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10 July 2024

## **ASX RELEASE**

# Further high-grade tin and copper intersected at Cleveland Project.

Elementos Limited (ASX: ELT) has intersected additional un-targeted high-grade tin and copper mineralisation during its diamond drilling program at its Cleveland Tin Project in Tasmania.

C2124: 1.4m @ 1.0% Sn and 3.76% Cu from 353.7m including: 0.6m @ 1.9% Sn and 7.69% Cu from 353.7m.

A second zone of similar, yet lower grade mineralisation occurred at a down hole depth of 359.75m.

C2124: 0.73m @ 0.11% Sn & 0.25% Cu from 359.75m

This intercept follows close on the heels of a polymetallic intercept announced in June from hole C2123:

C2123: 0.45m @ 9.7% Cu, 5.15g/t Au, 18g/t Ag & 1.35% Zn from 111.0m<sup>5</sup>

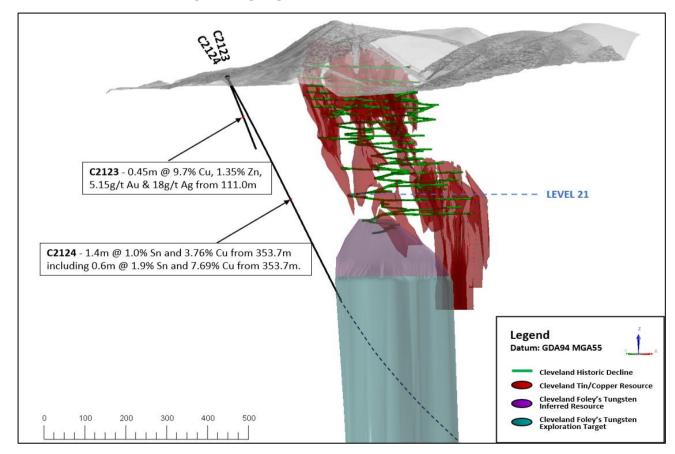


Figure 1. Cross-section depicting location of the tin-copper mineralisation in C2124 and copper-gold mineralisation in C2123 in relation to the known mineral resources and underground infrastructure at Cleveland (looking from the southwest)

## TOMORROW'S TIN

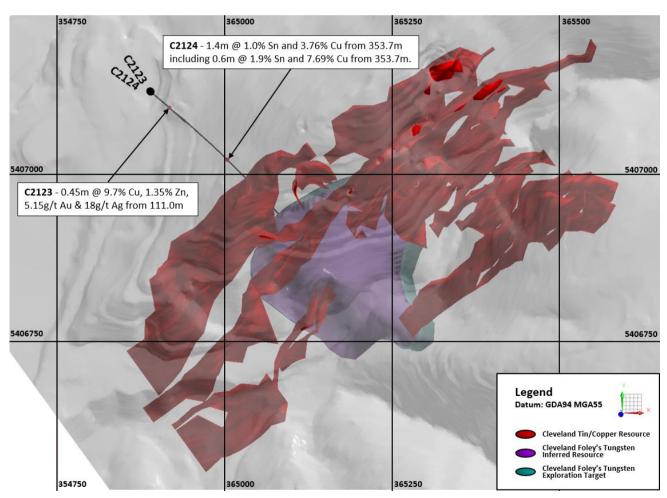
#### **Managing Director Joe David commented:**

The C2124 hole over 1,100m is testing for extensions to the tungsten mineral resource<sup>1,2</sup> at depth within the Foleys Zone, beneath the Cleveland tin-copper resource<sup>1</sup>. The drill hole is also assessing the potential for a fluorite resource following confirmation of fluorite within the upper regions of the Foleys Zone in the Company's 2022 drilling program<sup>4</sup>.

The new un-targeted C2124 intercepts are significant as they are interpreted to likely represent the discovery of a new zone/lens of tin-copper mineralisation (not an extension), separated yet adjacent to the northwest of the current JORC tin and copper resource<sup>1</sup>.

The intercept is located 150m, laterally, to the northwest of Level 21 of the existing underground infrastructure within the Cleveland Tin Mine.

Drill hole C2124 is being drilled in a southeasterly direction, which is the opposite direction to the majority of the over 2,000 historical surface and underground drill holes at Cleveland.



**Figure 2.** Plan view depicting the location of the tin-copper mineralisation in C2124 and copper-gold mineralisation in C2123 in relation to the known mineral resources at Cleveland (and Foleys Zone tungsten resource and exploration drilling target)

## **TOMORROW'S TIN**

			ALS Analyti	ical Method	ME-XRF15d	ME-XRF15d	ME-XRF15d	ME-XRF15d	ME-XRF15d	ME-XRF15d	Au-AA25	Ag-AA46
					Sn	Cu	Pb	Zn	Ni	W	Au	Ag
Hole No.	From (m)	To (m)	Interval(m)	Sample No.	%	%	%	%	%	%	ppm	ppm
C2124	347.13	347.59	0.46	90004	0.02	0.02	0.01	0.31	0.12	<0.008	0.01	<1
C2124	347.90	348.40	0.50	90005	0.01	0.03	0.01	0.03	0.07	<0.008	0.01	1.00
C2124	350.00	350.20	0.20	90006	0.08	0.53	0.01	0.07	0.14	<0.008	0.01	3.00
C2124	353.17	353.50	0.33	90007	0.07	0.10	0.01	0.03	0.21	<0.008	0.01	1.00
C2124	353.50	353.70	0.20	90008	0.06	0.01	0.01	0.02	0.18	<0.008	0.01	<1
C2124	353.70	354.30	0.60	90009	1.90	7.69	0.01	0.46	0.25	0.07	0.11	37.00
C2124	354.30	355.10	0.80	90010	0.33	0.81	0.01	0.06	0.01	0.01	0.03	3.00
C2124	355.10	356.10	1.00	90011	0.09	0.04	<0.01	0.03	<0.01	<0.008	0.01	<1
C2124	359.75	360.48	0.73	90012	0.11	0.25	0.01	0.05	<0.01	<0.008	0.01	1.00
C2124	363.90	364.10	0.20	90013	0.02	0.05	0.01	0.02	0.05	0.08	0.02	<1
C2124	382.00	382.30	0.30	90014	0.16	0.22	0.01	0.03	0.04	0.02	0.03	1.00

Table 1. Analytical results from drill hole C2124

Hole ID	East GDA 94	North GDA 94	RL	Current Depth (m)	Azimuth (t)	Azimuth (m)	Dip
C2124	364888	5407117	341	663	130	116.5	-63

Table 2. C2124 Drill hole collar data

The intersected mineralisation consists of disseminated to semi-massive pyrrhotite, chalcopyrite and pyrite within two closely spaced zones of silicified fine-grained sediments. The mineralisation has a similar appearance to the replacement style mineralisation that occurs within the main Cleveland tin-copper resource. A down hole electromagnetic survey is planned to follow the drill campaign to determine the orientation of potential extensions to the semi-massive sulphide mineralisation intersected by C2124.

The geophysical survey results, in addition to logging and assays, will be the key data required to determine the follow up programs targeting tin, copper, gold and silver at Cleveland.



Figure 3. Drill hole C2124 depicting the tin-copper mineralisation from 353.7m to 355.1m.

## TOMORROW'S TIN

The tin assay data contained in this report represents total contained tin. Analytical data to determine the levels of insoluble (cassiterite) and soluble (stannite) tin are underway. The Cleveland Tin Mine produced tin concentrates (cassiterite) and copper concentrates (chalcopyrite) during underground operations from 1968-1986.

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

#### For more information, please contact:

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#### **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 in 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 Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

## **TOMORROW'S TIN**

#### **References to Previous Releases**

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

- 1 Substantial Increase in Cleveland Open Pit Project Resources following Revised JORC Study, 26 September 2018
- 2 Cleveland Project Tungsten Potential, 29 October 2013
- 3 Tin and tungsten drilling commences at Cleveland Tin project, 16 May 2024
- 4 Fluorite Confirmed at Cleveland Project, 03 March 2023
- 5 High Grade Copper & Gold intersected at Cleveland Tin Project, 18 June 2024

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**

Diamond Drilling Exploration Program, Cleveland Tin Project, Tasmania – July 2024

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	<ul> <li>C2124 is a diamond drill hole, currently being drilled and was at a depth of 663m at the time of reporting. The drill hole has a PQ diameter pre-collar, drilled to a depth of 32.6m where hole stability had been established. The remainder of the drill hole being reported was completed recovering HQ diameter drill core.</li> </ul>
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>HQ drill core was sampled based on intervals determined by the project geologist and cut using a diamond saw to split the core in half.</li> </ul>
	Aspects of the determination of mineralisation that are Material to the Public Report.	The Cleveland Project contains two mineralising systems. An upper zone of tin/copper mineralisation and a lower tungsten zone.
	• In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	<ul> <li>The tin mineralisation at Cleveland occurs predominantly as cassiterite.         The cassiterite is associated with pyrrhotite, pyrite, chalcopyrite, marmatite/sphalerite, chalcopyrite and minor arsenopyrite. The pyrrhotite is magnetic.     </li> <li>The tungsten mineralisation at Cleveland occurs as wolframite, associated with quartz veining and significant silica-mica alteration.</li> </ul>
		Minor cassiterite, fluorite and molybdenite mineralisation is associated with the tungsten mineralisation.
		Mineralised zones were determined visually
		<ul> <li>Samples were split into half core with a minimum sample weight of approximately 1kg. Samples were prepared and analysed in a certified commercial laboratory.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard).	• A UDR 1500 self-propelled track mounted drilling rig was used, drilling PQ and HQ standard diamond core. Coring was from surface.

Criteria	JORC Code explanation	Commentary	
	tube, depth of diamond tails, face-sampling bit or other type, whether core is	Drill core was collected using a standard double tube system.	
	oriented and if so, by what method, etc).	Drill core is oriented	
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	Diamond drill hole core recoveries and RQD are logged. Measurements are taken systematically downhole between core blocks. The maximum increment being 3.1m.	
		Drill core recovery for the mineralised intervals being reported was 100%	
	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.	No sample bias has been observed due to rock type or core recovery.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<ul> <li>All drill core has been photographed dry and wet. The core is photograph within core boxes, which are identified by drill hole number and start and finish depths. Drill run depths are marked on core blocks. All drill core ha</li> </ul>	
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	been geologically and geotechnically logged prior to being sampled.	
	The total length and percentage of the relevant intersections logged.		
Sub-sampling techniques and sample	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>Whole core was split using a diamond saw operated by trained Company personnel. Sample lengths varied depending on observed mineralisation zones and/or lithological boundaries.</li> </ul>	
preparation	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>Sample selection and marking is carried out by the project geologist</li> <li>Cutting and sampling is carried out by the project geologist or a suitably qualified and experienced contractor</li> </ul>	
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul> <li>Half core dried, crushed, pulverized and split by ALS Laboratories, Burnie, Tasmania. This facility followed the following sample preparation procedure.</li> </ul>	
	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.	<ul> <li>CRU-36f to weigh, dry and crush the samples where 85% &lt;3.15mm. PUL-23j to pulverised up to 85% passing 75 microns.</li> <li>No duplicates are taken from the core</li> <li>Sample weights are between 1.0kg and 3.0kg</li> </ul>	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Duplicate samples were selected and analysed by ALS as part of the internal QAQC procedures	

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and</li> </ul>	<ul> <li>ALS, Burnie, Tasmania, analysed the samples by the XRF-15d method for Cu, Pb, Zn, Sn &amp; W. Au-AA25 for Au &amp; Ag-AA46 for Ag</li> <li>Accredited standards were submitted to the laboratory. No blanks were submitted.</li> </ul>
	<ul> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	• Elementos considers the assay data from the drill core to be accurate, based on the generally accepted industry standard practices employed by the company and the QAQC procedure adopted by ALS.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	All the mineralised intersections and assay data is reviewed by the Elementos Competent Person.
assaying	The use of twinned holes.  Documentation of primary data, data entry procedures, data verification, data entry procedures, data verification, data	The geological logging and drilling program supervision is being carried out by qualified and experienced Company personnel. The drilling program is controlled by the Company's Competent Person
	storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	Drill core is available for verification at the Company's facility in Wynyard, Tasmania.
		No twinned drill holes have been completed in this programme.
		Geological data is recorded on laptop computers onto a standardised Excel logging template utilising the Company's coding system. Data is uploaded on a daily basis onto a commercial "cloud" data storage system.
		No adjustment has been made to the original assay data as received from ALS.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>C2124 has been located using a hand-held GPS.</li> <li>Grid system is GDA 94 Zone 55.</li> <li>RL's are MSL plus 1000m</li> <li>Downhole surveys are collected every 30m using an AXIS Champ Gyro downhole survey tool</li> <li>Drill orientation during set-up is established using a compass and back sight</li> </ul>
		<ul> <li>and foresight markers. Dip is determined using a clinometer on the drilling rig mast.</li> <li>The level of topographic control offered by the initial collar survey is</li> </ul>

Criteria	JORC Code explanation	Commentary
		considered sufficient for the current stage of the work program.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> </ul>	The drill hole being reported has been targeted to increase the confidence level in the existence of mineralisation reported in earlier exploration programmes. The drill hole has not been specifically designed for the purposes of reporting Exploration Results.  Sample compositing has not been carried out.
	Whether sample compositing has been applied.	
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	There is too little information at this stage as to whether the drill results being reported present any bias regarding stratiform or structurally controlled mineralisation.
structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The orientation of the drilling is not considered at this time to have introduced any bias to the sample data.
Sample security	The measures taken to ensure sample security.	Transport of core samples to the ALS facility in Burnie is carried out by Company personnel. Drill core from this programme is stored at the Company's core processing facility in Wynyard. All sample pulps are stored in the ALS facility in Burnie prior to being transferred to the Company's secure facility in Waratah.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been carried out for the current drilling program described in this release.

## Section 2. Reporting of Exploration Results

Diamond Drilling Exploration Program, Cleveland Tin Project, Tasmania – July 2024

Criteria	JORC Code explanation	Commentary		
Mineral	Type, reference name/number, location and ownership including agreements	Exploration Licence EL7/2005 is centred on the historical Cleveland tin mine in		
tenement and	or material issues with third parties such as joint ventures, partnerships,	Tasmania. EL7/2005 is held by Rockwell Minerals (Tasmania) Pty Ltd, a 100%		
	overriding royalties, native title interests, historical sites, wilderness or	subsidiary company of Elementos Limited.		

Criteria	JORC Code explanation	Commentary
land tenure status	<ul> <li>national park and environmental settings.</li> <li>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.</li> </ul>	The project lies within Forest Tasmania Managed Land
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Targeting for the current drilling programme is based on historical exploration and mining information compiled from data collected by Aberfoyle Resources who operated the Cleveland tin mine until operations ceased in 1986.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Cleveland mineralisation is hydrothermal mineralisation associated with Devonian-Carboniferous granite intrusives, which outcrop within 5 kilometres of the historical workings. Gravity survey data suggests the granite occurs approximately 4km below the historical workings</li> <li>The host sedimentary rocks were intruded by the Devonian-Carboniferous Meredith Granite. A quartz-porphyry dyke occurs approximately 350m below the land surface.</li> <li>The tin/copper mineralisation occurs as semi-massive sulphide lenses consisting of pyrrhotite and pyrite with cassiterite with lesser stannite, chalcopyrite, arsenopyrite, quartz, fluorite and carbonates. Sulphide minerals make up approximately 20-30% of the mineralisation.</li> <li>The semi-massive sulphide lenses have formed by the replacement of carbonate rich sediments and are geologically similar to tin bearing massive to semi-massive sulphide mineralisation at Renison and Mt Bischoff.</li> <li>The tungsten mineralisation occurs as greisenisation of a quartz-porphyry dyke and fissure veins, referred to as the Foley's Zone. The tungsten mineralisation has been reported to occur approximately 150m above the top of the porphyry dyke to a depth of 750m below this point.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul> </li> </ul>	Hole ID East GDA 94 North GDA 94 RL Current Depth (m) Azimuth (t) Azimuth (m) Dip C2124 364888 5407117 341 663 130 116.5 -63  • An updated Mineral Resource for Cleveland was released to the ASX on 26 <sup>th</sup> September 2018 - "Substantial Increase in Cleveland Open Pit Project Resources following Revised JORC Study".

Criteria	JORC Code explanation	Commentary
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be</li> </ul>	<ul> <li>All diamond drill hole assay results reported are shown in the body of this report.</li> <li>None of the reported assay data is stated on a weighted average basis</li> <li>No bottom or top cut was applied</li> <li>No metal equivalents have been used</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>This report is based on a geological interpretation by Company personnel and on analytical data from ALS, Burnie on drill core analyses only.</li> <li>The drill hole has been designed to intersect the Foleys Zone tungsten mineralisation at depth.</li> <li>All drill hole lengths reported in the release are "down hole lengths". True widths are not known.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	See main body of the report
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.	The reporting is considered to be balanced.

Criteria	JORC Code explanation	Commentary
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.	Elementos is reporting results for drill hole C2124 as it contains mineralisation that is considered to be significant to the potential for additional mineralisation similar in nature to the previously reported mineralisation and resources at Cleveland.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Continue with the planned drill hole to test the extent of tungsten mineralisation within the Foleys Zone
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Complete downhole electromagnetic studies on C2124 to determine if there are any off-hole anomalies that may represent an extension to the mineralisation intersected in C2124.

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