



## Pink Bark: Rare Earth, Kaolin and Uranium Potential

### ASX RELEASE

4 November 2024

### ASX CODE

APS

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### Key points

Further analysis carried out on samples from Allup's 2023 drilling program has been returned with the following results:

- Significant uranium results up to 232ppm  $U_3O_8$  and REE up to 980ppm for total TREE of 1,212ppm.
- Highest grade of 1,985ppm total rare earth oxide (TREE) in fresh bedrock from drill hole PB019, 21 to 22m
- Significant REE anomalism discovered in supergene and bedrock over a 7km x 7km area.
- Kaolin sampling confirms ISO Brightness, grainsize, and XRD mineralogy in four locations at Pink Bark Project.
- Raw insitu kaolin from Pink Bark is comparable to Australian kaolin deposits currently in production and demonstrates a marketable product with possible co-product silica.
- Graphite-rich bedrock intersected in the south of E63/2371, in particular in drill hole PBAC058.

Allup Silica Limited (ASX: **APS**) ("Allup" or "**Company**") is pleased to announce recent exploration results from its Pink Bark Project in southern WA has demonstrated the project's potential for rare earth elements (REE), uranium, graphite and kaolin mineralisation.

APS carried out additional analysis from samples taken during its November 2023 drilling program at Pink Bark to test the underlying clays of licence E63/2138 for REE potential, and for thick kaolin accumulations over large areas. The holes were drilled to fresh bedrock (blade refusal) where possible, and the bedrock samples were assayed for multi-element geochemistry.

The Albany Fraser Province has recorded several uranium occurrences. The combined rare earth and uranium mineralisation at Pink Bark is very significant. Further drilling is required to test the mineralisation for size and grade potential.

This release focuses on the Kaolin, Uranium and Rare Earth potential of the Pink Bark Project following the results of an air core drilling program that was completed in November 2023.

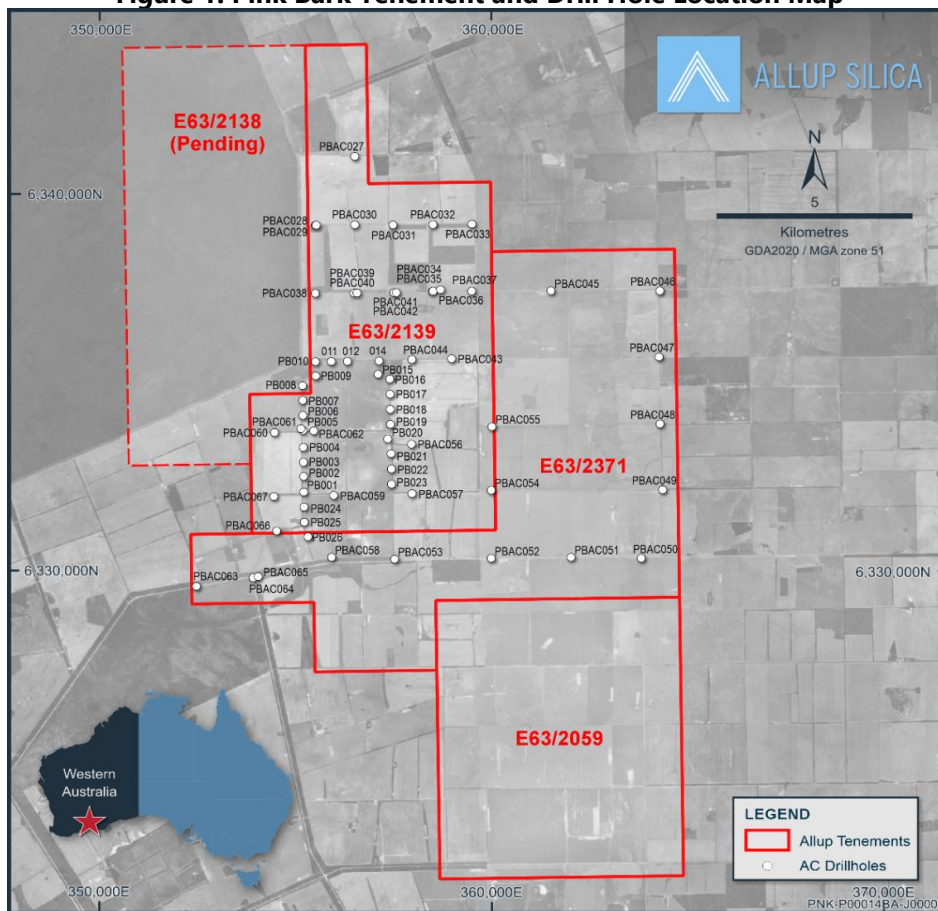
### Introduction

The Pink Bark Project, comprises three granted Exploration Licences and one pending application area, and is located in the Albany Fraser Province's Biranup zone, north of Esperance. The tenement was acquired to explore and develop silica sand, but numerous recent nearby discoveries of REE clay-hosted deposits prompted Allup to consider the potential for such deposits on its tenement holdings.

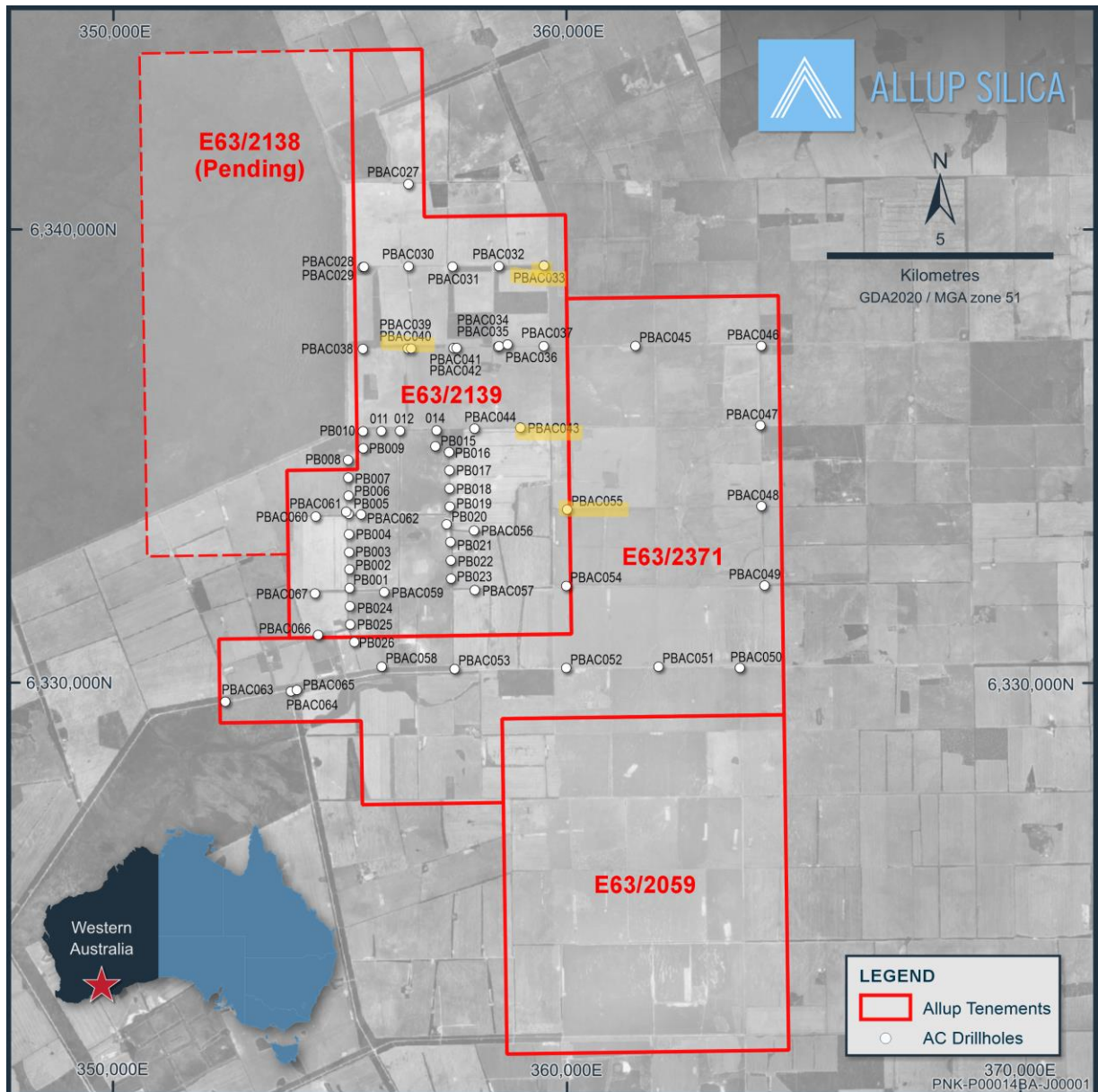
The Biranup zone has been shown to be rich in valuable REE by the Geological Survey of Western Australia (GSWA) and modern explorers. A number of ASX-listed companies have reported wide areas of saprolitic clay enriched in rare earths overlying the Biranup late-stage granite intrusive rocks.

These deposits have been compared to China's clay-hosted REE deposits, which have been a major source of REE for the country's battery industry. In the Albany Fraser Province a number of carbonatites with rare earth potential have been reported and explored for rare earth mineralisation, and the Biranup granites are also rapidly emerging as a focus for exploration for clay and carbonatite-hosted rare earth deposits.

**Figure 1. Pink Bark Tenement and Drill Hole Location Map**







## Kaolin

Allup's previous work on kaolin at Pink Bark was reported in ASX Release dated 7 May 2024, where a significant Exploration Target was announced. Additional work to define other characteristics were recommended and these are discussed below.

Allup engaged Independent Metallurgical Operations Pty Ltd to complete further mineralogy, brightness and yellowness testing on 10 samples from 10 different drill holes.

Based on the test work conducted on the 10 samples from the Pink Bark Project, IMO concludes that the percentage passing 45  $\mu\text{m}$  ranged from 22.7% to 62.4%, averaging 36.7%.

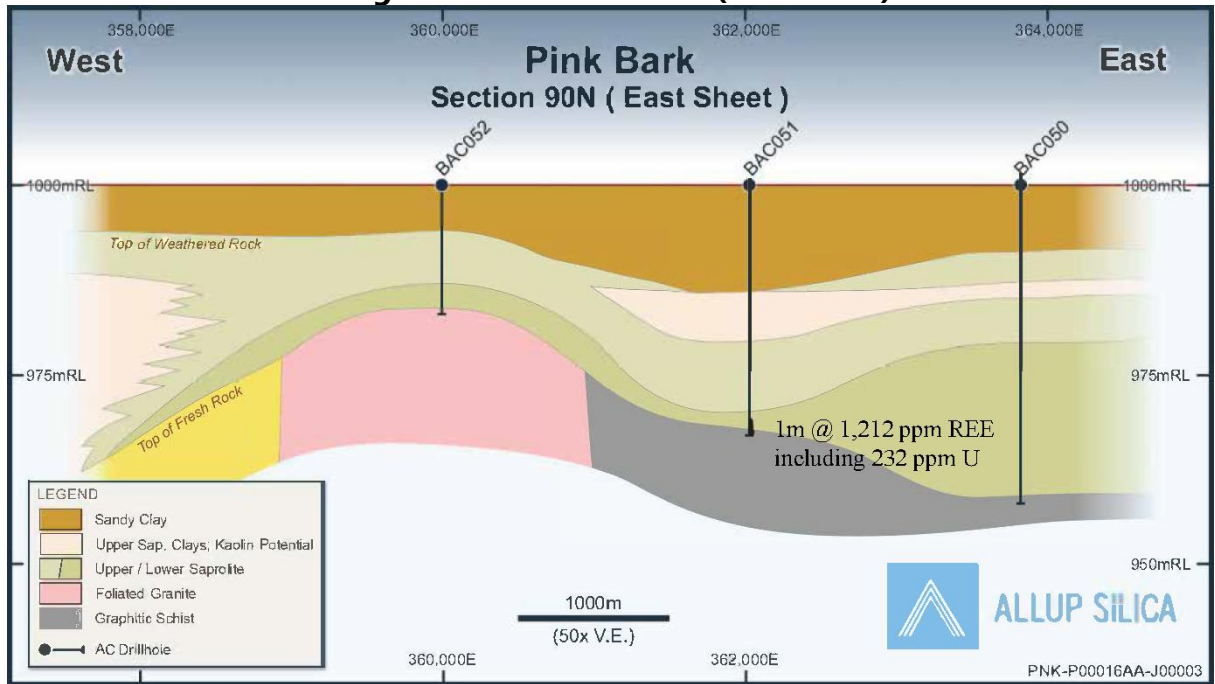
- XRF\* analysis returned results of:
  - $\text{Al}_2\text{O}_3$  ranged from 27.44% to 36.44%, averaging 33.52%, with Hole PBAC059 returning the maximum of 36.44%  $\text{Al}_2\text{O}_3$ ;
  - $\text{LOI}_{1000^\circ\text{C}}$  values ranged from 9.44% to 15.62%, averaging 13.12%;
  - $\text{SiO}_2$  ranged from 45.8 % to 55.5%, averaging 50.4%;
  - $\text{Fe}_2\text{O}_3$  ranged from 0.71% to 3.89%, averaging 1.39%;
- ISO Brightness values ranged from 61.92 to 81.87, with an average brightness of 73.12; and
- Yellowness values ranged from 7.07 to 19.65, with an average of 11.96.
- For high-grade kaolin, using the same cut-off grade of 75 ISO brightness as that for WA Kaolin's Wickepin Kaolin Project as a guide, only samples from drill holes PBAC033, PBAC040, PBAC043 and PBAC059 yielded samples that exceeded the minimum brightness. If a high-grade kaolin product is the target, then further drilling is required to determine the extent of the mineralisation having ISO brightness > 75.

In summary, the work on assessing the quality of the kaolinite intersected in Allup Silica's air core drilling identified significant intersections (plus 10m) of kaolin rich saprolite that has the critical Brightness, yellowness (whiteness) mineralogy and grainsize that compares favourably to existing kaolin products sold on the market today.

Four drill holes stand out in terms of quality, PBAC033, 40, 43 and 55, these hole locations are highlighted on Figure 1 and represent four priority target areas which have been recommended for additional drilling.

### Uranium and Rare Earths

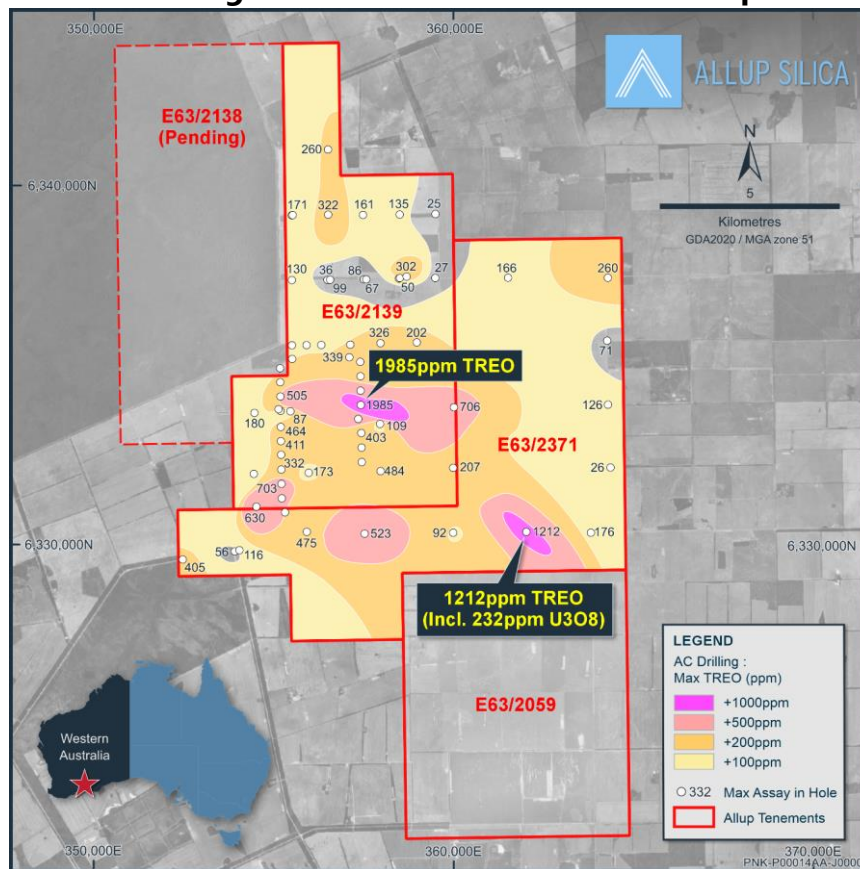
The November 2023 drilling returned a number of significant intersections of Total Rare Earth Elements (TREE) listed on the following table. Overall grades are low, however, the area of the anomalous rare earths exceeds 49km<sup>2</sup> and within this area there are some more significant intersections that suggest the drill hole may be in the vicinity of significant mineralisation.

**Figure 2. Section 0090N (East Sheet)**


The high uranium assay indicated that Allup Silica’s air core drilling has discovered U and associated REE mineralisation; currently not enough information is available to be able to classify the style of mineralisation encountered.

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**Figure 3. Max TREE in Drill Hole Map**


Other notable intersections (> 100 ppm) of TREE from Allup Silica's November 2023 drilling are:

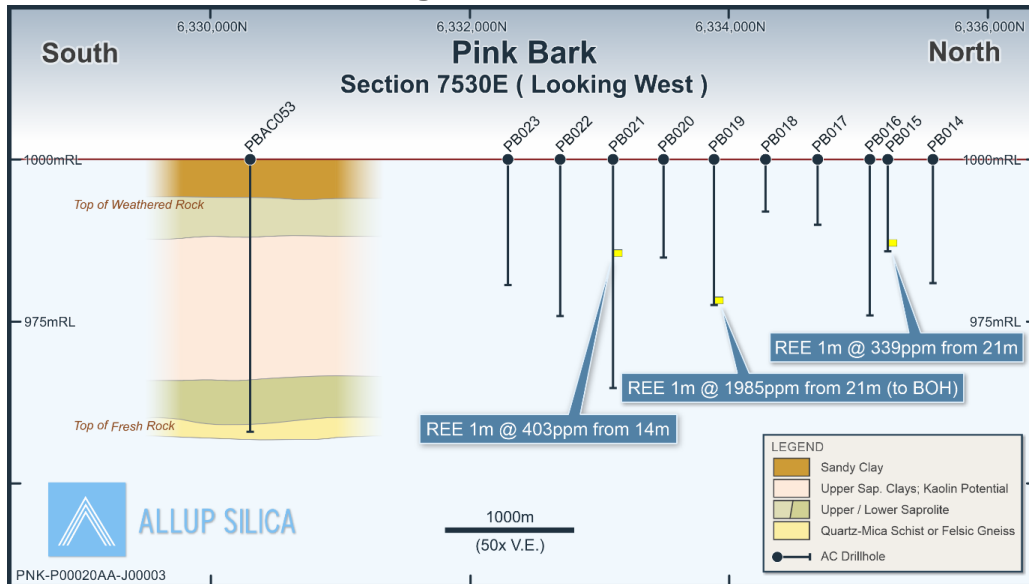
- PBAC058, 37m at 305ppm TREE from 26m
- PBAC057, 10m at 282ppm TREE from 18m
- PBAC063, 4m at 116ppm TREE from 7m and,
- 10m at 243ppm TREE from 15m
- PBAC066, 11m at 324ppm TREE from 6m
- PBAC053, 18m at 270ppm TREE from 24m
- Including 1m @ 523ppm TREE from 41m (Bottom of hole)
- PBAC043, 23m at 158ppm TREE from 6m

Earlier drilling by Allup returned a number of highly anomalous TREE results, key holes are shown on the following cross section, (Figure 4).

Allup is interpreting that much of the REE anomalism intersected in the air core drilling to date represents either distal weak mineralisation and/or dispersed secondary anomalism within the supergene weathered bedrock. Additional air core drilling will be required to close in on potentially economic mineralisation prior to defining reverse circulation and/or diamond drilling targets.

The bottom of hole sample 23739 from PBAC051, 32 to 33m is an in-situ bedrock intersection of significant mineralisation and will be the focus of the next phase of exploration.

**Figure 4, Section 7530E**



## Graphite

Graphitic schist was logged in the lower saprolite/saprock in three drill holes, PBAC050, 051 and 058. All three drill holes are located in the south of E63/2371 (see Figure 1).

While the economic potential of the graphite encountered in these holes is unknown, hole PBAC058 intersected fine grained graphitic schist between 36 and 63m.

Further analytical work to determine the quality of the graphite is anticipated

### Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Shane Hibbird, who is a Member of The Australian Institute of Geoscience and who has more than five years' experience in the field of activity being reported on. Shane Hibbird is the Geologist of the Company. Mr. Hibbird has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hibbird consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This announcement includes references to previously reported exploration results released by the Company to the ASX including the announcement dated 16 November 2023. The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases and that information and the competent person statements are not affected.

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

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### ABOUT ALLUP SILICA LIMITED

Allup Silica is an exploration company focused on the future development of our heavy mineral sands and silica sand tenements located in Western Australia. The Company's plan is to aggressively advance the McLaren Project towards development while continuing to progress our existing silica sand opportunities





JORC 2012 – TABLE 1

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<p>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.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (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.</p>	<ul style="list-style-type: none"> <li>All drilling and sampling was completed to an industry standard.</li> <li>Samples in 1m intervals returned from the cyclone of a conventional air core drilling rig were laid out on the ground in rows of 10m.</li> <li>A washed sample from each metre was collected and stored in a chip tray for logging and photography.</li> <li>Samples were 1 -2kg in size and were taken using a spear made from 50mm diameter PVC pipe.</li> <li>Samples were collected in a calico sample bag and given a unique sample number.</li> <li>All sampling was either supervised by, or undertaken by, qualified geologists.</li> <li>Not all sections drilled were sampled. Intervals of shallow overburden that were recognized as having no economic potential from the geological logging were not always sampled.</li> </ul>
<b>Drilling Techniques</b>	<p>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).</p>	<ul style="list-style-type: none"> <li>Air core drilling was completed by blade bit using industry standard drilling techniques.</li> <li>Aircore is considered to be an appropriate drilling technique for saprolitic clays.</li> <li>Drilling used blade bits of 87mmØ with 3m length drill rods. Drill holes were drilled to blade refusal.</li> <li>Wallis Drilling were contracted to complete the drilling in 2023.</li> </ul>
<b>Drill Sample Recovery</b>	<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>	<ul style="list-style-type: none"> <li>Samples were collected from geological horizons at each location and the entire sample submitted to the laboratory.</li> <li>Aircore recoveries were not recorded but are not considered to be materially biased, given the nature of the geology and samples.</li> <li>The assay data will be analysed against control samples and historical assays for any indications of bias.</li> <li>No relationship between recovery and grade has been identified.</li> </ul>
<b>Logging</b>	<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> </ul>	<ul style="list-style-type: none"> <li>A sample from each metre was collected and stored in a chip tray for logging and future reference. Geological logs recorded lithology, colour and weathering. The chip trays were photographed.</li> <li>The geological logging is qualitative in nature and is considered adequate to support the Mineral Resource Estimation.</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All holes are logged in full</li> </ul>

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<p><b>Sub-sampling techniques and sample preparation</b></p>	<p>If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<ul style="list-style-type: none"> <li>• A composite sample of ~1 - 2kg was taken using a sample spear from each metre pile. Composite samples were of a maximum 4m.</li> <li>• Samples for assay were delivered by Allup Silica employees to Freight Lines Group in Esperance.</li> <li>• Sample sizes are considered appropriate for the sampled material.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• All analytical methods employed are considered total.</li> <li>• No geophysical tools were used.</li> <li>• Laboratory repeat analysis was completed on 10% of the samples submitted for assay.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<p>The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. The verification of significant intersections by either independent or alternative company personnel.</p> <p>Discuss any adjustment to assay data.</p>	<ul style="list-style-type: none"> <li>• Primary data: drill hole data, geological logging, sample intervals etc. are all recorded initially on hard copy in the field and then entered digitally. Maps and cross sections are produced and the digital data verified.</li> <li>• All significant intercepts are calculated by the Company's Exploration Manager and checked by management.</li> <li>• Twin holes have not been drilled.</li> </ul>
<p><b>Location of data points</b></p>	<p>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<ul style="list-style-type: none"> <li>• Allup Silica sampling was surveyed with a hand-held GPS with +/- 5m accuracy.</li> <li>• Grid system is MGA 94 Zone 50</li> <li>• Downhole survey was not undertaken. Drillholes are generally shallow and vertical.</li> <li>• No topography control was used, given the relatively flat topography.</li> </ul>
<p><b>Data spacing and distribution</b></p>	<p>Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.</p>	<ul style="list-style-type: none"> <li>• Drillholes were wide spaced and at irregular intervals over much of the project area.</li> <li>• Downhole samples were taken on 1m intervals and with geological observations used to identify intervals for composite samples.</li> <li>• Drill hole spacing at Pink Bark is not sufficient for resource estimations.</li> <li>• Sample compositing has been used</li> </ul>



<p><b>Orientation of data in relation to geological structure</b></p>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</p>	<ul style="list-style-type: none"> <li>• Drillholes were vertical and perpendicular to the mineralization in flat lying ground.</li> </ul>
<p><b>Sample security</b></p>	<p>The measures taken to ensure sample security.</p>	<ul style="list-style-type: none"> <li>• Allup Silica transported the samples directly to Freight Lines Group in Esperance. The samples were then delivered directly to Nagrom Laboratories in Kelmscott.</li> </ul>

**Section 2 Reporting of Exploration**

Criteria	JORC Code Explanation	
<p><b>Mineral tenement and land tenure status</b></p>	<p>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</p>	<ul style="list-style-type: none"> <li>• The Pink Bark tenement E63/2138 and E63/2371 have been granted to Allup Silica Limited. E63/2059 was purchased from Dundas Minerals Limited with the transfer to Allup Silica taking effect from February 28, 2024.</li> <li>• The company has a Native Title Land Access agreement with the ETNTAC and Land Access and Compensation Agreements with the landowners. The tenement is in good standing with no known encumbrances that might impede future activities.</li> <li>• The presence of freehold title will require granted permissions to be obtained before certain activities are conducted.</li> </ul>
<p><b>Exploration done by other parties</b></p>	<p>Acknowledgment and appraisal of exploration by other parties.</p>	<ul style="list-style-type: none"> <li>• Exploration on the Pink Bark tenement has been limited to a series of air core holes drilled in 2009 by Triton God Ltd targeting gold mineralization in the basement rock. The holes were drilled on a 1,000m x 250m spacing.</li> <li>• The holes intersected overlying sand and clay horizons and the geological logs recorded thickness.</li> </ul>
<p><b>Geology</b></p>	<p>Deposit type, geological setting and style of mineralisation.</p>	<ul style="list-style-type: none"> <li>• The project straddles the contact between the older Archean granitoids of the Yilgarn Craton and the younger Archean Munghlinup Gneiss of the Biranup Complex, part of the Albany-Fraser Orogen in the South of Western Australia.</li> <li>• The host geology of the kaolin mineralisation is typified by bleached saprolite beneath several metres of iron rich lateritic transported clays and sands. The upper saprolite, comprises predominantly of the minerals, kaolinite and quartz. To varying degrees, this composition may be overprinted by haematitic and goethitic iron oxides. Beneath the</li> </ul>

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		<p><i>kaolin rich clay, the saprolite grades into fresh granite and granitic gneiss bedrock.</i></p> <ul style="list-style-type: none"> <li><i>The mineralisation of the Project is weathering derived. The result is a shallow, laterally extensive and sub-horizontal deposit.</i></li> </ul>
<b>Drill hole information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li><i>- easting and northing of the drill hole collar,</i></li> <li><i>- elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar,</i></li> <li><i>- dip and azimuth of the hole,</i></li> <li><i>- down hole length and interception depth hole length.</i></li> </ul> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li><i>The relevant drillhole locations have been provided in the body of this report. All holes were vertical; hence dip and azimuth has not been included in mineral drillhole tabulations.</i></li> </ul>
<b>Data aggregation methods</b>	<p><i>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. 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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<ul style="list-style-type: none"> <li><i>Exploration results are reported as individual sample intervals.</i></li> <li><i>No assay results have been reported.</i></li> <li><i>No metal equivalent grades are used.</i></li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<ul style="list-style-type: none"> <li><i>Intercept lengths are considered to be true widths. The drilling is vertical and is intersecting horizontally bedded mineralisation.</i></li> </ul>
<b>Diagrams</b>	<p><i>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.</i></p>	<ul style="list-style-type: none"> <li><i>Relevant diagrams have been included within the document.</i></li> </ul>
<b>Balanced reporting</b>	<p><i>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.</i></p>	<ul style="list-style-type: none"> <li><i>All exploration results have been reported.</i></li> </ul>
<b>Other substantive exploration data</b>	<p><i>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</i></p>	<ul style="list-style-type: none"> <li><i>No other substantive exploration data is material or meaningful.</i></li> </ul>
	<p><i>contaminating substances.</i></p>	



<b>Further work</b>	<p><i>The nature and scale of planned further work (e.g., tests for lateral extensions or large scale step out drilling.</i></p> <p><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></p>	<ul style="list-style-type: none"><li><i>Allup Silica is proposing a drilling program and metallurgical test work, to delineate the extent of the kaolin deposits and physical properties of the clay to determine potential end user markets.</i></li></ul>
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