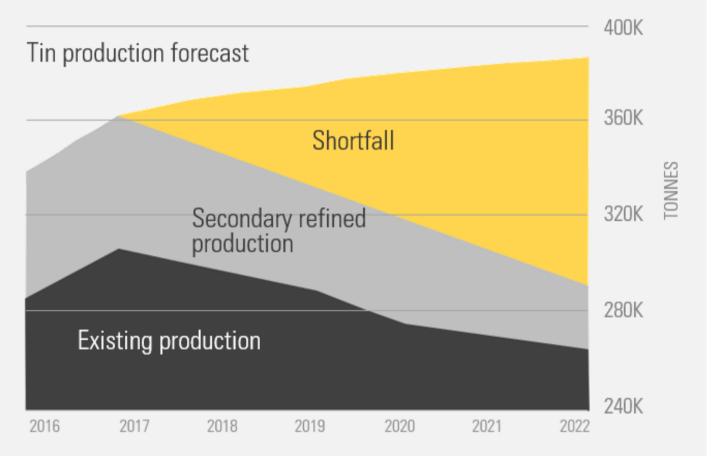


Figure 9. Tin production forecast.

For the purposes of the financial modelling, a LOM average tin price (real 2020\$) assumption of US\$19,750/t has been adopted. The price is below the ten year average LME tin price of approximately US\$20,500/t. Whilst the LOM tin price

forecasts are currently above the current spot price for tin, once the impacts of the coronavirus impact diminish, the price is expected to revert closer to the longer term average.

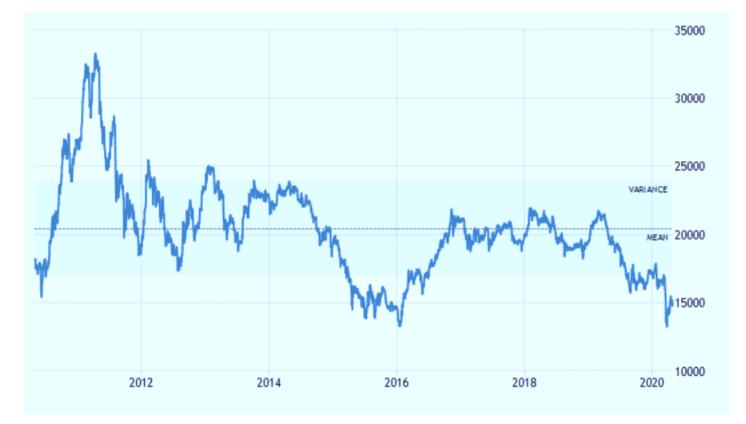


Figure 10: 10-year LME tin price in USD (Source: www.tradingeconomics.com)

### **14.0 PROJECT ECONOMICS**

An economic valuation was undertaken utilising the physical and financial parameters outlined in this Study. A project financial model was constructed utilising an annual discounted cashflow methodology to arrive at a Net Present Value (NPV) for the project in real terms, and on a pre and post-tax basis.

The Study demonstrates that development of the project provides an attractive economic return and the summary results are outlined in Table 12.

Description	Units	Results
Average annual ore feed	Tonnes	750,000
Average annual tin metal production	Tonnes	2,440
Life-of-mine	Years	14
Average tin price	US\$/t real	19,750
Pre-production capital expenditure	US\$	52.2
Total life-of-mine revenue	US\$	675
Total life-of-mine EBITDA	US\$	281
All-in-sustaining cash costs	US\$/t metal	11,790
Net Present value (8%, pre- tax, real)	US\$ million	92
Internal Rate of Return (pre- tax, real)	%	25
Net Present value (8%, after- tax, real)	US\$ million	66
Internal Rate of Return (after-tax, real)	%	22
Project capital pay-back period (pre-tax from mine start)	Years	4

*Table 12. Summary of financial and technical information (forecast numbers are approximate)* 

ECONOMIC STUDY

Other supporting assumptions, include:

- Tin treatment charges through a market soft sounding, Elementos has received indicative non-binding offtake terms for its concentrate from a number of traders and smelters to establish indicative net smelter results and average metal payability values for the financial model. Concentrate treatment charges of US\$450/t have been applied;
- Exchange rates An exchange rate of 1.10 USD per Euro was used to convert the Euro costs into USD currency. The sensitivity of the base case financial results to variations in the exchange rate was examined;
- Corporate tax The Spanish tax system applicable to Mineral Resource Income is used to assess the project's annual tax liabilities. This consists of federal tax applicable over the project's operating life of 25%;
- Discount rate a discount rate of 8% has been applied for the NPV calculation; and
- Inflation All the forecasts within the financial analysis are on a real basis, i.e. with no inflation adjustments.

Sensitivity analysis was undertaken on metal prices, operating costs and capital expenditure. The charts demonstrate the sensitivity of the key value drivers and leverage to variations in metal prices.

#### NPV Sensitivity Table

INPUT	(20%)	(15%)	(10%)	(5%)	_	5%	10%	15%	20%
САРЕХ	102.02	99.46	96.90	94.33	91.77	89.21	86.65	84.08	81.52
Tin price	11.82	31.80	51.79	71.78	91.77	111.76	131.75	151.74	171.73
Mining costs	122.85	115.08	107.31	99.54	91.77	84.00	76.23	68.46	60.69
Processing costs	105.35	101.95	98.56	95.17	91.77	88.38	84.98	81.59	78.19

Table 13. NPV sensitivity table (US\$m)

### IRR Sensitivity Table

INPUT	(20%)	(15%)	(10%)	(5%)	_	5%	10%	15%	20%
CAPEX	29.95%	28.69%	27.53%	26.44%	25.42%	24.47%	23.57%	22.72%	21.92%
Tin Price	10.37%	14.27%	18.05%	21.77%	25.42%	29.04%	32.64%	36.22%	39.78%
Mining costs	32.87%	30.92%	29.03%	27.20%	25.42%	23.70%	22.03%	20.40%	18.83%
Processing costs	27.83%	27.23%	26.63%	26.03%	25.42%	24.82%	24.21%	23.60%	22.99%

Table 14. IRR sensitivity table

### 15.0 REASONABLE BASIS FOR FUNDING

To achieve the range of potential outcomes modelled in this Study will require a significant investment in drilling, feasibility and development.

There is no certainty that Elementos will be able to source the development funding when required. It is also likely that such funding could be materially dilutive or otherwise available on terms that has a negative impact on Elementos' shares or its equity participation in the project.

The Oropesa Project is one of the few high-grade, open cut tin projects in the western world which makes it attractive to institutional, strategic, offtake and private equity investors. As such, Elementos believes that a number of different steps could be considered to fund the next stages of development, including:

- raising development funding through placements and/or rights issues;
- Identifying a suitable joint venture partner to earn an interest in the project by funding the development activities;
- Loans or mezzanine equity facilities; and
- Streaming or royalty funding.

Elementos owns 100% of the project which has a small NSR royalty of 1.35%, no offtakes, a low level of debt and no encumbrances. Elementos has agreed to sell a 1% Gross Revenue Royalty (GRR) on the Oropesa project which would potentially provide funding. The transaction was incomplete at the time of writing being subject to the completion of due diligence.

Elementos has an uncomplicated, clean corporate and capital structure. These are all factors expected to be highly attractive to potential strategic investors, offtake partners, royalty funds and debt/equity investors. This should provide Elementos some flexibility in engagement with potential investors and partners.

The Elementos board and management team have a broad experience in the resources industry. They have played leading roles in the exploration and development, and funding of resources projects.

Whilst the Elementos board believes it has a reasonable basis to believe that funding will be available as required, there is no assurance guaranteed that the requisite funding for the project will be secured.

### 16.0 ENVIRONMENT & SOCIAL

#### 16.1 Environment

In January 2018, an Environmental Impact Assessment (EIA) was lodged by Eurotin with the Junta de Andalucia as part of the conditions of applying for an Exploitation Licence for the Oropesa Tin Project. In March 2019, the Andalucian Ministry of Agriculture, Fisheries, Livestock and Sustainable Development (Junta) notified Elementos of some improvements and modifications that were required to the Exploitation Licence application and Environmental Impact Study, including:

- Reduce the size of the project footprint to limit the overall impact of the project on the environment;
- Develop a detailed waste management plan for mine waste rock and tailings. This includes specific plans for the potential of waste material to generate acid during rainfall events;
- More specific details on options for a closeout plan, with particular reference to the ratio of transplanted mature oak trees to new trees planted; and
- The proposed mining operation is within a conservation zone (ZEPA) that has a specific conservation program for steppe birds. The project area is located on agricultural land that is used for grazing and cropping, however there are specific bird species that have adapted to the altered environment (man-made) that are found within the project area. The original EIA did not provide sufficient ecological data on a particular steppe bird to allow the formulation of a management plan that was acceptable to the Ministry. A revised ecosystem study designed to fulfil the requests of the Junta has commenced.

Global environmental consultancy firm, Environmental Resource Management (ERM), have been appointed to complete the final stages of the EIA and community consultation process. It is anticipated the additional work programs will take 6-12 months to complete.

#### 16.2 Social

Oropesa is located within the municipality of Fuente Obejuna, in the province of Cordoba, approximately 6.5km to the northwest of the small town, Fuente Obejuna. The objectives of the proposed project are compatible with the urban planning guidelines of Fuente Obejuna.

Fuente Obejuna is largely a rural community. Land use within the permit application area is dominated by livestock farming. Livestock farming practices are largely confined to grassland areas that are occasionally interspersed with oak trees. Primary livestock farming is predominantly limited to pigs, sheep and cattle.

### 17.0 OPPORTUNITIES

The Study is a compilation of all the extensive drilling, geological, geotechnical, feasibility and metallurgical test work programs over more than ten years. The current Study was to assess the current technical and financial viability of developing the project based on all the historical information. Whilst the Study outcomes has been positive, there are number of significant areas that have the potential to enhance the project's economics, including:

- Expansion of the existing Mineral Resource further drilling is planned to expand the size of Mineral Resource. The primary targets areas close to the surface in the northern end of the deposit; and
- Wider tenement exploration potential the Company has previously reported a JORC Exploration Target for Oropesa (see ASX release, "Exploration Evaluation of Oropesa", 4 February 2019). The Exploration Target is based on the potential to identify new resources to the north and south of the existing Mineral Resource down to a depth of 100 metres – see Table 15 and Figure 11.

Range	Million Tonnes (Mt)	Grade (% Sn)
Upper	51.0	0.62
Lower	36.5	0.46

Table 15. Oropesa Exploration Target

\* The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. In addition, a number of other opportunities exist to improve the economics of the project, including:

- The production forecast contains 10% mining dilution at a 0% Sn grade. A low grade tin mineralisation halo surrounds a large proportion of the current geological resource. The low grade tin contained in the zone outside the current geological resource cannot be included in the current production forecast because this mineralisation is not included in the resource. Modelling of the low grade mineralisation halo could allow the inclusion of a mineral resource encompassing low grade halo mineralisation. This will then permit the inclusion of the tin in the low grade mineralisation in dilution material, which will result in an increase in tin production at no additional mining cost and minimal additional processing cost;
- Re-examination of existing drill core by geological logging, NITON portable XRF analysis and follow-up laboratory analysis has the potential to modify and extend the existing interpretation of the mineralisation;
- Re-interpretation of existing geological and geochemical drill data and follow-up confirmation drilling of interpreted, near vertical, fault controlled mineralisation has the potential to significantly increase the near surface geological resource. This has the additional potential to significantly reduce the stripping ratio of the proposed open cut mining development; and
- The application of the results of the TOMRA preconcentration test work program has the potential to alter the cut-off grade and consequently the geological resource boundaries, which could result in an increased geological resource and mine production plan north and south of the existing Mineral Resource.

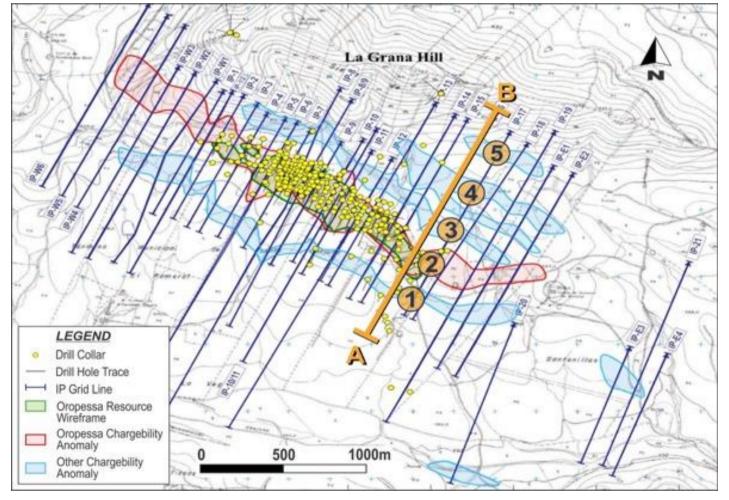


Figure 11. Oropesa exploration targets

### 18.0 RISK ASSESSMENT

Key risks identified as part of the Study risk assessment process are outlined in Table 16. The risks will be assessed and risk mitigation strategies developed as part of a future feasibility study assessment on the project.

Area	Key risks
Market	Exchange rates, tin prices, tin demand
Geology / Resource	Complexity of the deposit geology, conversion of Inferred Resources to Indicated Resources, and Mineral Resources into Ore Reserve
Mining	Geotechnical, grade control, equipment selection, operating and capital costs
Metallurgical	Metallurgical recovery and concentrates grades, deleterious elements
Processing	Processing site location, operating and capital costs, labour supply, metallurgical assessment outcomes
Tailings	Discharge location, capital cost, approvals
Environmental	Time to complete and approve EIS
Costs	Cost over-runs
Development funding	Access to capital to complete drilling, metallurgical testing, feasibility studies and project development

Table 16: Key project risks

### 19.0 RECOMMENDATIONS

The Study has identified a number of key areas for further assessment for inclusion into the Definitive Feasibility Study, including:

#### **Processing plant**

- Optimisation test work and flow sheet development for oxidised ore;
- Optimisation of the tin flotation concentrate ultra-fine gravity cleaning stage;
- Further testing of the specific gravity of the ore;

#### **Mineral Resources**

- Drilling program to convert JORC Inferred Resources into Indicated Resources;
- Sterilisation drilling to confirm the location of key infrastructure;
- Resource extension exploration drilling on adjacent targets;

#### Hydrogeological

• Additional pumping tests to confirm the capacity of the aquifer for mine dewatering analysis;

#### Mining

- Further optimisation of the mine design and schedule to minimise the operational footprint and the waste to ore ratio;
- Undertake an Ore Reserve estimate once the existing Mineral Resource estimation is updated with additional drilling results and a refined geological interpretation;

- Detailed ore loss and dilution study, and geotechnical studies;
- Further metallurgical test work to define head graderecovery curves for the different ore types that will be mined;
- Inclusion of sulphides into the geological model. This will support the creation of a sulphide material mining plan and optimise management of the tailings;

#### Infrastructure

- Detailed tailings dam engineering and design;
- Detailed electrical supply studies;

#### Environmental

- Completion of the requested revised ecological studies and development of a conservation management plan that complies with the requirements of the Red Natura 2000 Conservation Area;
- Completion and submission of a revised Environmental Impact Assessment and community consultation program.

### 20.0 PROJECT IMPLEMENTATION

### 21.0 DISCLAIMER

The Company's project development plan encompasses the following activities:

- Drilling for the Mineral Resource expansion and Ore Reserve definition;
- Further drilling for geotechnical and hydrological purposes;
- Further metallurgical test work;
- Finalisation of the Definitive Feasibility Study;
- Final engineering and procurement, and ordering of long lead items;
- Completion of Environmental and Mining Lease permitting;
- Community consultation;
- Binding off-take agreements and project financing; and
- Construction and commissioning.

#### **Competent Person's Statement**

The information in this report that relates to the Economic Assessment Study for the Oropesa Tin Project is based on and fairly represents information and supporting documentation that has been compiled for this report. Mr Chris Creagh is a consultant to Elementos Ltd. Mr Creagh has reviewed and approved the technical content of this report. Mr Creagh is a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). Mr Creagh is a Member of the Australasian Institute of Mining and Metallurgy and consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

#### References to previous ASX 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 in market releases dated as follows:

- Acquisition of the Oropesa Tin Project, 31<sup>st</sup> July 2018
- Oropesa Ore Sorting Testwork, 9<sup>th</sup> August 2019
- Exploration Evaluation at Oropesa tin project, 4<sup>th</sup> February 2019
- Oropesa Presentation Seville Spain, 18<sup>th</sup> October 2019

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 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.

#### **REASONABLE BASIS FOR FORWARD LOOKING STATEMENTS**

This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the production target and financial forecast information within this Economic Assessment are based have been included in the table below, which is based on the Modifying Factors in Section 4 of the JORC Code (2012) Table 1

Criteria	JORC Code explanation	Commentary		
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive</li> </ul>	<ul> <li>No Ore Reserve has been declared</li> <li>Refer to Mineral Resource information released o Project)</li> </ul>	n 31 July 2018:- (Acquisi	tion of the Oropesa Tin
	of, the Ore Reserves.			
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• Site visits have been carried out by a competent p processing plant, waste rock and tailings facilities		operating a mine,
	• If no site visits have been undertaken indicate why this is the case.			
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that</li> </ul>	<ul> <li>No Ore Reserve has been declared</li> <li>This Economic Assessment Study has been complof +/- 35%. It should be noted that a number of the undertaken to a more detailed standard of evaluation completed to update the market on the economic</li> </ul>	e work streams in the st tion and definition. This	udy have been Economic Study has been
	material Modifying Factors have been considered.	announcing the acquisition of the project from Eurotin Ltd (TSX-V:TIN) on 31 July 201		31 July 2018
		<ul> <li>Of the geological resource scheduled for extractic is in the Inferred category, with &lt;1% of the first 9 Inferred Resources</li> </ul>		0 0
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The resource grade figures are reported in an in-s applied to them. A 0.15% Sn cut-off was employed classification. This is applied to the calculation of t	d, the same considered i	n the Mineral Resource
		Parameter	Unit	Result
		Tin price	US\$/t	19,750
		Tin payable	%	98
		Tin refining charges	US\$/wmt	450
		Process plant recovery	%	70
		Processing costs ROM ore	US\$/t	10.97

Criteria	JORC Code explanation	Commentary		
		Other costs ROM ore	US\$/t	3.38
		Ore: drill and blast	US\$/bcm	1.72
		Waste: drill and blast	US\$/bcm	1.56
		Ore: haulage up to 1,000m	US\$/bcm	2.30
		Waste: haulage up to 1,000m	US\$/bcm	2.17
		Extra haulage cost	US\$/bcm	0.04
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>No Ore Reserve has been declared</li> <li>Open pit mining was selected to maximise extract developed for this study has taken a practical app the current level of information. The mineral reso conform to the local geological stratigraphy, form from the northwest towards the southeast. The p exploit the near surface, northwest portion of the development, with the first phase of the proposed mineralisation within that zone before extending geotechnical parameters that guide the engineeri design including Inferred Resources in the first ph Resources do not contribute to the production scl comprise only 1 % in the first nine years of the proceed of a similar type and style to that contained withir definition are in domains that have been interpret geological confidence. Drill hole spacing within the twice as great as those within Indicated Resource has enabled the gradual elevation of mineral reso reasonable grounds to expect an infill drilling prog of the Inferred Resources to a higher mineral reso move toward the definition of ore reserves during</li> <li>Conventional truck and shovel mining methods had Waste rock will be stored in above ground waste in Geotechnical parameters were provided by studie Spain and SRK, Cardiff, Wales with a third review s (Terratec), Grado, Spain</li> <li>Mineral Resource information comes from a repo Oropesa Tin Project)</li> </ul>	roach to exploiting the r urce consists of a numb- ing an elongate tabular roposed open cut minin mineral resource in the d mine extending at dep the development toward ng design assumptions h ase of the proposed min hedule in the first two ye oposed development. Th on. The Inferred Resource the Indicated and Mea ted and modelled with r e Inferred Resource zon- zones. Historical infill dr urces to higher categori gramme will result in the purce category, which wi g the next phase of work ave been employed rock dumps and within t	mineral resource based on er of lenses that largely body that dips shallowly g operation is designed to early phase of th to the base of the ds the southeast. The have resulted in the mine he development. Inferred ears of operations and he Inferred Resources ces contain mineralisation sured Resources, but by easonable to low es are approximately rilling within the resource es. The Company has a conversion of some or all ill enable the Company to for the proposed project.

Criteria	JORC Code explanation	Commentary	
		Major assumptions were based on information provided by the geotec	hnical reports
		Description	Units Value
		One-way ramp width	metres 19
		Ramp grade one-way ramp	% 12
		Bench height	metres 15
		Berm width – Fresh and transitional materials	metres 8.2
		Berm width – Oxide material	metres 7.5
		Face angle – Fresh material	degrees 80
		Face angle – Transitional material	degrees 75
		Face angle – Oxide material	degrees 55
		A 10% dilution (0% Sn) and 95% mining recovery was applied	
		• Mining costs were based on indicative unit rates provided by mining co	intractors
		Processing, Fixed and Variable costs were developed by Soluciones, Co Ingeniería, S.L. (SCYPI)	ncentradores Y Procesos de
		Smelter charges were calculated from rates provided from a commercial	al smelter
		• Royalties are limited to a 1.35% NSR to a private entity.	
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	• The process flowsheet developed for the project is a standard sulphide and tin (cassiterite) flotation extraction method common within the ha	
	Whether the metallurgical process is well-tested technology or novel in nature.	<ul> <li>A series of comprehensive metallurgical test programmes have been ca sorting pre-concentration on a 3 tonne sample by TOMRA Sorting Solui</li> </ul>	
	• The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	facilities in Hamburg, Germany, preliminary metallurgical tests at SGS Mine 900kg pilot plant test work programme at Wardell Armstrong Internationa Kingdom. Further test work is required to optimise the process flowsheet	Aineral Services UK Ltd and a onal Ltd, Truro, United
	Any assumptions or allowances made for deleterious elements.	weathered mineralisation. Additional metallurgical information is availa made on 18 <sup>th</sup> October 2019, Oropesa Tin Project presentation to the 3	
	• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	Conference, Seville, Spain	
	• For minerals that are defined by a specification, has the ore reserve estimation been based on	<ul><li>No other element is extracted for commercial purposes</li><li>Any sulphide minerals are removed by flotation from the concentrate provide the second second</li></ul>	product.

Criteria	JORC Code explanation	Commentary
	the appropriate mineralogy to meet the specifications?	
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	<ul> <li>An Environmental Impact Assessment/Study (EIS) has been lodged with the Andalucian regulatory authorities. An initial review has been completed and additional base-line studies have commenced following the review.</li> <li>Waste rock characterisation work has been carried out and is used in the design of waste rock storage facilities. Tailings storage for sulphide bearing tailings will be in a specific tailings storage facility, with clean tailings to be stored is a separate tailings storage facility and as co-disposal waste within the waste rock facilities.</li> <li>The operation has been designed where no water shall leave the site without prior treatment</li> </ul>
		suitable for discharge into the natural environment
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>Access to the Oropesa Project area is via a sealed road for approximately 3 kilometres north- northwest of the small community of Fuente Obejuna along road CO-8404 (road between Fuente Obejuna and Los Blazquez), then heading west-northwest for approximately 5 kilometres along a well formed unsealed public access road</li> </ul>
		Grid power passes through the project area
		Sufficient water is available from de-watering of a localised aquifer ahead of mining and from surface run-off from rainfall
		• The Oropesa Tin Project is located within the Andalucian province which has a long history of mining activity. The local population has a recent history of metal and coal mining and should be able to provide a significant proportion of the workforce.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital costs for the processing facility and site infrastructure were developed by SCYPI to a level of
	The methodology used to estimate operating costs.	accuracy of ±20%.
	• Allowances made for the content of deleterious elements.	• Operating costs were developed by SCYPI using equipment power consumption figures, local fuel and electricity costs and labour rates for Spain
	• The source of exchange rates used in the study.	Transport charges are based on local road haulage and port costs
	Derivation of transportation charges.	• Smelter treatment charges and penalties are derived from quotes from a commercial smelter.
	• The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	• A private entity NSR of 1.35% is payable and is included in the financial forecast
	The allowances made for royalties payable, both Government and private.	
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	<ul> <li>The tin price is based on medium term projections carried out by the International Tin Association. No assumptions have been made for inflation.</li> <li>Smelter treatment charges and penalties are derived from quotes from a commercial smelter</li> </ul>
	• The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	

Criteria	JORC Code explanation	Commentary
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>World refined tin production is forecast to be in deficit in 2023. The floor price of tin (price at which 10% of mine production is not profitable) is forecast to increase by US\$2,000/t between 2019 and 2023. This could lead to an even greater deficit in tin supply. Current market volatility has seen consumers depleting tin stocks which will add to price pressure as consumers seek to re-supply tin stocks.</li> <li>Existing mines are not expected to be able to meet this projected shortfall in supply due to lower grades and poorer recoveries as these operations reach maturity. Short term small scale increases in production can be expected from artisanal mining operations.</li> <li>The tin price of US\$19,750/t that has been applied to this study has been derived from global tin production and price forecasting information provided to Elementos by the International Tin</li> </ul>
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Association for initial production commencing in 2023.</li> <li>The project is located within a jurisdiction with low sovereign risk</li> <li>A tin price of US\$19,750/t has been applied to this study. No inflation has been included in the tin price or the operating costs over the life of the mine.</li> <li>Mine dilution has been set at 0% Sn for this study</li> <li>A discount rate of 8% has been adopted for this study</li> <li>Sensitivities have been carried out on major inputs and are presented elsewhere within the body of the accompanying ASX release</li> <li>Capital costs have been estimated to a level of accuracy of ±20% and are based on recent mine construction projects in Spain</li> <li>Fixed and variable operating costs are based on current mining operations in Spain</li> <li>The technical parameters and financial forecasts for the Oropesa project are robust and provide a platform for Elementos to advance discussions with potential debt providers, strategic partners, off-take partners and equity investors</li> </ul>
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	<ul> <li>The project has strong local and regional community support</li> <li>An Environmental Impact Study has been submitted for approval with the relevant Andalucian authorities</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be</li> </ul>	<ul> <li>No Ore Reserves has been declared</li> <li>The project is located within ZEPA Alto Guadiato. A European Union designated Red Natura 2000 Special Conservation area. A conservation management plan specific to the area must be developed and presented as part of the process of obtaining an environmental authority</li> <li>The project has no marketing agreements in place at this stage. The project is subject to a 1.35% NSR royalty</li> </ul>

Criteria	JORC Code explanation	Commentary
	reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the	The project is situated within granted Investigation Permit number 13.050
	materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• An Environmental Impact Study has been presented to the Andalucian authorities for approval. There are reasonable grounds to believe that an Environmental Authority will be granted within a timeframe consistent with the proposed projects development schedule
		• Discussions with potential funders have confirmed that a project of this scale will be able to be funded with a combination of Debt and Equity. The company is confident that the capital costs are sufficiently low that raising the required equity is be possible. The company continues to have the full support of its existing largest shareholders and is working with potential offtake partners, brokers, private equity firms and traditional funders to ensure that the Company will be in a position to fund the project as needed.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories.	No Ore Reserve has been declared
	• Whether the result appropriately reflects the Competent Person's view of the deposit.	
	• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	No Ore Reserve has been declared

Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>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.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> </ul>	No Ore Reserve has been declared
	<ul> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	