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APS

**REGISTERED OFFICE**  
Allup Silica Limited  
Level 13  
191 St Georges Terrace  
Perth, WA 6000

t: 1300 SILICA  
(within Australia)  
t: +61 8 6185 1744  
(outside Australia)

e: [team@allupsilica.com](mailto:team@allupsilica.com)  
w: [www.allupsilica.com](http://www.allupsilica.com)

**BOARD**

**Campbell Smyth**  
Non-Executive Chairman

**Andrew Haythorpe**  
Managing Director

**Gavin Ball**  
Non-Executive Director

## Drilling Follow-up Commences at Pink Bark, WA for Rare Earth Element Mineralisation Program

### Highlights

- **Drilling at Pink Bark has recommenced following assays results received for clay-hosted rare earth oxides (REOs).**
- **Relogging of the drill holes indicates further drilling is warranted to explore additional mineralisation potential for Rare Earth Elements.**

Allup Silica Limited (ASX: **APS**) ("**Allup**" or "**Company**") is pleased to announce it has identified mineralisation of interest following the re-logging of chips from reconnaissance air-core drilling recently completed at its 100%-owned Pink Bark Project in Western Australia.

Allup's focus is on the development of minerals that are critical to the energy transition, leveraging strategically located assets, and providing clear pathways to commercialisation.

### **Allup Managing Director, Andrew Haythorpe said:**

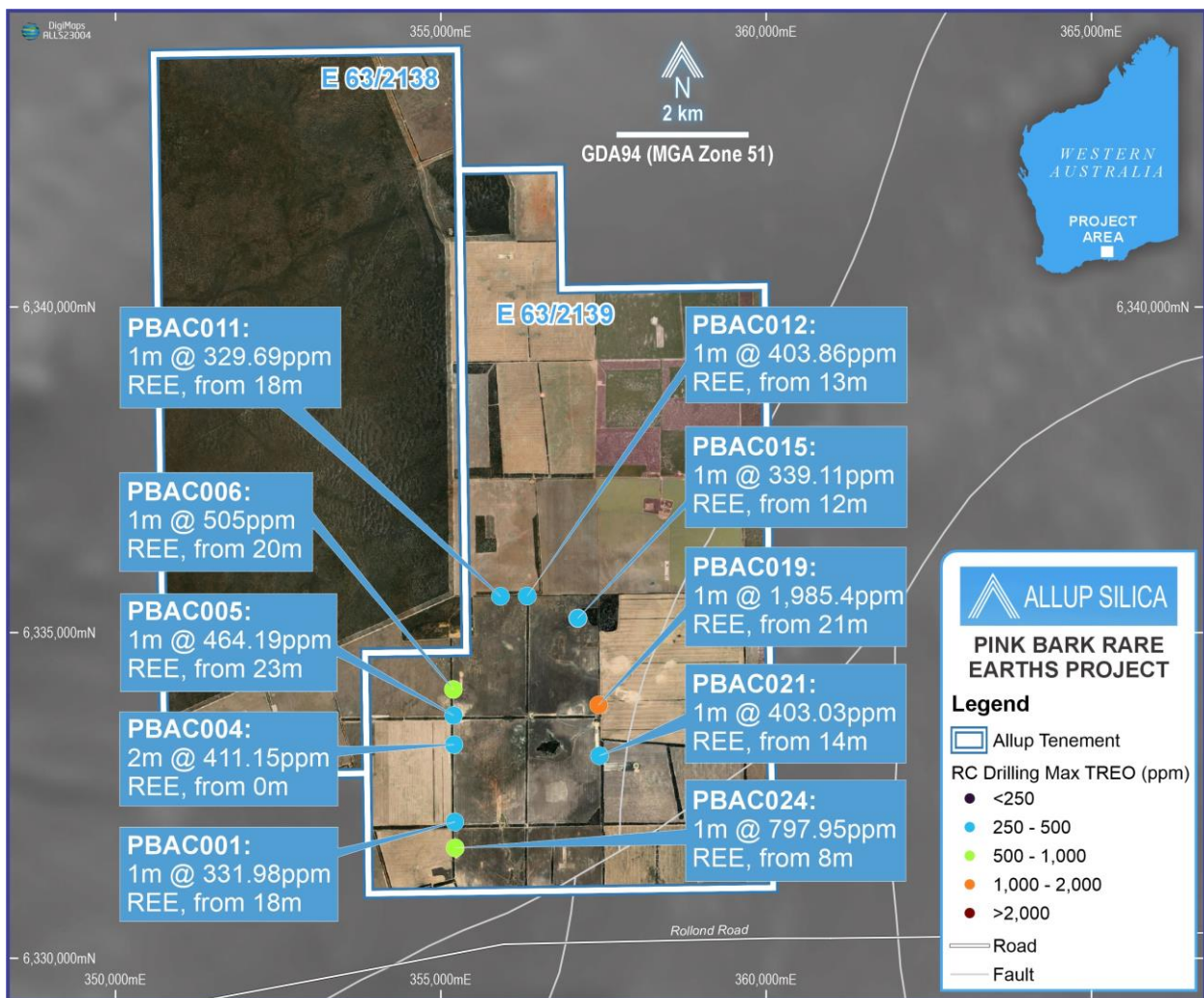
*"We've just completed our air-core drilling at Pink Bark, and the initial results look promising. We've confirmed clay-hosted rare earth oxides and identified further mineral potential near surface.*

*The success of this phase has prompted us to look deeper and further afield at Pink Bark. This is a low-cost opportunity for Allup Silica."*

## Pink Bark Drill Hole Locations

Allup's maiden drilling program, as previously reported, was designed to follow up on surface silica sand mineralisation and, in light of recent results from other companies<sup>1</sup> with tenements nearby, to test for clay-hosted rare earth element (REE) mineralisation. The program was completed with 26 holes totalling 421m at an average depth of 16.2m.

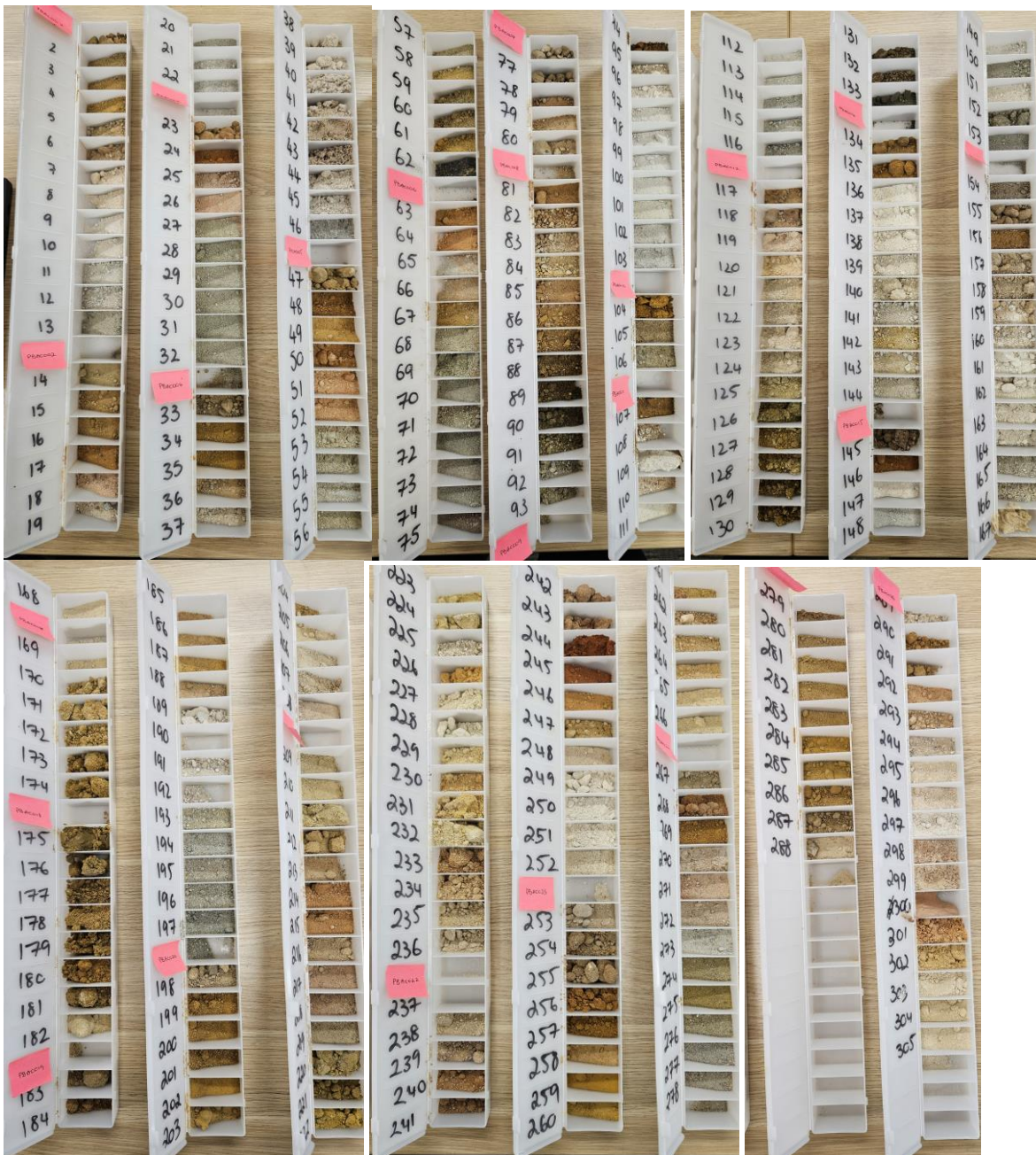
Location of all drill holes with assays >300ppm TREO are highlighted below.



**Figure 1: Pink Bark drill locations with >300ppm grade cut-off.**

## Relogging of the Drill Chip Samples

Assays returned significant TREO grades using a >600ppm and a >300ppm cut-off grade (*refer to previous ASX announcement dated 20 September 2023*). Following receipt of these results, the Company engaged its consulting geologist to re-log the programs chip trays.



**Figure 2. Chip trays showing 1m intervals sampled and re logged from the maiden drill program. Sample ID's 1-305.**

## Pink Bark Prospect

Pink Bark Project, E63/2138, is located in the Albany Frazer 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 nearby prompted Allup to consider the potential for such deposits on its tenement.

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 this province, a number of carbonatites with rare earth potential have been reported and explored for rare earth mineralisation.

The Albany Frazer Province's Biranup granites are rapidly emerging as a focus for exploration for clay and carbonatite-hosted rare earth deposits.

Allup's recent drilling program to test E63/2138 for silica sand resources was expanded to test the underlying clays for REE potential. The holes were not drilled to basement and potentially did not adequately test the clay horizon immediately overlying the granite, but they did return anomalous values indicating potential for clay-hosted rare earth deposits.

Allup is planning further drilling to follow a mini seismic survey designed to target the clay deposits beneath the sand and underlying granite.

## Next Steps

- Follow-up drilling now underway.
- Assess and model drilling data and assay results as they come to hand.
- Follow up any prospective mineralisation.

## References <sup>1</sup>

Moho Resources ASX Announcement – 12 September 2023 - [https://www.mohoresources.com.au/files/ugd/4e06c4\\_432dacfacd12402e8563c349029266f1.pdf](https://www.mohoresources.com.au/files/ugd/4e06c4_432dacfacd12402e8563c349029266f1.pdf)

OD6 Metals ASX Announcement – 15 Augst 2023 - <https://www.od6metals.com.au/wp-content/uploads/2023/08/61163193.pdf>

Meeka Metas ASX Announcement – 29 August 2023 - <https://wcsecure.weblink.com.au/pdf/MEK/02704075.pdf>

## **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Shane Hibbird, who is a Member of both The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscience and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a competent person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Mr Hibbird is a consultant Geologist to the Company and consents to the inclusion in this report of the matters based upon his information in the form and context in which it appears.

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

For further information, please contact:

**Andrew Haythorpe** – Managing Director

ah@allupsilica.com

+61 (0) 407 737 973

**Kristin Rowe** – Media & Investor Relations

NWR Communications

kristin@nwrcommunications.com.au

Phone: +61 (0) 404 88 98 96

## **ABOUT ALLUP SILICA LIMITED**

Allup Silica is a public silica exploration company focused on the future development of our silica sand tenements located in several Western Australian exploration project locations. West Australian sites are in the South-West; in the North-East near Wyndham, and others are in the Southern Goldfields near Esperance. The Company's plan is to work towards development of a commercial silica sand product that meets the industry specifications of the sector we are aiming for. Silica is a critical commodity, particularly in the production of photovoltaic (solar) panels and other critical industrial applications.

**Table 3: Drilling Data Initial program logs – MGA94 Zone 51**

| HOLE ID | Type        | Easting | Northing | End of Hole (m) | Assay Status              |
|---------|-------------|---------|----------|-----------------|---------------------------|
| PB001   | Aircore     | 355213  | 6332093  | 21              | Reported                  |
| PB002   | Aircore     | 355209  | 6332506  | 14              | No significant intercepts |
| PB003   | Aircore     | 355203  | 6332883  | 16              | No significant intercepts |
| PB004   | Aircore     | 355200  | 6333279  | 18              | Reported                  |
| PB005   | Aircore     | 355193  | 6333728  | 25              | Reported                  |
| PB006   | Aircore     | 355190  | 6334127  | 22              | Reported                  |
| PB007   | Aircore     | 355185  | 6334526  | 7               | No significant intercepts |
| PB008   | Aircore     | 355180  | 6334916  | 16              | No significant intercepts |
| PB009   | Aircore     | 355515  | 6335173  | 11              | No significant intercepts |
| PB010   | Aircore     | 355510  | 6335551  | 3               | No significant intercepts |
| PB011   | Aircore     | 355914  | 6335557  | 11              | Reported                  |
| PB012   | Aircore     | 356326  | 6335561  | 18              | Reported                  |
| PB013   | Not drilled |         |          |                 | Not drilled               |
| PB014   | Aircore     | 357132  | 6335570  | 19              | No significant intercepts |
| PB015   | Aircore     | 357105  | 6335220  | 14              | Reported                  |
| PB016   | Aircore     | 357407  | 6335090  | 24              | No significant intercepts |
| PB017   | Aircore     | 357415  | 6334689  | 10              | No significant intercepts |
| PB018   | Aircore     | 357417  | 6334288  | 8               | No significant intercepts |
| PB019   | Aircore     | 357424  | 6333889  | 22              | Reported                  |
| PB020   | Aircore     | 357353  | 6333501  | 15              | No significant intercepts |
| PB021   | Aircore     | 357438  | 6333110  | 35              | No significant intercepts |
| PB022   | Aircore     | 357447  | 6332704  | 24              | No significant intercepts |
| PB023   | Aircore     | 357451  | 6332301  | 19              | No significant intercepts |
| PB024   | Aircore     | 355219  | 6331694  | 17              | Reported                  |
| PB025   | Aircore     | 355227  | 6331291  | 10              | No significant intercepts |
| PB026   | Aircore     | 355318  | 6330903  | 22              | No significant intercepts |

## JORC 2012 – Pink Bark

| Section 1 Sampling Techniques and Data                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Criteria                                              | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Sampling techniques</b>                            | <p>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</p> | <ul style="list-style-type: none"> <li>All drilling and sampling was completed to an industry standard.</li> <li>Sampling was undertaken by sampling of 1m intervals returned from the cyclone of a conventional AC rig.</li> <li>Reference samples, duplicates and blank samples were inserted into the sample stream to represent ~5% of the samples submitted to the laboratory.</li> <li>A sample from each metre was collected and stored in a chip tray for logging.</li> </ul> |
| <b>Drilling Techniques</b>                            | <p>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</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 and silica sand.</li> <li>Drilling used blade bits of 87mmØ with 3m length drill rods to blade refusal.</li> </ul>                                                                                                                                       |
| <b>Drill Sample Recovery</b>                          | <p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Samples were collected from geological horizon 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> </ul>                                                   |
| <b>Logging</b>                                        | <p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>A sample from each metre was collected and stored in a chip tray for logging.</li> <li>Geological logs recorded lithology, colour and weathering.</li> </ul>                                                                                                                                                                                                                                                                                   |
| <b>Sub-sampling techniques and sample preparation</b> | <p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>A composite sample of ~3kg was taken using a scoop from each metre pile to subsample to a ~1kg sample.</li> <li>Samples for assay were delivered by Allup Silica employees directly to Nagrom Metallurgical</li> </ul>                                                                                                                                                                                                                         |



|                                                          | <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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>                                                                                                                                                                                                                                                                                                                                        | <p>Laboratory sample preparation facility in Perth (Western Australia).</p> <ul style="list-style-type: none"> <li>Commercial industry prepared independent standards and duplicates were inserted every ~50 samples.</li> <li>Sample sizes are considered appropriate for the sampled material.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
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| <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</p> | <ul style="list-style-type: none"> <li>The independent laboratory crushed the entire sample to 2mm pulverised and riffle split to create 100g sample for analysis.</li> <li>Surface samples were assayed by Nagrom Metallurgical Laboratory (Perth) with a suite of 23 elements and LOI with 12 rare earth elements add on.</li> <li>The analysis techniques are considered quantitative in nature.</li> <li>The standards are considered satisfactory.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| <p><b>Verification of sampling and assaying</b></p>      | <p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>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>All drilling and sampling procedures were documented and monitored on site.</li> <li>No twinned holes have been drilled.</li> <li>All data is stored in a verified database.</li> <li>Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors.</li> </ul> <table border="1"> <thead> <tr> <th>Element</th><th>Conversion Factor</th><th>Oxide Form</th></tr> </thead> <tbody> <tr><td>Ce</td><td>1.1713</td><td>CeO2</td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy2O3</td></tr> <tr><td>Er</td><td>1.1435</td><td>Er2O3</td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu2O3</td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd2O3</td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho2O3</td></tr> <tr><td>La</td><td>1.1728</td><td>La2O3</td></tr> <tr><td>Lu</td><td>1.1372</td><td>Lu2O3</td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd2O3</td></tr> <tr><td>Pr</td><td>1.1703</td><td>Pr6O11</td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm2O3</td></tr> <tr><td>Tb</td><td>1.151</td><td>Tb4O7</td></tr> <tr><td>Th</td><td>1.1379</td><td>ThO2</td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm2O3</td></tr> <tr><td>U</td><td>1.1792</td><td>U3O8</td></tr> <tr><td>Y</td><td>1.2699</td><td>Y2O3</td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb2O3</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO in the reporting and evaluation groups.</li> <li>TREO (Total Rare Earth Oxide) = CeO2 + Dy2O3 + Er2O3 + Eu2O3 + Gd2O3 + Ho2O3 + La2O3 + Lu2O3 + Nd2O3 + Pr6O11 + Sm2O3 + Tb4O7 + ThO2 + Tm2O3 + U3O8 + Y2O3 + Yb2O3</li> </ul> | Element | Conversion Factor | Oxide Form | Ce | 1.1713 | CeO2 | Dy | 1.1477 | Dy2O3 | Er | 1.1435 | Er2O3 | Eu | 1.1579 | Eu2O3 | Gd | 1.1526 | Gd2O3 | Ho | 1.1455 | Ho2O3 | La | 1.1728 | La2O3 | Lu | 1.1372 | Lu2O3 | Nd | 1.1664 | Nd2O3 | Pr | 1.1703 | Pr6O11 | Sm | 1.1596 | Sm2O3 | Tb | 1.151 | Tb4O7 | Th | 1.1379 | ThO2 | Tm | 1.1421 | Tm2O3 | U | 1.1792 | U3O8 | Y | 1.2699 | Y2O3 | Yb | 1.1387 | Yb2O3 |
| Element                                                  | Conversion Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Oxide Form                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Ce                                                       | 1.1713                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CeO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Dy                                                       | 1.1477                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dy2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Er                                                       | 1.1435                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Er2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Eu                                                       | 1.1579                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Eu2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Gd                                                       | 1.1526                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Gd2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Ho                                                       | 1.1455                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ho2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| La                                                       | 1.1728                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | La2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Lu                                                       | 1.1372                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Lu2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Nd                                                       | 1.1664                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nd2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Pr                                                       | 1.1703                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pr6O11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Sm                                                       | 1.1596                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Sm2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Tb                                                       | 1.151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Tb4O7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Th                                                       | 1.1379                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ThO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Tm                                                       | 1.1421                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Tm2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| U                                                        | 1.1792                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | U3O8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Y                                                        | 1.2699                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Y2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |
| Yb                                                       | 1.1387                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yb2O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                   |            |    |        |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |        |        |    |        |       |    |       |       |    |        |      |    |        |       |   |        |      |   |        |      |    |        |       |

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|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location of data points</b>                                 | <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.</p> <p>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 51</li> <li>Downhole survey was not undertaken.</li> <li>No topography control was used, given the relatively flat topography.</li> </ul> |
| <b>Data spacing and distribution</b>                           | <p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>                                   | <ul style="list-style-type: none"> <li>Drillholes were wide spaced and at irregular intervals.</li> <li>Downhole samples were taken on 1m intervals and with geological observations used to identify intervals for composite samples.</li> </ul>                                                  |
| <b>Orientation of data in relation to geological structure</b> | <p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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 mineralisation in flat lying ground.</li> </ul>                                                                                                                                                           |
| <b>Sample security</b>                                         | <p>The measures taken to ensure sample security.</p>                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>Allup Silica transported the samples directly to the assay laboratory in Perth WA.</li> </ul>                                                                                                                                                               |

## Section 2 Reporting of Exploration

| Criteria                                       | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mineral tenement and land tenure status</b> | <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.</p> <p>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 has been granted to Allup Silica Limited.</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> |
| <b>Exploration done by other parties</b>       | <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 Aircore 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</li> </ul>                                                                                                                                                       |

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|                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | geological logs recorded thickness.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Geology</b>                                                          | Deposit type, geological setting and style of mineralisation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• Aeolian processes (wind) have been active in arid climatic times with sands and more loams being blown from ancient dry lakes, salt pans and riverbeds. These are mainly grey and yellow sands found inside the tenement.</li> <li>• The potential rare earth mineralisation occurs in the weathered saprolitic clays.</li> </ul>                                          |
| <b>Drill hole information</b>                                           | <p>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:</p> <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 hole length.</li> </ul> <p>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.</p> | <ul style="list-style-type: none"> <li>• 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.</li> </ul>                                                                                                                                                                          |
| <b>Data aggregation methods</b>                                         | <p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Exploration results are reported as individual sample intervals.</li> <li>• A cut off grade of 300ppm TREO has been applied. APS considers this to be an appropriate cut-off grade for exploration data in a clay hosted REE project.</li> <li>• Multielement results are converted to stoichiometric oxide using element-to-stoichiometric conversion factors.</li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• All air core holes were drilled vertically and are considered to be drilled perpendicular to mineralised horizons, hence considered representative of true width</li> </ul>                                                                                                                                                                                                |
| <b>Diagrams</b>                                                         | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>• Relevant diagrams have been included within the document.</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Balanced reporting</b>                                               | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• All exploration results have been reported.</li> </ul>                                                                                                                                                                                                                                                                                                                     |



|                                           |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                         |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Other substantive exploration data</b> | <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 contaminating substances.</i> | <ul style="list-style-type: none"><li>• <i>No other substantive exploration data is material or meaningful.</i></li></ul>                                                               |
| <b>Further work</b>                       | <i>The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling. Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>                                                                     | <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 clay-hosted deposits.</i></li></ul> |