

16 January 2023

# 2022 DRILLING RESULTS INCREASE CONFIDENCE

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") is pleased to report the final round of drilling results from the 2022 drilling campaign at the Sarytogan Graphite Deposit in Central Kazakhstan.

### **Highlights**

- All assays from 2022 drilling program now received.
- Significant graphite intercepts above 25% Total Graphitic Carbon (TGC) returned around the margins of the Central Graphite Zone (CGZ) within the existing 209Mt @ 28.5% TGC Inferred Mineral Resource include:
  - o 13.3m @ 33.6% TGC from surface incl. 4.4m @ 37.9% in St-94
  - 5.5m @ 29.3% TGC from 1.3m
     and 69.1m @ 25.3% from 12.3m incl. 7.1m @ 39.5% and incl. 4.0 @ 36.5%
     and 13.6m @ 21.3% from 91.6m in St-97
  - 22.9m @ 31.2% TGC from surface incl. 6.0m @ 36.3% in St-98
- Near surface high-grade graphite confirmed with close spaced drilling in the Northern Graphite Zone (NGZ) returning the following intersections:
  - o 26.8m @ 30.4% TGC from surface ending in mineralisation in St-99
  - 47.6m @ 31.3% TGC from surface incl. 13.9m @ 40.2%
     and incl. 6.8m @ 37.0% in St-100
- Mineral Resource upgrade due in Q1 2023 focussing on estimating a proportion of Indicated resources as well as increasing the total tonnage.

Sarytogan Managing Director, Sean Gregory commented:

"All assays from the 2022 drilling have now been received. The results have consistently returned thick intersections of high-grade graphite mineralisation both within and beyond the existing giant Mineral Resource. The planned upgrade to the Mineral Resource estimate is now underway ahead of further metallurgical test-work and economic evaluation."

<sup>&</sup>lt;sup>1</sup> See Prospectus dated 23 February 2022, published on the ASX on 14 July 2022



### **Central Graphite Zone Results**

All assays for the 46 HQ3 diamond drill holes drilled for 3044.6m from the 2022 drilling program have now been received. Holes St-92 to St-98 are situated around the margins of the CGZ and complete drilling coverage at a nominal 200m x 100m across the CGZ (Figure 1, Table 1).

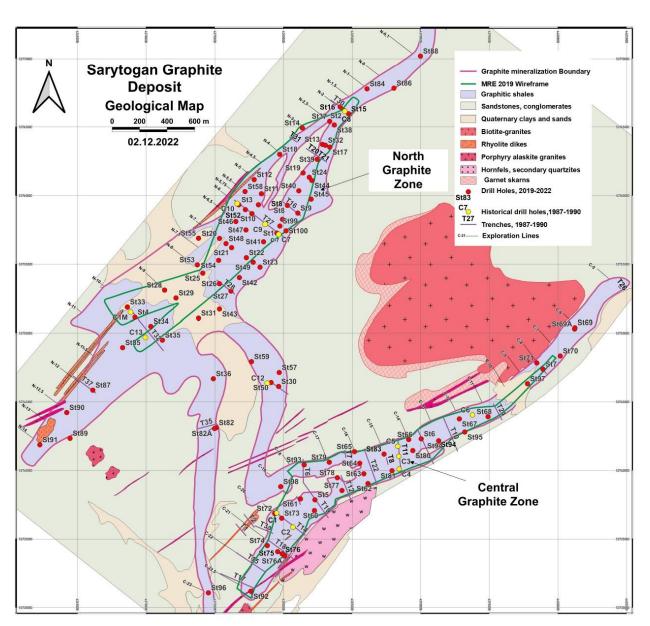


Figure 1 - Completed Diamond Drilling at the Sarytogan Graphite Deposit.

### **Northern Graphite Zone Results**

Two additional holes (St-99 and St-100) were drilled in the NGZ, which already has many areas drilled at a nominal 100 x 50m spacing. The holes were drilled in an area of the deposit which preliminary whittle optimisations of the existing **209Mt @ 28.5%** TGC Inferred Mineral Resource<sup>1</sup> have identified as an area or particularly high-grade near-surface mineralisation. These high-grade zones could well be the focus of initial mining operations. The high-grade near-surface nature of the mineralisation was confirmed with results of **26.8m @ 30.4%** TGC from surface ending in mineralisation in St-99 and **47.6m @ 31.3%** TGC from surface incl. **13.9m @ 40.2%** and incl. **6.8m @ 37.0%** in St-100.

### **Next Steps for the Sarytogan Graphite Project**

Optimisation work at both Australian and German laboratories is ongoing following on from excellent early results from 2022 that returned up to 99.87% TGC purity<sup>2</sup>.

A Mineral Resource upgrade, focussing on estimating a proportion of Indicated resources as well as increasing the total tonnage, is now underway ahead of further metallurgical test-work and economic evaluation.

This announcement is authorised by:

**Sean Gregory** 

**Managing Director** 

Table 1 - Drilling Results from the Sarytogan Graphite Deposit.

Hole	Easting	Northing	RL	Depth	From	Thickness	Grade	Incl	Grade
	WGS 84	WGS 84	mASL	m	m	m	% TGC	m	% TGC
St-92	437761	5373119	891	29.4	0.8	6.5	23.23		
					10.0	5.5	15.40		
St-93	438154	5374037	934	40.8	0.0	10.9	21.85		
St-94	439130	5374216	917	51.0	0.0	13.3	33.63	4.4	37.89
St-95	439320	5374272	924	27.0	0.0	15.7	19.04		
St-96	437455	5373104	888	18.7			NSI		
St-97	439775	5374618	945	105.2	1.3	5.5	29.26		
					12.3	69.1	25.25	7.1	39.49
								4.0	36.50
					91.6	13.6	21.26		
St-98	437964	5373842	993	32.4	0.0	22.9	31.23	6.0	36.26
St-99	437973	5375778	902	26.8	0.0	26.8	30.38		
St-100	438018	5375743	897	67.6	0.0	47.6	31.33	13.9	40.23
								6.8	36.99
	ST-60 to ST-	-66 – reporte	ed previo	ously; refe	r ASX An	nouncement	· 15 Augus	† 2022	
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(	ST-84 to ST-9	1 – reported	d previou	usly; refer .	ASX Ann	ouncement 9	9 Decemb	er 2022	2

Intervals are reported at a 10% TGC cut-off with up to 2m internal dilution. Higher-grade 'inc' zones are reported at a 35% cut-off, minimum thickness of 4m and up to 6m internal dilution.

### **About Sarytogan**

The Sarytogan Graphite Deposit is located in the Karaganda region of Central Kazakhstan. It is 190km by highway from the industrial city of Karaganda, the 4<sup>th</sup> largest city in Kazakhstan (Figure 2).



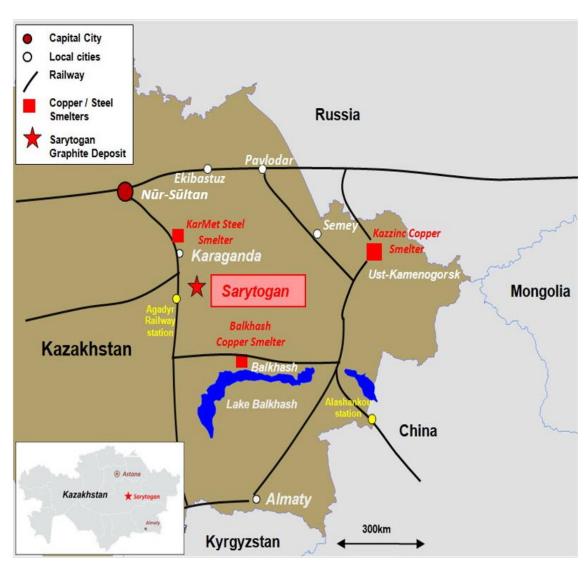


Figure 2 - Sarytogan Graphite Deposit location

## **Previous Exploration**

The Sarytogan Graphite Deposit was first explored during the Soviet era in the 1980s with sampling by trenching and diamond drilling. Sarytogan's 100% owned subsidiary Ushtogan LLP resumed exploration in 2018. An Inferred Mineral Resource of **209Mt @ 28.5% TGC for 60Mt contained graphite** was estimated by CSA Global in 2019 (Table 2). Sarytogan has upgraded the mineralisation to 99.87% purity by flotation, alkali roasting, and chemical purification (refer ASX Announcement 6 December 2022) and is pursuing a strategy to supply high-quality anode material for the rapidly growing electric vehicle battery market.

Table 2 - Sarytogan Graphite Deposit Inferred Mineral Resource (cut-off grade of 15%). Refer to Prospectus dated 23 February 2022, published on the ASX 14 July 2022, for full details of the Mineral Resource Estimate.

Zone	JORC	In-Situ	Total Graphitic	Contained
	Classification	Tonnage (Mt)	Carbon (TGC %)	Graphite (Mt)
North	Inferred	159	28.8	46
Central	Inferred	49	27.5	14
Total	Inferred	209	28.5	60



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

The information in this report that relates to JORC estimates of Mineral Resources and 2021 Exploration Results was first reported in the Prospectus dated 23 February 2022 available at www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified.

The information in this report that relates to 2022 Exploration Results is based on information compiled by Dr Waldemar Mueller, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mueller is a full-time employee of the Company and 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'. Dr Mueller consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this document that relates to metallurgical test work was reported on 6 December 2022. The Company confirms that it is not aware of any new information or data that materially affects the information included in that relevant market announcement. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified.

### JORC Code, 2012 Edition – Table 1

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the	Half core was sampled. Sample length within graphitic rocks is primarily 2 m or less depending on the lithology.



Criteria	JORC Code explanation	Commentary
	Public Report.	
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
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).	Core drilling was completed by an XY- 44T drill rig mounted on wheel-based mobile trailed platforms and equipped with a smooth-bore drill with a detachable core receiver of the Boart Longyear system equipped with double core tubes.  Pre-drilling is completed with carbide
		crowns with a diameter of 112-132 mm to a depth of 2-4 m, followed by casing. Drilling is carried out using a removable core receiver and HQ diamond crowns (diameter 96 mm), in rare cases, in complex geological conditions, diameter was reduced to NQ size (diameter 76 mm). Water was used as a washing liquid, and polymer solutions were used at absorption sites.
		All drill holes are vertical. At the completion of a drill hole, downhole survey is carried using a MIR-36 inclinometer with measurements every 20 m.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample	To maximise core recovery, double tube HQ and NQ core drilling was used, with the drilling utilising drillers experienced in drilling difficult ground
	recovery and ensure representative	conditions. Drill penetration rates and water pressure were closely monitored



Criteria	JORC Code explanation	Commentary
	nature of the samples.	to maximise recovery.
	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.	During the diamond drilling the length of each drill run and the length of sample recovered was recorded by the driller (driller's recovery). The recovered sample length was cross checked by the geologists logging the drill core and recorded as the final recovery.
		Average core recoveries are greater than 98%.
		At present, no relationships between sample recovery and grade bias due to loss/gain of fines or washing away of clay material has been identified. It is assumed that the grade of lost material is similar to the grade of the recovered core.
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	All logging is completed on paper and later transferred to a digital media.  The core documentation includes information on the length of the drill runs, drilling diameter, core recovery and sampling intervals. Special attention was paid to the zones of graphitised rocks, lithology, alteration and mineralisation, the orientation of quartz veins and veinlets were studied
	relevant intersections logged.	in detail.  All drill core is digitally photographed and completed in separate room using a specially designed stand that provides a fixed angle. The camera positioned at the same distance from the stand. The core is photographed in 2 stages before sawing and then after sawing. The most interesting samples are photographed at close distances.  A collection of representative samples
		is used during logging to provide



Criteria	JORC Code explanation	Commentary
		consistency with descriptions
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, ro.tary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	Half core was sampled for assay. Sample length within graphitic rocks is primarily 2 m or less depending on the lithology. The sample length in the barren rocks is 3 m. Half of the core is taken for sampling.  Most core was cut using an electric diamond saw and some more friable intervals were split manually. All core for sampling was pre-marked with the cut line, and only one side of the core was sent for assay to maintain consistency.  The core sampling was generally at a 2 m interval, refined to match logged lithology and geological boundaries. A minimum sample length of 0.5 m was used.  The quality of sampling is checked by comparing geological documentation and samples.
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.	All samples are dried, weighed, crushed and milled in accordance with the sample preparation scheme.  Sample preparation control is carried out using blank samples, taking duplicates from crushing rejects. The quality control of the sample abrasion is performed using the "dry" screening method through a sieve with a mesh size of 0.075 mm. Passing of the milled material is more than 95%. After preparing each sample, all tools and tables are thoroughly cleaned with compressed air. As soon as a batch of samples is prepared, glass is passed through the crushers. The pulverisers are cleaned with quartz sand. Quality of sample preparation is good.  Analytical studies are carried out in the chemical-analytical laboratory of LLC



Criteria	JORC Code explanation	Commentary
		Stewart Assay and Environmental Laboratories, located in Karabalta, Kyrgyzstan (Certificate No. RU 181163 of 10/21/2001 and Certificate No. RU 227186 of 08/25/2008). The main type of analytical method is to determine the content of graphite carbon. All samples are subjected to technical tests for the analysis of graphite carbon.
		Some samples (about 5%) are also given for multi-element analysis.
		Analysis of graphite carbon (SE / C11 analysis code) is performed on a Leco analyser after pre- treatment. The method of determination was developed by the laboratory in advance and provides reliable values for total graphitic carbon (TGC).
		Quality control (QC) samples were submitted with each assay batch (certified reference standards, certified reference standard blanks and duplicate samples). The laboratory inserted their own quality assurance/quality control (QAQC) samples as part of their internal QAQC. All assay results returned were of acceptable quality based on assessment of the QAQC assays.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Visual validation of mineralisation against assay results was undertaken for several holes.
	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.	All diamond drill core samples were checked, measured and marked up before logging in a high level of detail.  The diamond drilling, sampling and geological data were recorded on paper into standardised templates and transferred to Microsoft Excel by the logging/sampling geologists.  Geological logs and associated data



Criteria	JORC Code explanation	Commentary
		were cross checked by the supervising Project Geologist.
		Laboratory assay results were individually reviewed by sample batch and the QC results checked before uploading. All geological and assay data were uploaded into Excel. This data was then validated for integrity visually and by running systematic checks for any errors in sample intervals, out of range values and other important variations.
		All drill core was photographed with corrected depth measurements before sampling.
		Mineralisation observed was entirely compatible with reported assays in both drill core.
		No specific twin holes were drilled; however, some recent drill holes were placed and drilled close to the historical holes. Similar grades and distribution were observed in the recent drill holes.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  Specification of the grid system used.  Quality and adequacy of topographic control.	Topographic and geodetic works were carried out using modern, high-precision, satellite geodetic equipment—a single-frequency 12-channel GPS Sokia GRX1, represented by a base station and mobile receiver with a GPS antenna. The device at the measurement time has valid calibration certificates.
		For this report the holes were set out using the Sokia instrument and have been picked up by handheld GPS in the interim.
		The grid system used at the deposit is the WGS84 UTM Zone 43 coordinate system, Baltic elevation system.



Criteria	JORC Code explanation	Commentary
		Downhole survey was carried out with a gyro instrument. Measurements of the angle and azimuth are carried out every 20 m.
		Control measurements have not revealed any inconsistencies and errors.
		The accuracy of the Sokia GRX1 results in deviations of no more than 10 cm.
Data spacing and distribution	Data spacing for reporting of Exploration Results.  Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  Whether sample compositing has been applied.	The density of the drill holes within the estimated limits of the proposed open pit mining area is 40-100 m between the drill holes on each section. The distances between the sections is 250 m, and the depths of the drill holes varies between 60 and 300 m.  The grid is sufficient to trace mineralisation zones.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The spatial position of the graphite zones is confined structurally to the western and southwestern limbs of the Shiyozek fold, complicated by the large curved Sarytoganbai syncline which trends in northeast and east directions.  The North zone has a strike length of 2,300 m, a width of between 110 and 500 m, and a depth up to 190 m. The weighted average TGC for drill holes is 32.42% (for 20% cut-off). The average depth is 100 m.  The Central zone has a strike length of 2,900 m, a width of between 86 and
		2,900 m, a width of between 86 and 114 m on the flanks up to 450 m in the centre, and a depth up to 80 m, with an average of 40 m. The weighted average graphite carbon content is 28.12% (for 20% cut-off).
Sample security	The measures taken to ensure sample security.	Control over the security of samples is carried out throughout the entire



Criteria	JORC Code explanation	Commentary
		process. Each sample is assigned a unique number. The core samples selected after logging are transferred (with the corresponding orders and sample registers) to the sample preparation facilities, which is located in the Ekibastuz city. In the sample preparation laboratory, each sample underwent the entire processing cycle in compliance with all necessary requirements for the preservation of samples and the prevention of their contamination.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A desktop review of the 2019 sampling techniques and data was carried out by CSA Global. The Competent Person from CSA Global also visited the site and sample preparation laboratory during August 2022. The results of this audit are pending and will be applied to the ongoing drilling and for the planned Mineral Resource upgrade.  Visual validation of the drill hole and mineralised intersections was undertaken against hard copy drill sections and provided core photographs.

### Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral	Type, reference name/number, location	The exploration licence 1139-R-TPI
tenement and	and ownership including agreements or	(1139-P-ТПИ) was issued to Ushtogan
land tenure	material issues with third parties such as	LLP on 14/08/2018 and confirmed by
status	joint ventures, partnerships, overriding	5406-TPI (5406-ТПИ) contract on
	royalties, native title interests, historical	26/10/2018. The contract was extended
	sites, wilderness or national park and	in June 2022 for a further 3 year to June
	environmental settings.	2025. The exploration concession
	The security of the tenure held at the time	covers 70 km2.
	of reporting along with any known	There are no other mineral deposits
	impediments to obtaining a licence to	and protected natural areas within the



Criteria	JORC Code explanation	Commentary
	operate in the area.	concession area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	In the period from 1985 to 1987, geological exploration was carried out by the Graphite party of the Karaganda State Regional geological expedition.
		Since 2019, exploration drilling is being carried out by Ushtogan LLP a 100% owned subsidiary of Sarytogan Graphite Limited.
Geology	Deposit type, geological setting and style of mineralisation.	Structurally, the Sarytogan site is confined to the western and southwestern wing of the Shiyozek fold, complicated by a large curved Sarytoganbai syncline which trends in northeast and east directions.  In general, the Sarytogan site is a large, over-intrusive zone; the volcanic and sedimentary rocks developed here have undergone extensive contact metamorphism; volcanogenic and terrigenous rocks are transformed into quartz-biotite, quartz-sericite hornfels; carbonaceous rocks are either altered into hornfels, or underwent significant graphitisation, and along contacts with intrusive granite domes, quartz-tourmaline and tourmaline hydrothermal rocks of the greisen type are developed.  The deposit belongs to the black shale regional-metamorphic type and represents a carbon-bearing conglomerate sequence with a greisen zone with a thickness of more than 80 m in the over-intrusive zone of the granite massif that compose the Sarytoganbai syncline. Host rocks
		zone with a thickness of more than 80 m in the over-intrusive zone of the granite massif that compose the



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:  o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	Refer to Error! Reference source not found. in the text.
	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.  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	Intervals are reported at a 10% TGC cut-off with up to 2m internal dilution. Higher-grade 'inc' zones are reported at a 35% cutoff at a minimum thickness of 4m and with up to 6m internal dilution.
	metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its	The deposit is hosted in folded meta- sediments that vary in dip angle. The relationship between the drillholes and the meta-sediment dip is shown in the cross sections. Vertical holes are considered appropriate to define the



Criteria	JORC Code explanation	Commentary
	nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	mineralisation envelope at this stage.
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.	Refer to diagrams in body of text.
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 drillholes are 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.	In 2019, drilling, analytical, metallurgical studies of small bulk samples and petrographic studies have been carried out at the deposit.  The Prospectus dated 23 February 2022 available at asx.com.au also details historical metallurgical tests on the Sarytogan Graphite Deposit.  Further metallurgical test work is underway and ongoing.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Drilling is planned to upgrade the resources and check the extent of the mineralised zones.