Archer Materials Limited (ACN: 123 993 233)
Ground Floor, 28 Greenhill Road, SA 5034

ASX Announcement (ASX:**AXE**) 3 March 2020

Halloysite confirmed at Franklyn Halloysite-Kaolin Project

Highlights

- Halloysite confirmed in drilling at Franklyn Halloysite-Kaolin Project.
- Aircore drilling at the Eyre Peninsula Halloysite-Kaolin Project ("EP Project") is completed with 21 holes drilled for 506m across three prospects.
- Visual indications from EP Project support good kaolin development over thick intervals.
- Beneficiation trials with a potential customer are expected to commence later this month.
- Assay, XRD and other test results from EP Project expected in coming weeks.

Archer Materials Limited ("Archer", "Company", ASX:**AXE**) is pleased to announce an update on the results of drilling at the Company's 100% owned Franklyn Halloysite-Kaolin Project ("Franklyn Project") and the Eyre Peninsula Halloysite-Kaolin Project ("EP Project") (Fig. 1).

Commenting on the drilling, Archer Executive Chairman Greg English said, "The confirmed presence of high-value mineral halloysite at the Franklyn Project is very encouraging and considerably increases the potential for commercial development of this very large project".

"The recently completed drill program at the EP Project has confirmed the presence of kaolin over a large area at the Kelly tank, Bunora and Bunora East Prospects. The kaolin is more pervasive than expected and in places confirms the previous test work done by Pechiney."

"We have two very exciting large halloysite-kaolin projects that are close to existing infrastructure and have the potential to add considerable value for Archer shareholders."

Franklyn Halloysite-Kaolin Project results

Archer's maiden drill program at Franklyn was completed in December 2019 (ASX announcement 4 Dec 2019) with 21 holes drilled approximately 500m apart to test and extend the scale of halloysite and kaolin mineralisation recorded in historic drilling. The kaolin clay drillhole samples were tested for chemical composition (i.e. Al_2O_3 grade) and for the presence of halloysite.

Kaolinitic clays were intersected in 18 of the holes drilled at the Franklyn Project with drill holes FRAC19-14 to FRAC19 reporting screened grades above 36% Al_2O_3 and recoveries above 50% (ASX announcement 15 Jan 2020). Samples from these holes were then submitted for further testing to confirm the presence of halloysite using X-ray Diffraction ("XRD") analyses. This test

work has confirmed the presence of halloysite at the Franklyn Project and greatly increases the potential of the Franklyn Project.

Eyre Peninsula Halloysite-Kaolin Project results

The EP Project comprises the Kelly Tank, Bunora and Bunora East prospects. The Company recently completed a 21 hole aircore drill program with eleven holes drilled at Bunora, three holes at Bunora East and seven holes at Kelly Tank (ASX announcement 3 Feb 2020). All holes intersected kaolin mineralisation with some kaolin outcropping at surface (BLAC20_002, see Fig. 2) and the remaining kaolin covered by less than 3 metres of soils.

The results of the drilling at the EP Project are particularly encouraging with kaolin intervals greater than 15m being observed (Fig. 2, Fig. 3 and Fig. 4). The drill samples from each hole have been prepared and submitted for analysis with results expected in the coming weeks.

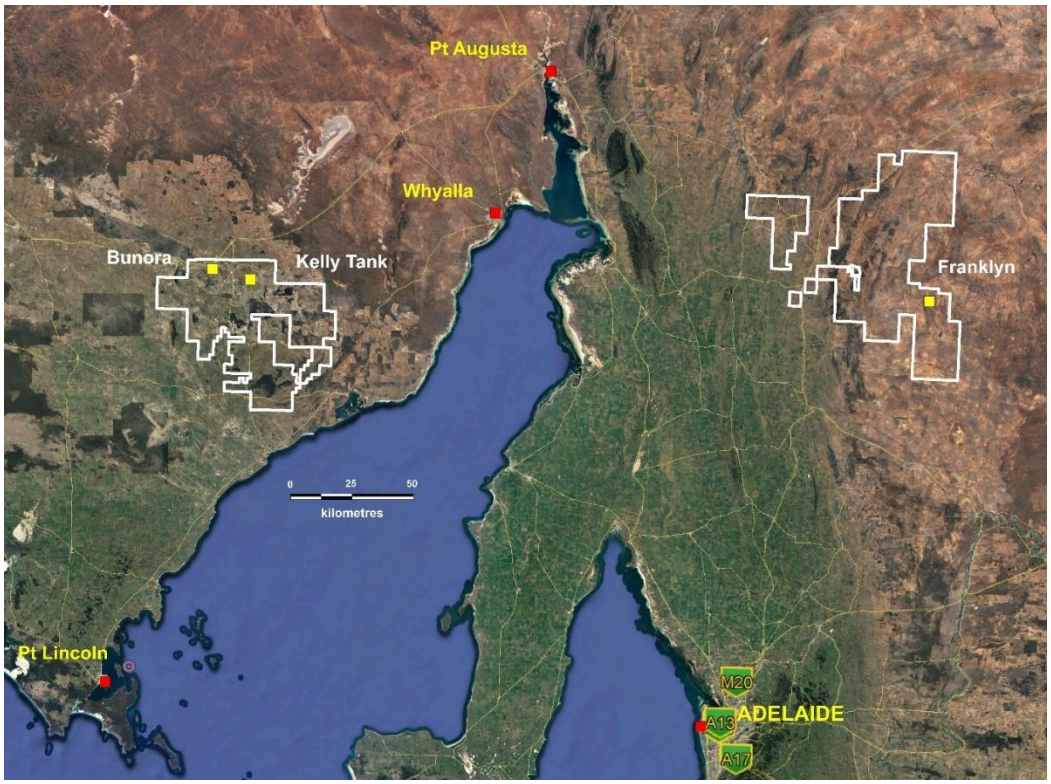
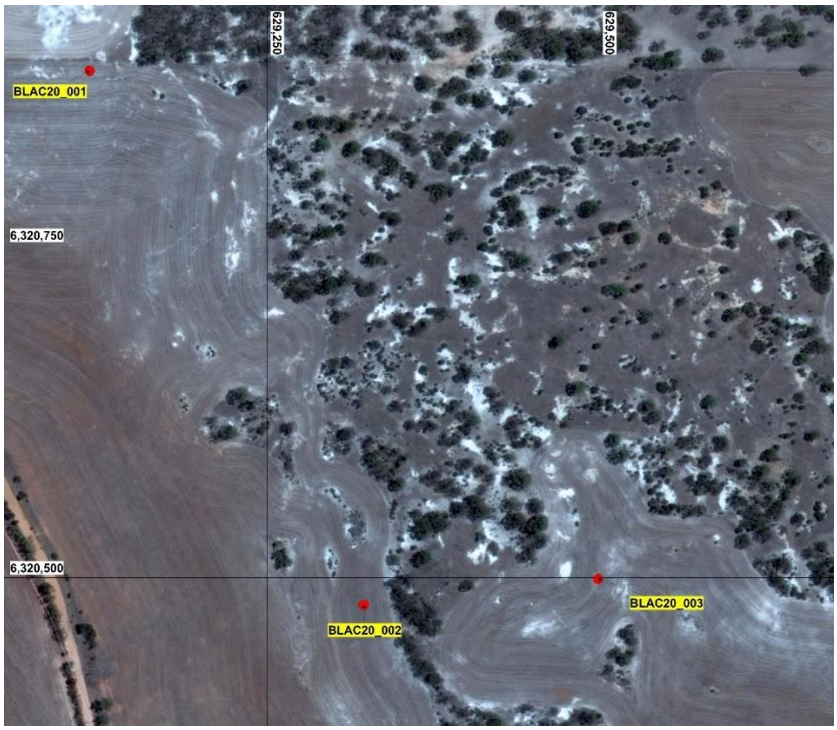


Fig. 1. Location of EP Project and Franklyn Project.

<u>Bunora East drilling</u>

Three holes were drilled to test the kaolin around the historical work done by Pechiney in the 1970's, the historical trench dug by Pechiney is backfilled and located 150m north of BLAC20-002. It is in this trench that halloysite was reported by the SA government in (RB 93/37, Sept 1993).

Sequences of white to "off white" kaolin clay were intersected by Archer from the surface in all 3 holes drilled at Bunora East (Fig. 2 shows the profile of the rock intersected with the numbers in the ship tray indicating depth downhole (e.g. "4" means 4 metres downhole from the surface).



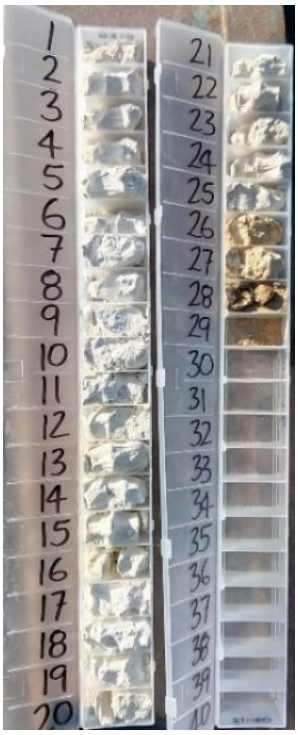


Fig. 2. Locations of holes drilled at Bunora East an example of drilled material at BLAC20-002.

Bunora drilling

Eleven holes were drilled by Archer at Bunora. White kaolin clays were intersected from between 2m – 9m of the surface (Fig. 3). Hole BNAC20-006 (chip tray Fig. 3) was indicative of the type of mineralisation intersected at Bunora. All holes intersected kaolin.

Kelly Tank drilling

Seven holes were drilled at Kelly Tank (Fig. 4), with white kaolin intersected from surface to depths of 14m, off white kaolin is reported to depths of greater than 20m. All holes intersected kaolin.

Industry Background

Kaolin and halloysite are alumina-si'icate based clays, that commonly occur intermixed, and are part of a larger A$3 billion constru :tion materials industry in Australia†. These materials have recently emerged as a potential feedstock in processing high-value and hard-to-substitute high-purity alumina (HPA)‡ that could be used in deep-tech applications such as light-emitting diodes and lithium-ion batteries; with halloysite having a nanostructure that may allow its use as an efficient catalyst in the petrochemicals industry.

Many new emerging applications have recently become commercialised in the field of Catalysts, molecular sieves, environmentally friendly flame retardants for plastic composites, cosmetics and personal care applications. These large and growing markets offer significant commercial development potential upon successful findings for the Company's Halloysite-Kaolin exploration programs, including those reported in this announcement.

† https://www.ibisworld.com.au/industry-trends/market-research-reports/mining/rock-limestone-clay-mining.html
‡ https://www.qut.edu.au/news?news-id=153588

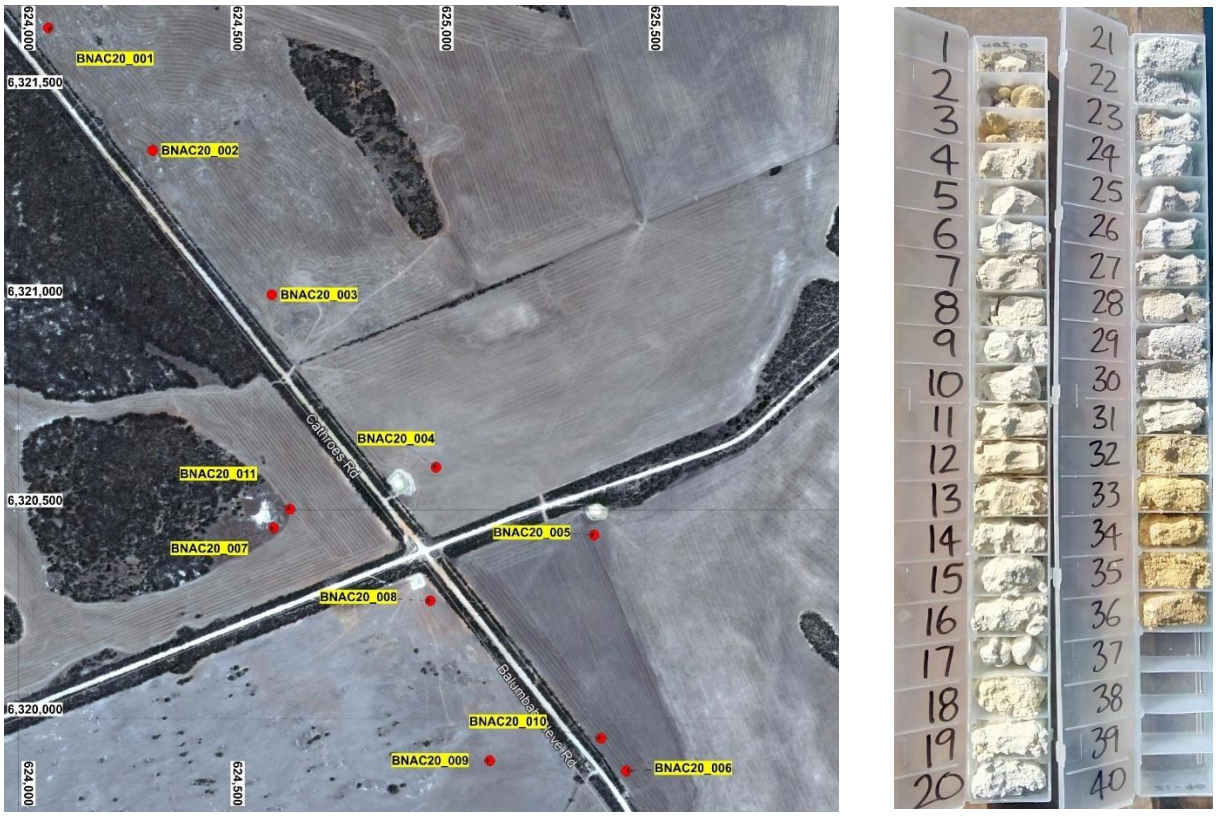


Fig. 3. Locations of holes drilled at Bunora, with the BNAC20-006 drilled material shown.

Fig. 4. Locations of holes drilled at Kelly Tank, with the KTAC20-006 drilled material shown.

Next Steps

The EP Project drillhole samples have been prepared and ranked according to prospectivity. Now that this ranking is completed, composite samples have been prepared and have been submitted for characterisation of Halloysite content with pilot plant beneficiation trials being planned as a next step with a major global specialty clay producer.

Metallurgical test work is ongoing for the remaining Franklyn Project samples, with results expected in the next 2-3 weeks.

Fig. 5. Aircore rig at Hole BNAC20_002

About Archer

Archer provides shareholders exposure to financial returns from innovative technologies and the materials that underpin them. The Company's strategy is to build an industry-leading Materials Technology company, that delivers maximum value to shareholders through the commercialisation of assets at various stages of the materials lifecycle. Archer has strong intellectual property, broad-scope mineral tenements, world-class in-house expertise, a diverse advanced materials inventory, and access to over $300 million of R&D infrastructure.

Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Wade Bollenhagen, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Archer Materials Limited.

Mr Bollenhagen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Bollenhagen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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The Board of Archer authorised this announcement to be given to ASX.

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For more information about Archer's activities, please visit our:

Website:
https://archerx.com.au/

Twitter:
https://twitter.com/archerxau?lang=en

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JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data *(Criteria in this section apply to all succeeding sections.)*

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• All samples were collected through a cyclone into plastic bags, composite samples were created from selected 1 metre intervals, which have been sent for chemical analyses. • Intervals were determined to be kaolin dominant through visual observations, laboratory testing of this assumption is then undertaken. • Composite intervals were created based upon the geology and colour. As such the composite intervals created vary in length from 2m to 5m. Composite samples weigh roughly 0.5kg for initial test work.
Drilling Techniques	• Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• Aircore drilling was undertaken to collect the sample, rod diameter was 75mm.
Drill Sample Recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• No measurements of recovery were undertaken, all drilling was dry, loss to fines was considered to minimal.

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Criteria	JORC Code Explanation	Commentary
Logging	• 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	• All logging was qualitative, all sample intervals were recorded.
Sub-Sampling Techniques and Sample Preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• From the raw sample a 500gm composite sample was created for first pass analyses. • Not all sample intervals have been submitted for analyses, composite intervals have been determined and ranked as priority 1 and 2. • All priority 1 samples and some Priority 2 samples have been submitted for test work. • Depending on the outcome of this work, additional composite samples may be submitted. • Subsequent samples, representing the single metre intervals may be taken and submitted for analyses if the composite samples support this.
Quality of Assay Data and Laboratory Tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• All wet chemistry laboratory work will be undertaken by a certified laboratory, which will include the blunging and screening work. • All work is very early indicatory work on random samples that are not representative of an ore body. • All Industry Standard practices are used in laboratory. • No assays are being reported.

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Criteria	JORC Code Explanation	Commentary
Verification of Sampling and Assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• No assays are being reported. • The sampling program was designed to test sites located nearby to historically drilled holes that have had kaolin reported in them (the quality the sample medium of those historical holes was not sufficient to base any plans on and as such these holes were drilled and fresh material collected. • Holes have been drilled within 50m of historical drill holes. • Data entry was by paper logs in the field, entered into spreadsheet at a latter point.
Location of Data Points	• Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Sample positions are shown in images and co-ordinates reported. • Grid system MGA94 Zone 53, a hand held Garmin GPS was used for co-ordinate recording for holes drilled. • The Franklyn deposit resides in the grid system MGA94 Zone 54.
Data Spacing and Distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• The locations of the holes were determined by access and were a first pass check of historical drilling, as such they were drilled close to historical holes. • The first pass sampling has been undertaken on variably composited intervals, where necessary single metre intervals will be analysed if the early results provide support for this

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Criteria	JORC Code Explanation	Commentary
Orientation of Data in Relation to Geological Structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Planned holes were drilled vertically. • The types of rocks that have been weathered to produce the kaolin cover very large aerial extents, far beyond the areas deemed exploration targets. • Faults and other fracture type systems can enhance local weathering, i.e. deepen the system, it is unknown what influence if any these have played in the kaolin development,
Sample Security	• The measures taken to ensure sample security.	• All samples were transported from site to secure storage by the onsite personnel supervised by the onsite geologist.
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits undertaken. • One review by the SA government in 1993 and summarised in Report book 93/57.

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Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Tenement status confirmed on SARIG • All work being reported is from EL 5815 and ELA 2019/102, Archer Energy & Resources Pty Ltd (a subsidiary of AXE) owns the tenement. • The granted tenement is in good standing with no known impositions. • It is unknown when the ELA will be granted, an offer by the govt has been made and AXE has accepted the conditions.
Exploration Done by Other Parties	• Acknowledgment and appraisal of exploration by other parties.	• Pechiney (1968 - 1971) and CSR (1971 – 1973) these 3 locations for kaolin, no samples remain from their work. These areas were tested for paper whitening purposes. • ENV 01948, Pacminex Pty Ltd 1972, Final progress/summary report to licence surrender, for the period October 1969 to April 1972. • WMC (CRA) mid 1980's, exploring for base metals. • Other explorers have held exploration licences over the ground up till the current date. Exploration has been for precious metals. • SA government Dept Mines and Energy, Geological Survey) undertook a study of Kaolin on the Eyre Peninsula and reported it in RB 93/37, September 1993. Review of exploration for kaolin in the Kimba area, Eyre Peninsula, South Australia

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Criteria	JORC Code Explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralisation.	• Deep weathering of the Cleve Uplands, south of Kimba on northern Eyre Peninsula, has resulted in widespread kaolinisation of early Proterozoic Hutchinson Group schist and Lincoln Complex.

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<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr>
<td>Drillhole Information</td>
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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:

Easting and northing of the drill hole collar
Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
Dip and azimuth of the hole
Downhole length and interception depth
Hole length

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.

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<table>
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Criteria	JORC Code Explanation	Commentary
Data Aggregation Methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No assays are being reported.
Relationship Between Mineralisation Widths and Intercept Lengths	• These relationships are particularly important in the reporting of Exploration Results. • 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 downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	• No assays being reported. • The mineralisation being kaolin is a consequence of the weathering of other minerals *in situ*. As such the overall form of the mineralisation will be flat lying, and in parts influenced by geological structures and features (ie faults), some of which may enhance the overall depth of kaolin development. • This will need to be investigated with additional drilling to determine the overall volume of kaolin development.
Diagrams	• 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.	• Plan locations of drill holes are shown in the body of the report
Balanced Reporting	• 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.	• The reporting is considered to be balanced.
Other Substantive Exploration Data	• 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.	• None to report at this stage of the review. • Historical work has been reported in previous releases: • 19th August 2019, 26th September 2019, 18th November 2019 and 15th January 2020.

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Further Work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth 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.	• Exploration work is required to confirm the historical work and advance the projects towards a more certain nature, which will hopefully lead to a confidence level where resources can be estimated.