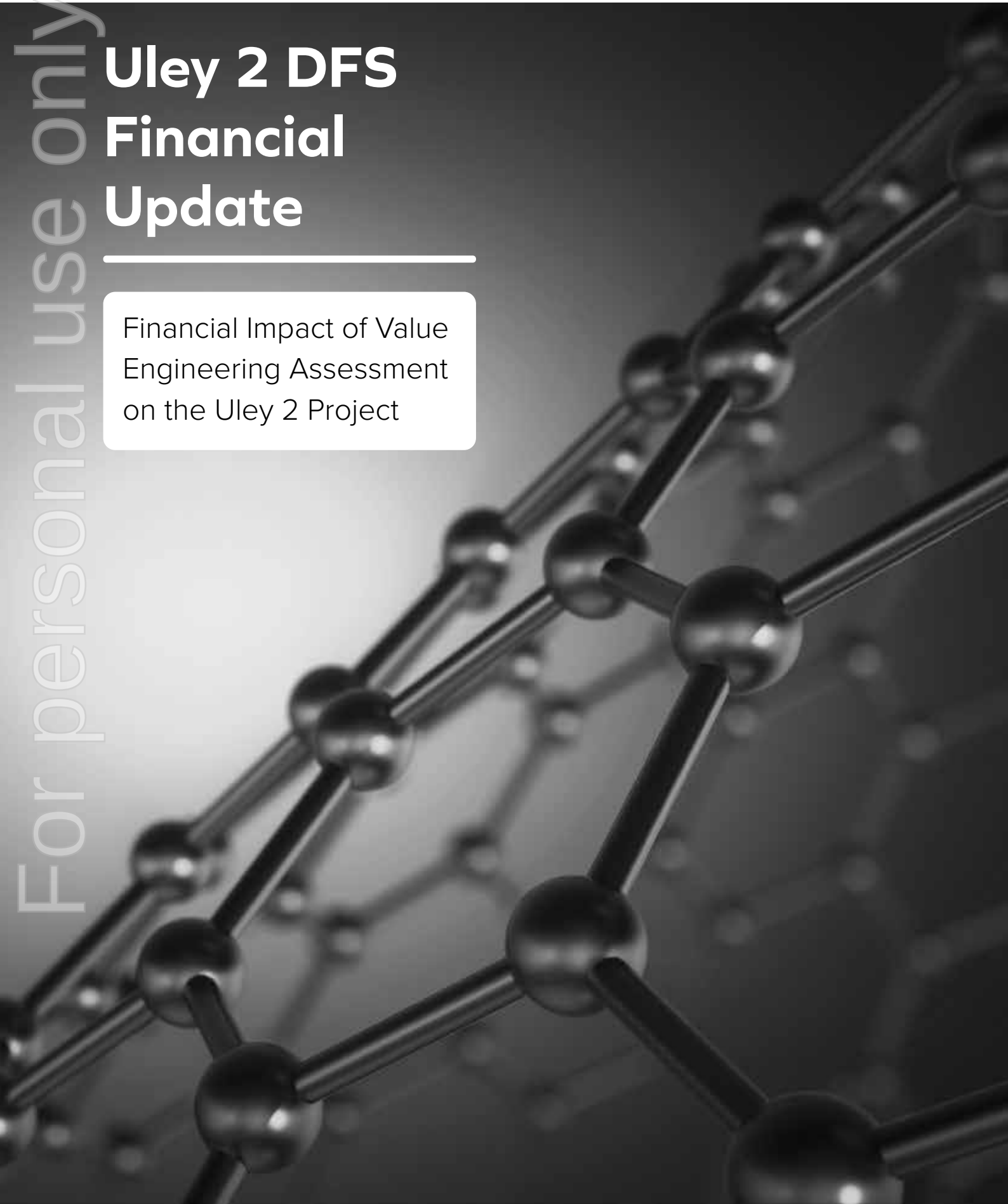
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Uley 2 DFS Financial Update

Financial Impact of Value Engineering Assessment on the Uley 2 Project



Glossary of Terms

dmt	Dry metric tonnes
DSU	Delay start up
gC	The graphitic carbon contained within flake graphite
HPG	High purity graphite with a graphitic carbon level of 99.99%
JORC 2012 Ore Reserve Estimate	ASX announcement 27 November 2019, *Mining Study and Ore Reserve Estimate*
JORC 2012 Mineral Resources Estimates	ASX announcement 15 July 2019, *Substantial Increase in Uley 2 JORC 2012 Mineral Resources* ASX announcement 18 November 2021, *Uley 3 Drill Program Results in a Maiden Mineral Resource Estimate*
JORC 2012 Metallurgical Testwork	ASX announcement 11 June 2019, Results of *Metallurgical Testwork*
pa	Per annum
MRI	MRI Trading AG, the offtaker of Uley 2 production. MRI is entitled to 100% of the 2019 DFS production level (up to 55,000 tonnes per annum) for 5 years
QGO	Quantum Graphite Operations Pty Ltd, the wholly owned subsidiary of the Company and owner and operator of Uley 2
Sunlands Energy Company	The Sunlands Energy Company Pty Ltd
Sunlands Power	Sunlands Power Pty Ltd, the incorporated joint venture between Quantum Graphite Limited and The Sunlands Energy Company Pty Ltd
tpa	Tonnes per annum
Uley 2	Uley 2 or the Uley 2 Project is the next stage of development of the greater Uley graphite resource province which is defined as a series of highly mineralised flake graphite envelopes including the historical Uley 1 and Uley 2, 3, 4, 5 and 6
VEA	Value Engineering Assessment undertaken by Lycopodium Minerals ASX Announcement 27 November 2023, *Uley 2 Engineering Assessment*



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Executive Summary

Following the release of the results of the VEA undertaken by Lycopodium Minerals, the Company has updated the 2019 DFS capital and operating costs (2023 Costs Estimate). The 2023 Costs Estimate was prepared on the basis of the maximum mill throughput of 1,200,000 tpa. This has the potential to increase production from 55,000 dmt pa to a maximum of 100,000 dmt pa.

The VEA was performed at a standard commensurate with a definitive feasibility study and the 2023 Costs Estimate was prepared and based on an EPCM contract execution strategy. The 2023 Costs Estimate is accurate to +/- 20% as at the end of Q2 2023 and a foreign exchange rate of US$1.00/ AU$1.54. In addition to the 2023 Costs Estimate, the Company updated the 2019 DFS basket price to US$1,225 per tonne. All other inputs to the 2019 DFS including the modifying factors forming part of the 2012 JORC Ore Reserve Estimate remain unchanged.

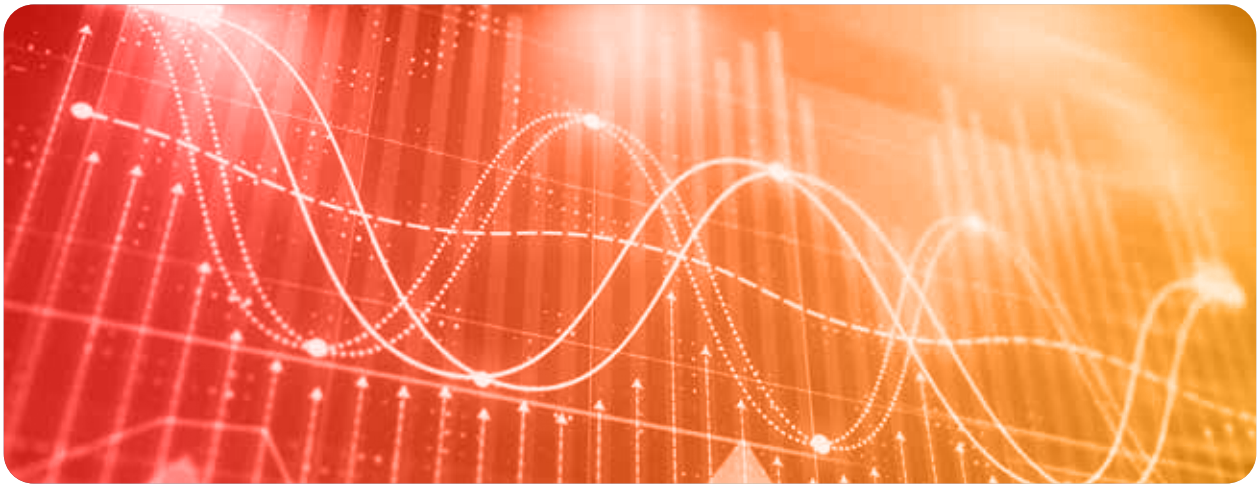
The economic and financial impact of the 2023 Costs Estimate and the updated basket price is summarised in Table 1.

Table 1: Key Economic and Financial Results

	Reserve Only	Resource
Revenue (AUD)	$715,802,265	$1,287,478,468
Revenue (USD)	$465,271,472	$836,861,004
Net Operation Cashflows	$538,390,461	$990,452,712
Net Present Value at 8.5%	$241,970,041	$497,623,220
Internal Rate of Return	41.17%	49.79%

These results are a significant improvement to the 2019 DFS and build on Uley 2's solid economics that continue to deliver materially lower quartile operating costs compared with comparable projects.

The Company expects further improvement in the economics of Uley 2 if it adopts the Sunlands Energy Company technology to produce High Purity Graphite (HPG) at 99.9% gC. This technology has been licensed to Sunlands Power. The decision to produce HPG will be the subject of further announcements before the end of 2023.



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The VEA relied on the Company's existing technical work product, i.e., the JORC 2012 Ore Reserve Estimate, the JORC 2012 Mineral Resources Estimates and the JORC 2012 Metallurgical Testwork.

Subject to the increase in crusher feed from 550,000 tpa to 1,200,000 tpa, the input parameters rely on this technical work and are summarised in Table 2.

Table 2: Economic and Financial Parameters

Crusher Feed (tpa)	1,200,000
Graphitic carbon grade	11.89%
Graphitic carbon recovery	84%
Concentrate purity (gC)	94%
Processing cost (PCAF)	A$236.05 per tonne (inclusive of admin)
Mining cost (MCAF)	A$2.5/t milled at surface pluc 5c for every 4m
Operating Costs	A$401.14 dmt (inclusive of drying & bagging)
Product price	US$1,225 dmt (ex-works)

The 2023 Costs Estimate has resulted in a decrease in the processing and overall operating costs due to the substantial efficiencies of scale achieved from the more than doubling of crusher throughout. Details of the 2023 Costs Estimate and its impact on the 2019 DFS are included in Section A. This section also includes a sensitivity analysis.

Details of the impact of the increase in the basket price of 33% from US$919 per dmt to US$1,225 per dmt are included in Section B.

Whilst the VEA relied on the JORC 2012 Ore Reserve Estimate (see Table 3), the Company's exploration plan targets a significant expansion of its mineral reserves and resources. Preparatory works required to finalise the design of the exploration plan have commenced and were detailed in the most recent Quarterly Report.



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Table 3: Ore Reserve Estimate at a 3.5% gC Cut-Off

Classification	Tonnes (kt)	Total gC (%)
Proved	811	11.66
Probable	3,191	11.95
Total	**4,003**	**11.89**

The exploration plan will unlock the significant upside resource potential within the greater Uley resource province, increase the existing Uley JORC 2012 Mineral Resource Estimate (see Table 4) and ensure a sustainable extension of the Uley 2 mine life beyond the existing projected LOM.

Details of the plan will be the subject of a further release once the Company receives and processes the geophysical data it will obtain from the drone survey scheduled for early December 2023.

Table 4: Uley JORC 2012 Mineral Resource Estimate

Resource	Classification	Tonnes (kt)	TGC (%)	Density (t/m^3)	TGC (kt)
Uley 3	Inferred	900	6.6	2.1	59
	Uley 3 Total	**900**	**6.6**	**2.1**	**59**
Uley 2	Measured	800	15.6	2.1	125
	Indicated	4,200	10.4	2.1	435
	Inferred	1,300	10.5	2.2	137
	Uley 2 Total	**6,300**	**11.1**	**2.1**	**697**
Uley Total	**TOTAL**	**7,200**	**10.5**	**2.1**	**757**



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Section A - Update of Capital Costs, Operating Costs and Sensitivity Analysis

The updated operating costs estimate is summarised in the table below.

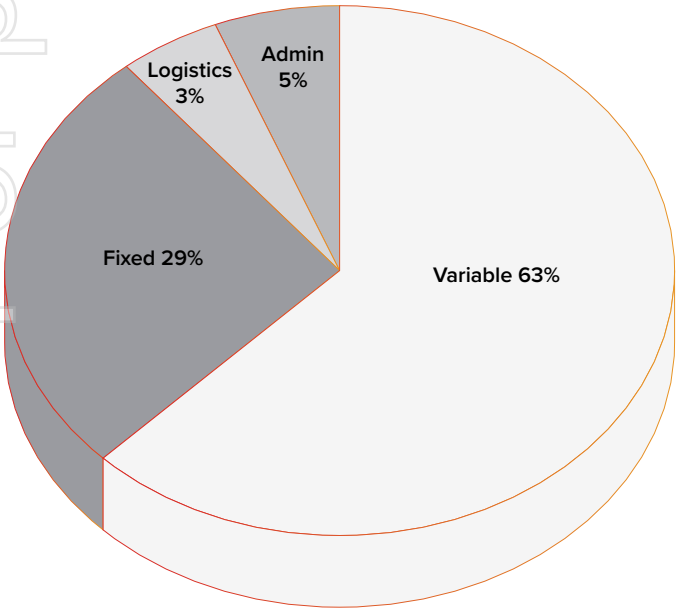
Table 5: Operating Costs

Cost Centre	Total Cost		Fixed Cost	Variable Cost
	(A$/y)	(A$/t)	(A$/y)	(A$/t)
Mobile Equipment	$548,592	$0.137	$344,592	$0.170
Labour Processing	$5,030,000	$4.192	$5,030,000	-
Operating Consumables	$10,524,849	$8.771	$720,849	$8.170
Power	$3,208,993	$2.674	$760,993	$2.040
Maintenance & Repairs	$1,365,420	$1.138	$945,420	$0.350
Laboratory	$1,154,120	$0.962	$722,120	$0.360
Subtotal – Processing	**$21,831,974**	**$17.873**	**$8,523,974**	**$11.090**
Labor - Admin/Mine Support	$2,035,000	$1.696	$2,035,000	-
General & Admin	$2,071,625	$1.726	$2,071,625	-
Subtotal Admin	**$4,106,625**	**$3.422**	**$4,106,625**	**-**
Estimated Total	**$25,938,599**	**$21.615**	**$12,630,599**	**$11.090**

The estimate for processing the graphitic ore is based on treating 1,200,000 tpa of ore to produce up to 100,000 dmt pa of Uley 2 products having the specification distribution in Table 7.

These costs do not include any contingency allowances and is exclusive of local and regional government rates and charges.

Figure 1: Operating costs breakup



The respective proportions of key operating costs are illustrated in Figure 1.

As a result of the efficiencies of scale from doubling ore throughout, the processing costs have decreased to 50.8% (cf. 71% 2019 DFS) of total costs.

Similarly, fixed costs as a share of processing costs have decreased to 35% (cf. 62% 2019 DFS).

Logistics (inclusive of packaging) is the only material exclusive variable cost centre. This cost per tonne of Uley product has remained substantially unchanged.

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The updated capital cost estimate for Uley 2 is summarised in Table 6.

Table 6: Capital Costs

Main Area	A$'000
Construction Distributables	6,174
Treatment Plant Costs	83,229
Reagents and Plant Services	6,593
Infrastructure	877
Management Costs	9,251
Owner's Project Costs	8,411
Owner's Operation Costs (Working Capital)	6,763
Subtotal	**138,932**
Contingency	13,773
Estimated Total	**152,705**

The 2023 Costs Estimate is commensurate with a definitive feasibility level study and prepared and based on an EPCM contract execution strategy.

An EPCM Engineer will be engaged to complete all detailed engineering for the process plant and infrastructure, as well as managing the procurement of all mechanical equipment, off-site fabrication and on-site installation works.

The 2023 Costs Estimate is accurate to +/-20% as at the end of the second quarter 2023 (Base Date) and the relevant foreign exchange rates are A$1.54/US$1.00.

No allowance has been made for escalation between the estimate Base Date and the time at which commitments will be incurred and payments made to suppliers.

The financial evaluation undertaken with the 2023 Costs Estimate and the updated basket price as indicates a positive net present value (NPV) at a 8.5% discount rate. The discount rate has been selected on the basis of a package of insurance policies delivering complete Uley 2 project coverage including plant and equipment procurement (with marine DSU), construction and commissioning (including not less than 18 months DSU) and offtaker payment default. The policies will be issued by a global syndicate of major insurers with an international credit rating from Standard and Poors (or similarly reputable credit agency) of not less than single A .

Sensitivity analysis indicates that a negative 20% change in any of the following variables:

(a) Uley 2 product price;

(b) foreign exchange rate;

(c) operating costs; or

(d) capital cost,

results in a positive NPV.

Figures 2, 3 and 4 below illustrate the Uley 2 project's base case sensitivity to ± 20% movements in the US/AUD exchange rate, increase in costs and decrease in revenues respectively.

Figure 2: Financial Analysis

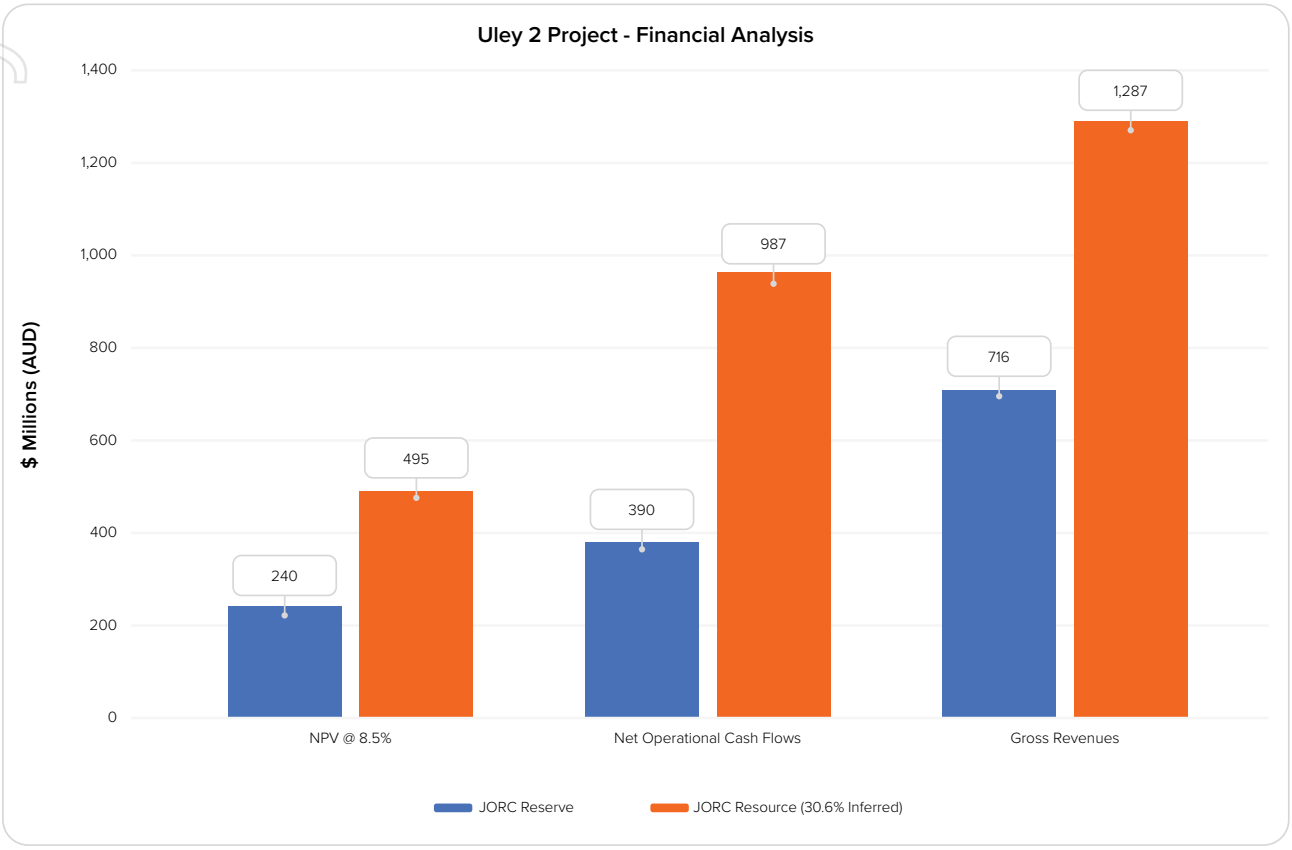
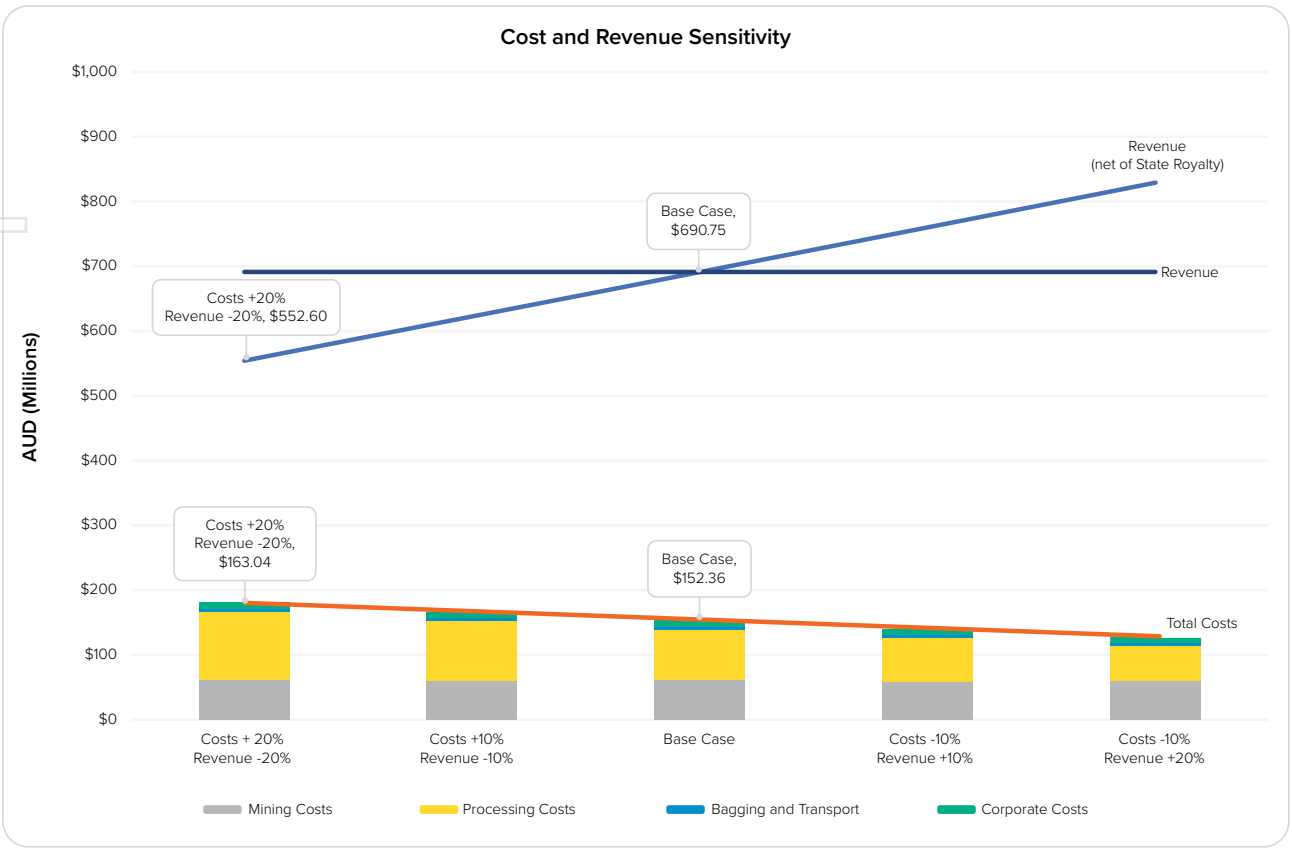


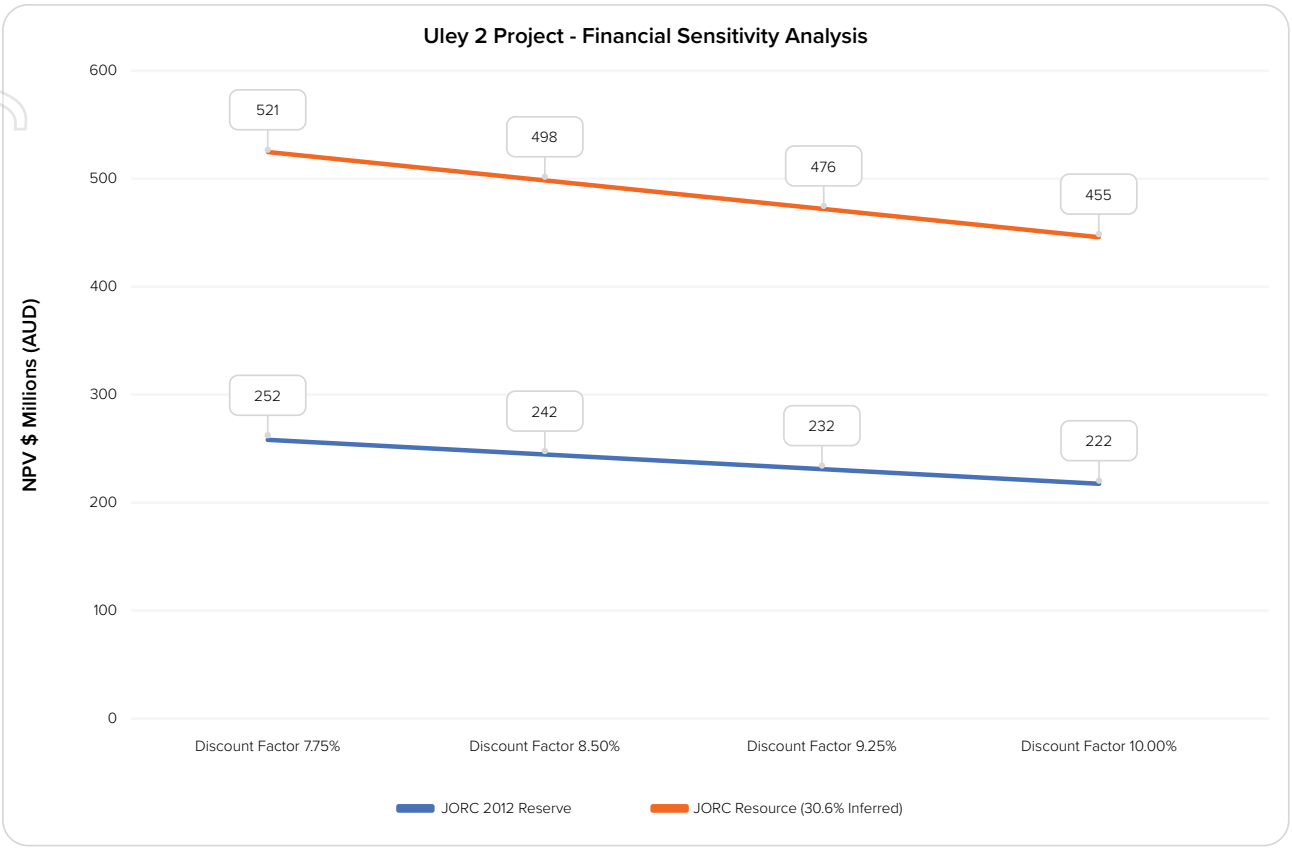
Figure 3: Cost and Revenue Sensitivity



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Figure 4: Financial Sensitivity Analysis





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Section B - Marketing of Uley 2 Production

The Company updated its analysis of the forward supply and demand outlook, including long-term pricing forecasts, for Uley 2 products (see Table 7) determined in accordance with the JORC 2012 Metallurgical Testwork.

Table 7: Uley Product Specifications

Size Fraction (um)	Size Fraction (Mesh)	Approx. Weight (%)	gC (%)	LOI (%)
+300	+50	10.5	97.8	0.26
-300+150	-50+100	35.4	97.2	0.34
-150+75	-100+200	27.1	96.6	0.36
-75	-200	27.0	90.7	0.73

This analysis applied the same methodology as that adopted for the 2019 DFS, i.e., the basket price is informed by the Company's review of the prices applicable to the key market segments (Target Markets) that consume Uley 2 products combined with a review of the most relatable empirical data.

The scope Target Markets analysis examines the market segments (and customers) previously serviced with Uley flake, i.e., traditional thermal management (e.g., refractories, foundry) and engineered products (e.g., extrusions, lubricants, foils). Importantly, Uley flake graphite products have previously been the subject of pre-qualification by several major companies operating in these market segments.

This analysis was then combined with the most reliable empirical data summarised below:

(a) Forward estimates from the leading flake graphite market data providers (see Table 8);

(b) Discussions and negotiations conducted by the Company with prospective industrial buyers including the major global manufacturers in Europe, Japan and Korea; and

(c) Information from the Company's offtaker, MRI Trading.

Table 8: Binding Offtake Agreement - Unprecedented Price Upside for Flake Graphite

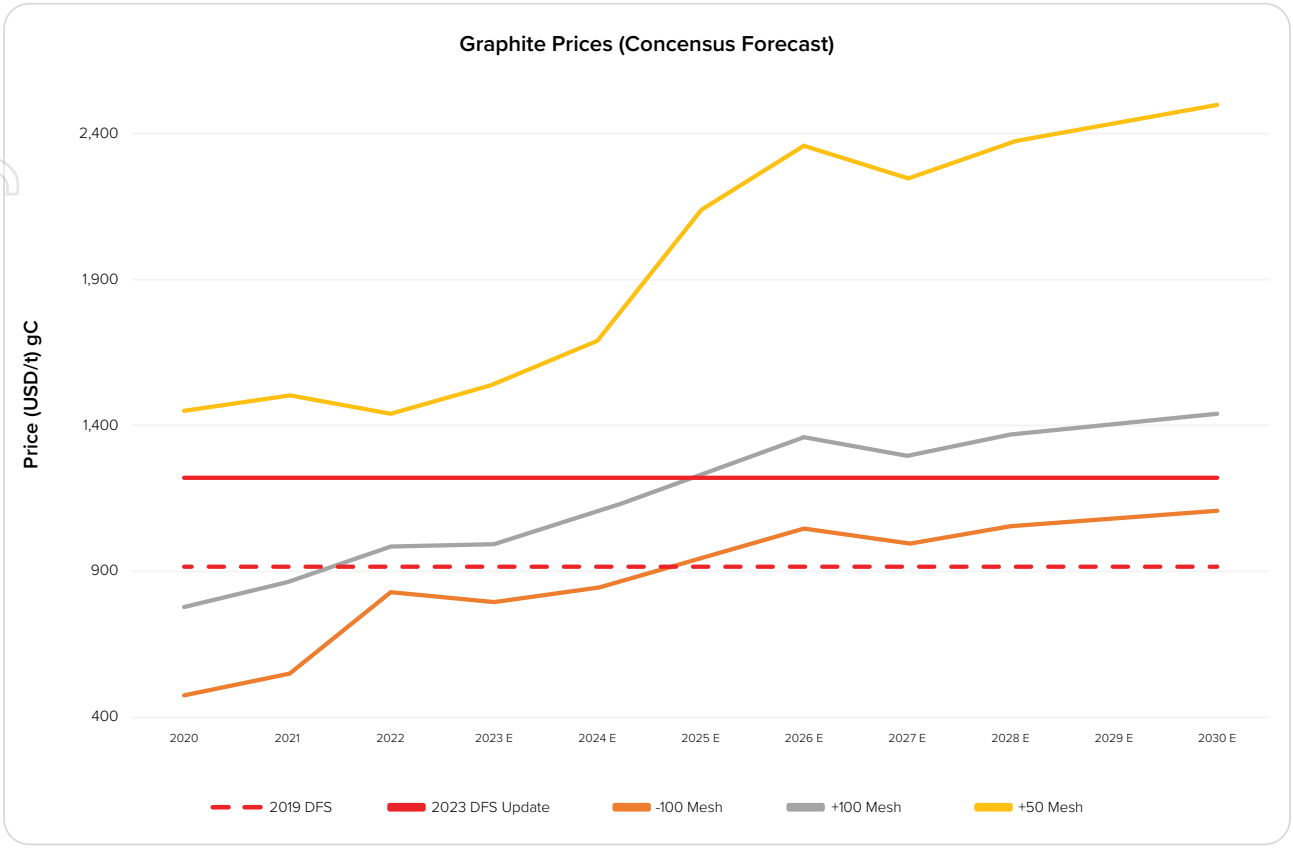
Commodity Prices (US$/t) gC	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	LT
94-97% +32 mesh	1,682	1,754	1,878	1,800	1,913	2,138	2,363	2,250	2,373	2,436	2,500	2,025
94-97% +50 mesh	1,450	1,506	1,444	1,545	1,700	1,900	2,100	2,000	2,110	2,165	2,222	1,800
94-97% +80 mesh	888	1,072	1,207	1,241	1,360	**1,520**	**1,680**	**1,600**	**1,688**	**1,732**	**1,778**	**1,440**
94-97% +100 mesh	782	869	984	996	1,107	**1,235**	**1,365**	**1,300**	**1,371**	**1,407**	**1,444**	**1,170**
94-97% -100 mesh	486	550	831	800	850	**950**	**1,050**	**1,000**	**1,055**	**1,083**	**1,111**	**900**
Purified spherical	3,685	3,400	3,576	3,720	4,229	4,750	5,250	5,000	5,274	5,413	5,555	4,500
Active Anode Material	7,685	7,400	7,576	7,720	8,229	8,750	9,250	9,000	9,274	9,413	9,555	8,500

Source: Macquarie Bank, Fastmarkets March 2023

QGO Product Range

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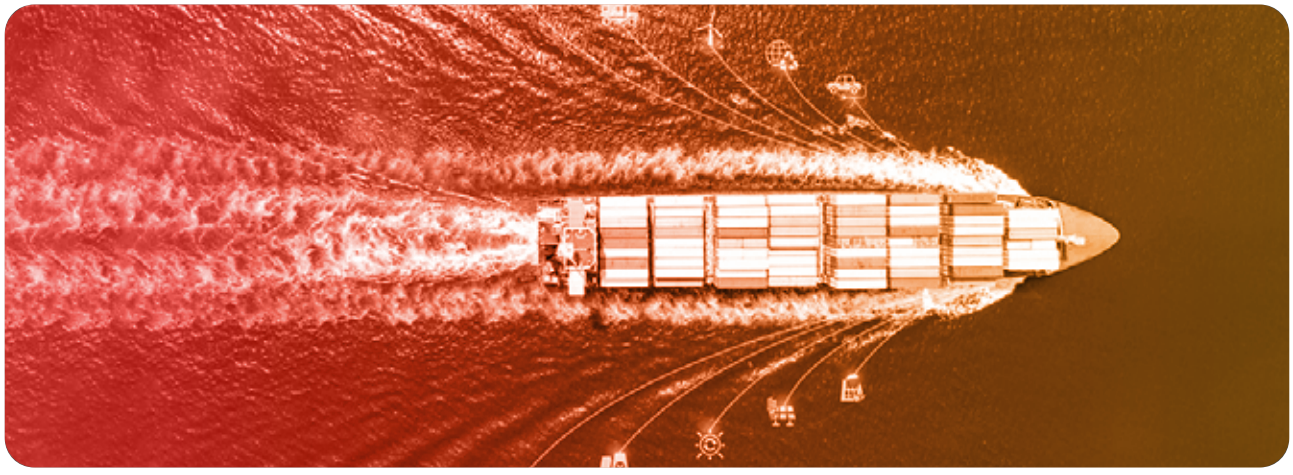
Figure 5: Comparison of basket price with forward estimates



The set of prices resulting from the analysis comprised a range of prices for each of the products in Table 7. The final basket price of US$1,225 resulted from the calculation of the weighted average of these set of prices.

Figure 5 illustrates the comparison of the 2019 DFS basket price and the updated 2023 basket price respectively with the forecast prices for the QGO product range as set out in Table 8. The 2023 basket price of US$1,225 represents a slight discount to the forecast prices. No adjustment has been made for the superior purity of more than 97% gC of the QGO product range compared with the standard purity range of the forecast prices in Table 8.

Whilst the basket price has been revised upwards by approximately 33%, the Company has not undertaken a re-optimisation of the pit shells as set out in the JORC 2012 Ore Reserve Estimate. An updated JORC 2012 Ore Reserve Estimate will be scheduled once the Company completes the next phase of exploration foreshadowed in the last Quarterly Report.



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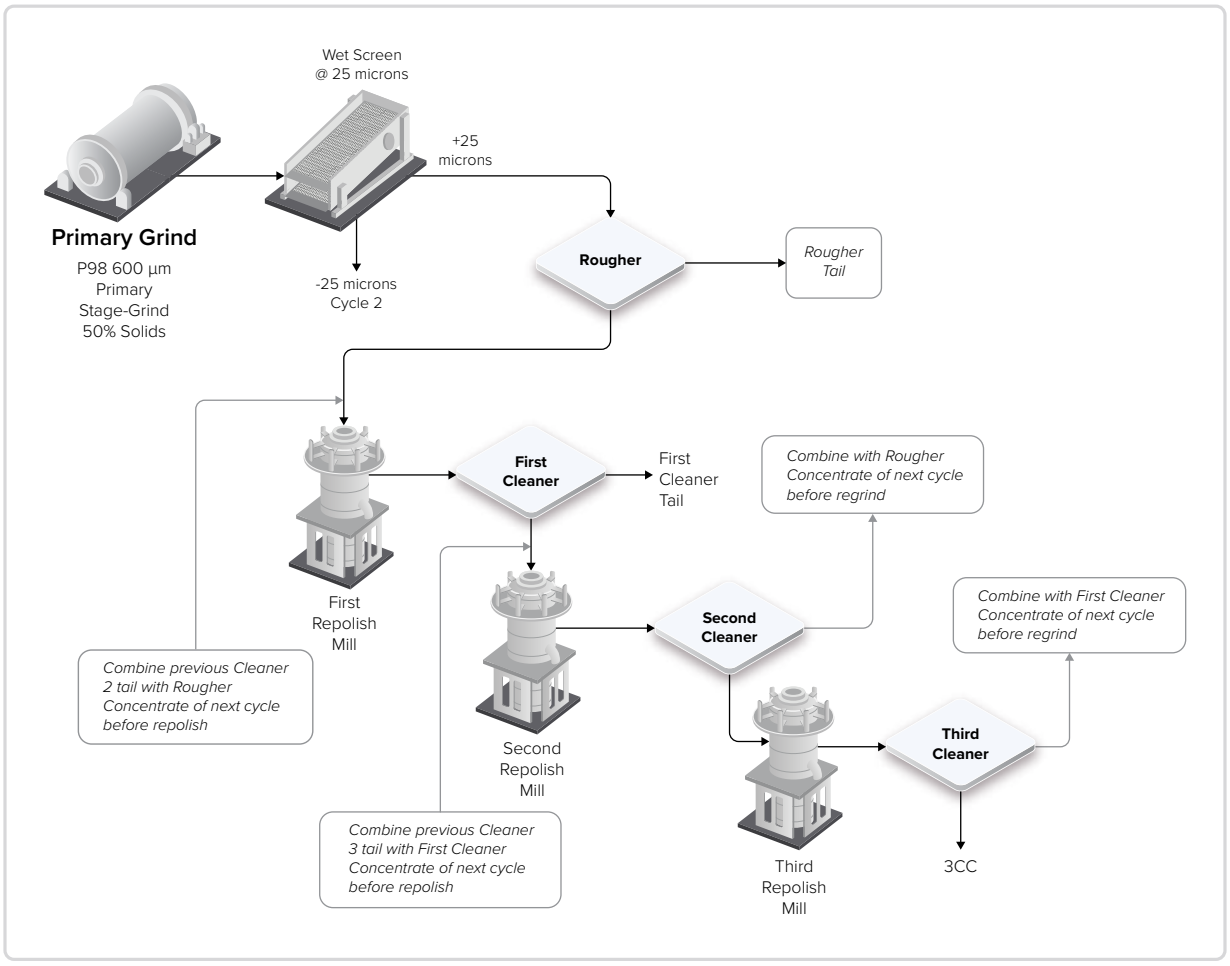
Section C - Process Flowsheet and Metallurgical Testwork

The Company has previously announced the process flowsheet as part of its release of the JORC 2012 Metallurgical Testwork. The flowsheet, summarised in Figure 6, has been generated from a proposed process plant designed for optimum flexibility to maximise recovery and flake size at grade with minimum operating costs. The flowsheet utilises unit operations that are well proven in the industry.

The process plant will accept run-of-mine ore and liberate graphite particles through crushing and grinding. The graphitic flakes will be sequentially concentrated and delaminated using progressive flotation and polishing (regrind) mills with the final product being dried and screened for bagging.

The flotation and polishing sections will be the critical processing functions for graphite recovery, upgrading of the flake to maximise graphite purity and maintaining coarse flake size as far as practicable.

Figure 6: Process Plant Configuration



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Section D - Mining

As set out in the 2019 DFS, the optimisation for the pit design (see Figure 7) and mine plan was undertaken on material exclusively classified as Measured and Indicated Mineral Resources, on a 3.5% TGC cut-off. The application of reasonable JORC 2012 Modifying Factors resulted in the conversion of this material to the Proved and Probable Ore Reserves set out in Table 3.

No material classified as Inferred Mineral Resource was utilised for the pit design or mine plan.

Pit design and mine plan material considerations included the following:

(a) Mining will be undertaken by conventional open pit methods of load and haul, utilising small mining equipment comprising 100t diesel hydraulic excavators and 60t off-highway dump trucks;

(b) The life of mine waste to ore strip ratio is approximately 4.6:1;

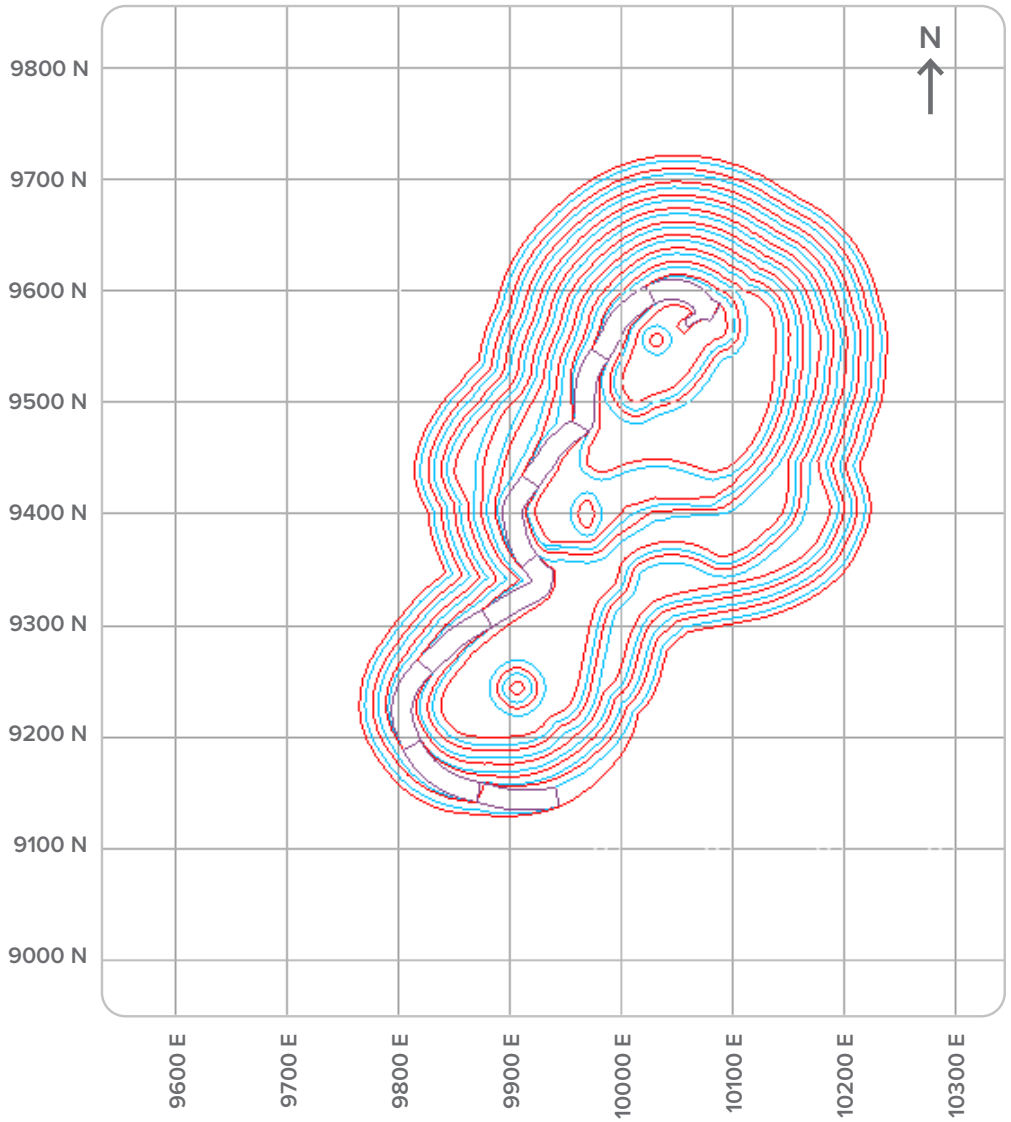
(c) Pit slope parameters were based on the slope parameters and conditions the historical Uley 1 pit and the supporting geotechnical investigations undertaken by Barrett and Fuller;

(d) Grade control is expected to be undertaken using surface trenching using Ditch Witch equipment;

(e) No mining dilution was included in the optimisation work given the expected strong visual mining control. A mining recovery of 95% was assumed; and

(f) A minimum cutback mining width of 25m was adopted.

Figure 7: Pit design



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Section E - Site Infrastructure and Tailings Storage Facility (TSF)

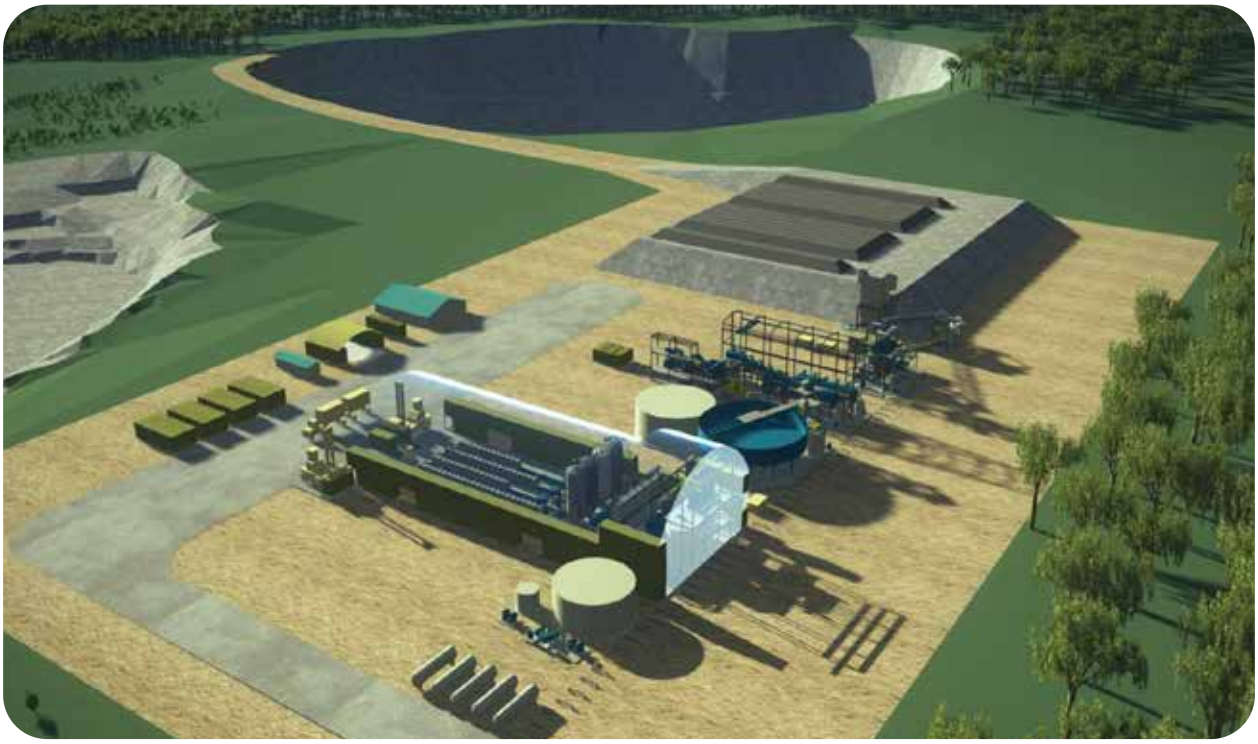
The Company proposes to utilise the existing site infrastructure that serviced the previous operations subject to the following changes refurbishment and/or upgrades to facilities:

(a) the existing SA Power Networks 33 kV electricity service will be decommissioned and a new 33kV service will be constructed along the northern boundary of the company's property;

(b) the existing offices, workshops and other facilities located within the mine services area will be refurbished; and

(c) existing process plant support buildings will be decommissioned, and new plant support building will be constructed.

Figure 8: 3D Graphic of mine



An existing HDPE lined tailings storage facility of approximately 25 hectares was constructed in the north of the lease as part of the previous operation. The new facility will be a single cell with a footprint area of approximately 29 hectares utilising the existing tailings storage facility infrastructure and its geomembrane liner where practicable.

The area required for the new basin will be stripped of topsoil and the insitu soils will be reworked, conditioned and compacted to form a low permeability soil liner, suitable for installation of the overlying geomembrane primary liner.

The materials for construction of the embankment will be sourced from mining operations and borrow areas. The embankment will be raised annually over the life of the mine to a maximum of approximately 25 m.

A decant tower system will be utilised to recycle supernatant and rainwater from the TSF basin over the life of the facility with a pump back system to the process plant to provide process makeup.

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Section F - Project Funding and ESG

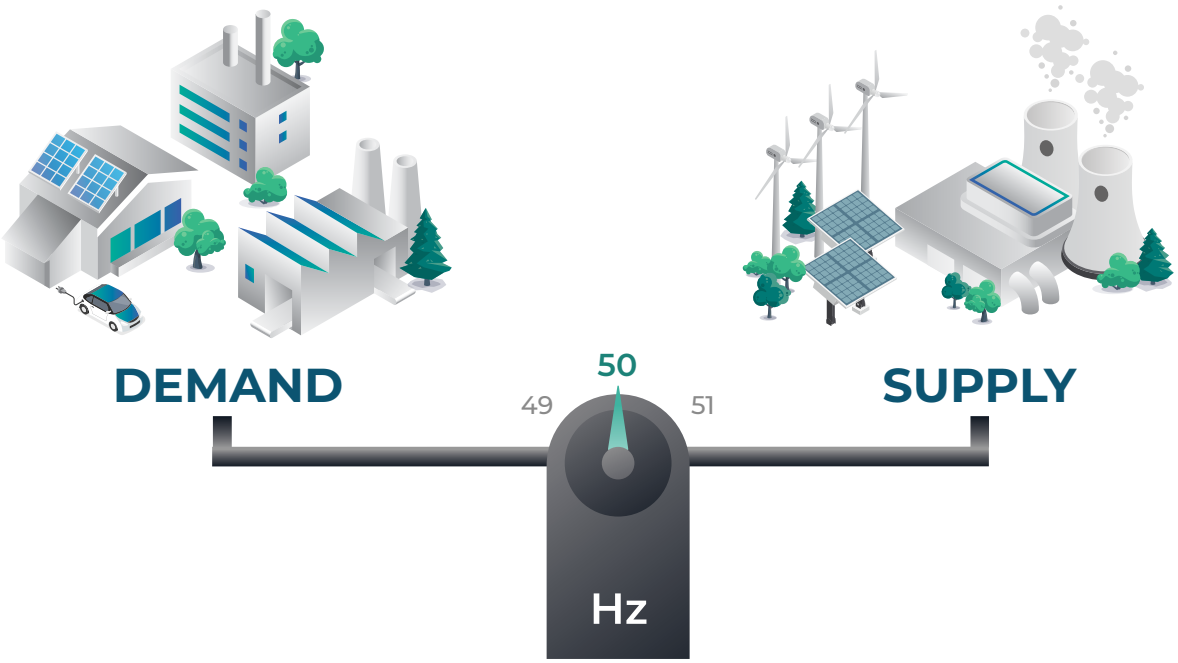
As announced in the most recent Quarterly Report, the Company is in discussions with prospective Uley 2 project funders. Several of these funders have been provided access to the Company's Uley 2 dataroom. The funding structure proposed by the Company is a corporate debt issuance in the form of Green Bonds listed on the Luxembourg Stock Exchange.

A key part of the funding of Uley 2 is VISION 2030 (see 2023 Annual Report), the plan detailing the Company's sustainability strategy for the project including certain downstream elements. VISION 2030 is consistent with the ICMA Green Bond Principles 2020 and the subject of review by leading ESG consultant and provider of the Second Party Opinion, Seven Advisory Pty Ltd.

The optimising of critical minerals for sustainable technologies has been recognised globally as one of the most important inputs to various climate change mitigation solutions. In particular, the use of critical minerals to decarbonise electricity networks and reduce heavy industry dependence on fossil fuel generation are major goals of the Paris Agreement. Similarly, critical minerals are considered vital to the delivery of solutions to stabilise grid networks and provide a workable path to increasing the level of renewables generation, see Figure 9.

To ensure alignment of Uley 2 operations with VISION 2030, the Company has targeted investment in certain facilities connected with its main investment in the modern sustainable processing facilities designed for the Uley 2 site. These facilities include Sunlands Co.'s TES Graphite Cells combined with a renewables generation installation to power Uley 2, supply chain warehousing, inventory management and certification facilities and the downstream activities of Sunlands Power.

Figure 9: Balancing of renewables generation supply and demand is a key target of Vision 2030

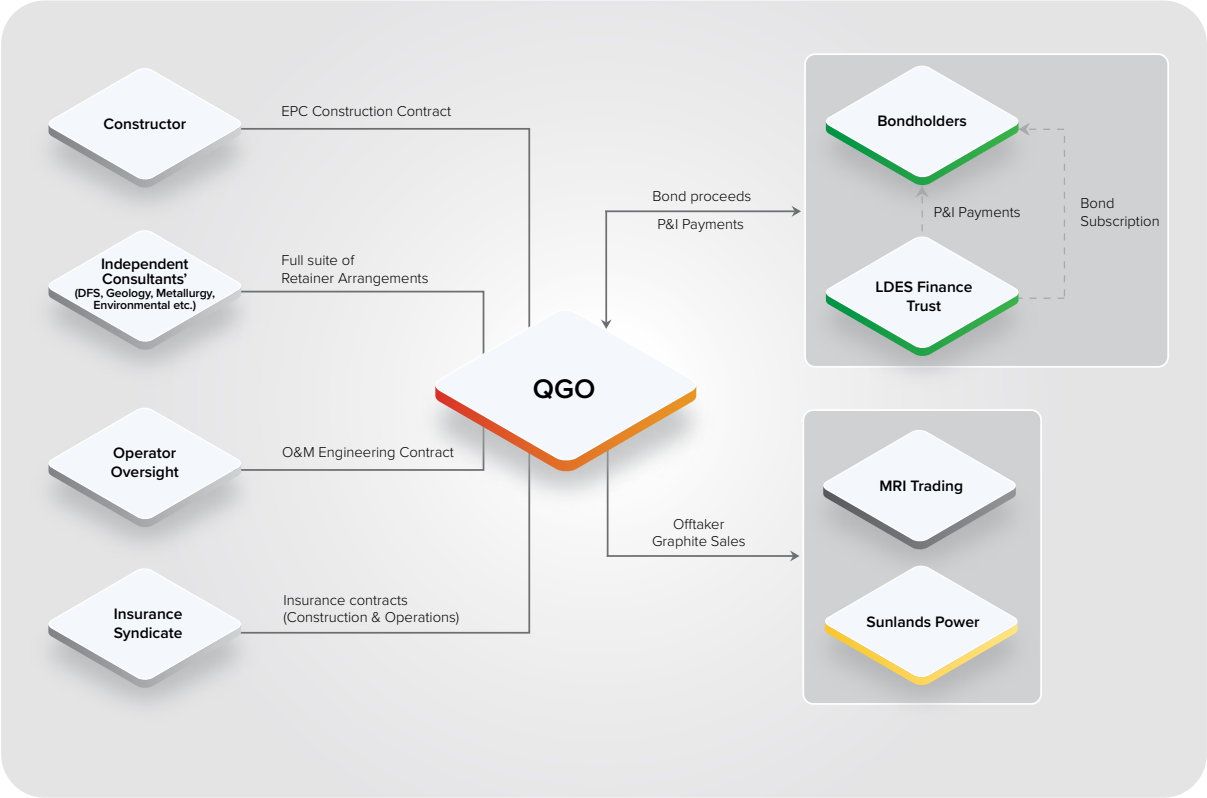


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Section G - Project Legal Structure

QGO and its key contractual arrangements are set out in Figure 10. Every facet of the Uley 2 operations is subject to first tier technical and professional oversight. Insurance cover will be issued by a highly rated insurance syndicate with coverage extending to all phases of the project including procurement (marine cargo and marine cargo DSU), construction and commissioning (including a minimum of 18 months DSU) and the Uley 2 offtake arrangement.

Figure 10: Key contractual arrangements



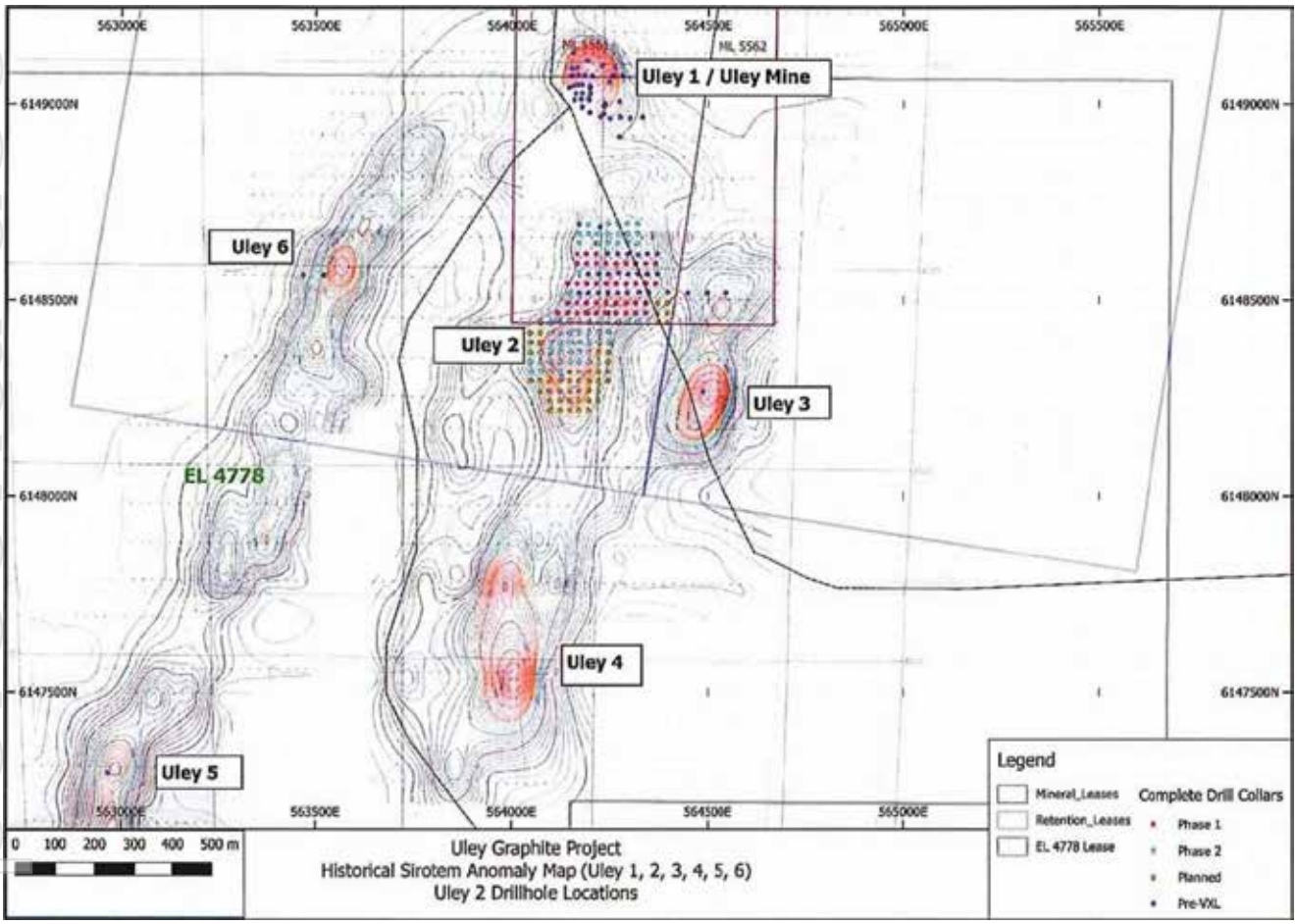


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Section H - Tenement Holdings and Approvals

Uley 2 sits within the greater Uley graphite resource province which is defined as a series of highly mineralised envelopes including the historical Uley 1 and Uley 2, 3, 4, 5 and 6 and consists of five contiguous tenements on the Eyre Peninsula of South Australia, of which two are retention leases (RL66 & RL67), two are mining leases (ML5561 & ML5562) and one is an exploration license (EL6224).

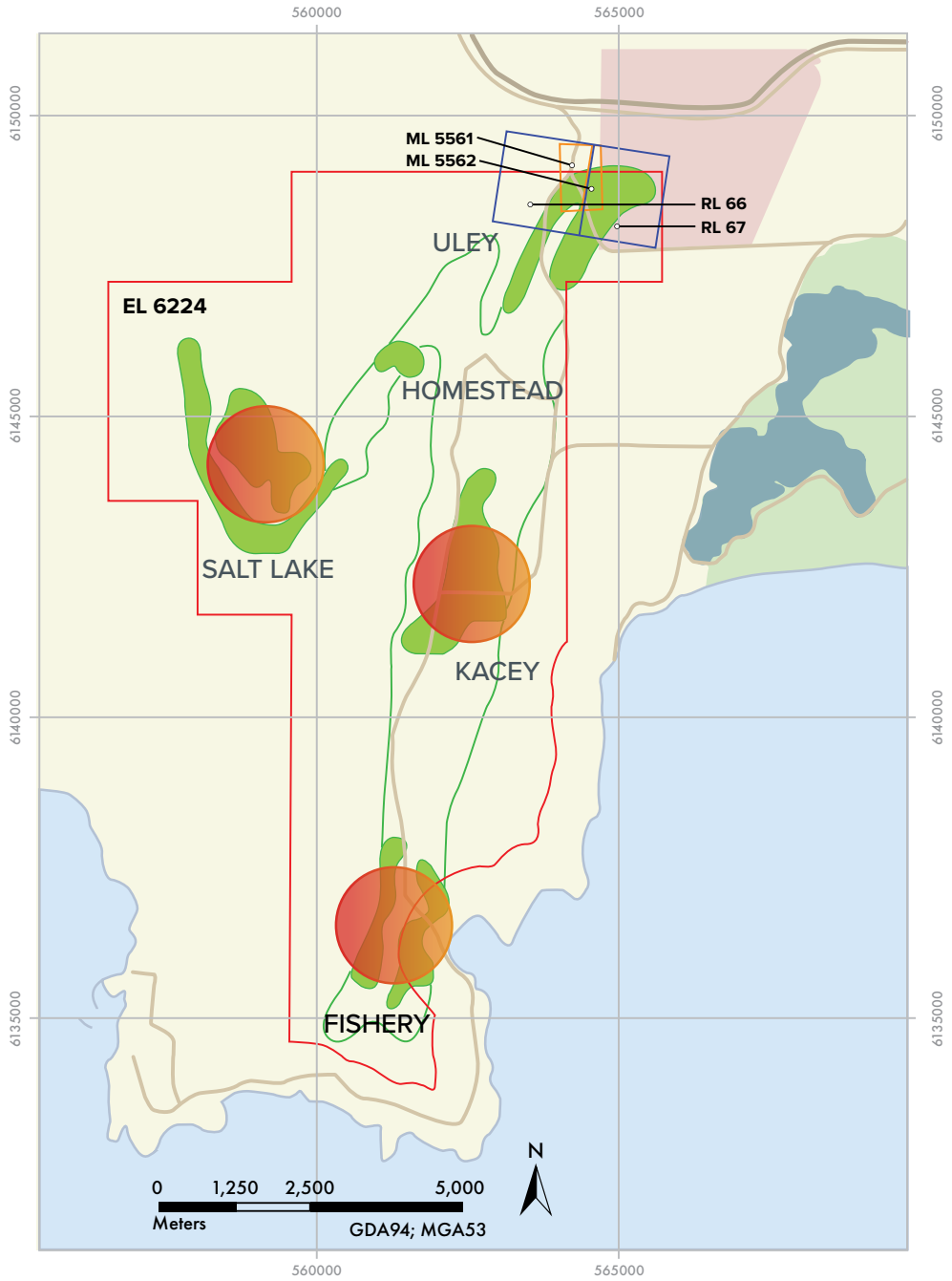
Figure 11: Greater Uley graphite resources



The Company has a 100% interest in these tenements and there are no royalty, joint venture or other material agreements impacting its interests. Figure 12 delineates the boundaries of the various tenements together with road and rail infrastructure and the key exploration targets denoted by positive electromagnetic survey results.

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Figure 12: Company tenements



Mining development is subject to the approved Program for Environmental Protection and Rehabilitation (PEPR) regime and relevant Environmental Licensing mandated under South Australian State legislation. There are no known impediments to obtaining a license to operate in the area.

The Company has an approved PEPR applicable to Uley 2 and relevant Environmental Licenses as set out in PEPR Version 2.1 approved on 23 December 2014 by the South Australian Director, Mining Regulation.

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Cautionary Statements

The results contained herein should not be considered a profit forecast or production forecast. It is a technical and economic study of the potential viability of developing Uley 2 by constructing a mine, process plant and related facilities to produce saleable flake graphite concentrate, including for sale by export. The reports referred to in this document are based on the necessary technical and preliminary economic assessments sufficient to support the estimation of Ore Reserves and provide assurance of the potential economic development case at this stage.

The production target referred to in this document is based on Proved and Probable Resources for the mine life as set out in the JORC 2012 Ore Reserve Estimate. In accordance with the proposed mine plan forming part of this report, production will be derived exclusively from Proved and Probable Resources.

Subject to the update of the capital and operating costs set out in this document, the material assumptions included within the JORC 2012 Ore Reserve Estimate continue to apply.

While the Company considers all 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 will be achieved. To achieve the potential mine development outcomes indicated in this document, project funding will be required and investors should note that there is no certainty that the Company will be able to raise project funding. The Company has developed a funding structure and concluded that it has a reasonable basis for providing the forward-looking statements included in this document and previous announcements to the market relating to funding. It is of the view that it has a reasonable basis to expect it will fund the development of Uley 2 under the funding structure developed by the Company or alternative or additional funding options to those previously disclosed to the market.

Forward Looking Statements

Some of the statements contained in this report are forward looking statements. Forward looking statements include but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the advancement of Uley 2 and other statements which are not historical facts. When used in this report, and on other published information of the company, the words such as “aim”, “could”, “estimate”, “expect”, “intend”, “may”, “potential”, “should” and similar expressions are forward-looking statements. Although the company believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that Uley 2 may experience technical, geological, metallurgical and mechanical problems, changes in product prices and other risks not anticipated by the company.

The company is pleased to present this document in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this document, including with respect to any mining of mineralised material, modifying factors, production targets and operating costs estimates.

This document has been compiled by the Company from information contained within the reports referred to throughout this document.

Competent Persons Statements

The Company refers to the Competent Persons Statements included within the JORC 2012 reports referred to in this document and defined in the Glossary of Terms. These reports are:

(a) JORC 2012 Ore Reserve Estimate

(b) JORC 2012 Mineral Resources Estimates

(c) JORC 2012 Metallurgical Testwork