Elementos Limited ABN 49 138 468 756 ASX: ELT elementos.com.au Level 7, 167 Eagle St Brisbane Queensland 4000 Phone +61 (0)7 2111 1110 admin@elementos.com.au

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ASX RELEASE

Metallurgical upgrades and conventional tin flowsheet confirmed for Oropesa Project's Definitive Feasibility Study.

Highlights

- Pilot-scale metallurgical test work confirms conventional and modern tin flowsheet for Oropesa Project, producing high-grade commercial tin concentrate
- Robust metallurgical upgrades and flow sheet confirmed from a representative bulk sample to set the basis of the Oropesa DFS
- Mineralogy confirms Oropesa is cassiterite tin-bearing mineral (>99%), with <0.5% stannite in ore.
- All physical test work completed; final reporting of pilot and variability test work underway
- Elementos will continue commercial offtake discussions based on concentrate specifications derived from pilot scale results.

Elementos Limited's (ASX: ELT) pilot scale metallurgical test work program has successfully confirmed ore from its flagship Oropesa Project in Spain can be processed via a conventional tin flow sheet to produce a high-grade and commercially desirable tin concentrate.

Testing at Wardell Armstrong International's (WAI) laboratory in Cornwall, UK used a large representative bulk sample sourced from the Oropesa Tin Project in Andalucía, Spain. Metallurgical upgrade results from the pilot plant have confirmed the project's Definitive Feasibility Study (DFS) flow sheet, which will now be further matured with process engineering contractor Duro Felguera, which was recently awarded the ECI Mineral Process Plant Contract¹.

The flow sheet encompasses crushing and grinding, sulphide flotation, a gravity tin recovery circuit, tin flotation recovery circuits and magnetic separation (see Figure 2). The pilot plant test work program has confirmed robust average metallurgical upgrade factors, summarised in Table 1 below.

	Plant Feed %	Concentrate Grade %	Tin Concentrate Plant Recovery %
Tin (Sn)	0.46	61.4	74.1
Iron (Fe)	12.85	4.9	
Total sulphide (Stot)	5.02	3.2	
Lead (Pb)	0.04	0.2	

Table 1: Pilot Plant Metallurgical Upgrade Results

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Elementos confirms production of a commercially appealing >61% tin concentrate with low impurity specifications. The company, as previously detailed, is engaged with a number of tin smelters and traders and will further progress commercial offtake discussions based on achieving these grades on a pilot-scale basis.

Metallurgical upgrade factors are based on a representative bulk sample which has been confirmed as representative of the ore for the project on the following criteria: spatial distribution, ore domain, average-grade, weathering and geology. Summarized as follows:

- Spatial locations of the individual samples used in the bulk sample provide sufficient coverage of the potential open pit;
- Proportions of the weathering types used in the bulk sample are generally representative of the proportions of the total mineable resource;
- Samples are considered representative of a range of mineralised domains with the greatest number of samples coming from the largest mineralised domains (by tonnage); and
- Average grade of the bulk sample (0.46% Sn) is consistent with the estimated average deposit grade being fed into the plant.



Figure 1: Oropesa Long Section Showing Block Model, Optimisation Study Pit Shell and Sample Locations

In addition to the summarised overall metallurgical upgrade and flowsheet information, test work has again confirmed, via mineralogy tests, that Oropesa tin ore is hosted in cassiterite (>99%) mineralisation, with only the minor quantities of tin (<1%) hosted in stannite. Cassiterite is the 'economic' form of tin mineralisation, with stannite being a difficult tin mineral to recover. This aligns with and confirms the findings from previous mineralogy test work on the deposit.

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Elementos Managing Director Joe David said the company was pleased with the robust metallurgical upgrades achieved in Oropesa test work.

"After a prolonged yet detailed metallurgical program Elementos is very pleased to be able to release these robust metallurgical results. These results confirm the DFS flowsheet for the project with a production of a commercially appealing, high grade and low impurity, tin concentrate of around 61% Tin. The resulting concentrate is not only low in impurities but is confirmed to be produced with economic average recoveries above 74%, using a conventional and modern tin concentrate process flow sheet.

"This pilot scale flowsheet is now the basis for the DFS. We are pleased that this test work has built-on the core flowsheets from previous test work programs, with only minor optimisation changes being made during this program to creating a more robust flowsheet and concentrate product.

"The flow sheet from this test work will now be provided, under the ECI contract, to Duro Felguera who we will work alongside to mature the process engineering through the DFS design gates and into an EPC delivery contract."

Mr David said the high-grade concentrate specifications produced would serve ongoing commercial offtake discussions with smelters and traders.

"The feedback on the concentrate to date has been very positive and we will continue to mature commercial discussions," he said.

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Figure 2: Simplified Oropesa Tin Project DFS process flowsheet

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

For more information, please contact:

Mr Duncan Cornish	Mr Joe David
Company Secretary	Managing Director
Phone: +61 7 3221 7770	Phone +61 7 2111 1110
admin@elementos.com.au	jd@elementos.com.au

ABOUT ELEMENTOS

Elementos is committed to the safe and environmentally conscious exploration, development, and production of its global tin projects. The company owns two world class tin projects with large resource bases and significant exploration potential in mining-friendly jurisdictions. Led by an experienced-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 forecast significant tin supply shortfall in coming years. This shortfall is being partly driven by reduced productivity of major tin miners in addition to increasing global demand due to 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 the Annual Mineral Resources and Ore Reserves Statement, Exploration Results and Exploration Targets is based on information and supporting documentation compiled by Mr Chris Creagh, who is a consultant to Elementos Ltd. Mr Creagh is a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and who consents to the inclusion in the report of the matters based on his information and to the form and context in which it appears. Chris 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 Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

The information in this announcement that relates to Metallurgical Results is based on and fairly reflects, information compiled by James Turner, a Competent Person who is a Member of the Institute of Materials, Minerals and Mining who was a consultant of Wardell Armstrong International. Mr Turner 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 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.

The Australian Securities Exchange 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:



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- 1 "Oropesa Tin Project Mineral Resource Estimate", 8th November 2021
- 2 "Oropesa Tin Project additional mineralisation", 16th March 2022
- 3 "2022 Oropesa Drilling Program Commences", 26th June 2022
- 4 "Optimisation Study Oropesa Tin Project", 29th March 2022

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.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Pilot Plant Metallurgical Test Work, Oropesa Tin Project, Spain – September 2022 – Wardell-Armstrong

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. 	Approximately 2.87 tonnes of sample was collected for laboratory scale and pilot plant scale test work, comprising HQ and PQ diameter half core samples from 147 exploration drill holes that were in secure storage from historical drilling campaigns carried out between 2010 and 2016.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The samples were from mineralised intersections that were used to estimate a Mineral Resource at Oropesa and released to the ASX on 8 th November 2021 - "Oropesa Tin Project - Mineral Resource Estimate".
	 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 	Approximately 840kg of the sample was set aside for laboratory scale confirmatory test work. Approximately 2020kg of sample material was processed using pilot plant scale equipment to produce quantities of concentrate suitable
	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	for downstream test work with a focus on obtaining saleable grade tin concentrates from tin dressing and tin flotation circuits. The sample underwent the test work programme at the Wardell-Armstrong Laboratories in Truro, United Kingdom.
	commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	This sample was subjected to a range of tests including:
	•	Head assay
		 Laboratory scale confirmatory test work including sulphide flotation, several stages of milling and gravity separation.
		• Pilot Plant Stage 1 – initial milling, sulphide flotation (roughing followed
		by regrinding and two stages of cleaning) and the first stage of gravity processing
		• Pilot Plant Stage 2 – screening of Stage 1 gravity tailings, a second
		stage of gravity separation followed by regrinding and a third stage of gravity separation
		Pilot Plant Stage 3 – desliming of the tailings produced during Stage

Criteria	JORC Code explanation	Commentary
		 2 processing before the final stage of pilot scale gravity processing Tin dressing – gravity concentrates blended for the tin dressing circuit which involved multiple gravity stages, sulphide flotation and magnetic separation Tin flotation – Nine rougher flotation tests, eight cleaner flotation tests and a locked cycle test. Two stage WHIMS magnetic separation and a final gravity clean on the non-magnetic fraction.
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).	N/A
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	N/A
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	N/A
Sub-sampling techniques and	 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. 	The drill core samples were submitted as half core following diamond saw cutting at the Company's core preparation facility in Fuente Obejuna, Spain. The samples were selected from analyses of half core samples that were sent for preparation to ALS Laboratories sample preparation facility in Seville, Spain

Criteria	JORC Code explanation	Commentary
sample preparation	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	("ALS Seville"), and then dispatched to ALS Vancouver, Canada ("ALS Vancouver") for analysis for tin by glass fusion X-Ray fluorescence ("XRF").
	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	No duplicate samples were required for the test work programme. The sample was crushed to 100% passing 2.36mm, thoroughly blended and homogenised before low temperature drying. The sample was representatively split into 20kg charges ready for the test work. A sub-sample was taken and pulverised to 100% passing -75µm before submission for head assay by XRF and ICP-MS. A representative sub-sample was submitted for quantitative mineralogical analysis using the Zeiss Mineralogic® system. crushed through a top size of 25mm and sub-sampled for assay. A single 2kg sub-sample was crushed to 100% passing 500µm and screened into four size fractions, +125µm, - 125µm +75µm, -75µm +38µm, and -38µm, to confirm the distribution of both mass and metal in each size fraction.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	The metallurgical pilot plant test work programme was managed by recognised metallurgical consultants, SCYPI, based in Oviedo, Spain. The test work was independently carried out by Wardell Armstrong Laboratories in Truro, United Kingdom. Sample preparation is covered in the section above Tin (Sn) was analysed by XRF (fused bead) and wet chemical techniques No standards or blank samples were supplied for the pilot plant test programme.
<i>Verification of sampling and assaying</i>	 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. 	Sampling and analytical methods are of a good standard and as such the results are considered representative of the performance that could be expected from the application of the process flowsheet developed as a result of the pilot plant test programme.

Criteria	JORC Code explanation	Commentary
<i>Location of data points</i>	 Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	Samples were selected from half drill core that was used in the estimation of a Mineral Resource that was released to the ASX on 8 th November 2021 - "Oropesa Tin Project - Mineral Resource Estimate" and are located within the open pit shell from the Oropesa optimisation study released to the ASX on 29 th March 2022, "Optimisation Study Oropesa Tin Project".
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	Samples were composited from mineralised intersections from diamond drill holes that are spatially representative of the mineralisation throughout the mineral resource. Sufficient sample was collected to reach the sample size required to carry out the bulk test.
<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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	Where applicable, the drill core has been collected from drill holes that are oriented approximately perpendicular to known mineralisation. The orientation of the drilling is not considered to have introduced any bias to the sample data.
Sample security	The measures taken to ensure sample security.	The drill core is stored in Company locked facilities in Fuente Obejuna, Spain. Sample security was supervised by Company, SCYPI and Wardell Armstrong personnel. All samples were sealed prior to transport. An independent transport company was used to transport the samples from Oropesa to Truro.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken

Section 2 Reporting of Exploration Results

Pilot Plant Metallurgical Test Work, Oropesa Tin Project, Spain – September 2022 – Wardell-Armstrong

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 14.51km ² concession in Andalucía, southern Spain, located 75 km northwest of Cordoba and 180 km northeast of Seville. On 10th October 2017 the Company filed an Exploitation Permit application 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 There are no known litigations potentially affecting the Oropesa Project
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 between1969–1990, 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 soils, geophysical surveys, trenching and initial drilling.
Geology	• Deposit type, geological setting and style of mineralisation.	The Oropesa deposit is characterised by replacement-style tin mineralisation (cassiterite and minor stannite) occurring mainly at sandstone-conglomerate contacts in the Peñarroya Basin, a Carboniferous basin formed during the Hercynian/Variscan Orogeny. Reactivation of syn-sedimentary and basin- controlling faults has resulted in complex, folded geometries. Subordinate fault- hosted mineralisation is also present.

Criteria	JORC Code explanation	Commentary
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:	An estimated Mineral Resource for Oropesa was released to the ASX on 8 th November 2021 - "Oropesa Tin Project Mineral Resource Estimate". Please refer to this announcement for information related to the geological resource. ^{*1}
	\circ 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 	
	o down hole length and interception depth	
	o 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.	
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.	N/A
	• 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.	
Relationship between	• These relationships are particularly important in the reporting of Exploration Results.	N/A
mineralisation widths and intercept	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
lengths	• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	

Criteria	JORC Code explanation	Commentary
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.	All data and resource estimates have been previously reported.
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. 	Wardell Armstrong International Ltd were requested by Minas de Estaño de España to conduct a comprehensive pilot plant test work programme on the Oropesa tin deposit in Spain. The main aim of the testing was to further develop a process flowsheet that was originally proposed in an initial pilot plant test work programme completed by Wardell Armstrong in December 2017, which was released on the ASX on 18 th October 2019 "Oropesa Presentation – Seville Spain". The 2017 pilot plant test programme used samples from drill holes that were targeted at maximum recovery of mineralised samples. This updated pilot plant test programme has targeted maximising the amount of tin that can be recovered from an ore sample that is more representative of the ore that is located throughout the proposed open pit operation at Oropesa. For the current exercise, approximately 2.8 tonnes of drill core from 147 drill holes across the resource was selected for processing. The bulk sample tin head grade was 0.46% Sn, with 5.02% S and 12.85% Fe. A full metallurgical balance was generated using the mass pulls and recoveries from the pilot plant work, and the ancillary test work. From this a tin recovery of 74.1% at a combined concentrate of 61.4% Sn was achieved. 60.5% of the recovered tin came from gravity concentration at a grade of 58-64% Sn, and the remaining 39.5% came from tin flotation at a grade of 58% Sn. The gravity concentrate contained 3.5% Fe and 2.9% S, both within concentrate specification limits. The tin flotation concentrates contained 5.8% Fe and 3.5% S.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	• Complete the proposed diamond drilling program. Current plan is for a total of 9 drill holes for approximately 1,590m.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	 Completion of a new geological resource model Converting resources from Inferred to Indicated

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Criteria	JORC Code explanation	Commentary
		• Follow-up exploration drill testing on significant open-ended mineralisation trends that were identified during the 2021 exploration drilling program

Section 3 Estimation and Reporting of Mineral Resources

n/a

Section 4 Estimation and Reporting of Ore Reserves

n/a

Section 5 Estimation and Reporting of Diamonds and Other Gemstones