

## INITIAL ASSESSMENT OF ALPHA PRODUCT SAMPLES COMPLETED BY TECHNIX, PRODUCT DEVELOPMENT CONTINUES

### Highlights

- Product characterisation of samples produced by Monash University has been completed by Technix, with light-end fractions successfully removed through atmospheric and vacuum distillation.
- Flash point characterisation completed and passed assessment against the C-170 specification requirements of AS/NZS 2341.14.
- Penetration test work indicates compliance within the C-170 specification, however viscosity performance requires further enhancement.
- The next phase of the test work will comprise the incorporation of the Technix multi-stage bitumen process (TMBP) for final product modifications prior to independent assessment.
- Alpha Test Program 7 (TP7) has the single aim of producing a bituminous product from Greenvale's Alpha Project that can be independently certified to C-170 specification.
- With a 28Mt Resource – providing 27.7 million barrels of synthetic oil equivalent – Alpha is a highly strategic project, particularly at a time when Australia remains dependent on international supply of oil and oil-derived products (including bitumen).

Greenvale Energy Limited **ASX: GRV** (“Greenvale” or “the Company”) is pleased to provide an update on progress with the current stage of work being undertaken on the Alpha Project under Test Program 7 (TP7).

The Alpha Project hosts an Inferred Mineral Resource Estimate of 28Mt of combined Torbanite and Cannelite for a total of 27.7 million barrels of synthetic oil equivalent<sup>1</sup>, reported in accordance with the JORC Code (2012).

### **Greenvale Managing Director Alex Cheeseman said:**

*“Technix has now completed its initial assessment of the samples derived from Monash University, successfully splitting the light-end fraction of the sample and deriving a product that behaves like bitumen.*

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<sup>1</sup> Refer to ASX Announcement *51% Increase in Alpha resource substantially expands project scale and potential* released 13 November 2023 and Previously Reported Information – Alpha JORC Code (2012) Mineral Resource Estimate

Interactive Investor Hub - **Engage directly with the Company** through our Investor hub, you can ask questions, review comments and get direct access to the Company – follow the link [greenvaleenergy.com.au/announcements](https://www.greenvaleenergy.com.au/announcements)

*The next step is the introduction of Technix's processing system to meet the C-170 specification. We are committed to undertaking this work and look forward to keeping the market updated as this final phase is progressed."*

### **Technix Initial Product Assessment**

As previously advised<sup>2</sup>, Technix of New Zealand has been contracted to conduct an initial product assessment of the toluene soluble fraction of material produced by Monash University as part of TP7. The initial assessment was to include analysis and assessment on key criteria including but not limited to: flash point assessment, boiling point distribution, viscosity assessments, penetration testing, chemical assay, durability and density assessments.

Over the past five weeks, Technix, in collaboration with another third-party laboratory, has completed boiling point analysis, volatile characterisation, light-end fraction separation, flash point characterisation and initial viscosity and penetration tests.

### **Boiling Point Distribution**

The Technix sample group was generated via a pressure liquefaction process conducted by Monash University using toluene as the carrier oil and raw material from the Alpha Project<sup>3</sup>. The material, comprising toluene-soluble fractions from the autoclave reactor, was produced, filtered and washed by Monash University and delivered to Technix in liquid form.

Initial assessment identified the sample as highly fluid at room temperature, which is not consistent with conventional bituminous binders. Initial flash point testing returned a value of 15°C, indicating elevated volatile content and significantly below-typical bitumen specifications (>250°C).

To further characterise the material, a sample was submitted to the Independent Petroleum Laboratory (IPL), Northland, New Zealand, for boiling point distribution analysis using simulated distillation (ASTM D7169). IPL identified that the sample contained approximately 35-40% volatile hydrocarbons.

Technix noted that these light-end fractions would need to be separated for the product to pass the flashpoint test for Class 170 (C-170) bitumen. Subsequently, the light-end fractions were successfully removed through the conduct of both atmospheric and vacuum distillation.

Following removal of volatiles, the re-tested material demonstrated flash point compliance with the C-170 specification.

### **Atmospheric Distillation**

A sample was prepared for atmospheric distillation. The distillation was conducted over a temperature range of 87°C to a maximum of 220°C, after which the process was stopped. The properties of the resulting atmospheric extract were assessed, with results indicating that the extracted material was significantly softer than C-170 bitumen. This led to the need for vacuum distillation.

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<sup>2</sup> Refer to ASX Announcement *Alpha Project test program advances to next phase amid tightening bitumen market conditions* released 8 April 2026

<sup>3</sup> Refer to Appendix 1 and Appendix 2 for sample selection details.

## Vacuum Distillation

Vacuum distillation was performed on the atmospheric extract under reduced pressure conditions of -0.8 bar, commencing at 80°C to a maximum of 236°C.

Resultant samples, taken from both the top and bottom of the flask, were tested and confirmed to be uniform. The vacuum extract exhibited a penetration value of 76 dmm, which is within range of C-170 bitumen. However, viscosity results at 60°C and 135°C were lower than typical C-170 bitumen specifications. As viscosity specifications were not met, durability and density tests were not undertaken.

## Next Steps

Based on the preliminary test work and the observed properties of both atmospheric and vacuum distillation extracts, Technix has recommended the application of its Multistage Bitumen Process (TMPB) to modify the sample. This established process introduces additional reagents and additives in a pressurised environment and is designed to improve viscosity and penetration characteristics of any bitumen feed source in order to meet prescribed specification requirements.

The Company is currently awaiting a detailed quote and project test plan from Technix to allow this phase of work to commence, but is committed to completing the TMBP assessment.

Upon successful completion of the TMBP program, and with internal assessments confirming C-170 specification has been met, a sample of the Greenvale Bitumen product will be submitted to Intertek Laboratories for independent certification testing and verification.

The Company remains encouraged by the progress achieved to date will continue to update the market as test work continues to progress.

## Authorised for release

This announcement has been approved for release by the Board of Directors.

## For further information please contact

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## About Greenvale Energy Limited

Greenvale is an ASX-listed exploration company, committed to building a portfolio of projects that will support the need for clean energy and critical infrastructure. The Company is building a large land holding in the world-class Pine Creek region of the Northern Territory, and also owns the advanced, high-grade Oasis Uranium Project in Queensland. The Company has additional new-energy/forward facing projects including the strategically significant Alpha Project. Greenvale's projects are all aligned with the global need for reliable, sustainable, low-emissions energy and supply chains. The Company believes the best way to create long-term shareholder value is by investing in exploration, to make discoveries and grow its resource-base.

### Competent Person Statement

The information in this announcement, as it relates to exploration results, interpretations and conclusions, is based on information reviewed by Mr Mark Biggs, who is an independent technical adviser to Greenvale Energy Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM, #10788). Mr Biggs is a Director of ROM Resources Consultant to the Company, and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the overseeing of activities being undertaken to qualify as a Competent Person (as defined in the JORC 2012 edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”. Mr Biggs consents to the inclusion of this information in the form and context in which it appears.

### Previously Reported Information

This document contains information relating to the Mineral Resource Estimate for the Alpha Project, which is extracted from the Company’s ASX Announcement 51% Increase in Alpha resource substantially expands project scale and potential released 13 November 2023 and reported in accordance with the 2012 JORC Code and available for viewing at greenvaleenergy.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate continue to apply and have not materially changed.

### Alpha JORC Code (2012) Mineral Resource Estimate

The following information is extracted from the Company’s ASX Announcement 51% Increase in Alpha resource substantially expands project scale and potential released 13 November 2023. The JORC Code (2012) Mineral Resource Estimate for the Alpha Deposit is set out in Table 1 and Table 2 below:

Seam/Ply	Area (m <sup>2</sup> )	Volume (cu m)	Waste Thickness (m)	Waste Volume (bcm)	Tonnes (Air Dried)	% +/- (Air Dried)	Tonnes (Dry)	Tonnes (In Situ)
U	5,199,146	5,409,700	21	181,383,104	6,491,640	+97%	6,653,931	<b>6,437,543</b>
L1	9,056,464	10,548,503	16	142,970,480	12,995,530	+64%	13,291,114	<b>12,869,174</b>
LT	6,774,137	3,635,190	0	157,694	4,301,324	-6.4%	4,325,876	<b>4,289,524</b>
L2	8,684,433	3,465,159	0	41,993	4,267,732	+49%	4,366,100	<b>4,192,842</b>
Total					<b>28,056,227</b>	<b>+51%</b>	<b>28,637,021</b>	<b>27,789,083</b>

**Table 1:** MDL 330 Inferred Mineral Resource Estimate by seam and ply unit (plus % +/- from maiden MRE)

Seam/Ply	Inferred Dry Tonnes (Mt)	% of Total	Synthetic Oil (MMboe)	% of Total	Oil Yield LTOM	No. of Drill Holes
U	6.7	23	4.4	16	105	<b>2</b>
L1	13.3	46	8.7	31	104	<b>4</b>
LT	4.3	15	10.7	39	395	<b>4</b>
L2	4.4	15	3.8	14	140	<b>4</b>
Total	<b>28.6</b>	<b>100</b>	<b>27.7</b>	<b>100</b>	<b>154</b>	

**Table 2:** MDL 330 preliminary volumetrics for Mineral Resource Estimate

### Forward Looking Statements

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. The Company does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither the Company nor any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

**Appendix 1 – Sample Details**

Table A1-1, below, lists the origin data for the test sample.

Table A1-1: Borehole Data Details for Composite Test Sample

Hole ID	Sample ID	Easting	Northing	RL	Total Depth (m)	Azimuth (°)	Inclination (°)	Depth From (m)	Depth To (m)	Interval (cm)	Seam
GM11C	GM11C3	481332	7333200	447	45	0	-90	37.53	37.73	20	LT
GM12C	GM12C5 + C6	481867	7333226	440	33	0	-90	22.09	22.75	66	LT/L2
GM12C								25.07	25.30	23	
GM13C	GM13C5	482325	7333171	445	25	0	-90	17.47	17.74	27	LT
GM57C	GM57C3	482346	7332917	443	37.7	0	-90	24.72	25.22	50	LT
GM72C	GM72C3	483103	7331906	446	42.7	0	-90	36.00	36.08	8	LT
GM72C	GM72C4							36.08	36.21	13	LT
GM73C	GM73C3	483605	7331921	461	49.05	0	-90	39.40	39.60	20	LT
GM73C	GM73C4							39.60	39.75	15	LT
GM78C	GM78C3	482041	7333418	445	27	0	-90	18.37	18.71	34	LT
GM80C	GM80C4	482545	7333400	452	25	0	-90	16.43	16.49	6	LT
GM80C	GM80C5							16.49	16.93	44	LT
GM81C	GM81C3	482840	7333389	465	37	0	-90	26.92	27.56	64	LT

**Total**

**390**

Note: all coordinates are provided in GDA2020, zone 55

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## Appendix 2 - JORC Code, 2012 Edition – Table 1 Report

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p>Samples for metallurgical testing (Test Program 7) were selected from 2023 exploration drilling, specifically HQ core as outlined in Appendix 1 (Table A1-1).</p> <p>Details of the drilling program been provided in previous ASX releases in October 2023 and May 2025.</p> <p>Standard drilling and core techniques were employed in generally shallow holes drilled vertically.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</li> </ul>	Standard RAB and diamond HQ coring rigs were utilised.
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	All core selected from testing was from boreholes with core recovery >90%.
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>Detailed logging was not undertaken at the site but later after sample delivery to the lab. Logging was to the Coal Log V2 standard.</p> <p>Whereas previously outcrop sampling of material has only been used for sighter testing; with all Mineral Resource estimation, mining, and metallurgical studies to be developed based evaluation of the core sample material.</p> <p>Photographic records have been taken which shows each horizon sampled and the weight of samples taken from each sample location has been recorded.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	The bulk sample was taken in substantial quantities of about 20 kilograms and of both torbanite and cannel coal portions of the 63mm core. Samples were held by Stratum and Subsampling for this exercise was undertaken by Stratum Laboratories.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>Splits of approximately 400 grams were cut from subsamples obtained from Stratum splits of the subcrop samples. Smaller samples were used in the program to facilitate subsequent processing in the laboratory.</p> <p>The splits were pulverised to sub 200 microns undertaken immediately prior to the tests being conducted.</p> <p>Subsamples were cut and placed under nitrogen and forwarded to Melbourne for the test program at the Melbourne University.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<p>The subsamples had been held in refrigeration below zero in sealed bags.</p> <p>Post pulverization the samples held under nitrogen overpressure until used.</p> <p>A range of tests were conducted on the carrier oil and the sample types to ensure the program could be meaningfully executed. Subsequent tests were then undertaken to a standard set of procedures. In all 19 tests were conducted to establish the set of 12 test result sets.</p> <p>Laboratory tests were conducted based on standard analytical techniques such as TGA, Proximate and Ultimate.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>The samples derived from the core have been observed by multiple personnel including Engineers, Geologists and Greenvale employees have been involved in the sample acquisition.</p>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>The samples taken are described in Table A1-1 in Appendix 1. Coordinate system MGA55 GDA94 datum is expected to be accurate to +/- 30m.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>Not relevant for this discussion of metallurgical testing.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>Not relevant for this discussion of metallurgical testing. The deposit strikes at 300 degrees with gentle dips to the south and southwest. The intersecting boreholes were planned as vertical.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>Samples have been stored in dedicated freezers from the time the sample was acquired and after sample</p>

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Criteria	JORC Code explanation	Commentary
		<p>preparation.</p> <p>Chain of custody was managed by ALS.</p> <p>Samples have been transported in sealed bags, from ALS Brisbane to Monash University in Melbourne.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audits or reviews have been conducted.

## 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	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<p>MDL 330 is held by Alpha Resources Pty Ltd, a subsidiary of Greenvale Energy Limited. MDL 330 was first granted on 1 February 2002. An application for a renewal for an additional 5-year term was submitted in July 2021 and approved in July 2022.</p> <p>The current 5-year term expires on 31 January 2027.</p> <p>MDL 330 covers an area of 1,904.5 Ha.</p>																																
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>Historically there has been exploration carried out over 85 years since the 1940's. The various titles have been held by Alpha Resources since 2002.</p> <p>Table A2-1 lists the various explorers:</p> <table border="1"> <thead> <tr> <th>Asset name</th> <th>Licence holder</th> <th>License type</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Anderson</td> <td>H Anderson</td> <td>EPM 134</td> <td>1939</td> </tr> <tr> <td>Anderson &amp; other</td> <td>H Anderson &amp; others</td> <td>EPM 137</td> <td>1940</td> </tr> <tr> <td>Anderson</td> <td>H Anderson</td> <td>ML 90-95</td> <td>1941-42</td> </tr> <tr> <td>IMC Alpha</td> <td>International Mining Corporation</td> <td>EPM 2240</td> <td>1979-82</td> </tr> <tr> <td rowspan="3">Alpha Oil Shale Project</td> <td rowspan="3">Greenvale Mining &amp; Esperance Minerals</td> <td>EPM 2203</td> <td>1978-85</td> </tr> <tr> <td>EPM 4023</td> <td>1985-96</td> </tr> <tr> <td>MDL 211</td> <td>1996-2001</td> </tr> <tr> <td>Alpha Torbanite Project</td> <td>Alpha Resources Limited</td> <td>MDL 330</td> <td>2002 to present</td> </tr> </tbody> </table>	Asset name	Licence holder	License type	Date	Anderson	H Anderson	EPM 134	1939	Anderson & other	H Anderson & others	EPM 137	1940	Anderson	H Anderson	ML 90-95	1941-42	IMC Alpha	International Mining Corporation	EPM 2240	1979-82	Alpha Oil Shale Project	Greenvale Mining & Esperance Minerals	EPM 2203	1978-85	EPM 4023	1985-96	MDL 211	1996-2001	Alpha Torbanite Project	Alpha Resources Limited	MDL 330	2002 to present
Asset name	Licence holder	License type	Date																															
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Alpha Torbanite Project	Alpha Resources Limited	MDL 330	2002 to present																															
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The Alpha deposit lies within the axis of the Glen Avon Syncline, a southwest plunging fold structure that occurs on the eastern flank of the Galilee Basin.</p> <p>The deposit is part of the Permian Colinlea Sandstone, which contains 150 m of cross-bedded sandstones with minor conglomerate, siltstones, and mudstones.</p> <p>The Geology of the deposit consists of an Upper and Lower seam of cannel with a torbanite lens present in the Lower seam.</p> <p>The Colinlea Sandstone is thought to be a lower delta plain deposit with the coal deposited in swamps and shallow lakes in this near shore environment. The torbanite is thought to have been deposited from algae in a lacustrine environment when water entering the system held little sediment or organic material.</p>																																

Criteria	JORC Code explanation	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• 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:                             <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<p>See Table A1-1 in Appendix 1, which includes all relevant new drill hole information and seam intercepts.</p> <p>All Greenvale and IMC exploration holes have been either traditional theodolite or DGPS surveyed with stated accuracies of 0.1m in X &amp; Y and 0.2m in Z.</p> <p>Top of coal depths are accurate to 0.1m and interpreted from chip logs / core logging and downhole geophysics, where carried out.</p> <p>Where available verticality was loaded, and the holes were modelled accounting for any inclination. An alternative model was generated treating all holes as vertical.</p>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>Torbanite and cannel coal horizons were modelled separately and not aggregated.</p>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</li> </ul>	<p>All drill holes were drilled at 90° to the surface and although some verticality logs are available, the deposit was modelled where holes are assumed to be vertical.</p> <p>Downhole verticality survey is available for all drill holes.</p> <p>Seam intercepts are recorded on a downhole basis.</p> <p>Downhole geophysical logs were used to confirm the seam intercepts and thicknesses.</p> <p>As the deposit is gently dipping and drill holes are generally shallow, the downhole seam thickness will approximate the true thickness of the coal.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>All appropriate diagrams have been released in preceding ASX Releases in March 2023 and May 2025</p>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>All available data for the Torbanite area has been collated and reported.</p> <p>This release contains all relevant information.</p>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating</li> </ul>	<p><b>GEOLOGY</b></p> <p>The updated interpretation is predominantly based on the 2023 and 2021 drilling results.</p> <p>Limited historical drill hole information was used to supplement the 2021 and 2023 drilling and support the continuity of the Upper and Lower seams outside the</p>

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Criteria	JORC Code explanation	Commentary
	<p><i>substances.</i></p>	<p>bounds of the MDL area.</p> <p><b>METALLURGY</b></p> <p>Pressure Leach Program – TP7 Update &amp; Process Direction</p> <p>TP7 has now confirmed that operating at 410°C with 30-minute retention, under hydrogen at 80 bar and total reaction pressure of 26 MPa (260 bar), using zinc acetate catalyst and toluene solvent, delivers ~99% conversion of Torbanite into pressure leach liquefaction solution. Solvent recovery has been validated at ~98.9%, placing the process in a strong position to eliminate alternative catalysts and THF solvent pathways, allowing full focus on the streamlined toluene-based route.</p> <p>The hydrofoil-type impeller mixing configuration has proven effective, with pressure-temperature behaviour closely matching the predicted pressure leach curve and demonstrating consistent solution chemistry.</p> <p>All TP7 samples tested to date are non-blended single LT core material, predominantly shale with high hydrocarbon ratios and lower sulphides. This pre-leach control strategy was implemented to minimise post-leach volatile variability from blends and to target C170 compliance.</p> <p>For C-170 compliance under AS/NZS requirements, the program has focused on Asphaltene characterisation, generating:</p> <ul style="list-style-type: none"> <li>• TS (Toluene Solubles)</li> <li>• TIN (Toluene Insolubles)</li> <li>• TP7 Bulk leach runs have consistently achieved: <ul style="list-style-type: none"> <li>• TS yield: 32–36%</li> <li>• TIN yield: ~63%</li> <li>• Overall torbanite recovery: ~99%</li> <li>• Gas yield: 1.2–1.4%</li> </ul> </li> </ul> <p>The low gas yield remains under review. Even if resolved, achieving historical 18–20% gas yields (as per TP6) is unlikely to materially alter TS/TIN distribution, as both primary and secondary shale cracking reactions are completing within the 30-minute retention window. Increased gas production would likely extend in-reactor residence behaviour rather than significantly impact conversion efficiency. A scope gap allowance can be evaluated during pilot-stage pre-feasibility.</p> <p>Blending between L1, L2, LT, and LU will need to be modelled based on PU analysis data post completion of C-170 certification.</p> <p>An NMR test (not TGA) confirmed that detected volatiles are predominantly DMB (Dimethylbenzene/Xylene type compounds) rather than residual toluene from the TS fraction.</p> <p>DCM (Dichloromethane) washing has been adopted as a substitute for Heptane/Hexane following removal of the THF pathway in TP7 milestone 3. The prior THF route demonstrated significant viscosity increase in the TS</p>

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		fraction at elevated temperatures.
Further work	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p><b>GEOLOGY</b></p> <p>The current geological model will be used for any future work.</p> <p><b>METALLURGY</b></p> <p>The ongoing test program focusses on specialist bitumen product advisers analysing the TP7 bulk-leach product and determining appropriate downstream processing/modification requirements to meet C-17 specification.</p>

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