

## Quarterly Activity Report and Appendix 5B for 30 September 2024

### Highlights

- **Uley 2 Financing**

The Company and Sunlands Energy Co. received a Letter of Interest (LOI) and non-binding Indicative Term Sheet from US EXIM Bank (EXIM) for a funding commitment of up to US\$300 million for the financing of an end-to-end supply chain comprising the Uley mine site production of flake concentrate, the production of >99.6% high purity graphite (HPG) in the south-east of the United States and related logistics facilities at each of these locations. Following receipt of the LOI, the Company responded with the filing of the formal funding application.

- **Exploration Activities and JORC 2012 Mineral Resources Expansion**

Following the renewal of the joint venture's contractual arrangements with ProTherm Systems, the extensive R&D programs entered the next phase. The focus remains on two key workstreams – the development of the discrete processes for the scalable production of HPG (especially in the form of anode precursor) and the development of the high temperature storage media (utilising Uley 2 graphite) essential to the manufacture of Sunlands Energy Co.'s long duration thermal energy storage cell (TES Graphite Cell).

- **Sunlands Energy Co. Joint Venture**

Release of the preliminary results and analysis of the geophysical surveys of all of the Company's mineral tenements, including the discovery of a large and significant anomaly - a reliable indicator of graphitic mineralisation. The analysis provided the reliable data supporting the lodgement of the application for the additional exploration area to the west of EL 6224 (recently granted as Exploration Lease 7019).



#### ABOUT QUANTUM GRAPHITE LIMITED

QGL is the owner of the Uley flake graphite mineral deposits located south-west of Port Lincoln, South Australia. The company's Uley 2 project represents the next stage of development of the century old Uley mine, one of the largest high-grade natural flake deposits in the world. For further information, [qgraphite.com](http://qgraphite.com).



#### ABOUT SUNLANDS ENERGY CO.

Sunlands Energy Co. is the leading developer of thermal energy storage technology (TES Graphite Cells) designed to drive commercial, industrial and utility-scale steam turbine generators. The company's TES Graphite Cells are capable of restoring baseload generation, delivering critical synchronous support to grid networks and eliminating the large-scale curtailment of renewables generation. For further information, [www.sunlandsco.com](http://www.sunlandsco.com)

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## Uley 2 Financing – EXIM LOI and Term Sheet for US\$300 million

During the period, the Company and Sunlands Energy Co. received a LOI and non-binding Indicative Term Sheet from EXIM for a commitment of up to US\$300 million.

The financing applies to a project structured by the parties with EXIM's assistance (Project Utile), comprising a complete end-to-end supply chain for the production and delivery of refined flake graphite to the south-east of the United States as illustrated in Figure 1. A binding offer of finance is subject to successful completion of due diligence and meeting EXIM's underwriting criteria.

The financing will cover the whole of the Project Utile activities, i.e.:

- (a) the mining and production of flake graphite concentrate at Uley;
- (b) the production of HPG at a facility proposed to be located in Dorchester County, South Carolina; and
- (c) logistics facilities at each of these locations.

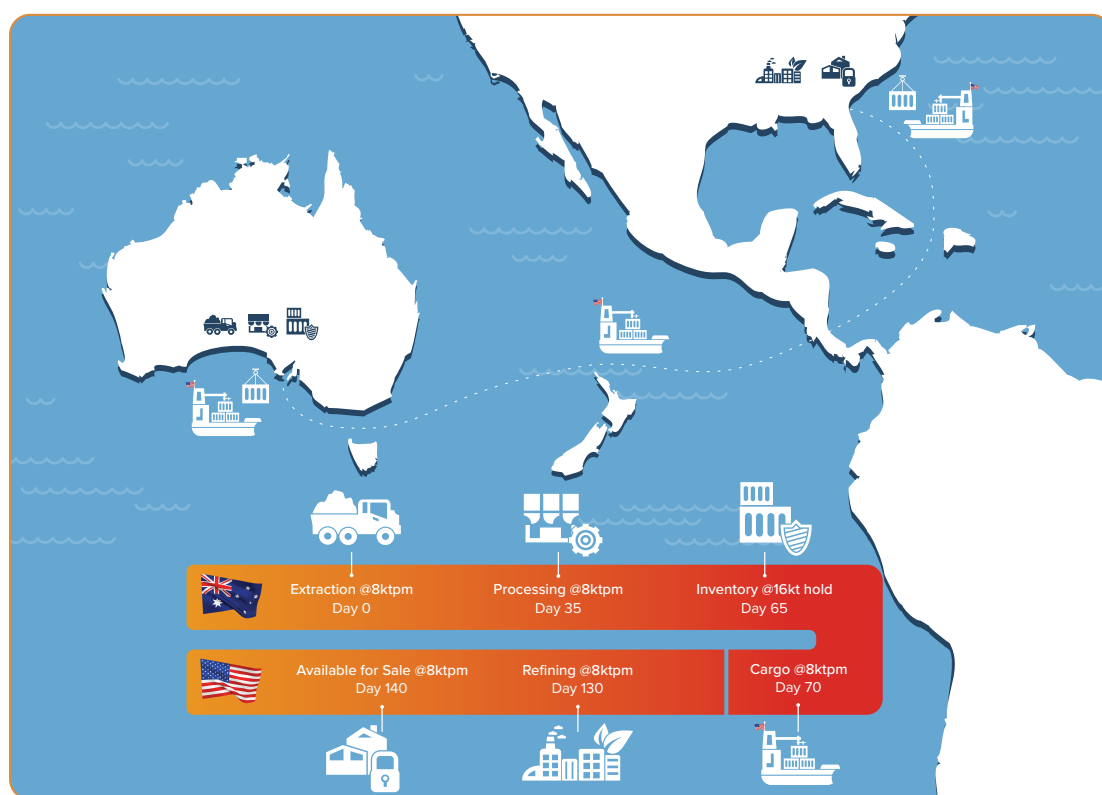


Figure 1 - Project Utile (End-To-End Graphite Supply Chain)

These activities combined underpin an independent, uninterrupted supply chain supporting a permanent platform for US-domestic production of HPG. This platform will initially deliver 100,000 tonnes of HPG per annum with a specification that ensures its suitability as anode precursor material. Project Utile has the capability to grow this US domestic production from QGL sourced flake graphite concentrate and, more generally, from flake concentrate graphite from the Eastern Eyre Peninsula.

The Company and Sunlands Energy Co. subsequently responded to EXIM and confirmed lodgement of the formal funding application, triggering commencement of the due diligence process. The parties are progressing the preparation of comprehensive Project Utile due diligence materials which will be accompanied by the existing Uley 2 project technical materials.

The LOI and Term Sheet stipulate that:

- (a) the tenor of the Project Utile financing would be 10 years under EXIM's Make More In America initiative (<https://www.exim.gov/about/special-initiatives/make-more-in-america-initiative>); and
- (b) the project may be eligible for special consideration under EXIM's China and Transformational Exports Program (CTEP, <https://grow.exim.gov/blog/what-is-ctep#>).

### Exploration Activities and JORC 2012 Mineral Resources Expansion

During the period the Company released further details of its comprehensive exploration plans. These plans provide for:

- (a) the near-term resource expansion of the Uley region (Uley Exploration Plan), including Uley 2 and Uley 3; and
- (b) defining early works to build a resource base across the broader exploration lease, EL 6224 (District Exploration Plan).

The Uley Exploration Plan is based on a development of the Uley mineralised zones as indicated in Figure 2. The District Exploration Plan covers Exploration Lease 6224 and the recently granted Exploration Lease 7019.

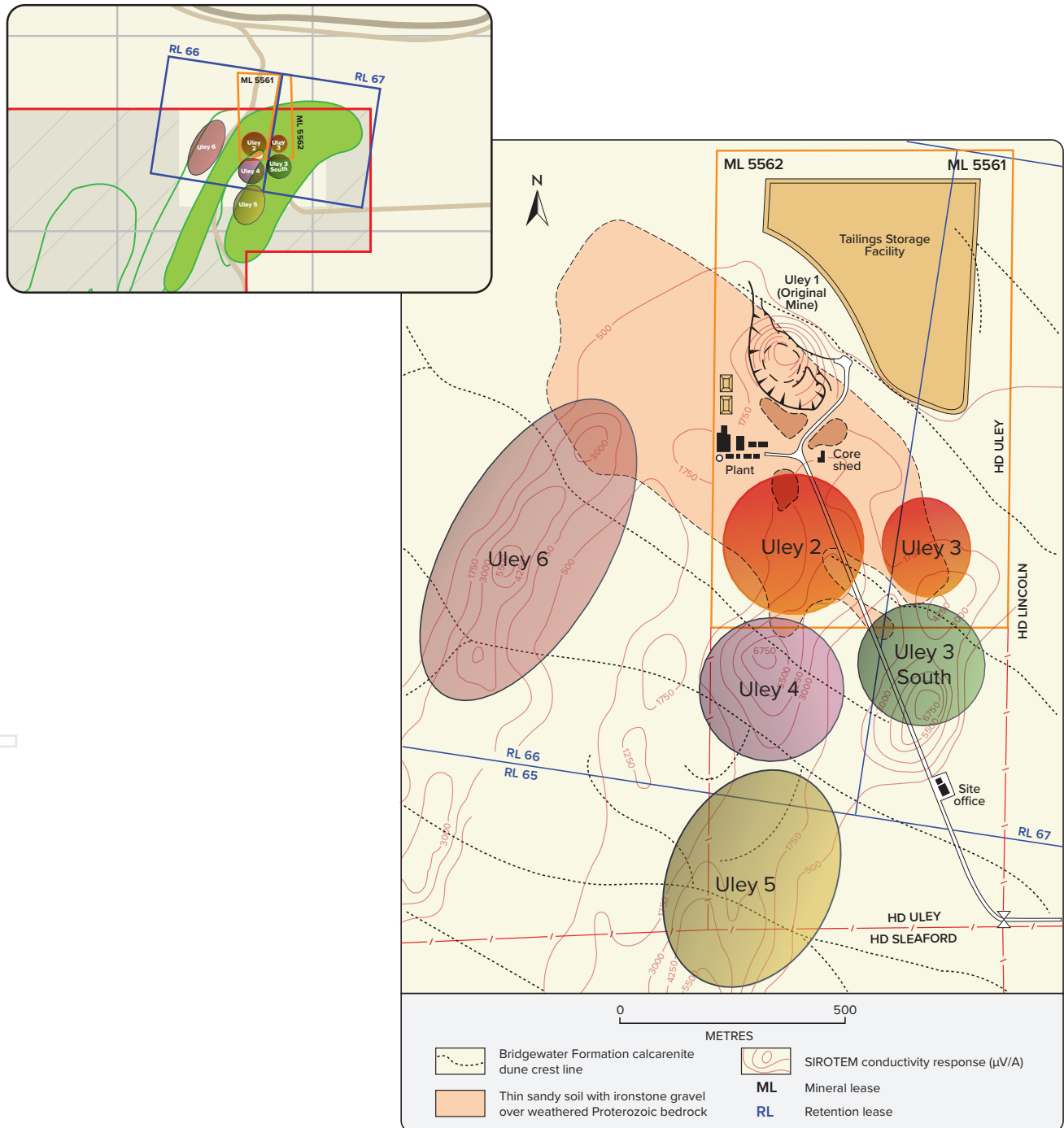


Figure 2 - Uley Region, Main Exploration Target Areas

During the period, the Company released the preliminary results of exploration activities conducted in the first half of 2024 (ASX release 24 July 2024, *New Discovery Preliminary Results and Analysis of Geophysical Survey*). Activities included the tenements-wide geophysical surveys completed in Q4 F2024. Completion of these surveys marked the final step in the preparation of the Uley Exploration Plan and provided the essential data necessary for the commencement of work on the District Exploration Plan.

The preliminary findings included a significant anomaly (illustrated in Figure 3) not previously identified and represents a continuation of the large-scale Salt Lake/Homestead anomaly.

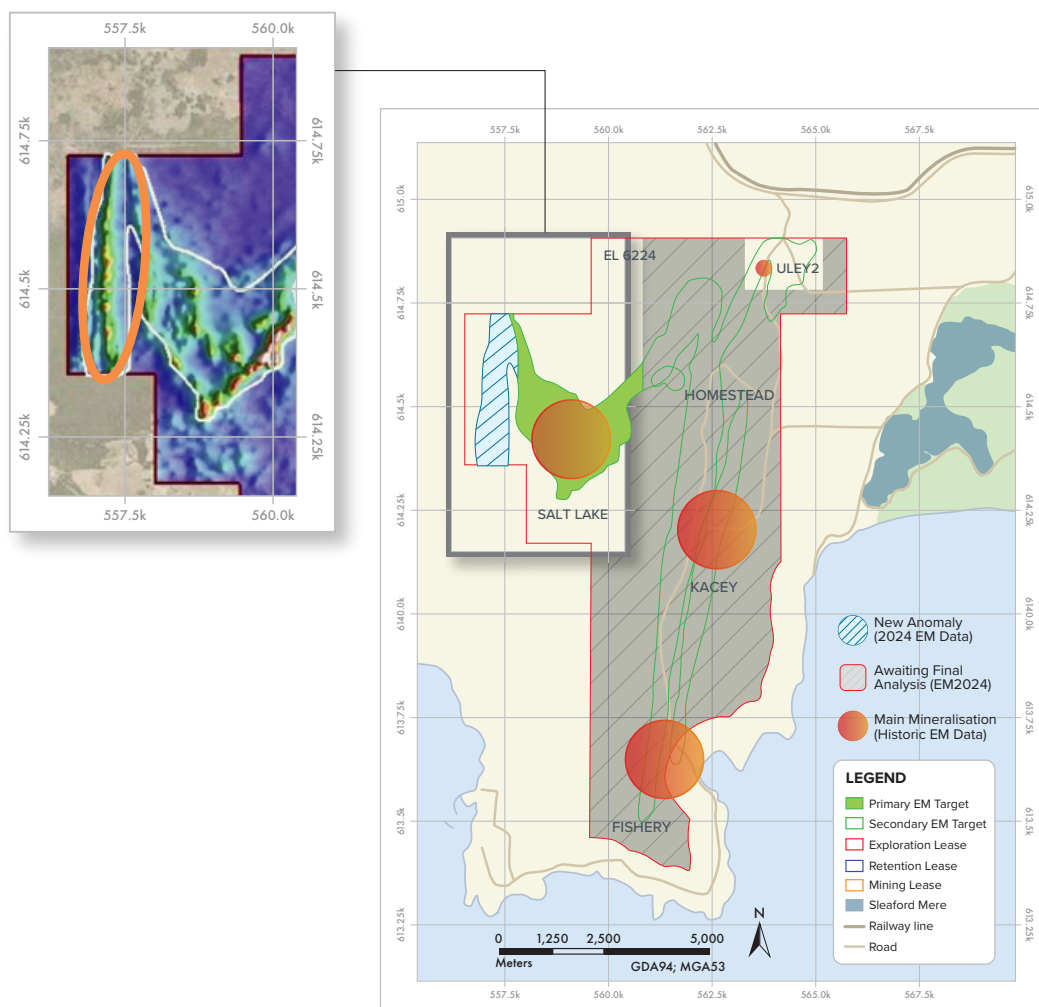


Figure 3 - Newly Identified EM Anomaly

The final results will settle the Company’s initial drilling program designed to increase the Uley 2 and Uley 3 JORC 2012 mineral resources. The Company is fully permitted under M-PEPR2023/048 by the South Australian Department of Energy and Mining to undertake this drilling program.

Mobilisation of drill crews was expected before the end of the prior period but was deferred following additional analysis to refine certain drill hole locations.

As at the date of this report, the Company’s technical team has not concluded its interpretation of the geophysical surveys. This work is expected to be completed by the end of October 2024 and the results will settle all drill hole locations and the scheduling of drill crew mobilisation.

The interpretation work to date has resulted in a refinement of the Company’s geological model of the Uley region and the existing mineralisation patterns within EL 6224. The revised mineralised patterns within EL 6224 are a direct result of mapping the airborne geophysical responses that correspond to the same responses over known regions of major graphitic carbon mineralisation including within the Uley 2 project area.

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As a result of this work, the Company lodged an application for the grant of an exploration licence for the whole of the area to the west of EL 6224 as illustrated in Figure 4. An exploration licence, EL 7019, was recently granted for the whole area.

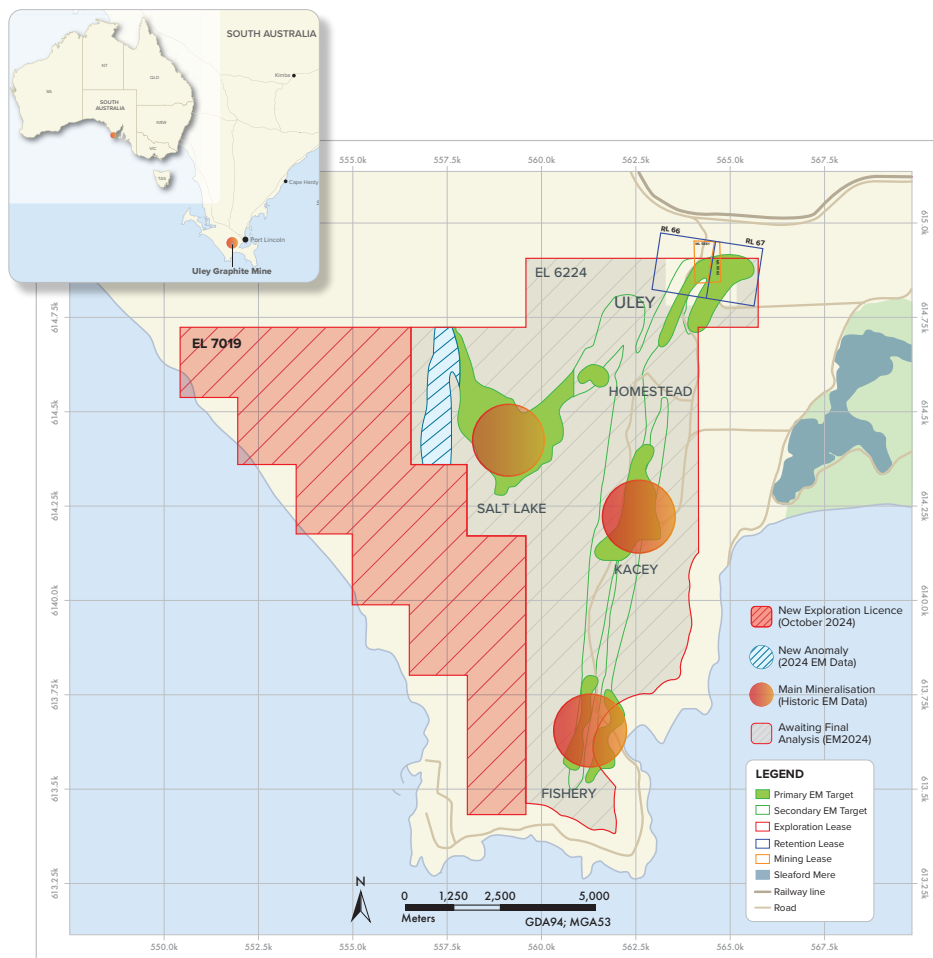


Figure 4 - Exploration Area EL 7019

### Sunlands Energy Co. Joint Venture Activities

The joint venture moved to the next stages of its R&D activities following the renewal of the contractual arrangements with ProTherm Systems - the joint venture’s main thermal process engineering partner.

The R&D Program is divided into two discreet workstreams. The first is the development of the methodologies for a scalable, continuous processes for the production of HPG. The results of the R&D work to date have been the subject of previous announcements. These results successfully demonstrated the efficacy of the processes developed by the R&D team. The next stage within this workstream is directed at substantially increasing the throughput of the circuit design.

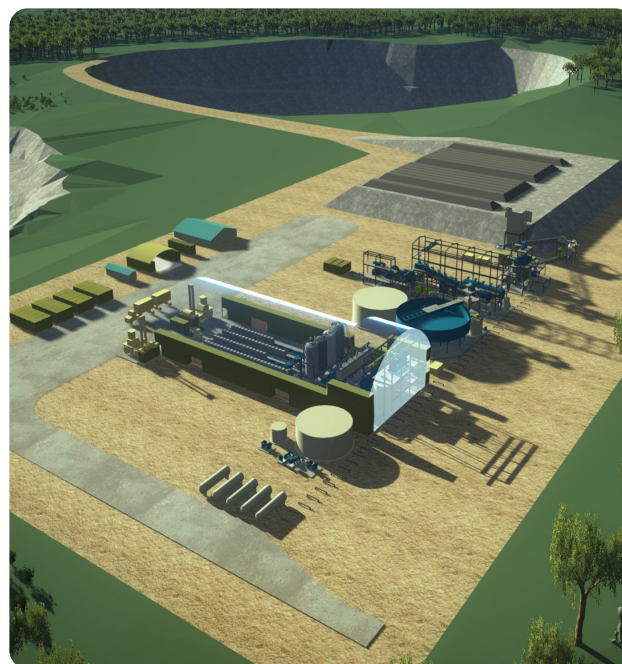
The second stream continues the development of the thermal storage media to be manufactured from Uley 2 flake graphite. This media is the most critical component of the TES Graphite Cell. Its performance determines the efficiency of the storage and release of thermal energy, and the overall capability and operability of TES Graphite Cells to deliver superheated steam to turbine generators. The next stage within this workstream is focussed on increasing the energy density of the media, a key driver of the size (and manufacturing cost) of TES Graphite Cells.

The joint venture has concluded the design of its pilot plant and continues to negotiate with various parties for the deployment of a TES Graphite Cell demonstrator.

## Uley 2 Phase 1 Mining Study and Feasibility Summary Financial Metrics (updated)

Total undiscounted cash flow	A\$990.4 million <sup>1</sup>
Crusher feed	1,200,00 tpa
Graphitic carbon grade	11.89%
Graphitic carbon recovery	84%
Concentrate purity	94% graphitic carbon
Capital expenditure	A\$152.7 million
Processing cost (PCAF)	A\$236.05 per tonne (inclusive of admin)
Mining cost (MCAF)	A\$2.5/t milled at surface plus 5c for every 4m
Production	100,000 dmt per annum
Product Cost (Av LOM)	US\$401.14 dmt (inclusive of drying and bagging)
Product Price (Ex-works)	US\$1,225 dmt

<sup>1</sup> Includes JORC 2012 Reserves and Resources



## Schedule of JORC 2012 Minerals Reserves and Resources

JORC 2102 Mining Study and Ore Reserve Statement, November 2019<sup>2</sup>

	Classification	Tonnes (kt)	Total Graphitic Carbon (%)
Uley 2	Proved	811	11.66
Uley 2	Probable	3,191	11.95
	<b>Total</b>	<b>4,003</b>	<b>11.89</b>

JORC 2012 Mineral Resource Estimate, November 2021<sup>3</sup>

Uley 3	Inferred	900	6.6
	<b>Uley 3 Total</b>	<b>900</b>	<b>6.6</b>
Uley 2	Measured	800	15.6
	Indicated	4,200	10.4
	Inferred	1,300	10.5
	<b>Uley 2 Total</b>	<b>6,300</b>	<b>11.1</b>
<b>Uley Project Total</b>	<b>TOTAL</b>	<b>7,200</b>	<b>10.5</b>

<sup>2</sup> Released to the market on 1 December 2019

<sup>3</sup> Released to the market on 18 November 2021

## Schedule of Tenements (ASX Listing Rule 5.3.3)

Tenement	Tenement Type	Interest <sup>4</sup>	Changes during the Quarter
ML5561	Mining Licence	100%	Nil
ML5562	Mining Licence	100%	Nil
RL66	Retention Licence	100%	Nil
RL67	Retention Licence	100%	Nil
EL6224	Exploration Licence	100%	Nil

<sup>4</sup> All interests are registered in the name of the company's subsidiary, Quantum Graphite Operations Pty Ltd and held as at the end of the quarter

## Uley Region Location and Resource Expansion Priorities

### Priority 1 - Uley 2 Project Expansion

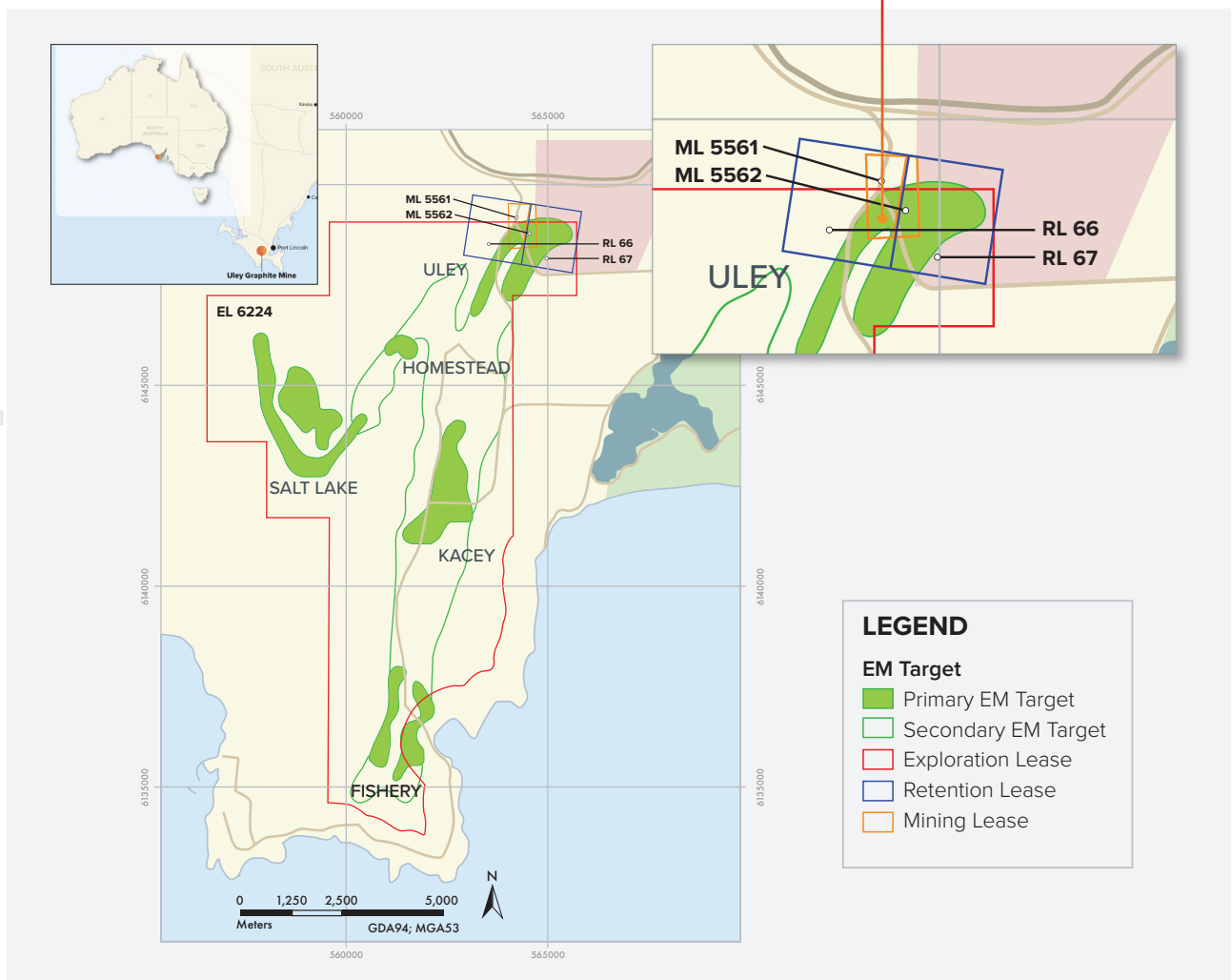
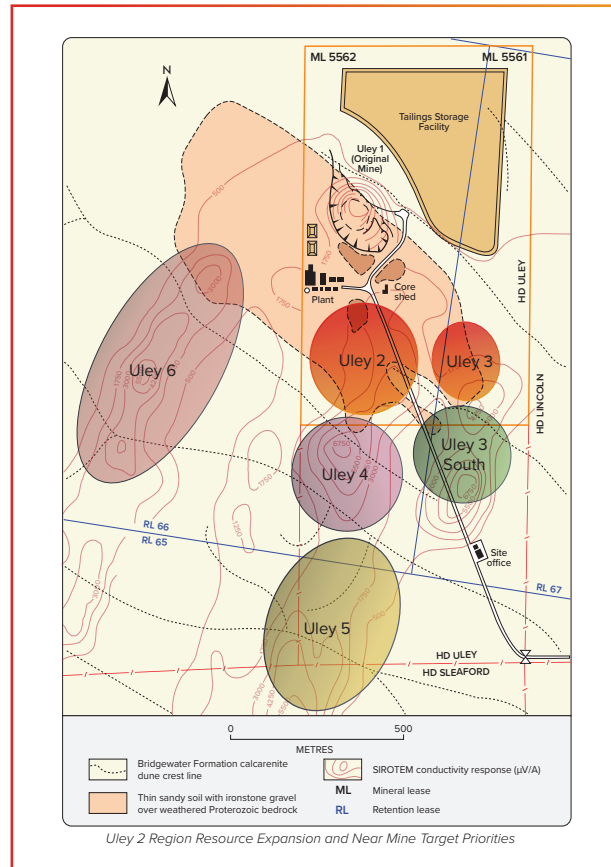
- Uley 4 Extension drilling to 50m-by-50m intervals
- Infill drilling at Uley 3

### Priority 2 - Uley 2 Project Expansion

- Uley 3 South Extension drilling to 50m-by-50m intervals

### Priority 3 - Uley Region Resource Definition

- Uley 6 geophysical anomaly target
- Uley 5 beyond Uley 4 along strike of the geophysical anomaly.



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## Corporate Information and Announcements

As at 30 September 2024 the Company had 344,988,619 ordinary shares on issue and 1,631 shareholders. The top 20 shareholders held 61.00% of the issued ordinary shares in the Company.

As at 30 September 2024 the Company held cash at bank of \$2,251,695.59. As at 30 October 2024 the Company held cash at bank of \$1,983,956.22.

Related party payments in the amount of \$82,500.00 were made in the period. These payments were made to SC Capital Pty Ltd for technical services.

## Competent Person's Statement

The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters relating to Mineral Resources is based on, and fairly represent, the Mineral Resources and information and supporting documentation extracted from the reports prepared by a competent person in compliance with the JORC Code (2012 edition) and released to the ASX (including under the company's previous code, VXL on 17 December 2014, 5 May 2015 and 15 May 2015 respectively).

## Forward Looking Statements

All statements other than statements of historical fact included in this announcement including, without limitation, statements regarding future plans and objectives of are forward-looking statements. When used in this announcement, forward-looking statements can be identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects' or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management, that could cause QGL's actual results to differ materially from the results expressed or anticipated in these statements.

QGL cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. QGL does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law.

### FOR FURTHER INFORMATION CONTACT:

Company Secretary  
Quantum Graphite Limited  
E: [info@qgraphite.com](mailto:info@qgraphite.com)



#### ABOUT SUNLANDS POWER

Sunlands Power is our joint venture with Sunlands Energy Co. for the manufacture of coarse natural flake based thermal storage media and the manufacture of TES Graphite Cells. The flake for the storage media will be sourced exclusively from the QGL's Uley mine. The manufactured media will be fitted within TES Graphite Cells and the completed cells delivered to Sunlands Co. for deployment as a grid connected long duration energy storage solution. For further information, [www.sunlandsco.com](http://www.sunlandsco.com)



#### ABOUT SUNLANDS PURE

Sunlands Pure is Quantum Graphite Limited's (QGL) purification technology partner. It was established by the Sunlands Energy Co. following agreement with QGL for the specific purpose of undertaking all downstream purification of Eastern Eyre Peninsula flake graphite concentrate

#### ABOUT LDES

A scalable energy storage system that can store energy predominantly from renewable sources for more than 12 hours and deliver dispatchable, inertia restoring energy to grid networks as required especially when renewables generation is not available. LDES is the critical solution underpinning the decarbonisation of grid networks.



#### ABOUT PROTHERM

Protherm Systems, founded in July 1987, is a leading thermal process engineering company, based in South Africa. The Company designs and supplies a wide range of thermal and related thermal processing plant and equipment for industrial users world wide, such as Plate Heat Exchangers, Shell and Tube Heat Exchangers, Air Dryers and Evaporators.



#### ABOUT INEMET

The Institute for Non-Ferrous Metallurgy and High Purity Materials focuses on sustainable and innovative processes that rethink existing production processes and the handling of supposed waste products in the spirit of the circular economy and zero waste thinking. INEMET's dedicated team work toward a greener future and the revolutionizing of non-ferrous metallurgy. It develops existing processes within pyrometallurgy, hydrometallurgy and the semiconductor industry in working groups and in a variety of projects. <https://tu-freiberg.de/en/fakult5/inemet>

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## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

**Quantum Graphite Limited**

ABN

41 008 101 979

Quarter ended ("current quarter")

30 September 2024

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(75)	(75)
(e) administration and corporate costs	(533)	(533)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	-
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(608)</b>	<b>(608)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(77)	(77)
(e) investments	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(77)</b>	<b>(77)</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,500	1,500
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>1,500</b>	<b>1,500</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,436	1,436
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(608)	(608)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(77)	(77)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,500	1,500

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,251</b>	<b>2,251</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	-	-
5.2	Call deposits	2,251	2,251
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,251</b>	<b>2,251</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(83)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*

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## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. <b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1 Loan facilities	5,298	5,298
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
<b>7.4 Total financing facilities</b>	<b>5,298</b>	<b>5,298</b>
<b>7.5 Unused financing facilities available at quarter end</b>		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
<p>The finance facility was provided by Chimaera Capital Limited at an interest rate of 11.75%, the maturity date has been extended to the earlier of 1 November 2025 or the date of any capital raising being undertaken by the Company.</p>		

8. <b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(608)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(77)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(685)
8.4 Cash and cash equivalents at quarter end (item 4.6)	2,251
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	2,251
<b>8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>3.29</b>
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	

**Mining exploration entity or oil and gas exploration entity quarterly cash flow report**

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 OCTOBER 2024

Authorised by: ROCHELLE PATTISON - COMPANY SECRETARY  
(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.