6 June 2023

METALLURGY UPDATE

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") is pleased to provide an update regarding the metallurgical test-work underway on samples from the Sarytogan Graphite Deposit in Central Kazakhstan.

Highlights

- Main diluent remaining after breakthrough 99.87%[2] carbon purity result is titanium.
- Gravity separation is expected to be effective in removing titanium.
- Down-stream test-work including gravity separation, spheroidization and further purification is dependant on bulk flotation concentrate production.
- Bulk flotation concentrate production now planned at both German and Australian labs.
- Alternative thermal purification flowsheet also under development to allow the Pre-Feasibility Study (PFS) to consider two main flowsheets.
- Overall schedule on-track to deliver spheroidized-graphite battery-testing results this year.

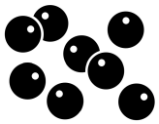
Mining	Grinding & Flotation	Gravity Separation	Alkaline Roasting	Spheroidization	Acid Purification
					
229Mt @ 28.9% TGC[1]	**84% TGC[2]**	**Titanium Removal**	**99.7% TGC[2]**	**Milling & Shaping**	**99.87% TGC[2]**
Targeted Products	**Micronized >80% C**		**Micronized >99% C**		**Spheroidized >99.95% C**
Uses	**Traditional Uses: Refractories, Engineered Products, Lubricants, Polymers, Plastics, Rubber, Steel, Foundry**				**Battery Anodes**

Table 1 - Sarytogan Base Case Process Flow and Targeted Products. Refer ASX Announcements: [1] 27/3/23 for Indicated and Inferred Mineral Resource, [2] 6/12/22 for Metallurgy Results.

Bulk Flotation Concentrate Production

Following the breakthrough 99.87%[2] carbon purity result previously announced, bulk flotation concentrate production was identified as the critical step to provide the feedstock for further purification and spheroidization.

The successful grinding and flotation steps for the project were first demonstrated by Australian laboratory Independent Metallurgical Operations Pty Ltd (IMO). They were since replicated by German laboratory Pro-Graphite GmbH (Pro-Graphite), with guidance and advice from IMO. Pro-Graphite subsequently went on to achieve the breakthrough 99.87%[2] carbon purity.

As IMO were unavailable for bulk flotation concentrate production earlier this year, this scope was awarded to a second German lab, UVR-FIA GmbH (UVR-FIA), with available capacity. Like

Pro-Graphite, UVR-FIA has required guidance and advice from IMO in the grinding and flotation methods for micro-crystalline graphite. This is continuing.

In the meantime, and to mitigate any impact to the overall project schedule, a second bulk flotation concentrate production run has been ordered with IMO at their first available time slot in Quarter 3, 2023.

Titanium Removal

Titanium, present as the mineral rutile, has been identified as the main remaining diluent to be removed to achieve the standard 99.95% carbon purity for battery anodes (Appendix 1). Rutile has a specific gravity of 4.2, which is significantly heavier than graphite's specific gravity of 2.3 g/cm^3. As such, gravity separation is expected to be successful in removing the titanium and other minor heavy metals. IMO have identified the Falcon Ultra-Fine Classifier, a device commonly used in gravity separation of gold, as being most suitable to remove the titanium from the micro-crystalline Sarytogan Graphite. As soon as bulk flotation concentrate is available the gravity separation will be conducted by IMO.

Chemical Purification, Spheroidization, and Battery Testing

The bulk flotation concentrate will then be sent to Pro-Graphite for chemical purification, spheroidization, and battery testing. The overall schedule to deliver battery testing results for spheroidized Sarytogan Graphite remains on schedule for Q4 this calendar year.

Alternative Thermal Purification Flowsheet

A PFS should consider several alternative options to select the best options to carry forward into further detailed engineering studies. As such, Sarytogan will also test the thermal purification flowsheet.

Thermal purification of graphite is a well-established process that is known to sublimate almost all diluents at temperatures of 2,000 to 3,000 degrees Celsius. Typically, the carbon grades achieved far exceed battery specifications that may be suitable for additional advanced materials uses.

Proposals from two international laboratories have been received. Small samples of Sarytogan graphite concentrates are being dispatched to one laboratory this week, and larger quantities from the bulk flotation concentrates will be reserved for larger scale thermal purification tests later this year.

Pre-Feasibility Study

PFS activities, including geotechnical and hydrogeological drilling on site, are progressing according to schedule for completion in 2024.

This announcement is authorised by:

Sean Gregory

Managing Director

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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 1).

Figure 1 - Sarytogan Graphite Deposit and Kenesar Graphite Exploration Project locations.

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 Indicated and Inferred Mineral Resource has recently been estimated for the project by AMC Consultants totalling 229Mt @ 28.9% TGC (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 has commenced a Pre-Feasibility Study as part of its strategy to supply high-quality anode pre-cursor material for the rapidly growing electric vehicle battery market.

The Company is also exploring the recently pegged and highly prospective 309 km2 Kenesar Graphite Exploration Project in northern Kazakhstan (Figure 1).

Table 2 - Sarytogan Graphite Deposit Mineral Resource (> 15% TGC). Refer ASX announcement 27 March 2023.

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

Compliance Statement

The information in this report that relates to any new Exploration Results is based on information compiled by the Dr Waldemar Mueller, a full time employee, Technical Director and major shareholder of the Company. Dr Mueller 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 Persons 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 their information in the form and context in which it appears.

The information in this report that relates to previous Exploration Results was first reported in the Prospectus dated 23 February 2022 and published on ASX on 14 July 2022 and in ASX Announcements dated 15 August 2022, 19 September 2022, 12 October 2022, 8 November, 6 December 2022, 16 January 2023, and 29 March 2023. These reports are available at www.asx.com.au. The information in this report that relates to Sarytogan Mineral Resources was first reported in ASX announcement dated 27 March 2023.

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, 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.

Appendix 1

The ICP assay of the ash from the purified graphite[2] is:

Diluent	After Alkaline Roasting to 99.70%	After Both Alkaline-Acid Treatment to 99.87%
Titanium	1174 ppm	551 ppm
Other Metals	696 ppm	321 ppm

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Sampling techniques</td><td>Quarter HQ diamond core was sampled for metallurgical testing.
These tests were completed on a composite of the following samples:
<table>
<tr><td>Zone</td><td>Hole</td><td>From</td><td>To</td><td>Grade</td></tr>
<tr><td>North</td><td>St-12</td><td>117.2</td><td>140.2</td><td>35.2%</td></tr>
<tr><td>North</td><td>St-30</td><td>11.0</td><td>33.0</td><td>23.5%</td></tr>
<tr><td>North</td><td>St-41</td><td>6.0</td><td>22.0</td><td>33.8%</td></tr>
<tr><td>Cent</td><td>St-60</td><td>10.0</td><td>48.0</td><td>30.8%</td></tr>
<tr><td>Cent</td><td>St-61</td><td>11.0</td><td>26.3</td><td>36.0%</td></tr>
<tr><td>Cent</td><td>St-65</td><td>11.0</td><td>18.1</td><td>32.8%</td></tr>
</table></td></tr>
<tr><td>Drilling techniques</td><td>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.</td></tr>
<tr><td>Drill sample recovery</td><td>To maximise core recovery, double tube HQ and NQ core drilling was used, with the drilling utilising drillers experienced in drilling difficult ground conditions. Drill penetration rates and water pressure were closely monitored to maximise recovery.
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.</td></tr>
<tr><td>Logging</td><td>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 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 consistency with descriptions</td></tr>
<tr><td>Sub-sampling techniques and sample preparation</td><td>Quarter HQ diamond drill core was sampled for metallurgical testing.
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.</td></tr>
<tr><td>Quality of assay data and laboratory tests</td><td>The metallurgical test work was conducted at Pro-Graphite laboratory in Germany. A master composite sample was blended from stage crushed (<3.35 mm) samples collected from quartered HQ diamond drill. Samples of 0.5 to 1kg were subjected to multiple grinding and flotation stages. The Total Graphitic Carbon (TGC) achieved at this stage was measured by Pro-Graphite as the difference between the Loss on Ignition (LOI) at 920 degrees and the LOI at 400 degrees in a nitrogen atmosphere.
Caustic Soda was added to the flotation concentrate which was then roasted at low temperature. The residue was washed with water and leached with weak sulphuric acid. Hydrofluoric acid was not required for the successful alkali roasting result of 99.70% TGC. The TGC grades reported at this step and in subsequent steps is measured as the LOI result at 920 degrees. The volatiles at these high purities are negligible and industry practice is to report the LOI 920 result.</td></tr>
</table>

Criteria	Commentary
	Separately, the flotation concentrate was chemically purified with hydrofluoric acid. The two methods were then applied in series; alkali roasting, followed by chemical purification. The assay of the ash reported here was completed by an accredited laboratory that is a partner of Pro-Graphite. A15g sample of the ash was subjected to a four-acid digest and assayed by Inductively Coupled Plasma (ICP).
Verification of sampling and assaying	Visual validation of mineralisation against assay results was undertaken for several holes. 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 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	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. 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	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	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 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	Control over the security of samples is carried out throughout the entire 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	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	Commentary
Mineral tenement and	The exploration licence 1139-R-TPI (1139-P-ТПИ) was issued to Ushtogan LLP on 14/08/2018 and confirmed by 5406-TPI (5406-ТПИ) contract on 26/10/2018. The contract was extended in June 2022 for a further 3 years to June 2025. The exploration concession covers 70 km2.

Criteria	Commentary
land tenure status	There are no other mineral deposits and protected natural areas within the concession area.
Exploration done 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	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 include graphite siltstone and graphite shale.
Drill hole Information	The information in this report that relates to previous Exploration Results was first reported in the Prospectus dated 23 February 2022 and published on ASX on 14 July 2022 and in ASX Announcements dated 15 August 2022, 19 September 2022, 12 October 2022, 8 November, 6 December 2022, 16 January 2023, and 29 March 2023. These reports are available at www.asx.com.au. The information in this report that relates to Sarytogan Mineral Resources was first reported in ASX announcement dated 27 March 2023.
Data aggregation methods	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 at a minimum thickness of 4m and with up to 6m internal dilution.
Relationship between mineralisation widths and intercept lengths	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 mineralisation envelope at this stage.
Diagrams	Refer to diagrams in the respective drilling results announcements.
Balanced reporting	The metallurgical testwork program has been exploratory in nature, testing several different pathways. The results of the preferred pathway is presented here.
Other substantive exploration data	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	Metallurgical testwork is ongoing in Australia and Germany.