

7 February 2025

# **AERO-MAGNETIC SURVEY INFORMATION**

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") provides here the relevant information for JORC Table 1 relating the aeromagnetic survey conducted at the Baynazar Copper Exploration Project reported in ASX Announcements dated 9 October 2024 and 4 February 2025.



Figure 1 - AN-2 aircraft and survey crew

This announcement is authorised by:

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#### 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.	Not applicable.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.		
	Aspects of the determination of mineralisation that are Material to the Public Report.		
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.		
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).	Not applicable.	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable.	
	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.		
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation,	Not applicable.	



Criteria	JORC Code explanation	Commentary
	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.	
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
and sample preparation	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.	
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,	The aero-magnetic survey was completed by Geoken LLP with flight data for 3,582 linear kilometres collected during 12 flights from 26 August to 10 September 2024 from AN-2 aircraft owned and operated by Aero LLP.
	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 particulars of the geophysical tools used is shown in Table A.
		Test flights to determine concentration sensitivities were conducted over the Altyndy (Yubileynoye) test site and the Aktobe reservoir,
		calibration of the radar altimeter was conducted over the runway of the Aktobe airport.
		Survey equipment calibration and testing procedures included:
		<ul> <li>Determination of the influence of aircraft on magnetometric measurements;</li> <li>Determination of Compton correction factors (Compton scattering of the characteristic radiation of potassium, uranium and thorium in the corresponding energy intervals);</li> </ul>
		Determination of concentration sensitivities (scaling factors) for the spectrometer standard windows (K, U and Th) and dose rate for the total number of pulses;
		<ul> <li>Determination of the contribution of the background radon component to the</li> </ul>



	Criteria	JORC Code explanation	Commentary	
)			<ul> <li>spectrometer standard windows;</li> <li>Determination of the effective absorption coefficients of gamma radiation by air;</li> <li>Determination of the contribution of cosmic rays and aircraft background;</li> <li>Calibration of the radar altimeter.</li> <li>Quality control flights over a 7km test route</li> </ul>	
			were conducted daily.	
	Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Quality assurance was provided for the aeromagnetic survey by Newexco Exploration Pty Ltd who checked the raw data periodically during the survey.	
		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.		
	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.	The flight line spatial data was recorded by differential GPS with an accuracy better than +/- 1m.  The grid system used at the project is the WGS84 UTM Zone 43 coordinate system, Baltic	
		Specification of the grid system used.	elevation system.	
		Quality and adequacy of topographic control.		
	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	The survey was carried out on a scale of 1:10000. The distance between the east-west line profiles is 100m. The distance between the north-south section profiles is 1000 m.	
_		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.	The flight lines are aligned east-west and are considered suitable to map the underlying bedrock geology.	
	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.		
	Sample security	The measures taken to ensure sample security.	Not applicable.	
	Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Newexco Exploration Pty Ltd has reviewed the raw data from the aeromagnetic survey and processed the resulting images.	



#### Section 2 Reporting of Exploration Results

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

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	The exploration #2788-EL has been issued to Baynamys LLP on 15/08/2024 for six years. The exploration concession covers 282 km2.
	of reporting along with any known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Before 1991 the exploration works were carried out by different State exploration enterprises.
pariies		Aeromagnetic and soil geochemistry survey in scale 1:50,000, sparce trenching and diamond drilling on separate occurrences of gold, copper, rare metals was conducted.
Geology	Deposit type, geological setting and style of mineralisation.	The Palaeozoic Central Asian Orogenic Belt (CAOB) runs through Kazakhstan, Northern China and Mongolia. The Baynazar ELA is situated within a Devonian volcanic belt that spans from central to south Kazakhstan as part of the broader CAOB.  The Baynazar area is characterised by cluster of volcanic calderas, with the largest spanning 30 by 40 kilometres. This area is renowned for its diverse mineralization types.  The Baynazar ELA encompasses the Baynazar Caldera's western contact zone and two southern satellite calderas, all exhibiting a favourable zonality for copper-porphyry mineralization. On the opposite margin of the Baynazar Caldera, lies the recently developed Almaly copper-porphyry mine.
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:	Not applicable.
	<ul> <li>easting and northing of the drill</li> </ul>	
	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 gown hole length and interception	
	<ul> <li>down hole length and interception depth</li> </ul>	



	Criteria JORC Code explanation		Commentary	
9		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	Not applicable.	
		shown in detail.  The assumptions used for any reporting of 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 nature should be reported.	Not applicable.	
		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').		
	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 the announcements dated 9 October 2023 and 4 February 2025.	
	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 complete survey result is presented as Figure 2 in the announcement of 9 October 2023. Analysis and interpretation are discussed in the announcements dated 9 October 2023 and 4 February 2025 and is ongoing.	
	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.	The complete survey result is presented as Figure 2 in the announcement of 9 October 2023. Analysis and interpretation is discussed in the announcements dated 9 October 2023 and 4 February 2025 and is ongoing.	



Criteria	JORC Code explanation	Commentary
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Soil sampling results continue to flow in, and further soil sampling is planned for 2025. Drill planning is underway and is subject to further funding.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

Table A - Equipment used for the aero-magnetic survey

Name and model of equipment and software	Manufacturer
Airborne geophysical equipment	
Airborne Geophysical acquisition system GT-MAG 2, including: Netbook IBM, GPS Antenna G5Ant-42AT-1, pilot indicator	GeoTechnologies, RF
Cesium magnetometer CS-3	Scintrex Ltd, Canada
Fluxgate magnetometer FL3-100	Billingsley Magnetics
Radar altimeter TRA-3000	Free Flight Systems, USA
On-board navigation system GPS/ GLONASS GPS/GLONASS L1/L2 Topcon receiver	Topcon Positioning Systems Inc., USA
Gamma Spectrometer, Model RSX-5 includes two detection units each with a Nal (TI) crystal volume of 16 liters (1024 cubic inches) for the lower half-space plus a 4 liter (256 cubic inches) detector for the upper half-space	Radiation Solutions, Inc., Canada
Gamma Spectrometry Data Acquisition Interface Unit, Model RS 501	Radiation Solutions, Inc., Canada
Honeywell PPT combined pressure and temperature sensor	Honeywell International Inc. USA
Base ground DGPS station TRIMBLE R9s GNSS	Trimble Navigation, USA
Base ground station for registration of geomagnetic field variations, quantum magnetometer NuBase	Pico Envirotec, Canada
Base ground station for registration of geomagnetic field variations, quantum magnetometer Pico	Pico Envirotec, Canada
Software for registration, processing and analysis of airborne geophysical data	
NavDat - on-board acquisition software, provides navigation and visual quality control.	GeoTechnologies, RF
NavDatMagTools – integrates navigation and magnetic data, converts from NavDat to Geosoft XYZ format.	GeoTechnologies, RF
ReinMag - software for calculating a set of coefficients that is used to compensate for the effect of the carrier aircraft field on the readings of a scalar magnetometer measuring the modulus of the magnetic induction vector.	GeoTechnologies, RF
CSAZ – software for orientation of magnetometer sensor	Geometrics Inc., USA



RadAssist - radiometric data collection management program, quality control and data recording, conversion from RSX format to Geosoft XYZ format	Radiation Solutions, Inc., Canada
GrafNav – software for differential correction navigation data.	NovAtel Inc., Canada

#### **Competent Persons Statement**

The information in this report that relates to 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.



#### **About Sarytogan**

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

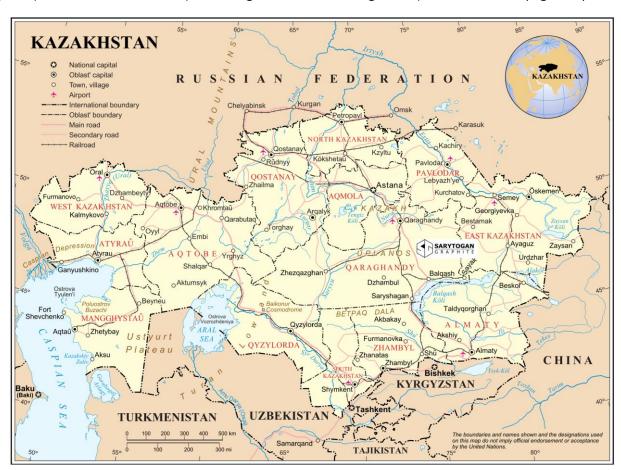


Figure 2 - Sarytogan Graphite Deposit location.

The Sarytogan Graphite Deposit was first explored in the 1980s with sampling by trenching and diamond drilling. Sarytogan's 100% owned subsidiary Ushtogan LLP resumed exploration in 2018. An Indicated and Inferred Mineral Resource has recently been estimated for the project by AMC Consultants totalling **229Mt @ 28.9% TGC** (Table B), refer ASX Announcement 27 March 2023).

Table B - Sarytogan Graphite Deposit Mineral Resource (> 15% TGC).

Zone	Classification (JORC Code)	In-Situ Tonnage (Mt)	Total Graphitic Carbon (TGC %)	Contained Graphite (Mt)
North	Indicated	87	29.1	25
	Inferred	81	29.6	24
	Total	168	29.3	49
Central	Indicated	39	28.1	11
	Inferred	21	26.9	6
	Total	60	27.7	17
Total	Indicated	126	28.8	36
	Inferred	103	29.1	30
	Total	229	28.9	66



Sarytogan has produced bulk flotation concentrates at higher than **80% C** and further upgraded the concentrate up to **99.9992% C** "five nines purity" by thermal purification, without any chemical pre-treatment (refer ASX Announcement 5 March 2024). Sarytogan envisages three product types:

- Microcrystalline graphite at 80-85% C ("Micro80C") for traditional uses,
- Ultra-High Purity Fines (UHPF) for advanced industrial use including batteries, and
- Spherical Purified Graphite (USPG and CSPG) for use in lithium-ion batteries.

A Pre-Feasibility Study (PFS) was completed in August 2024 that outlined a staged development plan to match market penetration, minimise initial capital expenditure and deliver attractive financial returns.

An Ore Reserve of **8.6 Mt @ 30.0% TGC** (Table C) was estimated using the Guidelines of the 2012 Edition JORC Code (refer ASX announcement 12 August 2024).

Ore mass	TGC	Concentrate mass	Concentrate grade	TGC in conc. Mass
kt	%	kt	%	kt
8 587	30.0	2.654	81.4	2.160

Table C - August 2024 Sarytogan Probable Ore Reserve estimate

#### Notes:

- Tonnes and grades are as processed and are dry.
- The block mass pull varies as it is dependent on the TGC grade, concentrate grade (fixed) and process recovery (fixed) resulting in a variable cut-off grade, block by block. The cut-off is approximately 20% TGC with minimal mass below 20% TGC contributing.

Sarytogan is also progressing copper porphyry exploration, initially at its Baynazar project and subsequently across a planned portfolio of copper exploration projects to be assembled across the highly prospective Central Asian Orogenic Belt.

## **Compliance Statements**

The information in this report that relates to Sarytogan Mineral Resources was first reported in ASX announcement dated 27 March 2023. The information in this report that relates to Sarytogan Ore Reserves was first reported in ASX announcement dated 12 August 2024.

The Company confirms that it is not aware of any new information or data that materially affects the information included in relevant market announcements and, in the case of estimates of Mineral Resources and Ore Reserves, 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 from the original market announcements.

The Company confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from the production target, in the initial public report (12 August 2024) continue to apply and have not materially changed.