SARYTOGAN GRAPHITE

12 August 2024

SARYTOGAN PRE-FEASIBILITY STUDY QUANTIFIES EXCEPTIONAL RETURNS

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") is pleased to announce the results of the Pre-Feasibility Study (PFS) for the development of the Sarytogan Graphite Project in Central Kazakhstan.

Highlights

- Three product types available at attractive 10-Year weighted-average sales prices:
  - Microcrystalline Graphite at >80% Carbon (Micro80C) at US$746 to $791/t,
  - Ultra-High Purity Fines (UHPF) at up to five nines purity at US$4,468 to $5,577/t, and
  - Spherical Purified Graphite (USPG and CSPG) at US$2,500 and $8,000/t.
- Staged development and conservative ramp-up scheduled to minimise initial capital expense and match market penetration.
- Maiden Ore Reserve estimated for initial 60-year mine life of 8.6Mt @ 30% TGC, consuming only 4% of the Mineral Resource, highlighting multi-generational expandability.
- Attractive Financial Returns including NPV of up to US$518 M = A$797 M at 65c FX:

Table 1 - Staged Development Strategy and Cumulative Geared Financial Returns

	Stage 1a	Stage 1b	Stage 2a	Stage 2b
Description	50ktpa Beneficiation Underutilised	One 6ktpa Thermal Reactor Pilot Spheres	Thermal Reactors 2 & 3	7ktpa Spheronisation & 4ktpa Coating
Stage Capex	US$62 M	US$97 M	US$97 M	US$88 M
Cumulative Capex	US$62 M	US$159 M	US$256 M	US$344 M
EBITDA Margin	61%	66%	67%	66%
Internal Rate of Return	35%	33%	33%	25%
Payback Period (years)	3.4	3.6	4.0	5.3
Net Present Value (pre-tax, 8%)	US$151 M	US$327 M	US$518 M	US$514M

Sarytogan Managing Director, Sean Gregory commented:

"The Sarytogan Graphite Project now takes its place as a very serious contender to play an important role in meeting the world's energy storage needs. The physical attributes of the giant and exceptionally high grade Sarytogan Graphite Deposit have shone through in the PFS which envisages low costs and high margins, even at the conservative project sizing selected to minimise risk. Coupled with the recent planned investment by the European Bank for Reconstruction and Development strengthening of our balance sheet, Sarytogan is in a strong position to drive the project forward with early works on the DFS already underway."

Cautionary Statements

The PFS is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While the Company considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the PFS will be achieved. To achieve the range of outcomes indicated in the PFS, additional funding will likely be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce the Company's proportionate ownership of the project.

This announcement contains forward-looking statements. The Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes it has reasonable basis to expect it will be able to fund development of the project. However, a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

Video Presentation

A 3D animation of the proposed development is available to view here:

Sarytogan Graphite PFS 3D Animation - YouTube

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Strategy

Sarytogan Graphite Deposit's central Asian location, unique micro-crystalline nature and outlook for the graphite market has shaped the strategy for the planned development of the project.

Kazakhstan is a modern and favourable mining jurisdiction ideally located between Europe and China, two of the three biggest markets for graphite and batteries (the other being the USA). China has access to their own graphite, mining 70% of the mineral and producing practically all of the world's lithium-ion anodes today.

Fuelled by global geopolitical concerns, the European Union has identified graphite as a critical raw material and in 2022 signed a memorandum of understanding with Kazakhstan to cooperate on the supply of battery raw materials. Seabourne export to the USA is also feasible via Chinese ports or the Black Sea (Figure 1).

Figure 1 - Kazakhstan location, export routes, and modern cities.

In contrast to most graphite projects in production or development, particularly East African projects, Sarytogan Graphite has a unique microcrystalline nature. Early in the project development it was identified that the Ore readily breaks down to a premium microcrystalline sizing of less than 15 micron with low grinding energy. The resulting ultrafine flakes are highly crystalline as evident in SEM images of flotation concentrates and close interplanar crystal spacing from XRD studies. As it turns out, advanced industrial uses, including in all battery types, demand an ultra-fine sizing which would otherwise be expensive to produce by grinding strong coarse flakes to the required sizes.

The graphite market is enjoying and is expected to continue to enjoy rapid growth over the decades to come driven primarily by the battery market (Figure 2) and specifically lithium-ion batteries for electric vehicles. However other traditional uses are and will continue to be an important market. Each of these market segments requires extensive product qualification, a wide base of customers, many with smaller consignment sizes. As such and despite the giant and exceptionally high grade of the Sarytogan Graphite Deposit, Sarytogan has selected a relatively modest project size of 50,000 tpa and modelled a conservative ramp up schedule.

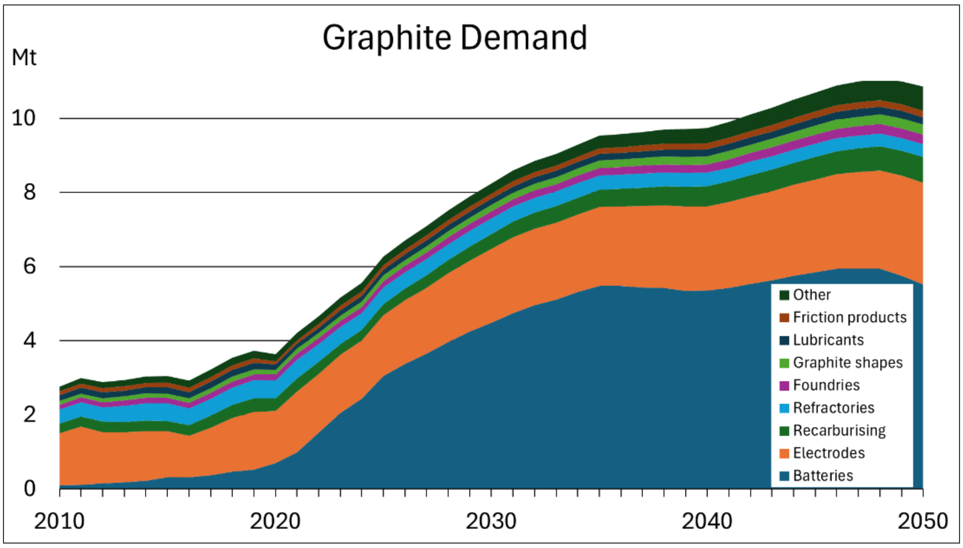


Figure 2 -Current and Forecast Graphite Demand by Use (Source Wood Mackenzie: July 2024.

Furthermore, Sarytogan has identified a staged project development strategy that contemplates a low capex initial entry point for an upstream only development, but then also expansion downstream to allow higher value products with further capital investment.

- Stage 1a – a nominal 50,000 tpa beneficiation plant, underutilised at 43,750 tpa for the traditional graphite market until subsequent investment stages.
- Stage 1b – the concurrent addition of one 6,169 tpa thermal reactor to produce Ultra High Purity Fines (UHPF) at up to five nines purity for advanced industrial uses. Spheronisation is added at the pilot scale for customer qualification.
- Stage 2a – the addition of thermal reactors 2&3 in year 3.
- Stage 2b – the concurrent addition of 7,000 tpa of spheronisation and 4,000 tpa of coating capacity.

This scale of development has allowed the Company to declare an Ore Reserve of 8.6 Mt @ 30% TGC limited only by a nominal 60 year mine life and consuming only 4% of the giant Mineral Resource. It is implicit that the entire project could therefore be replicated many times over should product uptake and availability of capital investment allow.

The Company assembled a team of international mining consultants to complete each element of the PFS (Table 2).

Table 2 - PFS Contributing Consultants

Chapter	Consultant
Mineral Resources	AMC
Mining and Ore Reserves	Snowden
Environment and Approvals	SRK
Tailings	Knight Piesold
Water	Pennington Scott
Metallurgy and Testwork	IMO, ProGraphite, TMEC, CSIRO, AETC
Process Engineering	GR Engineering Services
Marketing	Lone Star Tech Minerals

Location and Tenure

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 and 350km south-east from the capital Astana.

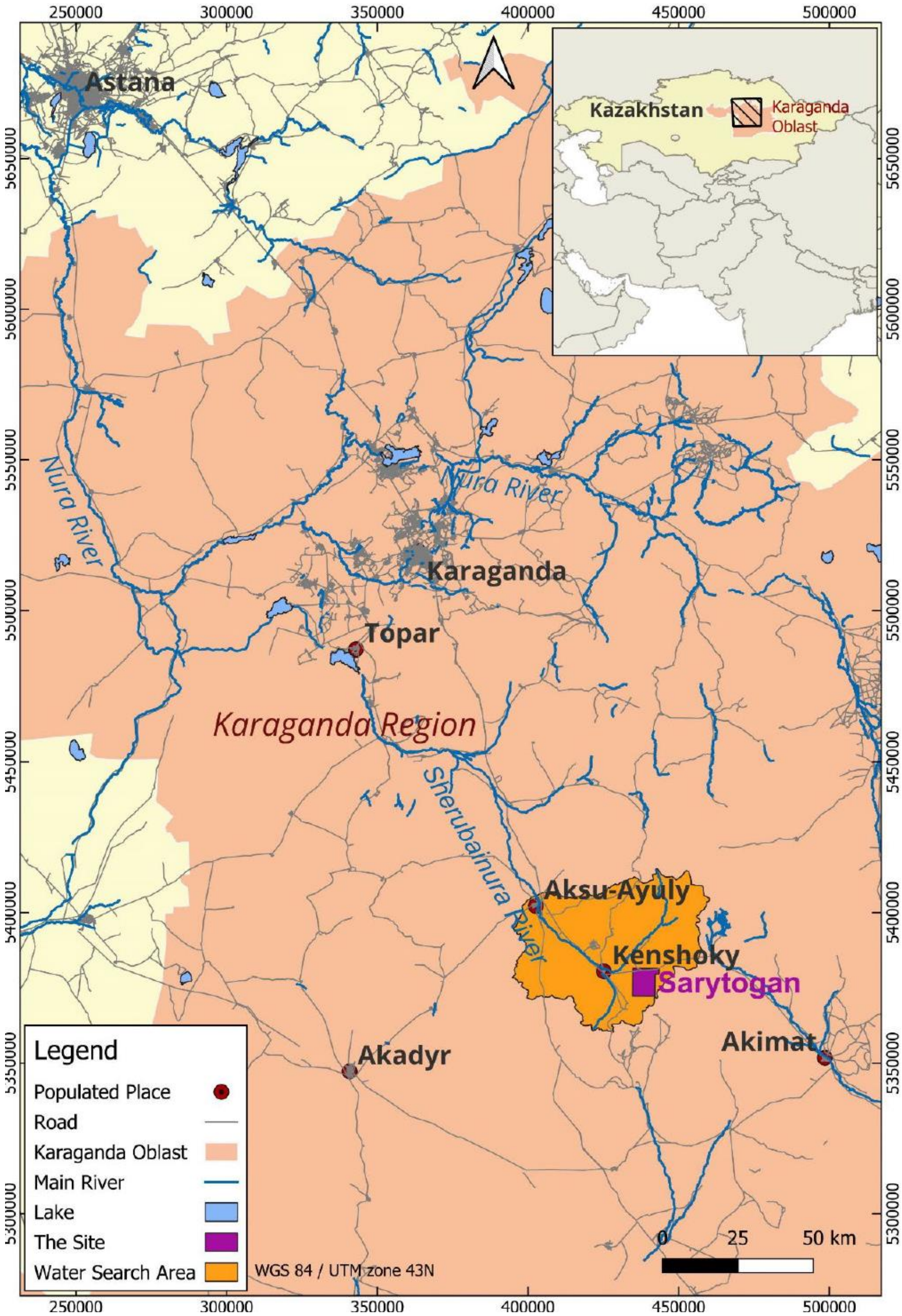


Figure 3 - Location of the Sarytogan Graphite Deposit

The exploration licence 1139-R-TPI (1139-Р-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 three years to 10 June 2025. The exploration concession covers 70 km^2.

The Company is progressing the application for a Mining Licence over the project. Progress to date includes:

- Negotiating a Land Access Agreement with the local Farm and Land User (refer ASX Announcement 17 April 2023)
- Preparing a closure plan in 2023 which was approved by the Department of the Industrial Safety Committee of the Ministry of Emergency Situations on 9 August 2023.
- Converting the Indicated and Inferred Mineral Resource (Table 3) from the Australian JORC Code to the Kazakh KAZRC code.
- Submission of the Mining Licence application on 23 April 2024.
- Approval of the Mining licence application boundaries by the Geological Committee on 3 June 2024 (Figure 6).
- Notification from the Competent Authority on 27 June 2024 that the Mining Licence will be granted, subject to the receipt of the Environmental Permit within one year.

Approvals

The Company has already made substantial progress on the requisite Environmental Permit. The regulator conducted a screening of the relevant environmental factors and scoped the desktop EIA requirements. The Company has submitted its draft EIA which has been publicly advertised. A successful public hearing was held in the village of Akshi, 12km north of Sarytogan, on Friday 28th June 2024. The attendees were supportive of jobs being created in the region. The Company now follows the normal process of addressing any public comments before the expert commission makes its determination.

Sarytogan also strives to achieve the highest levels of Corporate Governance as articulated in our Corporate Governance Statement and Plans available on our website. Sarytogan is committed to building on these systems and structures as the project develops, including further development of our Environmental and Social Management Plans designed to minimise our impact on the environment and maximise the benefits to the local community through preferential employment programs and direct support.

Environment

Figure 4 provides a summary of climate statistics derived from data spanning from 1960 to 2023, collected from Karaganda Airport and Aksu-Ayuly, located 42 km northwest of the Site. The region exhibits a humid continental climate characterised by moist warm summers and frigid, dry winters.

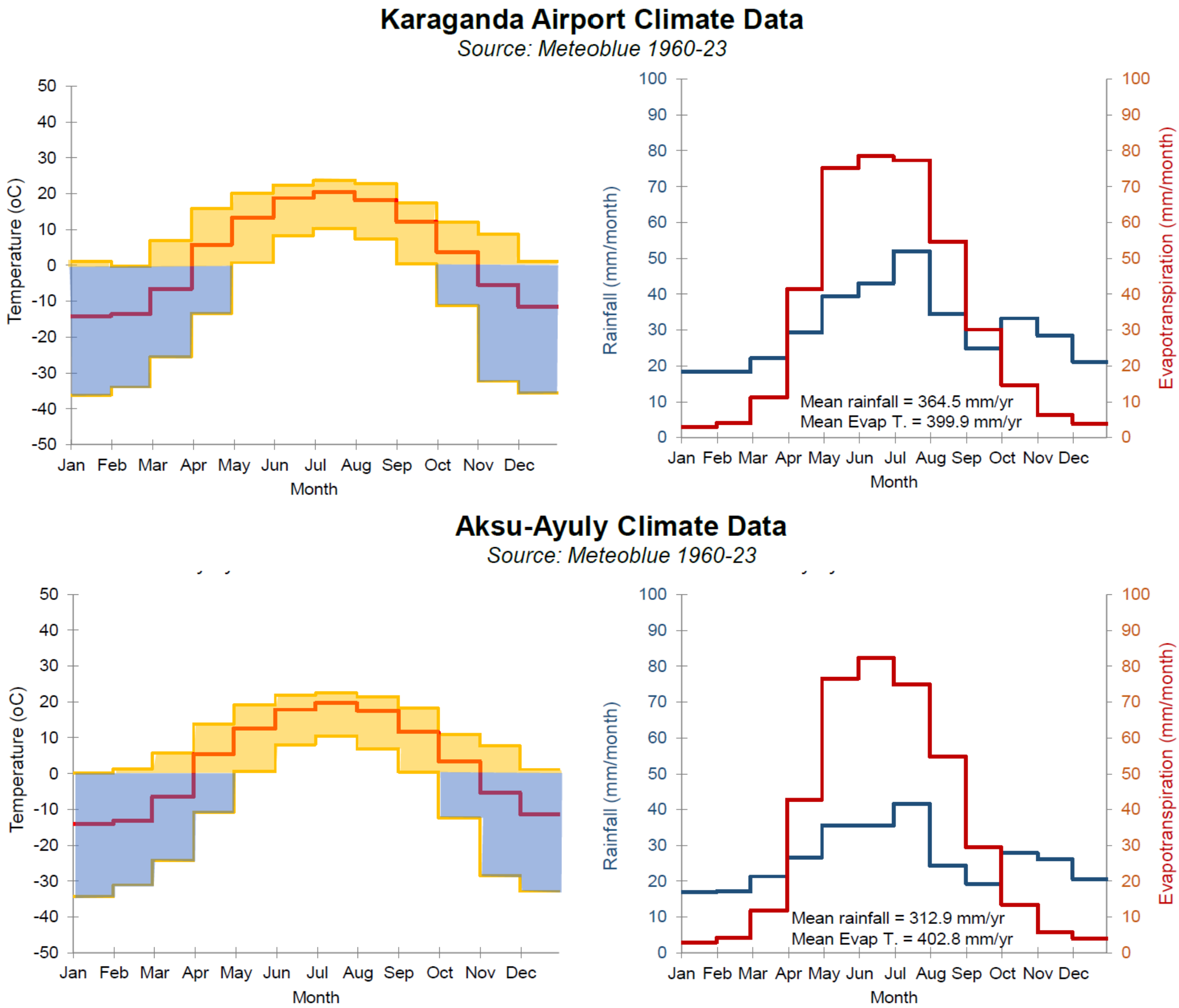


Figure 4 - Climate data for the Karaganda region.

During the summer months (June to August), daily temperatures typically range between 12°C and 30°C, coinciding with peak evaporation rates. In stark contrast, winter months (December to February) seldom witness temperatures rising above freezing, with nighttime temperatures as low as -35°C. Winters are marked by fluctuating severe frosts, erratic snow cover, and wind-driven snowdrifts, often resulting in the freezing of trees, grass roots, and freezing of the soil zone down to 2 mBGL. This period also gives rise to a multi-layered ice crust atop the snow cover and the complete freezing of water bodies.

Throughout winter, prevailing winds originate from the southwest, while summers bring winds from the north. Precipitation patterns exhibit high variability year-round, with an average of 312.9 mm recorded at the nearby Aksu-Ayuly meteorological station over the period from 1960 to 2023 (Metroblue 2023).

Figure 5 - Sarytogan proposed plant site in spring looking south from St-30

Geology

The Sarytogan deposits are in the core of two northeast trending folds. The stratigraphy consisting of volcanic and carbonaceous sedimentary rocks. A granite pluton intruded the rocks with extensive contact metamorphism causing hornfels alteration including graphitisation of the carbonaceous rocks. Graphite-bearing black carbonaceous shale, siltstones and sandstones are overlain by grey- to dark-grey weakly carbonaceous siltstones and sandstones. Exploration has identified two zones of graphitic sediments being the Sarytogan Central and Sarytogan North graphite deposits (Figure 6).

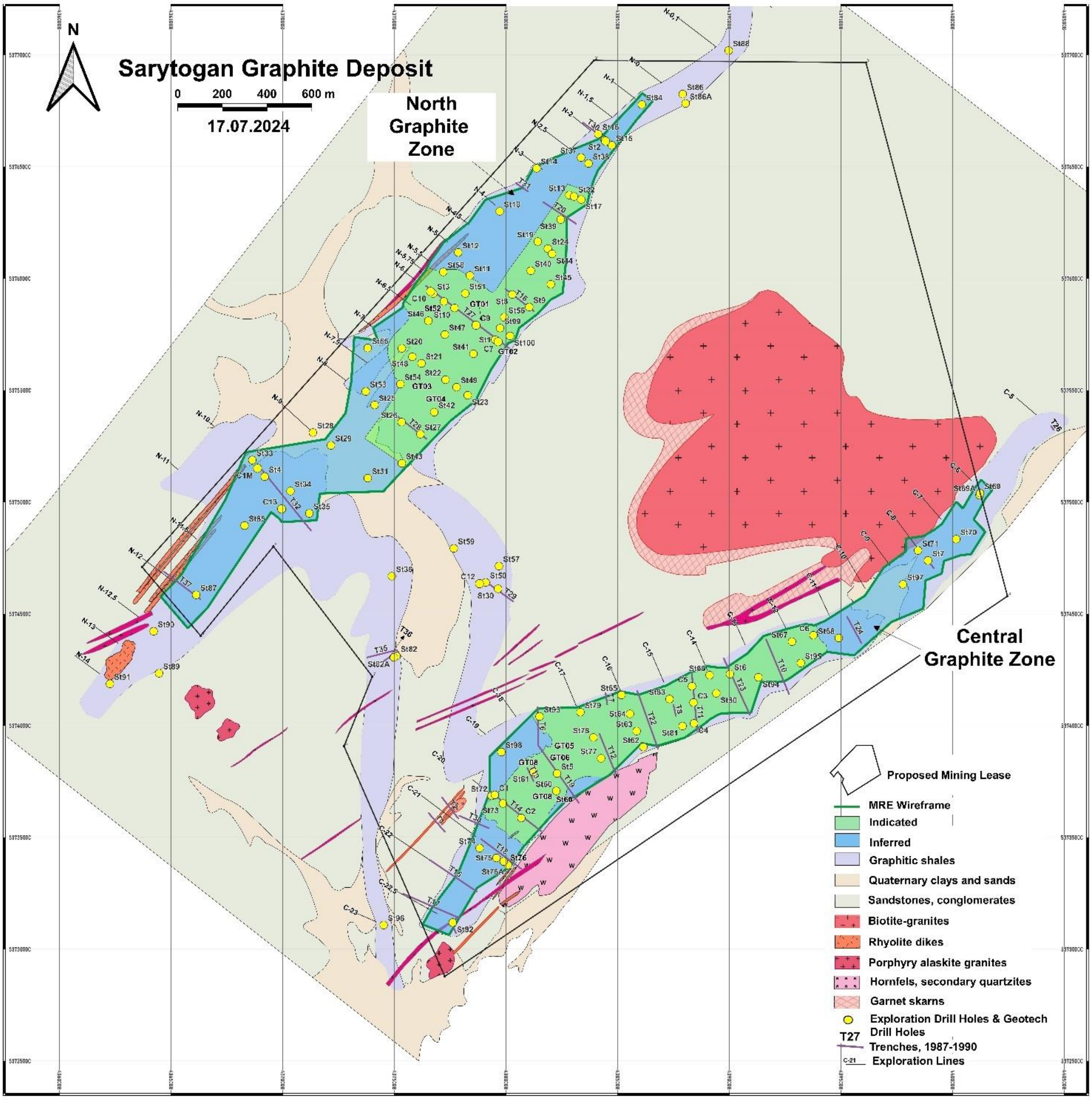


Figure 6 - Geology and Mineral Resources of the Sarytogan Graphite Deposit

Mineral Resource Estimate

The PFS considered the Indicated Mineral Resources as estimated by AMC Consultants in March 2023. It was not necessary to schedule any Inferred Mineral Resources.

Graphite exploration activities at the deposit initiated in 1986, involving the completion of 13 diamond drillholes and several exploration trenches. The Company successfully completed 105 additional HQ diamond drillholes and 909 exploration test pits as part of drilling campaigns from 2019 to 2022. Both the historical drillholes and those conducted by the Company were incorporated into the Mineral Resource estimate.

The Mineral Resource estimate has been reported in accordance with the Australasian JORC Code by classification and is reported above a cut-off grade of 15% Total Graphitic Content (TGC, Table 3). The Mineral Resource is inclusive of Ore Reserves.

Table 3 - 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

Mining

Sarytogan Graphite retained Snowden Optiro to undertake pre-feasibility level geotechnical design and mining studies for the Sarytogan project in Kazakhstan.

Pit geotechnical studies

The deposits essentially comprise graphitic shales with three distinct material horizons:

- Highly/Completely Weathered material: extremely low strength, highly fractured with Very Poor to Poor rock mass quality (CW)
- Moderately Weathered material: very low to low strength, moderately fractured with Fair rock mass quality (MW)
- Fresh material: low to moderate strength, moderately fractured with Fair to Good rock mass quality (Fresh).

Orientated structural logging of the drill-cores has identified the principal structural sets local to each hole. However, these sets are generally not consistent between adjacent holes, and are often not consistent with previous structural interpretations of the deposits. This may be the result of more complex localised folding and fracturing than anticipated.

Haul roads and ramps in the MW and Fresh horizons are not expected to require sheeting. Haul roads on the CW horizon are likely to require up to 200 mm competent sub-base for long-term stability.

The geotechnical analysis resulted in pit design parameters are summarised in Table 4.

Table 4 - Recommended pit slope design parameters

Horizon	Max Batter Height (m)	Max Batter Slope (°)	Min Berm Width (m)
Highly/Completely Weathered	5.0	60	4.0
Moderately Weathered	10	70	4.7
Fresh	10	80	4.7

Maximum overall slope angle for current maximum pit depth of 60 m is 55°. Batter angles may need reducing to 60° in some sections if structure orientations are locally adverse.

Mining method

Snowden Optiro completed a mining study for this PFS for an independent conversion of the Mineral Resource into a maiden Ore Reserve.

The resource model used is named "Sarytogan_Model_OK_Micromine.DAT", generated by AMC in 2023, and is the subject of the March 2023 Mineral Resource estimate. No additional dilution or ore loss was applied based on AMC's conclusion that the parent cell size considered ore loss and dilution and that the ore will be blasted with a low powder factor or free dig. No in-pit Inferred Mineral Resources were used to quantify Ore Reserves.

The pit optimisation used nominal pricing of US$500/t for the microcrystalline graphite (80-85%C), lower than the expected market pricing in the PFS of approximately US$750-800/t. A pit shell was selected for design as sufficient to provide 60 years of ore at the planned production rate.

A detailed pit design and production schedule was evaluated. Mine equipment requirements were determined using a local Kazakhstan mining contractor, Mining Transport Company Limited Partnership, who provided pricing using the Snowden Optiro mine production schedule as a basis.

Selective open pit mining using free dig (e.g. Figure 7) with or without a dozer rip and occasional drill blast (73% of ore). Load and haul mining cycle is used for mining activities. Grade control is forecasted for sampling on a 5 x 4 x 2.5 m pattern, either in blastholes or channels if no blasting, with one sample representing 50 bcm. The orebody consists of shallow to moderately dipping massive lodes which using small mobile plant on a selective basis if required. However, the low mining rate required, and lack of blasting will assist selectivity on 2.50 m flitches within the central and north ore zones to minimise dilution and 5.00 m benches in waste zones.

Figure 7 - Exploration test pit illustrating soft friable nature of the graphite mineralisation

Mining within the Sarytogan Project area will be with conventional truck and excavator methods. Loading will be with a combination of 50-tonne and 30-tonne excavators and haulage with 25-tonne trucks.

Ore will be hauled to a central run of mine (ROM) and fed into the ROM bin using front-end loaders. Low-grade ore will be stockpiled on the surface before rehandling to the ROM later in the mine life. Waste will be hauled to external waste rock dumps (WRDs).

Mine design

To expedite the mining of higher value areas, pits were split into stages. Waste rock dumps were designed to store sufficient capacity as identified within the pit designs. A large long term stockpile area was designed to allow the schedule to fully utilise plant capacities and maximise value. An overall mine layout is shown in Figure 8.

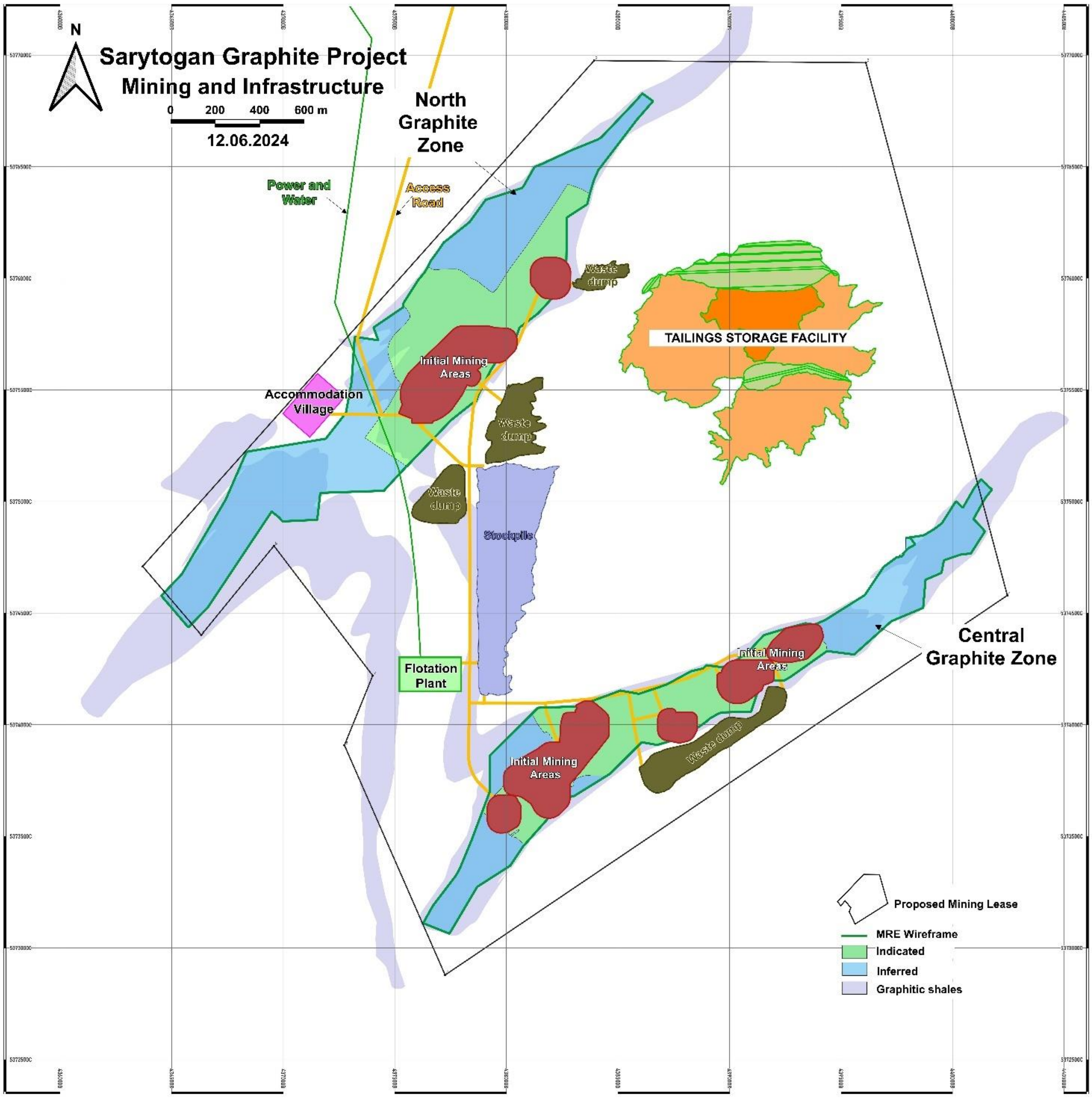


Figure 8 - Mining and infrastructure for the PFS of the Sarytogan Graphite Project

Feed inventory

All economic Indicated Resources within the pit design were considered in the feed inventory. The schedule inventory is shown in Table 5.

Table 5 - Schedule inventory

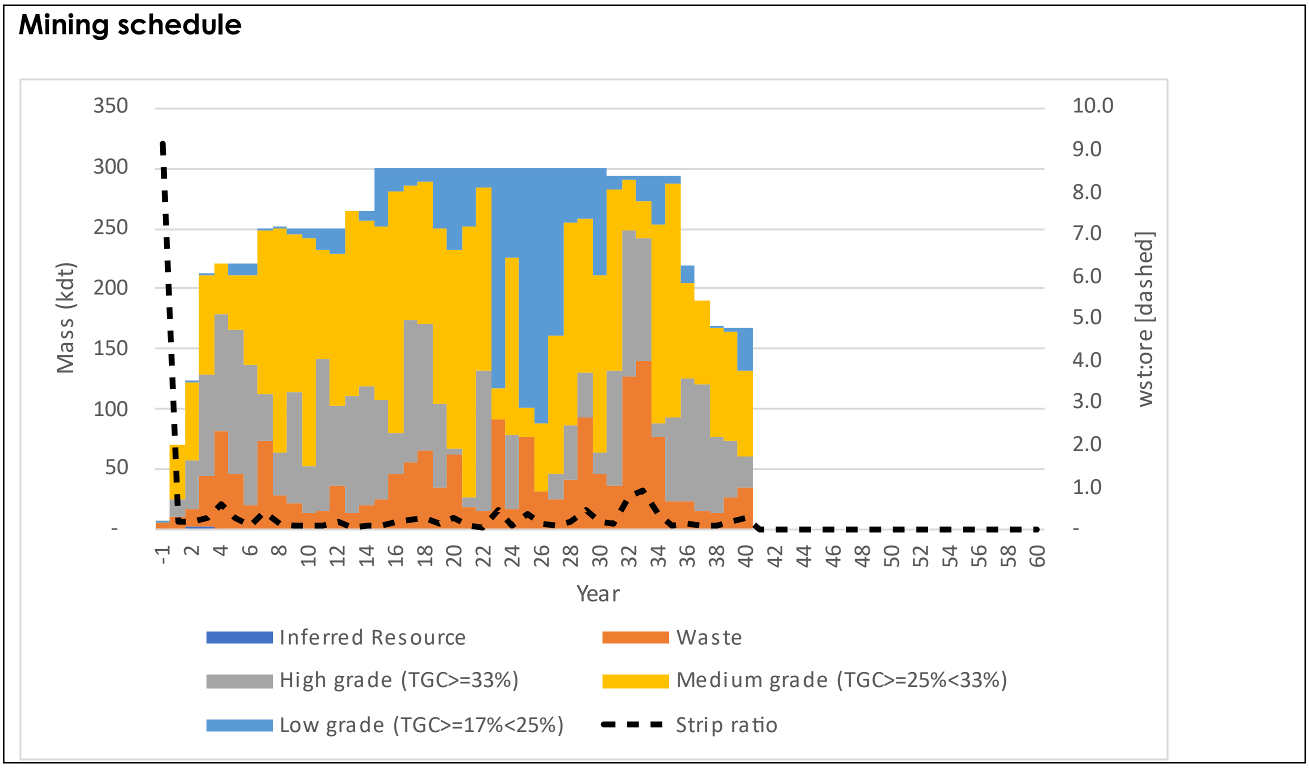
Pit parameter	Unit	North pit	Central pit	Total
Pit mass	kt	4,783	5,501	10,278
Waste mass	kt	935	756	1,691
Strip ratio	waste:ore	0.24	0.16	0.20
Ore mass	kt	3,848	4,745	8,587
TGC	%	28.8	31.0	30.0
Concentrate	kt	1,140	1,516	2,654
Mass pull	%	29.6	31.9	30.9

Mine schedule

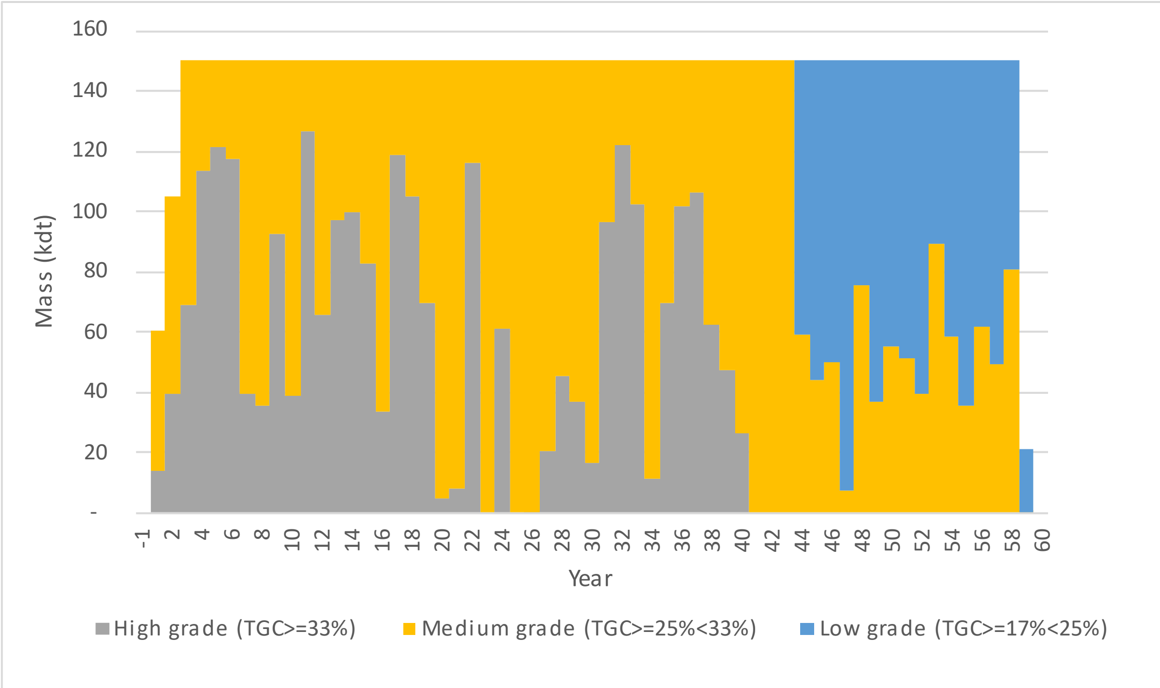
An annual mine production schedule was based upon a maximum crusher feed of 150 kt/a and maximum concentrate production of 55 kt/a, although the optimiser only achieved this in years 4 and 5 with 50kt/a being a more typical concentrate production rate. The schedule considered:

- Maximum sinking rate of approximately 30 m per annum.
- Minimum upfront mining costs.
- Smoothed mining rate/s.

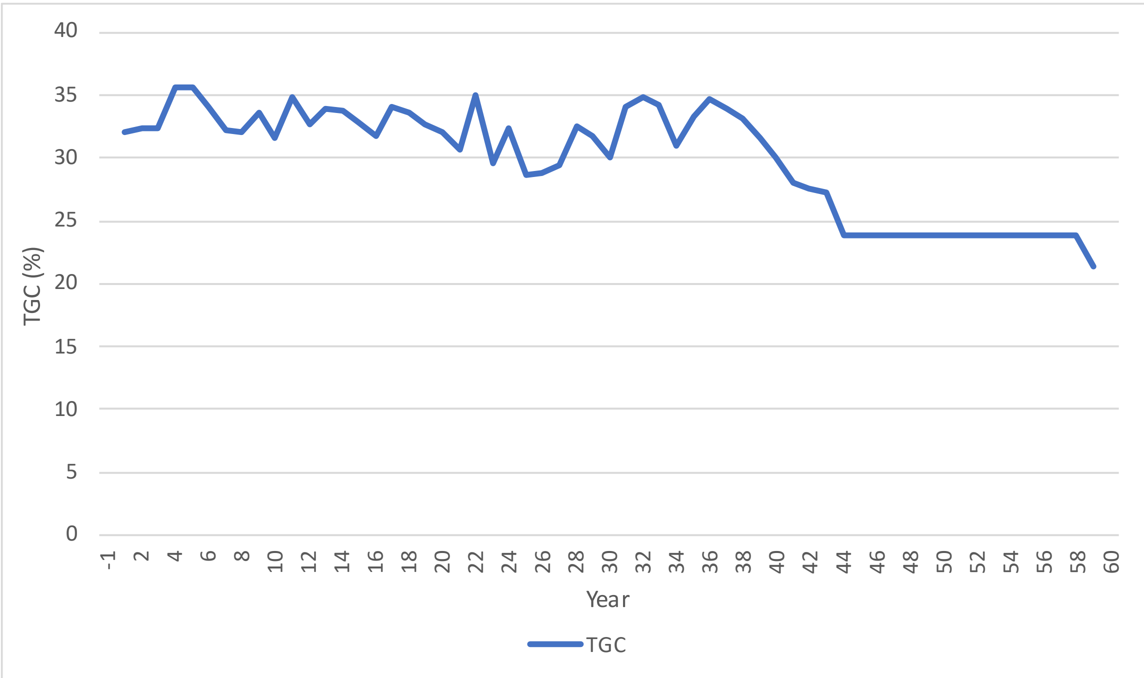
Figure 9 shows the annual schedule. A pre-production mining period that supplies some construction waste and ore for plant commissioning. Mining commences in the north but includes the south in the second year. Mining is initially at 200 kt/a before increasing to 300 kt/a. LTSP reclaim occurs sporadically throughout the mine life but primarily occurs after pit movements are finished.



Ore feed



Ore feed grade



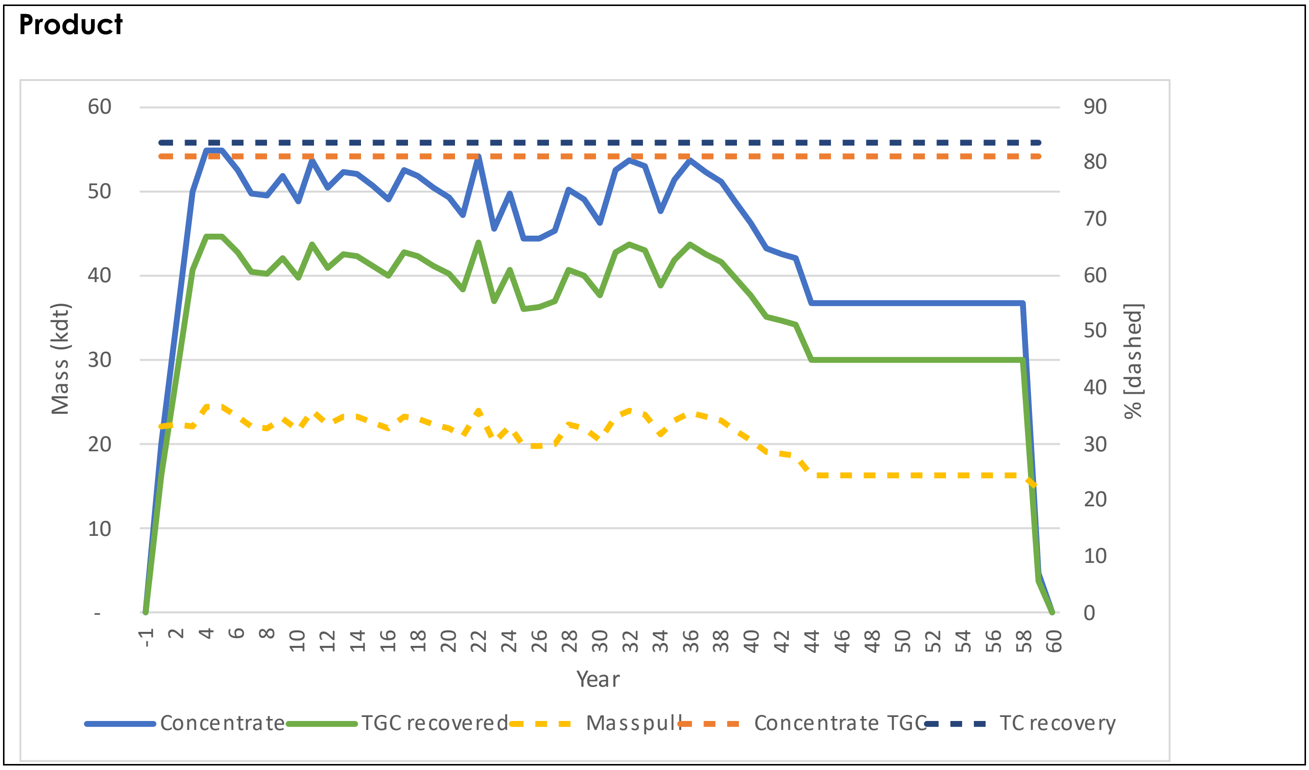


Figure 9 - Mining production schedule summary

Mining requirements

The mining equipment requirements are provided in Table 6.

Table 6 - Primary equipment summary

Type	Size	Maximum (no.)
Primary excavator	50 t	1
Secondary excavator	29 t	1
Trucks	25 t	6
Blast-hole drill	-	1
Grader	-	1
Dozer	-	1
Water cart	-	1

Mining costs

Mining costs (contractor only) were estimated by local Kazakhstan mining contractor, Mining Transport Company Limited Partnership and are summarised in Table 7.

Table 7 Mining cost estimate

Costs	KZT M	USD	USD/t	Portion
Mining operations cost	9,855	21,681,659	2.11	43%
D&B operations cost	1,338	2,943,386	0.29	6%
Recovery of material from the ore dump (LTSP)	2,872	6,317,538	0.61	13%
Recovery of material from the ore dump (ROM)	3,895	8,569,009	0.83	17%
Mobilisation/demobilisation	820	1,804,000	0.18	4%
Travel expenses	1,912	4,205,520	0.41	8%
Clearing	0	140	0.00	0%
Topsoil recovery	523	1,149,509	0.11	2%
Dump reshaping	0	68	0.00	0%
Topsoil spreading	402	885,301	0.09	2%
Road earthworks	-	-	-	0%
Road formation	-	-	-	0%
Dayworks	1,085	2,386,6	0.23	5%
Total	22,701	49,942,955	4.86	

Other PFS schedules

Two additional schedules, A-36, and A-37 were required in addition to the base case (A30) to assess variable process feed ramp-ups for upstream and downstream product scenario. These schedules are standalone scenarios and the feed ramp-ups are shown in Table 8 .

Table 8 PFS schedule ramp-ups

Stage	A 36 (Stage 1a)	A 37 (Stage 1b)	A30 (Stage 2a and 2b)
Maximum Feed	150 ktpa	150 ktpa	150 ktpa
Conc Year 1	16	19	20
Conc Year 2	26	33	35
Conc Year 3	36	43	50
Conc Year 4	38	45	55
Conc Year 5	39	46	55
Conc Year 6	40	46	52.7
Conc Year 7	40	47	49.7
Conc Year 8 on	43.75	50	49.5

Comparative graphs of all 3 schedules are provided in Figure 10.

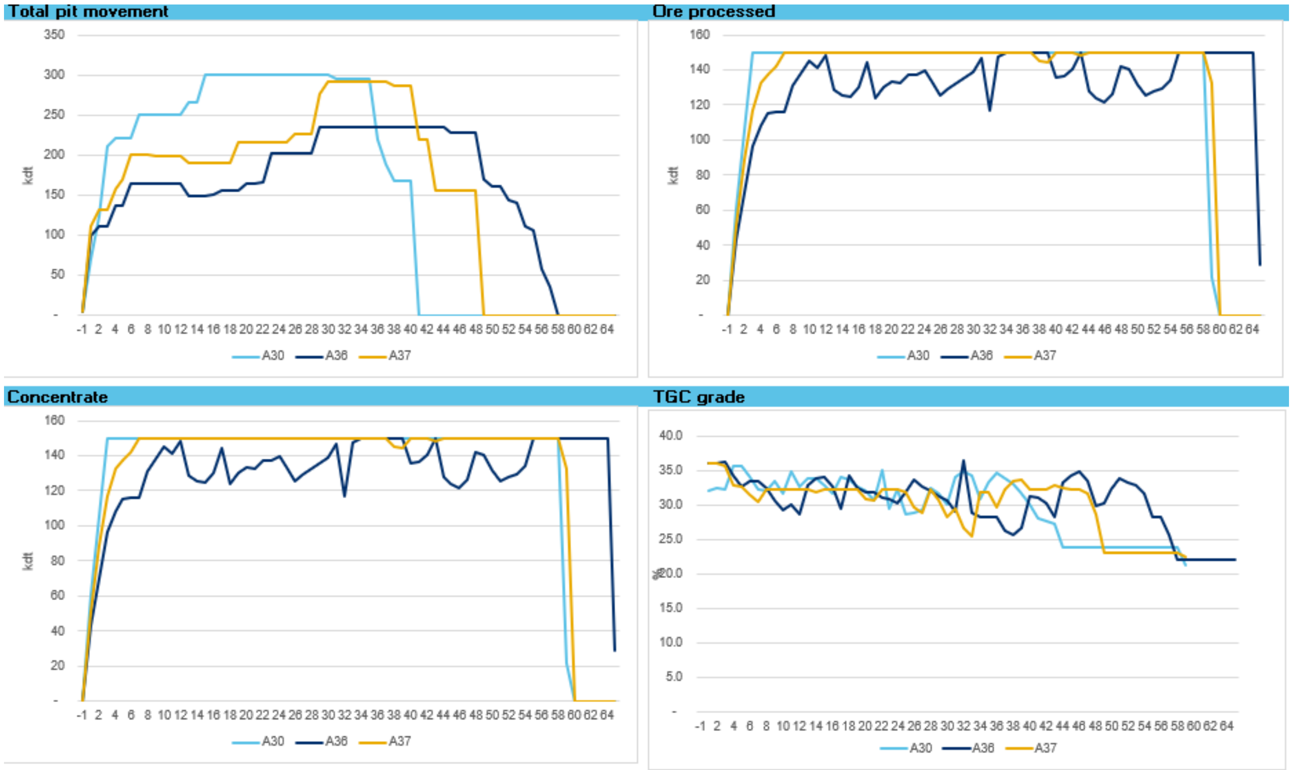


Figure 10 Comparison of schedules for A36, A37, with base case

The stockpile was also smaller for the A36 and A37 schedules. Schedule A36 only hits full feed of 150 kt in yr 12 , however mostly below 140 ktpa for years 8 -30 (beyond ramp-up) and averaging about 130 ktpa over that period. This schedule deferred capex and opex costs.

Ore Reserve Estimate

An Ore Reserve of 8.6 Mt at a grade of 30.0% TGC (Table 9) was estimated using the Guidelines of the 2012 Edition JORC Code.

Table 9 - August 2024 Sarytogan Probable Ore Reserve estimate

Ore mass	TGC	Concentrate mass	Concentrate grade	TGC in conc. Mass
kt	**%**	**kt**	**%**	**kt**
8,587	30.0	2,654	81.4	2,160

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.*

The material modifying factors (required under listing rule 5.9) including the status of environmental approvals, mining tenements and approvals, other government factors and infrastructure requirements for selected mining methods and transportation to market are comprehensively discussed in each of the respective sections of this PFS and JORC Table 1.

Water

Eleven exploration water bores were drilled by Tsentrgeolszemka LLP and ground water modelling and Analysis was conducted by Pennington Scott to support the PFS. Key findings include:

Stormwater Management

The project poses a low risk due to its location in the uplands of Central Kazakhstan, which has an arid, humid continental climate with warm, moist summers and frigid, dry winters. The average annual rainfall is only 312.9 mm, and winter temperatures seldom rise above freezing. About 90% of runoff and streamflow occurs over several weeks during spring (early April to late March). Most uncontacted stormwater runoff can be diverted offsite using diversion drains and exclusion bunds around critical infrastructure.

Dewatering

Dewatering also poses a low risk as the pits will be excavated in slightly to moderately weathered shale with poor aquifer permeability and storage characteristics. Groundwater numerical modelling suggests that dewatering rates would mostly vary between zero and 2 L/s over the life of mine, peaking at near 3 L/s during the excavation of the two deepest pits, the Stage 6-11 and Stage 13-17 pits. Inflows will vary seasonally; with virtually no inflow during the winter months due to ground freezing. Dewatering is expected to be manageable using in-pit sump pumps, without the need for out-of-pit dewatering bores.

Water Supply

The project's water demands could reach up to 454 ML/year, primarily for mineral processing. Water demand peaks during the winter when water recovery from the tailings storage facility halts due to freezing of the tailings, and it is at its lowest during the spring thaw when the tailings melt and release water. While the tight bedrock on site offers poor prospects for developing groundwater supply, there are excellent prospects for developing a makeup water supply from shallow alluvial groundwater resources associated with the Sherubainura River near the town of Asku-Ayuly, several kilometres northwest of the site. Although the saturated aquifer is less than 10 m thick, numerical modelling indicates that a skimming borefield comprising 11 to 14 bores, each pumping at 1.0 to 1.25 L/s, could feasibly sustain the peak project demand of 16 L/s for a full year between seasonal spring thaw river recharge events, without causing unacceptable drawdown impacts around the borefield.

While approvals to develop the alluvial aquifer resource at Kenshoky are underway, Pennington Scott has not identified any technical issues during the prefeasibility investigations that could materially threaten the development of the Sarytogan Project.

Metallurgy

Sarytogan conducted the below beneficiation and refinery testwork at various international testing facilities:

- Comminution testwork at Metallurgy Pty Ltd (Metallurgy) under the supervision of Independent Metallurgical Operations Pty Ltd (IMO);
- Beneficiation (by primarily flotation) flowsheet development testwork at Metallurgy;
- Bulk beneficiation concentrate generation at Metallurgy;
- Beneficiation confirmation and further beneficiation flowsheet development at ANZAPLAN Dorfner Group (ANZAPLAN);

- Acid leach and alkaline purification refinery testwork at ProGraphite GmbH (ProGraphite);
- Thermal purification testwork managed by ProGraphite at TMEC (Thermal and Material Engineering Centre); and
- Downstream (primarily by Thermal Purification) flowsheet development and purified product application testwork at American Energy Technologies Co. (AETC) located in Wheeling, Illinois, USA.

Comminution Results

SMC testwork conducted on a range of samples from primarily the Central Graphite Zone ranked the samples as soft to medium hardness.

A Bond Ball Mill Work Index (BBMWi) conducted on a Central Graphite Zone low grade sample achieved a value of 10.9 kWh/t. IMO rank this sample as soft. A low grade sample which contained similar mineral makeup to the expected ore samples was tested as previous attempts to conduct BBMWi measurements on run of mine graphite grade samples resulted in erroneously high results due to the fine graphite lubricating the grinding balls and mill. This caused them to slip in the mill rather than cascading as per the standard.

Beneficiation Flowsheet Development and Bulk Beneficiation Testwork

Initial beneficiation flowsheet development testwork and bulk concentrate generation were both carried out at Metallurgy under Independent Metallurgical Operations Pty Ltd (IMO) supervision.

The optimum beneficiation testwork flowsheet which contained 4 regrind and 8 cleaner stages is shown in Figure 11.

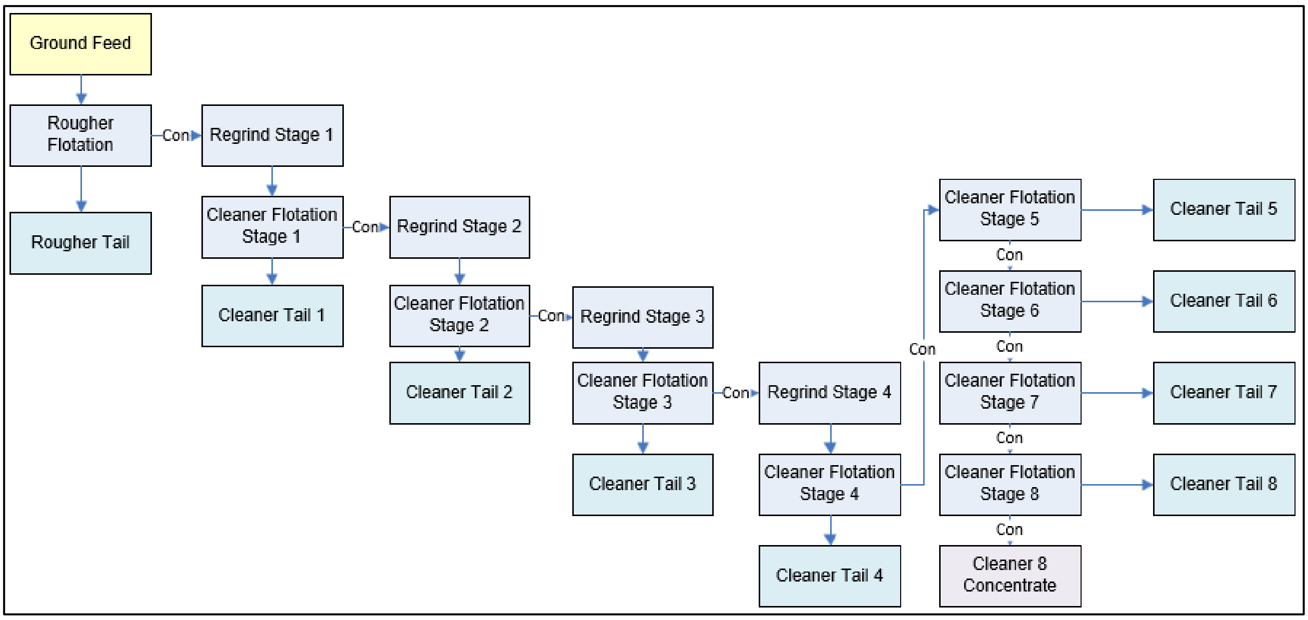


Figure 11: Optimum Beneficiation Stage Flowsheet

Results and final concentrate sizing respectively shown in Table 10 and Table 11. IMO has concluded that the TC grades and recoveries presented are representative of the total graphitic carbon grade.

Table 10: Batch (FT11) and Bulk Test Results Summary

Analyte	Mass		TC			
Sample	FT11	Bulk	FT11	Bulk	FT11	Bulk
	Dist'		Grade		Rec'	
Stream			%			
Cleaner Con	28.8	33.1	85.1	81.4	76.6	83.8

Table 11: Batch (FT11) and Bulk Flotation Concentrate Laser Sizing Results

Parameter	FT11	Bulk
D20	3.1	2.9
D50	5.4	5.3
D80	9.3	10
D95	14.1	20

A 0.5 kg batch and 60 kg bulk flotation tests were carried on the MC2 sample.

The MC2 composite sample comprises of diamond drill core intervals from both the North (~60%) and Central (~40%) Graphite Zones and is deemed representative of material to be processed.

The batch flotation test (FT11) was carried out in a laboratory scale Denver flotation cell and the bulk carried out in pilot scale flotation cells which are representative of commercial scale flotation cells. It is typical for an approximately 3 times retention time scale up factor to be applied from batch to bulk flotation.

Whilst the bulk flotation test achieved a lower final concentrate TC grade, it was similar at the same stage as the batch flotation test. Both bulk and FT11 had similar final concentrate D80 and D50 values with the bulk concentrate having a higher D95 value indicating that further liberation may have improved the concentrate grade similar to FT11.

Confirmatory and further beneficiation flowsheet development testwork was carried out by ANZAPLAN which achieved a final concentrate with an 84.2% TC grade and 90.8% TC recovery. The ANZAPLAN concentrate was finer than the FT11 and Bulk concentrates with a D50 of 4.4 µm.

ProGraphite Refinery Testwork

ProGraphite also confirmed the beneficiation flowsheet by successfully replicating the IMO flowsheet to generate concentrate for downstream testwork.

ProGraphite trialled a number of different conventional hydrometallurgical refinery routes from alkaline purification through to multi acid (including hydrofluoric acid) leach processing routes. The optimum TC grade generated from these methods was 99.87% which is below the >99.95% specification for lithium-ion batteries. Refractory rutile was identified as the primary gangue mineral preventing the concentrate from reaching the required >99.95% TC grade.

ProGraphite also managed thermal purification testwork conducted at the Thermal & Material Engineering Centre (TMEC) in Ukraine. The thermal purification generated a 99.99% TC grade from alkaline purified material (feed TC grade of 99.7%), and 99.93% from a ProGraphite flotation concentrate which had a feed TC grade of 86%. A further hydrofluoric acid leach on the thermally purified flotation concentrate increased the TC grade up 99.97%.

AETC Refinery Testwork

AETC conducted refinery testwork using the below unit operations:

- Granulation / agglomeration and calcination to generate material suitable for thermal purification;
- Thermal purification;
- Micronisation;
- Spheronisation;
- Coating; and
- Wet Classification.

This testwork was conducted on flotation concentrates generated at Metallurgy from both batch and bulk flotation testwork. Refinery testwork was also conducted with the micronisation testwork stage excluded.

Thermal purification was conducted in an inert environment at temperatures ranging from 2,700°C to 2,850°C .Thermally purified graphite product results from the test conducted at 2,700°C are shown in Table 12 with IMO concluding that LOI is representative of the TC grade.

Table 12: 2,700°C Thermal Purification Results

Volatile Content (%)			LOI	Ash Content
600°C	**950°C**	**1,450°C**	**%**	**%**
0	0	0	99.998	0.002

LOI measurements conducted on the 2,850°C thermally purified material achieved a minimum LOI of 99.999% with an elemental analysis using Glow Discharge Mass Spectroscopy (GDMS). Nuclear industry limits are calculated by multiplying 26 elemental assays by the Equivalent Boron Concentration (EBC) factor. Sarytogan Fine Nine Graphite has an EBC of 1.1ppm, lower than the required limits set out by the American Society for Testing and Materials (ASTM, 2 ppm) and nuclear industry (3 ppm).

Post spheronisation, milling wet classification was conducted on thermally purified material (2,850°C) with results shown in Table 13. AETC concluded that material from Cuts 0 to 3 which achieved a 53.9% yield would be classed as spheroidal. Spheronisation was also conducted without pre-milling and shown to be equally effective.

Table 13: Spheronised Material Wet Classification Results

Cut	Yield, %	Tap Density g/cc	Surface Area m²/g	D50 µm
0	14.55	0.967	11.045	24.91
1	19.02	0.957	15.253	15.33
2	10.73	0.933	12.196	12.22
3	7.91	0.894	15.896	8.23
4	4.42	N/A	N/A	N/A
5	3.57	N/A	N/A	N/A
6	3.04	N/A	N/A	N/A
7	36.76	N/A	N/A	N/A

SEM images of Cut 0 spheronised particles generated from thermally purified material are shown in Figure 12.

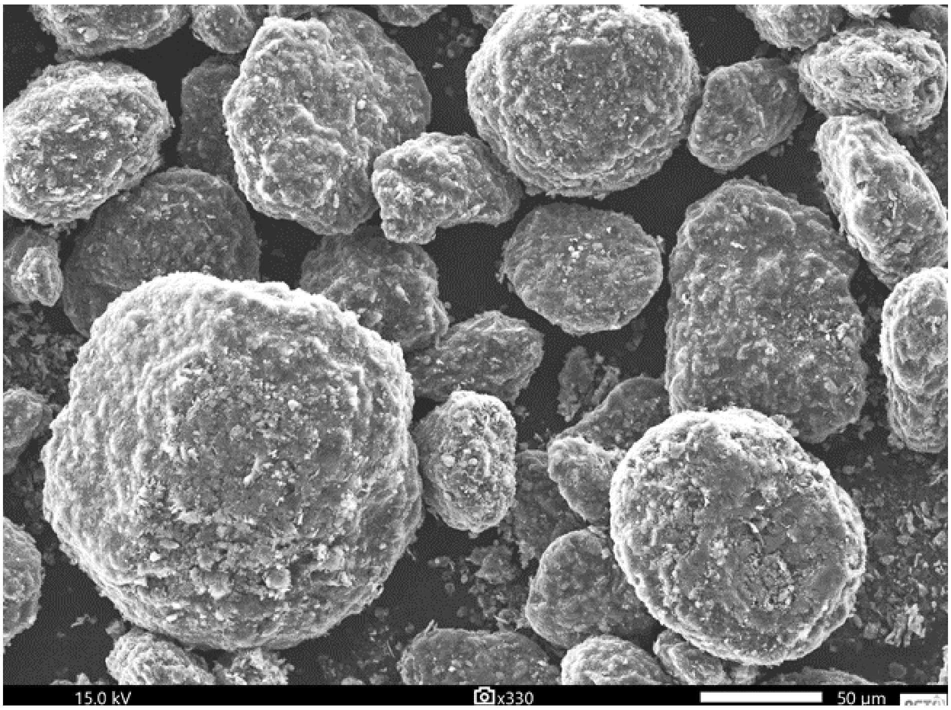


Figure 12: Cut 0 Typical Spherical Graphite Particles SEM Image

Tailings

Knight Piésold Pty Ltd (KP) was commissioned by Sarytogan to undertake the Prefeasibility Study (PFS) design of the Tailings Storage Facility (TSF) for the Sarytogan Graphite Project.

Site Characteristics

The average annual rainfall for the project area (based on the Aksu-Ayuly climate station) is 313 mm, and the average annual lake evaporation is 753 mm (as reported in the hydrological report (Ref. 5)). Winter begins in November and ends in March. Winter in the region is long and severe, with consistent snow cover, high wind speeds, and frequent snowstorms. Spring comes in late

March to early April and lasts only one or two months. Significant snow melt is expected during this period. Summer lasts for four to five months and is characterised by high air temperatures, negligible precipitation, and high relative dryness.

The natural topography of the project area is typically steeply sloping, with grades ranging from 0% in the lower-lying areas of the project to greater than 150% in the higher areas bounding the project. The average grade across the project is 17% and elevations range from RL870 m to RL995 m. Topography across the project typically falls north to south, and two primary drainage paths exist to the east and west of the project area. Runoff from the project area flows towards the Sherubainura River.

Tailings Testing

Physical and geochemical testing of a tailings sample was conducted during the study. The rate of supernatant release for all samples was very slow and reached low dry densities, with a significant increase due to drying and consolidation. Assuming that the facility is efficiently operated, it is estimated that the average settled dry density for the sample will be approximately 0.97 t/m3.

The TSF incorporates sufficient measures to prevent the loss of tailings from the facility based on the expected tailings geochemistry. HDPE liner was included in the design due to potentially hazardous processing reagents common to graphite processing. The closure cover was assumed based on the limited tailings geochemical data available.

Site Water Management

No water balance modelling was completed as part of this study. Water Balance modelling will be conducted during the Feasibility Design phase. The management of water is a critical aspect of the design for the Sarytogan TSF as a positive water balance (accumulating supernatant pond) is expected and treated water discharge may be required.

Tailings Storage Facility Siting Study

A TSF siting options assessment was conducted to evaluate 4 No. potential sites for the Sarytogan TSF. The recommended TSF site (Option 4) from the siting assessment was adopted for further development as part of the PFS design. This option was recommended primarily due to lower construction costs and the proximity to the starter pit.

An optimisation exercise was completed for Option 4 to assess the possibility of reducing costs. A fifth option (Option 4A) was considered, which was conceptually similar to Option 4, however was moved further up the valley to reduce the facility footprint. Option 4A was adopted as the basis of the PFS, primarily as it lowers the overall costs, provides an improved closure concept, reduces the facility footprint and external catchment, improves tailings density, and provides fresh water storage for the project.

Tailings Storage Facility Design

The TSF will comprise a cross valley storage facility formed by multi-zoned earth fill embankments, comprising a total footprint area (including the basin area) of approximately 16.4 ha for the Stage 1 TSF increasing to 55.8 ha for the final TSF. The TSF is designed to accommodate a total of 5.7 Mt of tailings.

The Stage 1 TSF will be designed for 24 months storage capacity. Subsequently, the TSF will be constructed in five raises to suit storage requirements. Downstream raise construction methods will be utilised for all TSF embankment raises.

A downstream seepage collection system will be installed within and downstream of the TSF embankment, to capture seepage from the TSF and pump back to the embankment crest, where it will be deposited back into the supernatant pond.

The TSF basin area will be cleared, grubbed and topsoil stripped and a compacted soil liner will be constructed in the TSF basin area and overlain with 1.5 mm smooth HDPE geomembrane over the entire basin area. The embankment upstream face and decant tower areas will be lined with 1.5 mm textured HDPE geomembrane liner.

The TSF design incorporates an underdrainage system to reduce pressure head acting on the compacted soil and HDPE geomembrane liners, reduce seepage, increase tailings densities, and improve the geotechnical stability of the embankments. The underdrainage system comprises a network of collector and finger drains. The underdrainage system drains by gravity to a collection sump located at the lowest point in the TSF basin. A leakage collection and recovery system (LCRS) will be installed beneath the basin composite liner. Solution recovered from the underdrainage system and LCRS will be discharged on top of the tailings mass via submersible pump, reporting to the supernatant pond.

Supernatant water will be removed from the TSF via submersible pumps (designed by others) located within a series of decant towers, constructed at start-up and raised during operation. The supernatant pond will be located in the eastern valley within the TSF basin. Solution recovered from the decant system will be pumped back to the plant for re-use in the process circuit.

An emergency spillway will be available at all times during TSF operation in order to protect the integrity of the constructed embankments in the unlikely event of emergency overflow. The closure spillway will be excavated through the eastern abutment of the diversion dam immediately south of the facility, at the low point on the final tailings beach, where it will discharge into the diversion dam and via another spillway excavated in the southern saddle running south where it will discharge into the existing water course after operation ceases, thus ensuring the TSF becomes a fully water-shedding structure on closure.

Tailings will be discharged into the TSF by sub-aerial deposition methods, using a combination of spigots at regularly spaced intervals from the TSF embankment during summer operation and end point discharge during winter operation to reduce the accumulation of ice within the tailings beach.

ANCOLD and GISTM dam failure and environment consequence ratings have been assessed for the project and the dam has been appropriately designed with the risk ratings in mind in line with international standards.

Monitoring

Several groundwater monitoring stations will be installed downstream of the TSF to facilitate early detection of changes in groundwater level and/or quality, both during the operating life and following decommissioning.

Standpipe piezometers and vibrating wire piezometers will be installed in the TSF embankments to monitor pore water pressures at several locations within the embankments to ensure that stability is not compromised.

Survey pins will be installed at regular intervals along the TSF embankment crest in order to monitor embankment movements and assess effects of any such movement on the embankment.

Rehabilitation

At the end of the TSF operation, the downstream faces of the embankments will have an overall slope profile of approximately 3.5H:1V. The profile will be inherently stable under both normal and seismic loading conditions. The embankment downstream face will be re-vegetated once the final downstream profile is achieved.

Upon closure the final tailings surface will be capped with a soil cover. The following cover system was assumed:

- Mine waste capillary break (1,000mm).
- Low permeability fill layer (300 mm).
- Topsoil growth medium layer (200 mm).
- The finished surface will be shallow ripped and seeded with shrubs and grasses.

Process Description

The processing facilities consist of a 150,000 t/a beneficiation plant producing 50,000 t/a graphite concentrate and a 22,500 t/a thermal purification plant. The concentrate will either be bagged for sale or for purification.

Beneficiation Plant

The beneficiation plant is planned to process about 150,000 t/a of ore after ramping up within the first three years of mining, to produce about 50,000 t/a of graphite concentrate. The processing facility is designed to operate 24/7 throughout the year. The concentrator facilities are to be located at the mine site and will consist of the following processing stages:

- Crushing of the Run of Mine (ROM) ore using a primary jaw crusher and a secondary cone crush to produce a product of 80% passing 8.2 mm;
- Storage and transfer of crushed ore into a fine ore bin of 250 t capacity with a standby emergency stockpile arrangement;
- Grinding of crushed feed ore using a ball mill to a product size of 80% passing 75 microns;
- Flotation of the mill product, consisting of roughing and eight stages of cleaning to produce a concentrate and tailings;
- Filtration and drying of the graphite concentrate using a plate and frame pressure filter and a flash dryer;
- Classification of the concentrate into three different product sizes with a two-stage classification step post flash drying;
- Packaging of the concentrate in a bagging plant for shipping of 1 t bulk bags and 25 kg sacks;
- Thickening of the flotation tailings using a high-rate thickener;
- Storage of the tailings in a tailings storage facility;
- Reagent storage, mixing and distribution systems for flocculant, frother, soda ash and dispersant;

- High pressure, low pressure and instrument air generation and distribution systems;
- Raw, process, fresh and potable water generation, storage and distribution systems.

Figure 13 shows the complete upstream process in the overall flowsheet.

Thermal Plant

The downstream processing facility will be designed for a processing rate of 22,500 t/a, arranged in three trains with a nominal capacity of 7,500 t/a each. The thermal plant will be designed to operate 24/7 at 365 days per year. The plant will be built in two stages, starting with one train (Stage 1), and expanded in Year 3 of mining with two additional trains (Stage 2). Spheronisation is added at a pilot scale in Stage 1b and expansion is considered in Stage 2b, also with the addition of coating.

The thermal plant will to be located on the outskirts of the town of Akadyr, about 120 km southwest of the mine site. The plant design consists of the following major process steps:

- Granulation of concentrate with a petroleum pitch binder;
- Calcination at 1,000°C to bind and harden the granulated feed;
- Thermal purification of the graphite feed at up to 3,000°C in a nitrogen-purged electro-thermal fluidised bed furnace to a product grade of greater than 99.99%;
- Cooling and treatment of the furnace off-gas to recover any graphite fines and to burn off any volatile hydrocarbons;
- Scrubbing of the cooled off-gas to remove deposited impurities via a pressure filter;
- Milling of the purified product followed by air classification to produce discrete sizes of high purity fines;
- Bagging of the high purity fines in 1 t bulk bags for sale.

Spheronising and Coating Plant

Spheronising and coating of some of the spherical purified graphite (SPG) product was included in the PFS scope as Stage 2b. This section of the plant will include;

- Spheronising of the remainder of the high purity product through three trains of eight spheronisers;
- Classification of the spheronised product to separate fines and to produce three discrete sizes of spherical purified graphite (SPG) product;
- Bagging of some of the SPG product into bulk bags for sale as uncoated spherical purified graphite (USPG);
- Coating of the remainder of the SPG with petroleum pitch in a roller hearth furnace to produce coated SPG (CSPG);
- Bagging of the coated spherical purified graphite product for sale.

Figure 14 shows the Block Flow Diagram of the thermal downstream process.

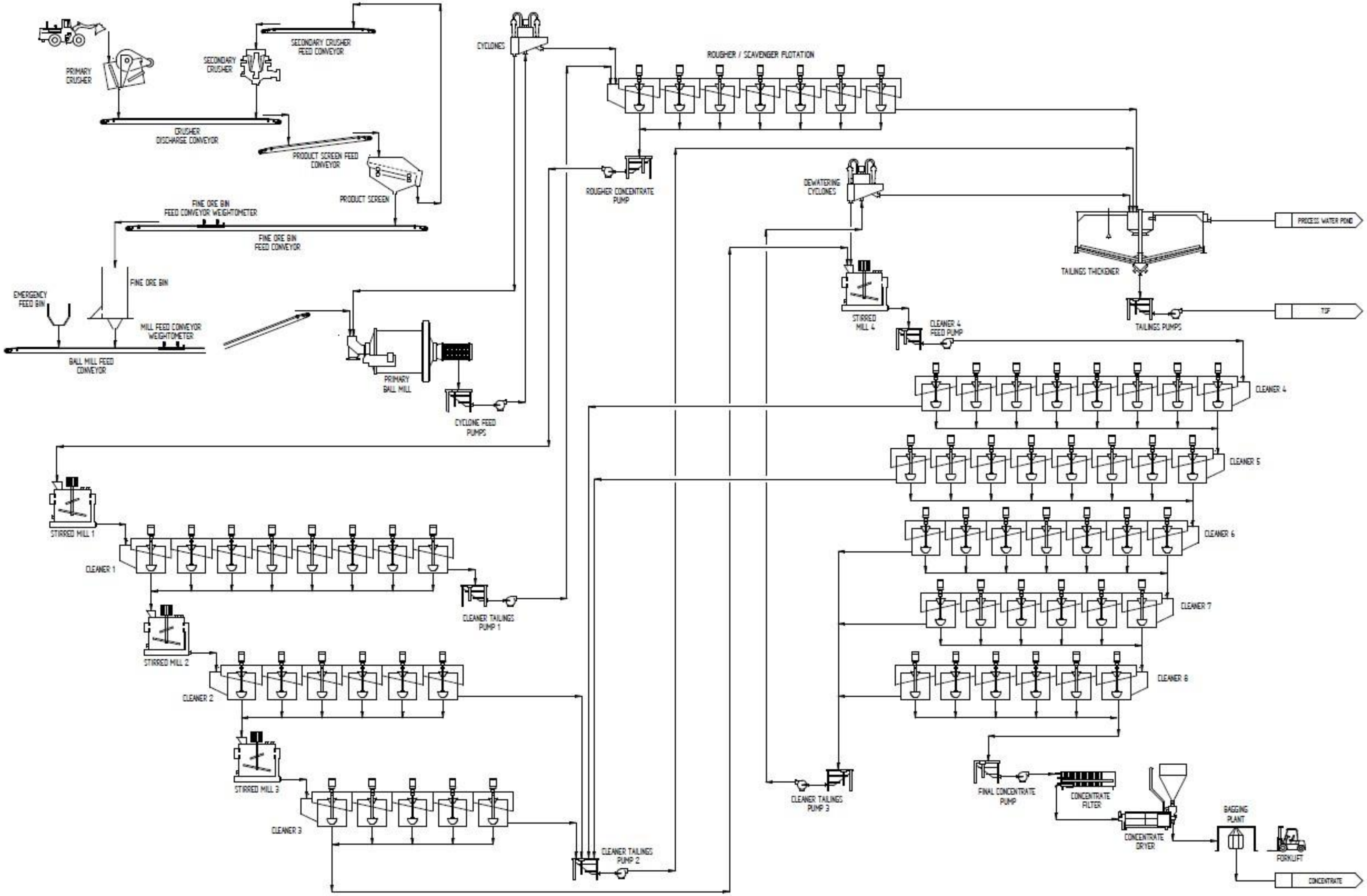


Figure 13 - Beneficiation Plant Flowsheet

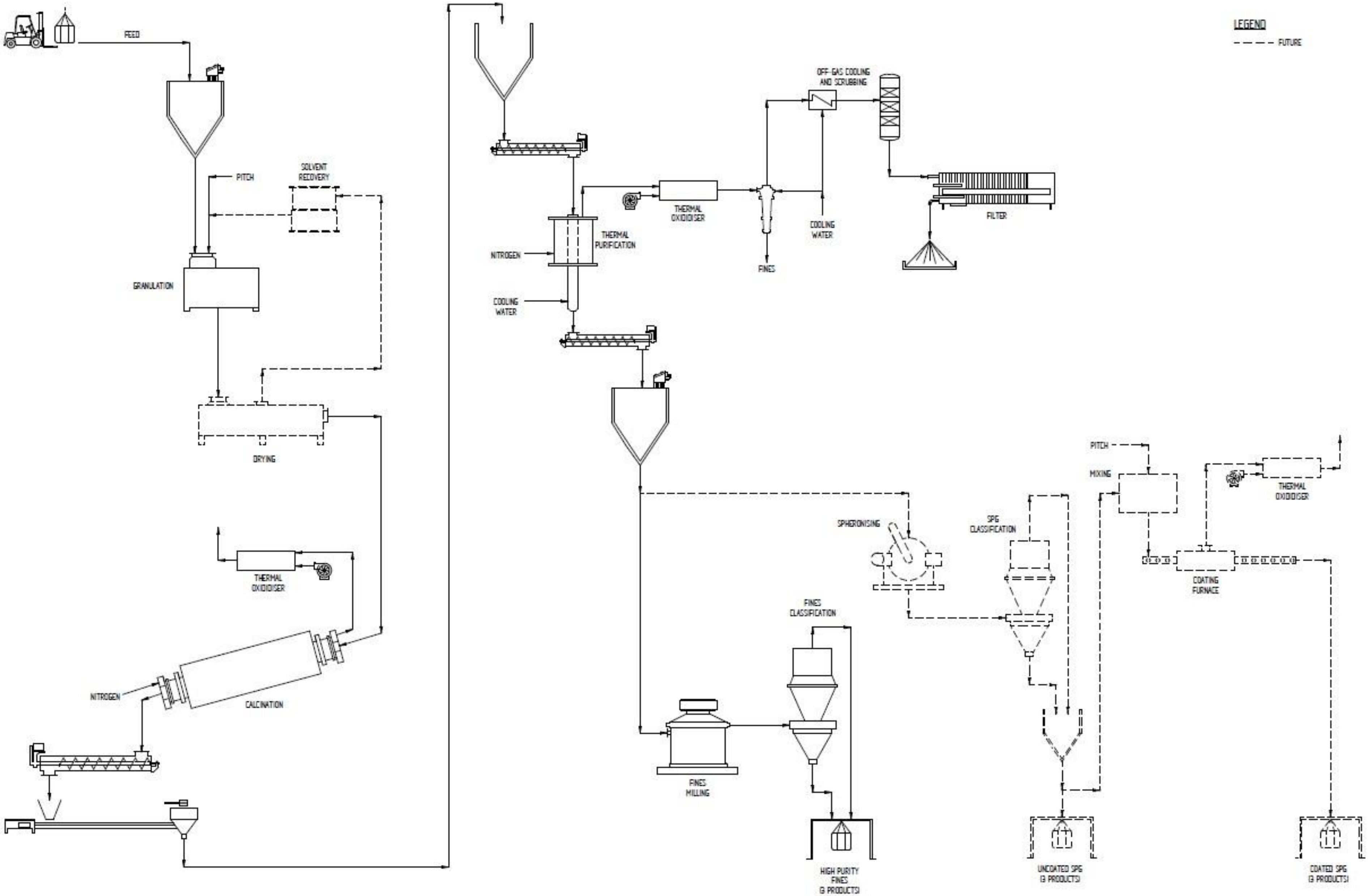


Figure 14 - Thermal, Spheronisation and Coating Flowsheet

Infrastructure

Beneficiation Plant

The beneficiation plant will be constructed at the western end of the mine site.

The site development works and supporting infrastructure required include the following:

- Earthworks and road works for the new plant site and power station;
- Power supply from the local 35 kV network to the project site;
- Power reticulation throughout the new plant site;
- Raw water supply from the borefield about 19 km west of the mine site;
- Process water tank;
- Potable water with a reverse osmosis (RO) plant;
- Water, air and fire water in-plant reticulation network;
- In-plant administration and operator offices, toilets, workshops and stores;
- Accommodation camp;
- Temporary construction facilities, including offices, toilets, storage containers, communications and lighting.
- An accommodation camp will be built to cater for a capacity of approximately 60 people to facilitate the Project's construction and operation.
- Power is planned to be provided from the local power network to the mine site with a new 35 kV overhead power line over a distance of about 10 to 15 km.

Thermal Plant

The thermal plant will be constructed in an industrial area close to the city of Agadyr, about 140 km by road from the mine site.

The site development works and supporting infrastructure required include the following:

- Earthworks and road works for the new plant site;
- Power distribution and reticulation throughout the new plant site;
- Raw, process, potable and fire water tanks;
- Water, air and fire water in-plant reticulation network;
- In-plant administration and operator offices, toilets, workshops and stores;
- Product bagging plants for high-purity fines, uncoated spheres (USPG) and coated material (CSPG);
- Temporary construction facilities, including offices, toilets, storage containers, communications and lighting.

Raw water and power are assumed to be available for the thermal plant from the local network provided within the industrial area and will be validated in the next phase of the study.

An accommodation camp has not been included for the thermal plant, since all personnel and staff can travel from the city and its suburbs individually or on public transport.

Project Execution

The process facility and infrastructure will utilise an engineering, procurement, construction and management (EPCM) execution strategy to provide surety around cost and timing. The project plants are planned will be built in two stages.

Stage 1 – Beneficiation and Thermal Plant (Train 1)

The initial stage considers the building the beneficiation plant at the mine site and the first train of the thermal plant near the city of Akadyr. The first thermal train is planned to produce mainly purified fines material. A small amount (20 t) of spheronised material will be produced to provide marketing samples with a single mill located within the classification building. A full-scale spheronising building, including a coating kiln, is excluded from Stage 1.

The duration of the Project has been estimated to be 92 weeks (21 months) from contract award to practical completion. The critical path identified runs through the design approval, procurement, manufacture, installation and commissioning of mills, motor control centres (MCCs), thickener, concentrate filter and the furnaces for the thermal plant.

Stage 2 – Thermal Plant (Trains 2 and 3, Spheronising and Coating)

Stage 2 of the Project considers the building of two additional trains at the thermal plant after three years of operating the first thermal train. Stage 2 also includes building the spheronising and coating facilities to produce USPG and CSPG (uncoated and coated spherical purified graphite) to the market.

The duration of the Project has been estimated to be 81 weeks (19 months) from contract award to practical completion. The critical path identified runs through the design approval, procurement, manufacture, installation and commissioning of mills, MCCs and furnaces.

Capital Cost Estimate

Capital cost estimates were prepared in United States Dollars with a nominal accuracy of ±25% and a base date is Q2, 2024.

The following Table 14 shows the total capital investment costs for the process plants and related infrastructure for each stage of the project.

Table 14 - Capital Cost Estimate Summary

US$M	Stage 1a	Stage 1b	Stage 2a	Stage 2b	Plant total
Tailings Dam Establishment	6.7				6.7
Beneficiation plant	55.6	-	-	-	55.6
Thermal plant	-	97.0	96.7	-	193.7
Spheronising & Coating plant	-	-	-	88.3	88.3
Total	62.3	97.0	96.7	88.3	337.6

Sustaining capital for plant and equipment is assumed at 1% of initial capital each year (US$196M over the 60 year mine life). In addition, US$14.9M has been estimated by Knight Piesold for tailings dam lifts and apportioned over the life of mine. A further US$4.1M is provided for tailings dam closure.

Operating Cost Estimate

Operational cost estimates were prepared with a nominal accuracy of ±25%. The estimate currency is USD and the base date is Q2, 2024. The Project is a greenfield development, using new equipment and infrastructure throughout.

Table 15 shows the total operating costs for the beneficiation plant with related infrastructure and G&A for each stage of the project per annum and per tonne of flotation concentrate feed capacity. Table 16 shows the total operating costs for the downstream plant per annum and per tonne of product.

Table 15 - Operating Cost Summary - Upstream

Operating Cost Summary - Upstream LOM Stage 2a				
Mt		10.284	8.587	2.654
	US$M LOM	**US$/t Mined**	**US$/t Ore**	**US$/t Conc**
Mining	$43.4	$4.22	$5.06	$16.36
Beneficiation	$491.0	$47.74	$57.18	$184.98
G&A	$49.9	$4.85	$5.81	$18.81
Owner's Team	$6.6	$0.64	$0.77	$2.49
Royalties	$140.6	$13.67	$16.38	$52.98
Total	$731.5	$71.14	$85.19	$275.62

Table 16 - Operating Cost Summary - Downstream

Operating Cost Summary - Downstream LOM Stage 2a			
Mt		1.116	1.052
	US$M LOM	**US$/t Th Feed**	**US$/t UHPF**
Purification	$1,183.7	$1,061.06	$1,125.56
G&A	$26.2	$23.48	$24.91
Total	$1,209.9	$1,084.54	$1,150.47

Power costs in Kazakhstan are estimated at US 4c/kwh with reference to local market intelligence.

Labour costs are estimated based on local Kazakhstan wages and assumes a 2 week on, 2 week off bus-in bus-out roster.

The breakdown of operating costs for the beneficiation plant and thermal plant are shown in Figure 15 and Figure 16 respectively.

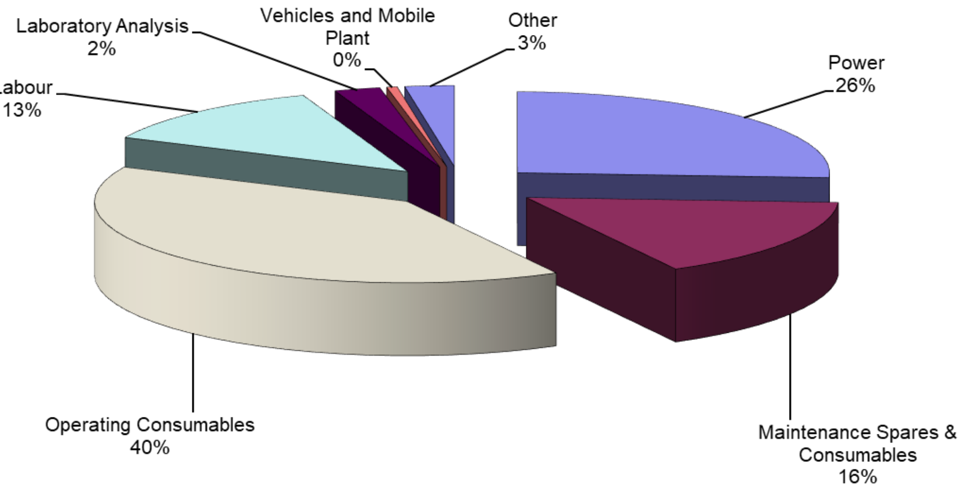


Figure 15 - Operating Cost Breakdown - Beneficiation Plant (Stage 1a)

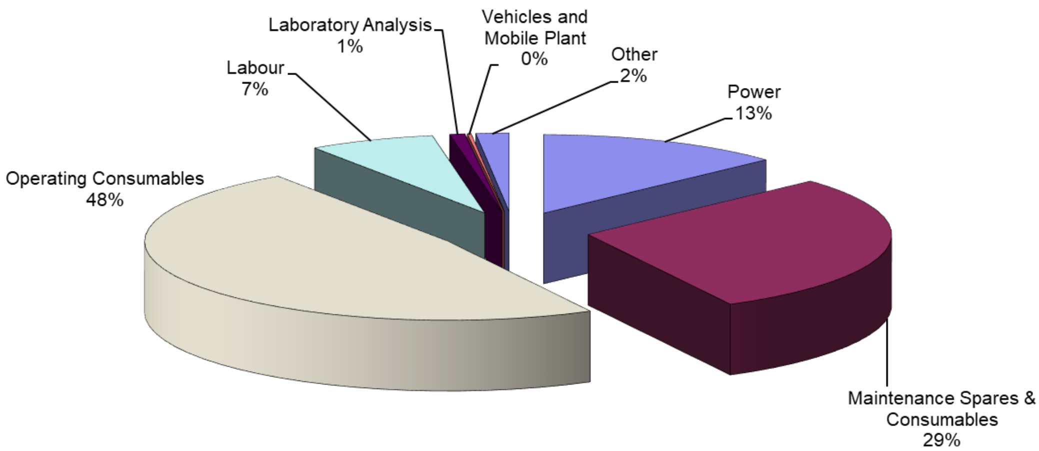


Figure 16 - Operating Cost Breakdown - Thermal Plant (Stage 2a)

Sarytogan Flowsheet and Product Mix

Sarytogan has designed a flowsheet to produce 3 graphite product types to place as many carbon units into as many markets as possible (Figure 17, Table 17) from its giant and exceptionally high-grade Mineral Resource (Table 3).

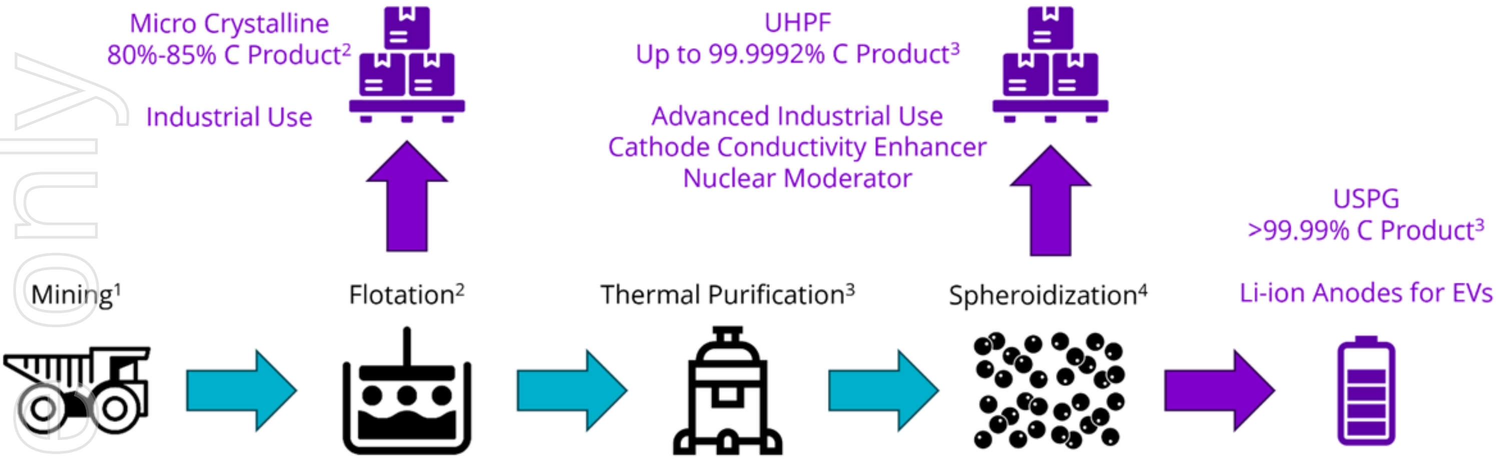


Figure 17 - Sarytogan Proposed Schematic Flowsheet and Product Mix.
Refer ASX Announcements: [1] 27/3/23, [2] 13/11/23, [3] 5/3/23, [4] 19/12/23.

Table 17 - Sarytogan proposed products, demonstrated performance and pricing
([1]source: Wood Mackenzie, Lone Star Tech Minerals, Company analysis)

Product Groups	**Micro80C**	**UHPF**	**USPG and CSPG**
Grade (% C)	80 to 85	Up to 99.9992	>99.99
Sizings (µm)	D90 15, 10 & 5	D90 15, 10 & 5	D50 20,15 & 10
Pricing applied in the PFS[1] (US$/t)	$400 to $850	$3,000 to $12,000	$2,500 to $8,000
Uses	Traditional - Lubricants, Friction Products, Drilling Fluids, Foundry	Advanced – Alkaline, Lithium, and Lead Acid Batteries; Nuclear	Lithium-Ion Battery Anodes
ASX Announcements Demonstrating Performance	22 May 2024	11 April 2024 14 May 2024 17 June 2024	8 February 2024 20 May 2024 11 June 2024

The upstream beneficiation using grinding and flotation is planned to produce microcrystalline graphite at 80-85% C at the mine site (refer ASX Announcement 13 November 2023). Some of the micro-crystalline graphite will be diverted for sale into traditional industrial uses such as refractories, crucibles, foundries, friction parts, pencils, and lubricants.

The rest of the flotation concentrate is planned to be processed downstream by thermal purification and spheroniation to Uncoated Spherical Purified Graphite (USPG) for lithium-ion battery anodes and Ultra High Purity Fines (UHPF) for advanced industrial uses.

Most USPG and Coated Spherical Purified Graphite (CSPG) producers undertake a spheronisation process ahead of purification, generating a lower-grade finely-sized by-product suitable only for traditional industrial markets. Sarytogan's inverted flowsheet envisages purification ahead of spheronisation (Figure 17). The by-product is UHPF, a premium priced product with many advanced battery and industrial applications.

The Company has demonstrated the performance of proposed Sarytogan Graphite products in the following uses:

- Alkaline and lithium primary battery cathode conductivity enhancer (ASX 11/4/24)

- Lithium-ion battery anodes (ASX 20/5/24)
- CSPG battery anodes (ASX 11/6/24)
- Lead acid battery anodes (ASX 17/6/24)
- Nuclear specification confirmed (ASX 14/5/24)
- Lubricants (ASX 22/5/24)

Marketing

In the overall spectrum of the graphite powder industry, the ability for a new traditional and / or downstream graphite powder producer to enter well-established, legacy markets dominated by a large number of legacy graphite powder producers is challenging due to a number of factors. These factors included high capital requirements and, in many cases, high operating costs when compared to established natural or primary / secondary graphite powder operations in North America, Brazil, Asia-Pacific, and Europe. Additional barriers and factors for market entry by a new graphite powder producer are an application suitability assessment, target market assessment, graphite project / products metallurgical assessment, competition assessment by company / products produced, and an in depth understanding of target applications both technically and commercially. Sarytogan Graphite over the past two years has been assessing and developing a natural graphite microcrystalline project in strategically located Kazakhstan to become a potential new supplier of high grade, high quality natural microcrystalline graphite to specific upstream and downstream graphite powder markets.

Sarytogan Graphite is planning a soft entry market strategy into the overall graphite powder industry with a manageable nameplate capacity of 50,000 tpa of high-quality microcrystalline graphite upstream and downstream products targeting strategic markets and applications where small levels of new supply will not upset the market balance. Sarytogan Graphite will also have in reserve the ability to expand the operation in specific production modules as new qualifications are completed and demand increases at a measured pace to protect market share and commercial price points.

Sarytogan Graphite completed an extensive competitive analysis by region and country of traditional natural and synthetic graphite producers and suppliers focusing on legacy producers and processors and those companies that would potentially be customers to the Company. Understanding the competitive landscape provides critical information on products and presence in regions and countries and to identify those competitive weaknesses where Sarytogan Graphite can take advantage with its upstream and downstream graphite products. Even though Sarytogan Graphite is considered as a graphite mining company, in reality it can be classified as a technical mineral production company focusing on environmental stewardship, reducing its carbon footprint, focusing on recyclable or other environmental packaging options, but reducing the usage of wood pallets, fumigation chemicals, and increasing the use of recyclable class-2 plastic pallets for shipment of graphite products around the globe. Sarytogan Graphite will complete initial certifications including ISO 9001 and ISO 14001 EMS to support the company's quality control and environmental corporate governance. The entire strategic production, commercial and long-term sustainability plans of the Company will increase value for all stakeholders and shareholders in the short and long term. The Company intends to supply its microcrystalline graphite products to global customers across a wide range of applications in multiple regions focusing initially in the EU with plans to expand to the Asia Pacific, North, and South America.

The Micro80C products are planned be sold into traditional markets including for use as lubricants, friction products, battery pre-cursors, drilling fluids and foundry uses. Many of these markets are typified by small consignment sizes and slow market penetration based on the actual performance of the products at a commercial scale. If only this suite of Micro80C products were produced, LSTM has forecast that it would take 8 years to ramp up to 43,750tpa. The addition of one thermal reactor in Stage 1b to produce UHPF allows the full utilisation of the 50,000 tpa capacity (Figure 18).

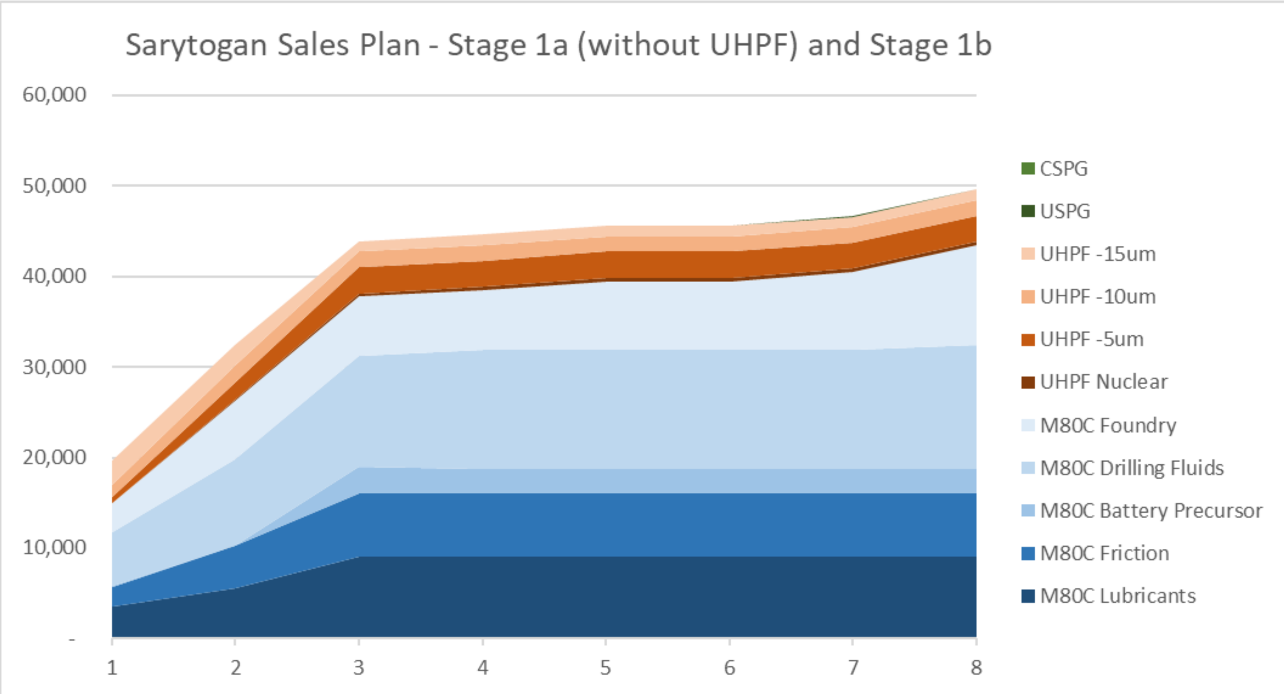


Figure 18 - Sarytogan Sales Plan - Stage 1a (without UHPF) and Stage 1b (with UHPF)

The UHPF Fines product has been demonstrated by test work as suitable for use as the anode in lead acid batteries, as a cathode conductivity enhancer in alkaline batteries and lithium primary (non-rechargeable batteries). It has also been shown to meet the Equivalent Boron Content (EBC) for the nuclear industry – 1.1ppm vs standards set out by the American Society for Testing and Materials (ASTM, 2 ppm) and the standard practice of the nuclear industry (3 ppm). Although the tonnages for the nuclear industry are only assumed at ramping up to 400 tpa at conservative pricing of US$12,000/t, commensurate with the long qualification process for this market

The qualification for the UHPF battery market is expected to be far quicker and a ramp up to supply this market 18 ktpa is modelled to occur over 3 years. Thermal reactors 2&3 are added as Stage 2a. Higher grade Ore is able to be front end loaded in the mine plan for a couple of years to overproduce up to 55,000 tpa. As higher value markets ramp up, lower value products such as Micro 80C battery precursors and foundry uses can be withdrawn from the market (Figure 19).

Stages 1b and 2a of the PFS include pilot spheronisation with 20 tpa to be sold as USPG at US$2,500/t for product development purposes. Stage 2b of the PFS contemplates 3 ktpa of USPG and 4ktpa of CSPG be sold at US$8,000/t.

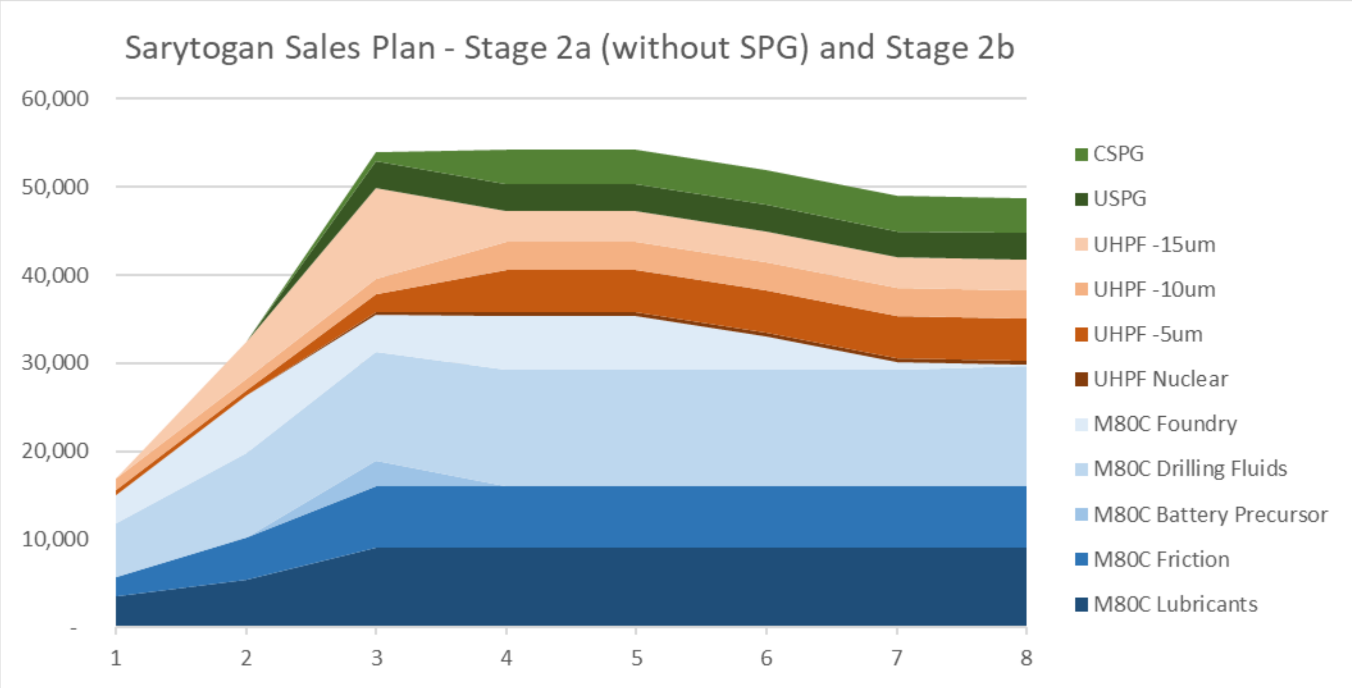


Figure 19 - Sarytogan Sales Plan – Stage 2a (without SPG) and Stage 2b (with SPG)

Products are forecast to be sold at specific prices for each of the end use markets illustrated in Figure 18 and Figure 19 and tabulated as ranges in Table 1.

Table 18 - Prices modelled in the PFS

US$/t	Range of Prices Per Segment	10 Year Weighted Average			
		Stage 1a	Stage 1b	Stage 2a	Stage 2b
Micro80C	400 – 850	747	746	791	791
UHPF	3,000 – 12,000	-	5,577	4,468	5,020
USPG	US$2,500/t				
CSPG	US$8,000/t				

All products are sold on a Free On Board Train (FOB Train) in Akadyr, Kazakhstan basis as is customary in the graphite market. Trucking transportation costs of US$7c/tkm from the mine to Akadyr (140km) are included in the operating cost estimate. Products will be packed into 1t bulk bags and 25kg sacks loaded into sea-containers these costs are also included.

There are currently no offtake agreements in place for any of the proposed products and this will be addressed in the next phase of study with the manufacture of customer samples to continue the customer qualification process.

Financial Analysis

Each investment case (Stages 1a, 1b, 2a and 2b) has been modelling independently and cumulatively. The key results are shown in Table 1. Key inputs are shown in Table 19.

Table 19 - Key Financial Modelling Inputs

Item	Units	Value
Discount Rate	% Pre Tax	8%
State Royalty	% Mine Revenue	3.5%
Vendor Royalty	% Mine Revenue	3.0%
Debt Gearing	Debt:Equity	40%
Debt Interest	% pa	10%
Debt Term	years	15

The operating cost breakdown by activity is shown in Figure 20 and Figure 21. The cash flows are shown in Figure 22 and Figure 23.

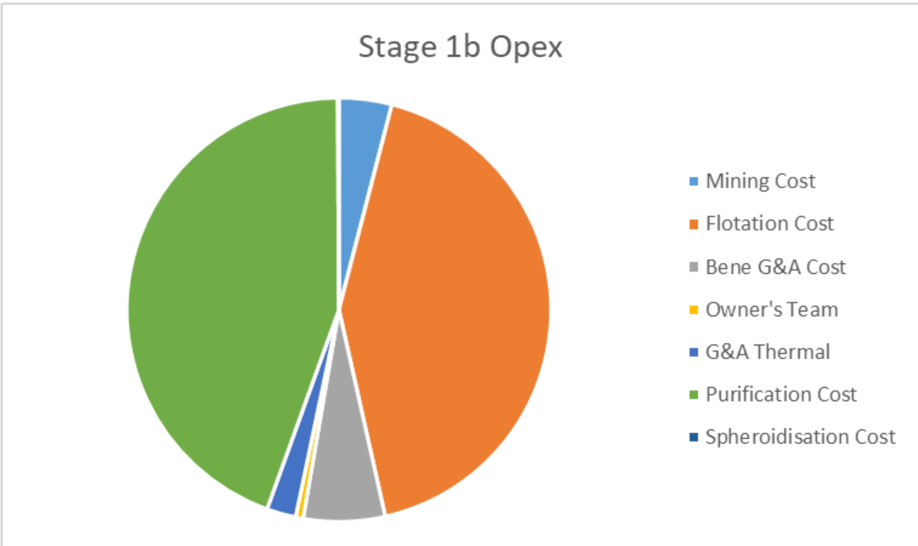


Figure 20 - Stage 1b Opex breakdown by activity

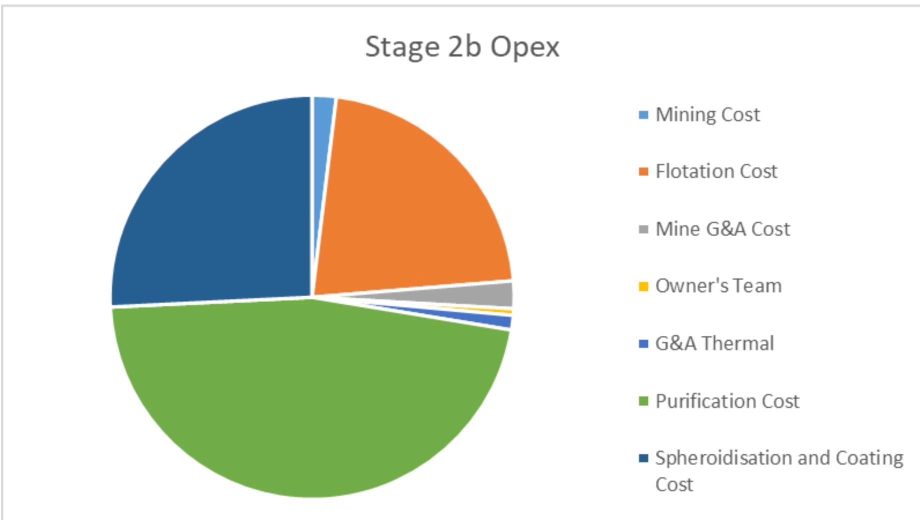


Figure 21 - Stage 2b Opex breakdown by activity

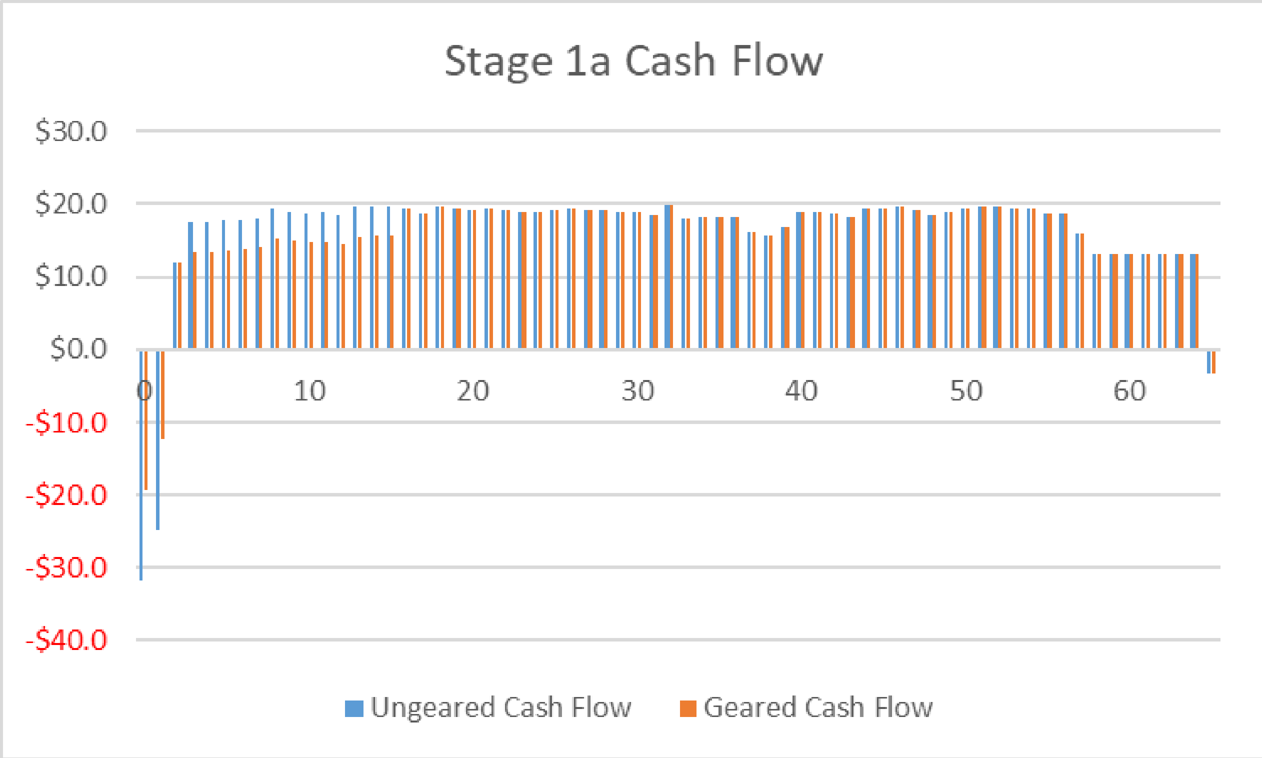


Figure 22 - Stage 1a cash flow with and without gearing

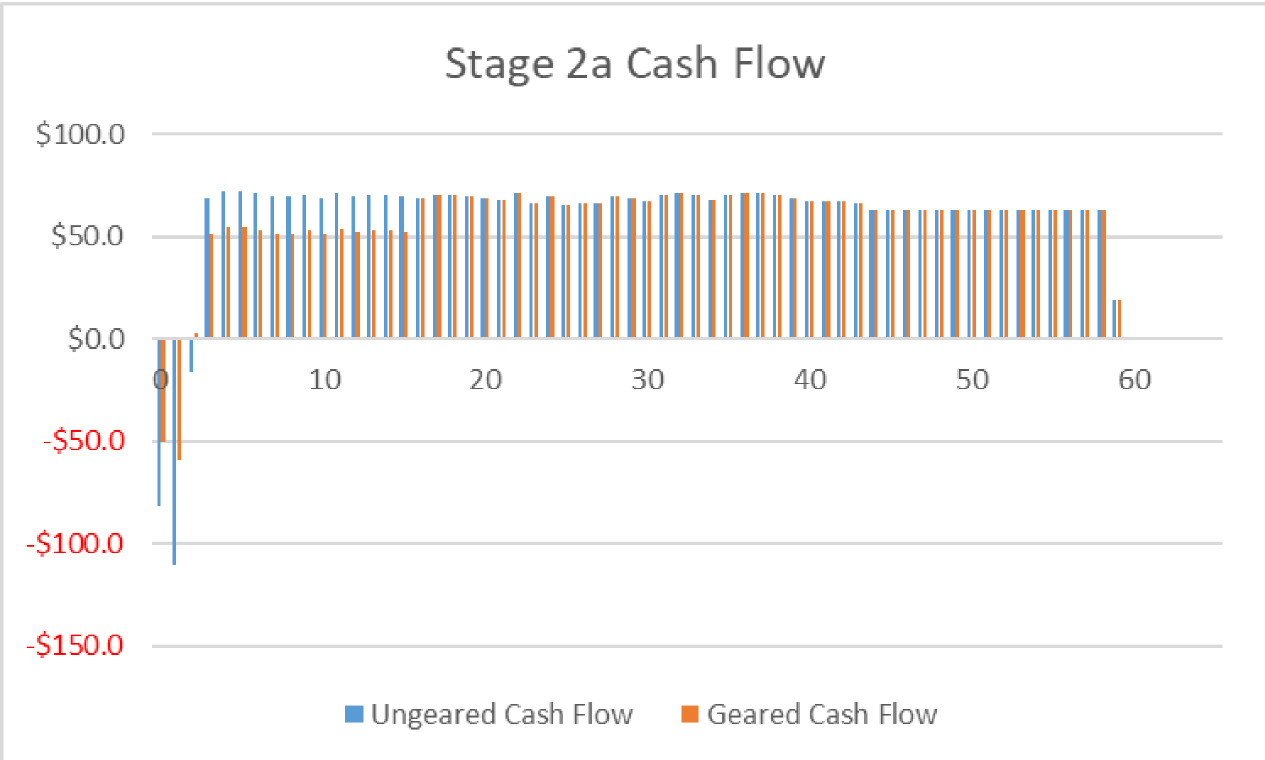


Figure 23 - Stage 2a cash flow with and without gearing

Sensitivity analysis at +/- 20% was conducted on the key variables: capex, opex, revenue and discount rate (Figure 24). The project is not sensitive to foreign exchange rate as all costs and revenues are estimated is US dollars.

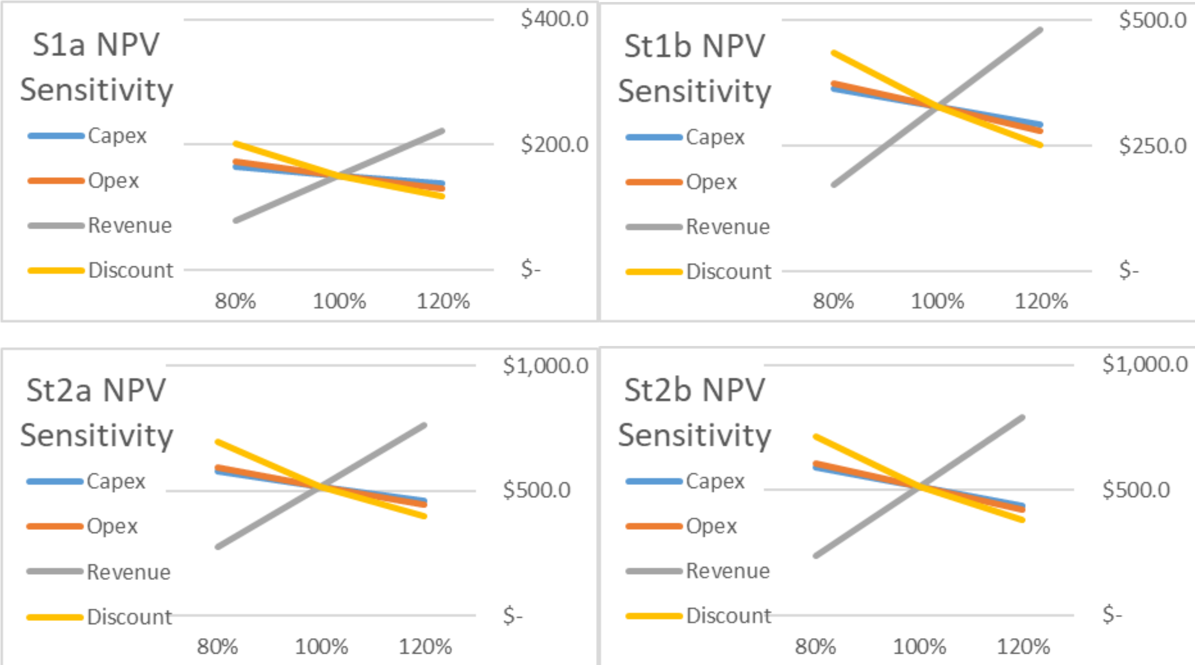


Figure 24 - Sensitivity Analysis

Project Funding

The financial model summarised in the PFS sets out the project metrics and provides a basis for the development of the project. Total capital expenditure is estimated at approximately US$62 - $344 million (Stages 1a – 2b).

The Company anticipates that the source of funding the capital investment at the Sarytogan Graphite project will be any one, or a combination of, equity, debt and pre-paid offtake from the project. Whilst no final decision has been made in that regard, the financial model assumes a maximum 40% of the initial capital to be funded with debt with principle repayments and 10% interest payments over a 15 year term.

The Company has received a number of enquiries and expressions of interest from debt financiers for the project. As noted above, the financial model provides for debt capacity and is designed to meet the expectations of any providers of potential debt funding for their due diligence and other internal requirements.

The balance of the Company's capital requirements will be funded from equity capital.

In addition, SGA has also received enquiries and expressions of interest from organisations for marketing graphite products from the project

Given the number of inbound inquiries and test work on products capable of production, the Company has a reasonable basis to believe binding offtake agreements will be entered into in the future. However, there can be no certainty that one or more binding agreements will be reached or that any conditions precedent to any such binding agreements will be satisfied.

Whilst the envisaged project development requires a low capital intensity Sarytogan has not as yet secured the required capital. The positive financial metrics of the PFS and feedback from potential funding partners provides encouragement as to the likelihood of meeting optimum project and corporate capital requirements.

Next Steps

With the recently announced planned A$5M placement with the European Bank for Reconstruction and Development, the Company is well placed to drive the project forward. Early works has already commenced for the Definitive Feasibility Study (DFS) that will include:

- Further optimisation of the study – for example coating all the USPG in Stage 2b to achieve higher prices available for CSPG.
- Environmental permitting and progress towards grant of the mining licence.
- Further metallurgical variability testing for different ore samples from a range of depths and grades across the deposit.
- Trial mining of a 20t ore sample for bulk comminution tests and generation of significant qualities of sample for customer qualification.
- Product marketing discussions.

This announcement is authorised by:

The Board of Directors

For further information contact:

Sean Gregory

Managing Director

admin@sarytogangraphite.com

Competent Persons' Statements

The information that relates to the mining aspects of the Ore Reserves is based on mine planning studies supervised by Frank Blanchfield. Information supplied by Sarytogan relating to infrastructure, Kazakh local mining costs, environmental, permitting, tails and waste management, social licence studies, marketing and financial analyses were reviewed by Mr Blanchfield and used for his assessment as suitable for Modifying Factors for the Sarytogan Ore Reserve. Mr Blanchfield is an employee of Snowden Optiro and is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Blanchfield 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 JORC Code (2012).

The information in this announcement that relates to Ore Reserves (metallurgy and metallurgical Modifying Factors for testwork sample selection, testwork performed , and suitable process plant feed grades and recovery assumptions) is based on information and supporting documents, compiled by Peter Adamini who supervised the evaluation of these metallurgical Modifying Factors and is a full-time employee of Independent Metallurgical Operations Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. Mr Adamini 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 JORC Code (2012).

The information in this announcement that relates to Ore Reserves (metallurgy and metallurgical Modifying Factors for process design criteria, process flow chart, process operating costs and industrial mineral product conformance to marketable products assumptions) is based on information and supporting documents, compiled by Mark Roberts who supervised the evaluation of the metallurgical Modifying Factors and is a full-time employee of GR Engineering Services Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Roberts 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 JORC Code (2012).

The information in this announcement that relates to Ore Reserves (Capital Costs) is based on information and supporting documents, compiled by Peter Allen who supervised the evaluation of the metallurgical Modifying Factors and is a full-time employee of GR Engineering Services Ltd and is a Chartered Professional (Metallurgy) and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Allen 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 JORC Code (2012).

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 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.	Channel samples were taken along the floor, the length of the samples varies depending on lithology sampled, from 1 to 2 m, rarely less than 1 m or greater than 2 to 4 m. The cross section of channels was 3 cm x 5 cm. The average sample length is 1.7 m. The length of the sample taken was 1–1.5 m in graphite schists and graphitised siltstones, in some cases up to 3 m for the areas of shallow dipping of graphite units (10–15 °), and up to 4 m in the host rocks. All historical drill holes were whole core sampled at an average length of 1.6 m. In recent drilling (post 2019) half core was sampled. Sample length within graphitic rocks is primarily 2 m or less depending on the lithology.
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).	From 1985 through 1987, trenches were blasted and then excavated by using a one-bucket excavator and partially cleaned manually. The depth of the trenches is from 0.5 to 3.3 m, with an average depth of 1.7-1.8 m. The width is 0.8 m. After the logging and sampling, all trenches were filled up. From 1985 through 1987, drill holes were drilled vertically with a UKB-500 drill rig. Pre-drilling was carried out with carbide crowns with a diameter of 98 and 112 mm with subsequent transition to diamond drilling with a diameter of 59 and 76 mm. In 2019-22, 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.

Criteria	JORC Code explanation	Commentary
		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 drill holes before 2022, downhole survey was carried using MIR-36/IEM-36 inclinometers with measurements every 20 m. During 2022, the tool was updated to a GIS-43 gyro inclinometer.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	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 for historical drilling and post-2019 drilling are 90% and 98% respectively. 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 relevant intersections logged.	In 1985-87 all logging was recorded on paper using special drilling journals. 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

Criteria	JORC Code explanation	Commentary
		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
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.	All historical drill holes were whole core sampled. At the initial stage of drilling, the length of core samples was equal to the drill run (taking into account the core recovery; with a high core recover, the sample length was 1–1.5 m; with poor recovery, all core of the drill run was taken up to 2 m, rarely up to 3 m). In some cases, samples were taken at 0.5 m (considering lithology). Average length is 1.6 m. 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.	From 1985 through 1987, all samples were sent to the Central Laboratory Regional laboratory (ЦКПГО) in Karaganda to perform partially spectral, X-ray structural, thermal analyses. When analysing for graphite, all samples were subjected to technical analysis: ash content, graphitic carbon content and humidity are analysed. In the determination of graphitic carbon, the presence of carbonate carbonates (CO_2) was taken into account. In 2019-22, 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

Criteria	JORC Code explanation	Commentary
		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 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. 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.	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.

Criteria	JORC Code explanation	Commentary
		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. Downhole survey was carried out with MIR-36/IEM-36 and gyro tools. 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 100-250 m, and the depths of the drill holes varies between 60 and 255 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 3,200 m, a width of between 70 and 550 m, and a depth up to 240 m. The weighted average TGC for

Criteria	JORC Code explanation	Commentary
		drill holes is 32.42% (for 20% cut-off). The Central zone has a strike length of 3,200 m, a width of between 100 and 200 m on the flanks up to 450 m in the centre, and a depth up to 105 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 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 tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The exploration licence 1139-R-TPI (1139-Р-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 year to June 2025. The exploration concession covers 70 km2. There are no other mineral deposits and protected natural areas within the concession area.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Exploration done by other parties</td><td>Acknowledgment and appraisal of exploration by other parties.</td><td>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.</td></tr>
<tr><td>Geology</td><td>Deposit type, geological setting and style of mineralisation.</td><td>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.</td></tr>
<tr><td>Drill hole Information</td><td>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:

easting and northing of the drill hole collar
elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
dip and azimuth of the hole
down hole length and interception depth
hole length.

If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly</td><td>
<table>
<tr><th>Category</th><th>Historical Trench</th><th>Historical Drill holes</th><th>Recent Drill holes</th><th>Total</th></tr>
<tr><td>Workings/drill holes</td><td>28</td><td>13</td><td>105</td><td>146</td></tr>
<tr><td>Metres driven/drilled</td><td>4,966.5</td><td>1,304</td><td>8,548</td><td>14,819</td></tr>
<tr><td>Trace/survey records</td><td>111</td><td>26</td><td>756</td><td>893</td></tr>
<tr><td>Assay intervals</td><td>2,853</td><td>761</td><td>4,406</td><td>8,020</td></tr>
<tr><td>Assay intervals (in metres)</td><td>4,484</td><td>1,280</td><td>8,532</td><td>14,296</td></tr>
<tr><td>Including:</td><td></td><td></td><td></td><td></td></tr>
<tr><td>TGC – Empty value</td><td>6</td><td>61 – n/a</td><td>0</td><td>67</td></tr>
</table>
</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	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 metal equivalent values should be clearly stated.	Exploration results are not being reported
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. 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').	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	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.	Exploration results are not being 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	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

Criteria	JORC Code explanation	Commentary
	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	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.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	Data used in the Mineral Resource estimate (MRE) is sourced from a database dump, provided in the form of Microsoft Excel files. Relevant tables from the files are imported into Micromine 2023 software for use in the MRE. These were validated in Micromine for inconsistencies, overlapping intervals, out of range values, and other important items. All data was visually checked.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Serik Urbisinov visited the project in August 2023 and completed checks of the drilling, sampling and QAQC processes employed.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	There is a reasonable level of confidence in the geological interpretation of mineralisation zones. Drill holes, trenches, and surface mapping have been used to assist the interpretation. Additional work is required to better define exact geometry and the extents of the interpreted mineralised zones in the areas of sparse drilling. Surface mapping of mineralised outcrop, drill hole/trench intercept logging and assay results have formed basis for the geological interpretation. The precise limits and geometry cannot be absolutely defined due to the

Criteria	JORC Code explanation	Commentary
		limitations of the current drill coverage. Further work is required to better define the geometry and limits of the mineralised zones, but no significant downside changes to the interpreted mineralised volume are anticipated. The grade and to a lesser degree lithological interpretation forms the basis for the modelling.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The currently interpreted mineralisation of the Sarytogan area extends for approximately 3.2m km for the North zone and 3.2 km for the Central zone along a 40° northeast strike. The zone extends from surface to 240 m depth below the surface in the North zone and 105 m depth below the surface in the Central zone.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g., Sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units.	Grade estimation was by Ordinary Kriging (OK) using Micromine 2023 software. The interpretation was extended perpendicular to the corresponding first and last interpreted cross section to the distance equal to a half distance between the adjacent exploration lines. If a mineralised envelope did not extend to the adjacent drill hole section, it was projected halfway to the next section and terminated. The general direction and dip of the envelopes was maintained. CSA Global previously estimated an Inferred MRE of 209Mt @ 28.5% TGC (Refer to Prospectus dated 23 February 2022, published on the ASX 14 July 2022). No assumptions were made regarding the recovery of by-products. No deleterious or non-grade variables were estimated. The block model was constructed using a 50 m E x 50 m N x 5 m RL parent block size, with sub-celling to 5 m E x 5 m N x 1 m RL for domain volume resolution. The parent cell size was chosen based on the general morphology of mineralised bodies and in order to avoid the generation of too large block models. The sub-celling size was chosen to maintain the resolution of the mineralised bodies. The sub-cells were optimised in the models where possible to form larger cells.
Estimation and modelling techniques (continued)	Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping.	Interpolation was conducted for the blocks that fell into the boundaries of the mineralisation. Interpolation for the Central and North zone was completed separately. Interpolation was also completed separately for each weathering state (weathered, fresh). To accommodate for the morphology of the mineralisation zone a

Criteria	JORC Code explanation	Commentary
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	dynamic search ellipsoid was used for the grade interpolation. No selective mining units were assumed in this estimate. No strong correlations were found between the grade variables. The OK estimate was completed concurrently with two check IDW estimates. The OK estimate used the parameters obtained from the modelled variograms. The results of the check estimates correlate well. Validation of the block model consisted of comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with assay data trends. Additionally, swath plots were generated to verify block model grades vs drillhole/trench grades along easting, northing and elevation slices.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnages are estimated on a dry basis
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Statistical analysis showed natural breaks in the graphite grade population distribution at approximately 17% which formed the basis for the decision regarding determination of mineralisation envelope cut-off grade. The Mineral Resource was then reported at 15% TGC cut-off.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	At this stage of resource development, it is assumed that mining would be by open pit methods. A pit optimisation was carried out to demonstrate the economic potential of the Project which is required for model classification and to justify the reporting cut-off grade. The Sarytogan deposit appears to have reasonable prospects of eventual economic extraction under a realistic set of criteria, and the reporting cut-off grade of 15% TGC is justified by the pit optimisation study.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of	The first processing step is to concentrate the graphite using grinding and flotation to a graphite purity of around **84% TGC**. This was first developed by Australian Laboratory Independent Metallurgical Operations Pty Ltd (IMO) and has since been replicated by German graphite experts Pro-Graphite GmbH (Pro-Graphite). The graphite concentrate was then purified by Pro-Graphite achieving the breakthrough graphite purity of **99.70% TGC** using either alkaline roasting or chemical purification independently. Combining both purification methods in series achieved

Criteria	JORC Code explanation	Commentary
	the metallurgical assumptions made.	**99.87% TGC** (Refer ASX:SGA Announcement 6 December 2022). TGC grades in metallurgical testwork have been determined by Loss on Ignition at 1,000oC. Historical petrographic and metallurgical studies on the project are also available to review in the Prospectus dated 23 February 2022 and published at asx.com.au on 14 July 2022.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No detailed assumption regarding possible waste and process residue disposal options have been made at this stage.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size, and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	A total of 133 samples were sent for the bulk density measurements. The bulk density was measured using the conventional water immersion technique. A bulk density value of 2.40 t/m^3 was assigned to each block of the block model.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values,	The Mineral Resource was classified as Indicated and Inferred, accounting for the level of geological understanding of the deposit, quality of samples, density data, drillhole spacing and sampling, analytical and metallurgical processes. Material classified as Indicated was considered sufficiently informed by adequately detailed and reliable geological and sampling

Criteria	JORC Code explanation	Commentary
	quality, quantity, and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	data to assume geological, grade and quality continuity between data points. Material classified as Inferred was considered sufficiently informed by geological and sampling data to imply geological, grade and quality continuity between data points. • In general, Mineral Resource was classed as Indicated for model cells that were within two of semi-variogram ranges and in the areas of the drilling where the drillhole density was reduced to line spacing approximately 150-200 m and hole spacing to 50–100 m. • The Mineral Resource was classed as Inferred for model cells that were over two of semi-variogram ranges and in the areas where the drillhole density exceeded the 200 m x 100 m grid. The classification reflects the level of data available for the estimate, including input drillhole data spacing, and high level of confidence in geological continuity for this particular style of deposit.
Audits or reviews.	The results of any audits or reviews of Mineral Resource estimates.	Internal audits were completed by AMC which verified the technical inputs, methodology, parameters, and results of the estimate.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The MRE has been classified in accordance with the JORC Code using a qualitative approach. All factors that been considered have been adequately communicated in Section 1 and Section 3 of this table. The statement refers to global estimation of tonnes and grade.

Section 4 Estimation and Reporting of Ore Reserves

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

Criteria	JORC Guidelines	Commentary
Mineral Resource for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Resource model (Sarytogan_Model_OK_Micromine.DAT) was generated using Micromine software by AMC Consultants (AMC) in July 2023 and is the subject of the July 2023 Mineral Resource estimate. AMC considered that the resource tonnes and grade estimates accounted sufficiently for dilution, and this is supported by the Ore Reserves Competent Person. Mineral Resources are inclusive of Ore Reserves. Sarytogan Mineral Resource reporting is at a 15% total graphitic carbon (TGC) cut-off. Pursuant with Clause 49 of the JORC Code (2012 Edition), AMC concluded that the marketing analysis is sufficient to support the Indicated Mineral Resources at Sarytogan. This was based on SGA's consideration that microcrystalline graphite with a TGC >80% in concentrate is marketable, as confirmed by their Graphite Marketing Analyst, Lone Star Tech Minerals USA (LSTM). Subsequently, many other value-added products have been generated and tested.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Site visits were completed by the following Competent Person: **Competent Person** / **Items** / **Date of site visit** Frank Blanchfield / Mining / September 2023 No metallurgy Competent Person site visit was undertaken as there is no plant or infrastructure to inspect at site.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Prefeasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The Sarytogan Graphite Project is currently at Prefeasibility Study (PFS) level with the completion of this 2024 PFS.

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr><td>Cut-off parameters</td><td>The basis of the cut-off grade(s) or quality parameters applied.</td><td>Whittle™ software applied an economic cut-off grade to each ore parcel it encounters to determine if the parcel is profitable to process or should be directed to a waste dump. The parcel 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% contributing.</td></tr>
<tr><td>Mining factors and assumptions</td><td>The method and assumptions used as reported in the Prefeasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).

The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.

The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.

The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).

The mining dilution factors used.

The mining recovery factors used.

Any minimum mining widths used.

The manner in which Inferred Mineral Resources are utilised in</td><td>Snowden Optiro completed a mining study for this PFS for an independent conversion of the Mineral Resource into a maiden Ore Reserve.

The pit optimisation used nominal pricing of US$500/t for the microcrystalline graphite (80–85% carbon (C)), lower than the expected market pricing in the PFS of approximately US$750/t to US$800/t.

A pit shell was selected for design as sufficient to provide 60 years of ore at the planned production rate.

This was followed by detailed pit design and production scheduling. Mine equipment requirements were determined using a local Kazakhstan mining contractor, who provided pricing using the Snowden Optiro mine production schedule as a basis.

Selective open pit mining using free dig with or without a dozer rip and drill and blast of 73% of ore (all oxide, transition, fresh), with load and haul mining cycle is used for mining activities.

Snowden Optiro completed a geotechnical analysis, including assessments of eight geotechnical diamond drillholes, to recommended pit slope design parameters for Sarytogan for 80 m deep pits, as summarised below.

<table>
<tr><th>Parameter</th><th>Unit</th><th>Upper</th><th>Transition</th><th>Lower</th></tr>
<tr><td>Batter angle</td><td>°</td><td>60</td><td>70</td><td>80</td></tr>
<tr><td>Batter height</td><td>vertical m</td><td>5</td><td>10</td><td>10</td></tr>
<tr><td>Berm width</td><td>m</td><td>4.0</td><td>4.7</td><td>4.7</td></tr>
<tr><td>Inter-ramp slope (toe to toe, no ramp)</td><td>°</td><td>36.0</td><td>50.2</td><td>57.1</td></tr>
</table>
Grade control is forecasted for sampling on a 5.0 m x 4.0 m x 2.5 m pattern, either in blastholes or channels if no blasting, with one sample representing 50 bcm. The orebody consists of shallow to moderately dipping massive lodes which using small mobile plant on a selective basis if required. However, the low mining rate required and lack of blasting will assist selectivity on 2.5 m flitches within the central and north ore zones to minimise dilution and 5.0 m benches in waste zones.

The resource model used is named “Sarytogan_Model_OK_Micromine.DAT”, generated by AMC in 2023, and is the subject of the July 2023 Mineral Resource estimate.</td></tr>
</table>

Criteria	JORC Guidelines	Commentary
	mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	No additional dilution or ore loss was applied based on AMC's conclusion that the parent cell size considered ore loss and dilution and that the ore will be blasted with a low powder factor or free dig. The minimum mining width is 20 m. No in-pit Inferred Mineral Resources were used to quantify Ore Reserves.

Metallurgical factors and assumptions	The metallurgical process proposed and the appropriateness of that process to the style of factors or mineralisation.
	
	Whether the metallurgical process is well-tested technology or novel in nature.
	
	The nature, amount and representativeness of metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
	
	Any assumptions or allowances made for deleterious elements.
	
	The existence of any bulk sample or pilot-scale testwork and the degree to which such samples are considered representative of the orebody as a whole.
	
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications.
		The metallurgical testwork to support the PFS was pulled together by Independent Metallurgical Operations Pty Ltd (IMO).
		
		Comminution testwork at Metallurgy Pty Ltd concluded the ore to be soft.
		
		Beneficiation process development testwork at Metallurgy Pty Ltd produced a fine graphite concentrate at 80–85% C by flotation. This has since been replicated by Pro-Graphite GmbH (Pro-Graphite) and Anzaplan in Germany.
		
		Chemical purification at Pro-Graphite fell short of the 99.95% C specification for battery uses at 99.87% C. Attention then turned to thermal purification, initially at Thermal Materials Engineering Centre (TMEC) in the Ukraine and then at American Energy Technology Centre (AETC) in USA.
		
		TMEC achieved 99.99% C on a 50 g sample of chemically treated 99.7% C.
		
		AETC achieved five Nines Purity (99.999% C) via their thermal purification process.
		
		Production of a Bulk Flotation Concentrate of 20 kg at 81.4% C and 83.8% C recovery allowed for the downstream work to be scaled up. AETC produced 2 kg at five nines purity (>99.999% C) by thermal purification. Importantly this was completed on flotation concentrate without any chemical pre-treatment. An internal conceptual economic assessment favoured the thermal option. The thermal flowsheet was therefore adopted for the PFS in preference to the chemical flowsheet.
		
		The thermal flowsheet considers completing spheronisation after purification (rather than before as is typical). This resulted in producing a fine product of ultra-high purity that can be sold for higher prices than the spheronised product.
		
		Sarytogan Graphite can be used for at least three proposed product groups, which was demonstrated with testwork at AETC:
		
		• Microcrystalline Graphite at 80–85% C (Flotation Concentrate)
		  – Micro-Crystalline Industrial Uses, 22 May 2024.
		• Ultra-High Purity Fines
		  – Cathode Conductivity Enhancer, 11 April 2024
		  – Nuclear Specification Confirmed, 14 May 2024
		  – Lead Acid Battery Anodes, 17 June 2024.

Criteria	JORC Guidelines	Commentary
		• Spherical Purified Graphite (Coated and Uncoated) – Li-ion Battery Endurance, 20 May 2024 – High Performing CSPG Battery Anodes, 11 June 2024. The flotation methods applied are industry standard repeated grinding and flotation steps, with the most challenging aspect being the ultra-fine size of the material. Variants of the thermal purification method are an established industrial process used by companies; however, the process does involve significant technical expertise that will be critical to the successful implementation of the method. The spheronisation method is well established in China. However, the method employed at Sarytogan involves finer flake sizes that form spheres by agglomeration of many smaller particles rather than bending larger particles to wrap around each other. The Sarytogan product has been tested and the products have performed very well in long cycle lithium-ion battery tests conducted by AETC. The coating of the spherical purified graphite involves significant technical expertise and further optimisation of the coating reagents and thicknesses with be undertaken.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste drums should be reported.	In 2022, Kazkh lawyers Erlicon CG LLP completed an independent legal review of Exploration Licence Contract No. 5406-ТПИ. They found the contract to be in good standing and current to June 2025. Ushtogan applied for a Mining Licence in April 2022, and received notification that the Mining Licence will be granted when an environmental permit is issued. A draft environmental impact statement has been lodged, and public hearings held. SRK Consulting Kazakhstan completed a review of the permitting process in June 2024 and concluded the current project permits are in good standing and the project has a pathway towards obtaining the approvals needed to proceed with mining.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	The infrastructure for the project is available locally and will be supplemented by additional works included in the PFS being: • Water will be abstracted from the shallow alluvial groundwater resources associated with the Sherubainura River, 15 km northwest of the site and pumped to site via a new buried high-density polyethylene (HDPE) pipeline. • New 35 kV powerlines and substations will connect the mine to the national power grid 15 km from the site. • The downstream plant will be located adjacent to an existing 50 MW solar farm and Kazakhstan's main 500 kV power corridor, appropriately stepped down for use.

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>

A 60-person self-contained accommodation village will be constructed at the mine.
The downstream workforce will reside in the town of Akadyr.
The sealed road to the site is maintained by the local shire. A 6 km formed all-weather road will be constructed into the mine.
Reagents will arrive by truck and concentrate will depart the site on truck. Some concentrate will go to the downstream plant for value-add and some will be directly packed into 25 kg sacks and 1-tonne bulka bags inside sea containers to be loaded on trains at the town of Akadyr.
A satellite based Starlink communication system will be provided for the process plant site.
A sewerage treatment plant will be provided as part of the process plant wastewater treatment.

</td></tr>
<tr><td>Costs</td><td>
The derivation of, or assumptions made, regarding projected capital costs in the study.
The methodology used to estimate operating costs.
Allowances made for the content of deleterious elements.
The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.
The source of exchange rates used in the study.
Derivation of transportation charges.
The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.
The allowances made or royalties payable, both government and private.
</td><td>
Mining costs were sourced by quotation to Sarytogan from Mining Transport Company Limited Partnership in June 2024.
Processing operating costs and capital costs were estimated by GR Engineering Services Ltd in August 2024.
The capital costs for the processing plants were estimated based on reputable vendor quotes for the study and from the GR Engineering Services Ltd database or recent submissions.
The capital costs for the new 35 kV powerlines and substations and the accommodation village were sourced by quotation to Sarytogan from local providers.
Operating costs
<table>
<tr><th colspan="5">Operating cost summary – Stage 2a LOM Upstream</th></tr>
<tr><td>Mt</td><td>LOM</td><td>10.284</td><td>8.587</td><td>2.654</td></tr>
<tr><td></td><td>US$ M</td><td>US$/t mined</td><td>US$/t ore</td><td>US$/t conc.</td></tr>
<tr><td>Mining</td><td>$43.44</td><td>$4.22</td><td>$5.06</td><td>$16.36</td></tr>
<tr><td>Beneficiation</td><td>$490.97</td><td>$47.74</td><td>$57.18</td><td>$184.98</td></tr>
<tr><td>G&A</td><td>$49.92</td><td>$4.85</td><td>$5.81</td><td>$18.81</td></tr>
<tr><td>Owner's Team</td><td>$6.60</td><td>$0.64</td><td>$0.77</td><td>$2.49</td></tr>
<tr><td>Royalties</td><td>$140.61</td><td>$13.67</td><td>$16.38</td><td>$52.98</td></tr>
<tr><td>Total</td><td>$731.54</td><td>$71.14</td><td>$85.19</td><td>$275.62</td></tr>
</table>
</td></tr>
</table>

Criteria	JORC Guidelines	Commentary

Operating cost summary – Stage 2a LOM Downstream

Mt	LOM	1.116	1.052
	US$ M	US$/t ThFeed	US$/t UHPF
Purification	$1,183.72	$1,061.06	$1,125.56
G&A	$26.20	$23.48	$24.91
Total	$1,209.92	$1,084.54	$1,150.47

Capital costs

	Stage 1a ($ M)	Stage 1b ($ M)	Stage 2a ($ M)	Stage 2b ($ M)	Plant total ($ M)
Tailings establishment	$6.7				$6.7
Beneficiation plant	$55.6	-	-	-	$55.6
Thermal plant	-	$97.0	$96.7	-	$193.7
Spheronising and coating plant	-	-	-	$88.3	$88.3
Total	$62.3	$97.0	$96.7	$88.3	$344.3

The capital costs have a Q2 2024 base with a nominal accuracy of ±25% are inclusive of EPCM costs, indirect costs, first fills and spares, freight, and engineers growth contingency of 15% (10.0% on material, 5.0% on installation) for the beneficiation plant and 22.5% (12.5% on material, 10.0% on installation) for the downstream plant.

All costs and revenue in the study are in US dollars.

Provision has been made for 6.5% royalties on revenues from sales of concentrates. This comprises 3.5% due to Kazakhstan, and 3.0% due to the previous vendor of the project.

Transportation charges to the train loading facilities in the town of Akadyr are included and based on as assumed 7 c/t/km.

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr><td>Revenue factors</td><td>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.

The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</td><td>The product pricing assumptions are based off intelligence of price and volumes of actual graphite products traded in the market and a comprehensive assessment of market segments by use, geographical region, and competitor analysis. The prices are all assessed on a Free-on-Board Train (FOB Train) basis at the town of Akadyr as is the norm in the graphite industry.

The weighted average prices applied for each product group are as follows:

<table>
<tr><th>Products</th><th>Range of prices per segment (US$/t)</th><th colspan="4">10-year weighted average</th></tr>
<tr><th></th><th></th><th>Stage 1a</th><th>Stage 1b</th><th>Stage 2a</th><th>Stage 2b</th></tr>
<tr><td>Micro80C</td><td>400–850</td><td>747</td><td>746</td><td>791</td><td>791</td></tr>
<tr><td>UHPF</td><td>3,000–12,000</td><td>-</td><td>5,577</td><td>4,468</td><td>5,020</td></tr>
<tr><td>USPG</td><td colspan="5">US$2,500/t</td></tr>
<tr><td>CSPG</td><td colspan="5">US$8,000/t</td></tr>
</table>

All costs and revenues in the PFS are quoted in US dollars and the project is not explicitly sensitive to foreign exchange rates.</td></tr>
<tr><td>Market assessment</td><td>The demand, supply and stock situation for the particular commodity, consumption trends assessment and factors likely to affect supply and demand into the future.

A customer and competitor analysis along with the identification of likely market windows for the product.

Price and volume forecasts and the basis for these forecasts.

For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</td><td>Overall, the graphite market is presently experiencing rapid growth with the market set to double from 3.6 Mtpa in 2020 to 8.2 Mtpa in 2030, with continued growth to more than 10 Mt in the 2040s. This is driven largely by battery uses growing from 19% in 2020 to 54% in 2030. Much of the battery growth is being taken up by synthetic graphite from China, however, natural graphite offers a compelling alternative for economic and environmental reasons.

Despite these drivers of growth, the established traditional markets also offer an opportunity for Sarytogan Graphite to enter.

The PFS considers three different concentrate/products, subject to different marketing specifications:

• Micro-crystalline Graphite into the traditional graphite market (concentrate >80% TGC), split into three size fractions, nominally 5 µm,10 µm and 15 µm (D90).

• Uncoated and Coated Spheroidal Purified Graphite product (USPG and CSPG), suitable for lithium-ion battery anodes (>99.95% TGC), split into three size fractions, nominally 10 µm, 15 µm and 20 µm (D50).

• Ultra-High Purity Fines product (UHPF), suitable for use in alkaline, lead-acid, and lithium primary batteries as well as the nuclear industry (three nines to five nines purity), split into three size fractions, nominally 5 µm, 10 µm and 15 µm (D90).</td></tr>
</table>

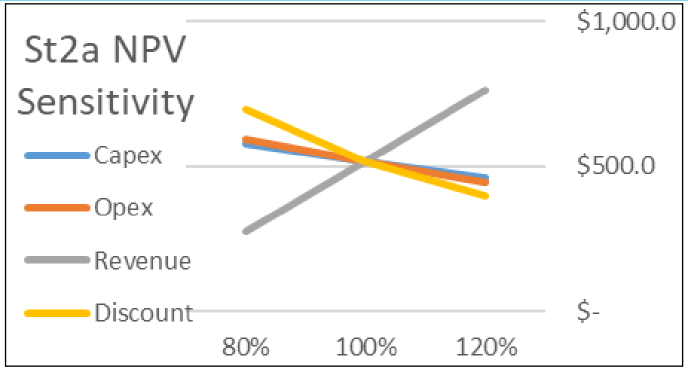
Criteria	JORC Guidelines	Commentary
		The Micro-crystalline 80% C products are planned be sold into traditional markets including for use as lubricants, friction products, battery pre-cursors, drilling fluids and foundry uses. Many of these markets are typified by small consignment sizes and slow market penetration based on the actual performance of the products at a commercial scale. As such, a ramp-up plan to approximately 30 ktpa for the preferred Stage 2a development is scheduled over three years. This scenario considers that the other 20 ktpa flotation concentrate will be utilised in downstream thermal purification. For some scenarios modelled without the investment in downstream purification (i.e. Stage 1a), the ramp up of the Micro-crystalline 80% products is modelled at a slower rate over eight years and the full 50 ktpa nameplate capacity is assumed to be under-utilised. The UHPF product has been demonstrated by testwork as suitable for use as the anode in lead acid batteries, as a cathode conductivity enhancer in alkaline batteries and lithium primary (non-rechargeable batteries). It has also been shown to meet the Equivalent Boron Content (EBC) for the nuclear industry – 1.1 ppm vs standards set out by the American Society for Testing and Materials (ASTM, 2 ppm) and the standard practice of the nuclear industry (3 ppm). Although the tonnages for the nuclear industry are only assumed at ramping up to 400 tpa at conservative pricing of US$12,000/t, commensurate with the long qualification process for this market. The qualification for the UHPF battery market is expected to be far quicker and a ramp up to supply this market 18 ktpa is modelled to occur over three years. The UHPF is envisaged to be classified into three sizes (d90 15 µm, 10 µm and 5 µm). Stages 1b and 2a include pilot spheronisation with 20 tpa to be sold as USPG for product development purposes. The Stage 2b expansion contemplates 3 ktpa of USPG and 4 ktpa of CSPG. There are currently no offtake agreements in place for any of the proposed products and this will be addressed in the next phase of study with the manufacture of customer samples to continue the customer qualification process.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Sarytogan developed a project cash flow model for the 60–65-year project cases. Financial modelling was completed by Sarytogan. Snowden Optiro is reliant on the product price projections advised by Sarytogan. Snowden Optiro is not expert in the forecasting of commodity prices, and other than to draw attention to the sensitivity of the project to these projections, is not able to comment on the risk that these projections will change over time. However, it is noted Sarytogan has taken into consideration data from the leading industry body for the graphite market – LSTM.
		The production targets are based on 100% Probable Ore Reserves. The key parameters and financial outcomes for the PFS are set out below (preferred production case in bold):

Criteria	JORC Guidelines	Commentary

Summary of key parameters from PFS financial model

Parameter	Unit	Stage 1a	Stage 1b	Stage 2a	Stage 2b
Life of mine (LOM)	years	65	60	60	60
LOM ore mined	kt	8,587			
LOM waste mined	kt	1,697			
LOM strip ratio	waste:ore	0.20			
Plant feed rate	ktpa	150			
Average TGC head grade	% TGC	30.0%			
Average TGC recovery (overall)	% TGC	83.8			
Nominal concentrate production (LOM)	ktpa	43.75	50	up to 55	up to 55
Incremental plant and infrastructure initial capital cost (including contingency)	US$ M	$55.6	$96.4	$94.7	$78.6
Tailings initial capex	US$ M	$6.7			
Steady state operating costs pa (Year 6)	US$ M	$8.9	$19.6	$32.4	$40.3
LOM EBITDA	US$ M	$1,198	$2,489	$4,025	$4,616
LOM EBITDA margin	%	61%	66%	67%	66%
NPV (8% discount rate, pre-tax)	A$ M	$151	$327	$518	$514
IRR (pre-tax)	%	35%	33%	33%	25%

A sensitivity analysis on the pre-tax NPV for the preferred production case is provided below.

Criteria	JORC Guidelines	Commentary
		
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Consultation with key local stakeholders including local communities, neighbouring farm owners, government agencies has commenced and is ongoing. There is no Native Title in Kazakhstan.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	In-pit Indicated Mineral Resources were used as the basis of Probable Ore Reserve, estimated using the guidelines of the JORC Code (2012). The result of the classification reflects the Competent Persons view of the deposit. No Inferred Resources is included in the Ore Reserve estimate.
Other	The status of agreements with key stakeholders and matters leading to social licence to operate. To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	A compensation agreement has been made with the local farmer. US$240,000 will be paid by Sarytogan to the local farmer upon the grant of the Mining Lease which will require surrendering of the overlapping pastoral tenure. There are no offtake agreements in place at this stage.

Criteria	JORC Guidelines	Commentary
	Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements.	
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	There have not been external audits or reviews of the 2024 PFS. Mineral Resource estimate, pit optimisation, design and schedule as developed for the Sarytogan Prefeasibility Mining Study were reviewed internally by Snowden Optiro.
Relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The capital cost estimates in this study relating to mining, processing and cost performance are underpinned by a comprehensive PFS which has an assessed with global accuracy of +25% and -25%. Factors that could affect the accuracy of the Ore Reserve are related to the project risks assessed as "high". The Ore Reserve is supported by the current 2024 Sarytogan Graphite Project PFS report being compiled by Sarytogan. Snowden Optiro's opinion of the Ore Reserve is that the classification of Probable is reasonable, based on the PFS outcomes reviewed by the Competent Persons.

Criteria	JORC Guidelines	Commentary
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	