



15 December 2021

ASX ANNOUNCEMENT



**WHITE
KNIGHT
KAOLIN**

PITTONG OPERATIONS

Further High Grade Halloysite at Trawalla, Grades Up to 32.4%

- Test work on Trawalla refined clay continues to show very high levels of Kaolin and Halloysite with significant concentrations of halloysite recorded up to 32.4%
- Halloysite continues to be prevalent, with previous results showing concentrations up to 38.9% and 45.4% (ASX announcement 9 & 28 September 2021)
- Trawalla's halloysite-kaolin hybrid offers Suvo the opportunity to be the first halloysite-kaolin producer in Australia producing high-quality end user products addressing existing ceramic, pharmaceutical and cosmetic markets and importantly the rapidly evolving battery through HPA and nano technology markets
- Test work and product commercialisation is being planned with independent world-class testing laboratories
- The maiden Mineral Resource estimate reported in accordance with JORC resulted in a 20% increase of kaolin product to approximately 3.5Mt compared with the previous historical estimate which will support a long life production project (ASX announcement 22 September 2021)
- Trawalla is 100% owned by Suvo Minerals Australia and located only 23km from Suvo's operating Pittong hydrous kaolin processing facility, the only hydrous kaolin plant in Australia

SUVO STRATEGIC MINERALS LIMITED

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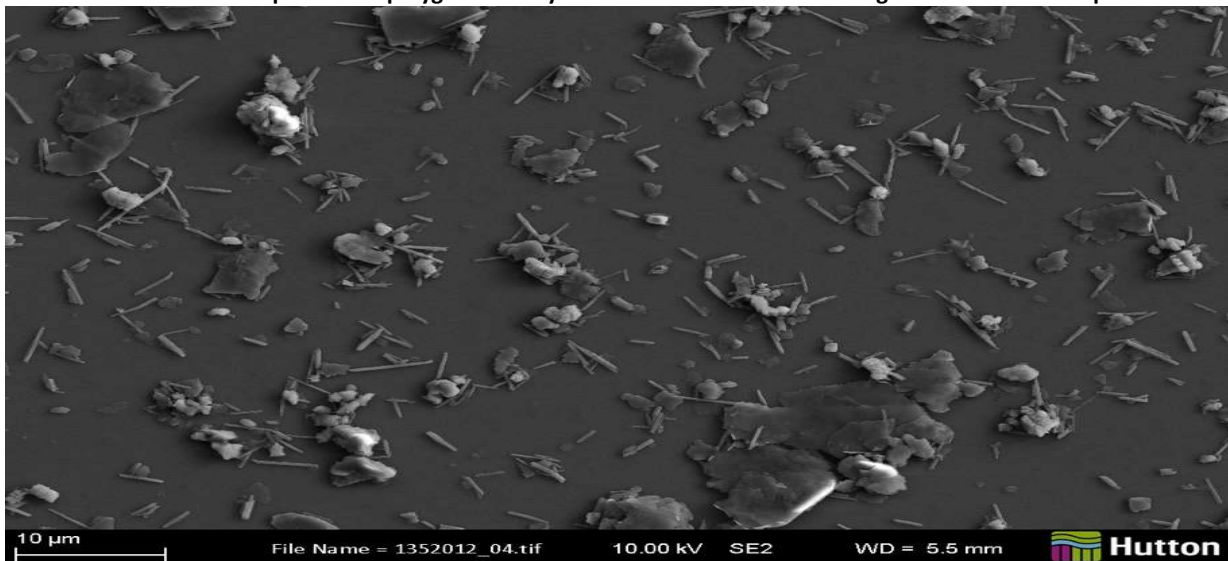
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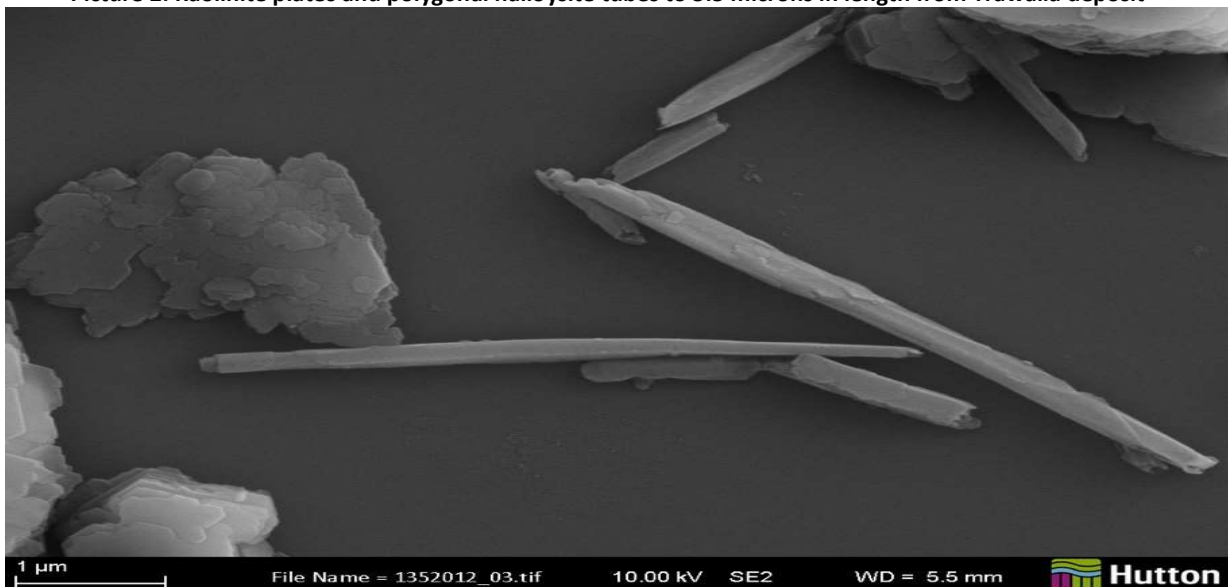
Australian kaolin producer and silica sand exploration company, Suvo Strategic Minerals Limited ('Suvo or the Company'), is pleased to announce that further refined clay samples from Trawalla contained up to 32.4% halloysite. Samples were submitted to James Hutton for bulk mineralogy by X-ray powder diffraction as part of the resource estimation at Trawalla. Work is ongoing on other samples.

Commenting on the results, Suvo's Executive Chairman, Robert Martin said *"This is another outstanding result from the drill samples from our Trawalla deposit. We are currently working with our international partners and experts to identify new market segments for Trawalla including opportunities in a number of high value industries including concrete, ceramics and battery and nano technology. Being the only operating hydrous kaolin mine in Australia will put us front and centre of these ever expanding markets."*

Picture 1: Kaolinite plates and polygonal halloysite tubes to 5.5 microns in length from Trawalla deposit



Picture 2: Kaolinite plates and polygonal halloysite tubes to 5.5 microns in length from Trawalla deposit



Test Work

Samples of refined clay from Trawalla, as a continuation of works following on from the JORC conversion process, were sent to James Hutton for bulk mineralogy analysis by x-ray powder diffraction (XRPD). The samples were wet ground for 12 minutes in a McCrone mill and spray dried to produce random powder specimens.

A summary of the results is provided below:

Table 1 : New and existing XRD results

			ISO Brightness		Yield	XRD Result %					
Collar	From	To	ISO-a	ISO-b	%	Quartz	K-Feldspar	Kaolinite	Halloysite	Others	Total
T21006	1	3	69.7	74	27.1	Not analysed					
T21006	3	5	74.9	81.7	39.5	1.7	0.4	82.9*	13.3	1.7	100
T21006	5	7	75	83.3	33.1	1.4	0.3	85.4*	11.9	1	100
T21006	7	9	81.2	86.2	34.7	1	0.1	84.4*	14	0.5	100
T21006	9	11	86.2	88.6	22.4	0.7	1.9	76.3*	21.1	0	100
T21006	11	13	86.6	89.2	22.1	0.6	2.6	74.2*	22.6	0	100
T21006	13	16	69.6	72.6	19.9	1.7	0.4	79.3*	15.8	2.8	100
T21006	16	18	74.2	78	19.3	0.9	4.1	67.6*	26.1	1.3	100

			ISO Brightness		Yield	XRD Result %					
Collar	From	To	ISO-a	ISO-b	%	Quartz	K-Feldspar	Kaolinite	Halloysite	Others	Total
T21005	4	5	59.8	64.3	40.8	2.6	1.2	76.8*	16.1	3.3	100
T21005	5	7	64.8	68.4	32.9	1.5	0.5	79.3*	16.5	2.2	100
T21005	7	9	67.4	73.4	27.6	0.7	0	81.9*	17.4	0	100
T21005	9	11	71.3	80.5	29.8	0.9	0.2	84.5*	13.7	0.7	100
T21005	11	13	72.9	85.7	33.8	0.6	0	83.4*	16	0	100
T21005	13	15	79.9	88.7	36.9	0.8	nd	86.6*	12.2	0.4	100
T21005	15	17	78.7	86.4	22.1	0.5	0	74.8*	24.7	0	100
T21005	17	19	86.7	91.3	22.5	0.8	0.2	65.5*	33.2	0.3	100
T21005	19	21	84.5	90	18.4	0.7	2.5	51.4*	45.4	0	100
T21005	21	23	79.4	85	22.8	1	4.6	54.8*	38.9	0.7	100

			ISO Brightness		Yield	XRD Result %					
Collar	From	To	ISO-a	ISO-b	%	Quartz	K-Feldspar	Kaolinite	Halloysite	Others	Total
T21004	4	6	53.6	58.1	47.5	0.6	nd	99.2	nd	0.2	100
T21004	6	8	61.1	67.3	45	0.5	nd	83.3	16	0.2	100
T21004	8	10	70	79	42.6	0.5	0	81	18.2	0.3	100
T21004	10	11	65.7	73.7	22.5	0.3	nd	77.2	22.3	0.2	100
T21004	11	12	72	83.1	40.6	0.6	0.2	75.3	23.3	0.6	100
T21004	12	13	83	87.9	39.3	0.6	nd	77.1	21.9	0.4	100
T21004	13	15	82.7	88.8	44	0.7	0.1	67.8	30.9	0.5	100
T21004	17	18	81.2	83.4	41.8	0.9	0.2	66	32.4	0.5	100

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			ISO Brightness		Yield	XRD Result %					
Collar	From	To	ISO-a	ISO-b	%	Quartz	K-Feldspar	Kaolinite	Halloysite	Others	Total
T21003	3	6	67.1	75.5	45.9	1.1	0.1	93	3.7	2.1	100
T21003	6	8	66.1	73.9	43.2	1	0.2	92.4	4.1	2.3	100
T21003	8	10	64.7	71.3	43.1	1	nd	88.4	8.2	2.4	100
T21003	10	11	63.9	70.7	50.8	1.3	nd	85.7	9.9	3.1	100
T21003	11	12	81.7	87.2	40.4	1	1.3	82.2	11.9	3.6	100
T21003	12	14	86.5	87.9	28.7	0.8	3.1	80.1	13.5	2.5	100
T21003	14	16	72.9	76.4	23.4	0.8	3.3	75.2	18.4	2.3	100
T21002	16	17	70.8	73.8	18.5	1.1	3.4	74.9	18.6	2	100
T21003	17	18	75.5	80.5	32.2	1.4	5.5	75.9	15.6	1.6	100

			ISO Brightness		Yield	XRD Result %					
Collar	From	To	ISO-a	ISO-b	%	Quartz	K-Feldspar	Kaolinite	Halloysite	Others	Total
T21007	7	9	67.8	77.3	35.1	0.4	nd	99.4	nd	0.2	100
T21007	9	11	71.4	83.4	37.4	0.5	nd	99.5	nd	0	100
T21007	11	13	67.5	76	36.5	0.5	nd	99.2	nd	0.3	100
T21007	13	15	74	80.8	38.8	0.7	nd	98.1	nd	1.2	100
T21007	15	17	62.8	64.9	44.8	1	nd	96	nd	3	100
T21007	17	19	69.1	71.7	45.2	0.7	nd	97.4	nd	1.9	100
T21007	19	21	82.7	89.9	39.3	0.9	nd	97.8	nd	1.3	100

*Reported previously

The samples of refined clay were taken from drill samples as part of a resource estimation program being conducted at both Pittong and Trawalla. A total of 14 air core holes were drilled at Trawalla. Several of these holes have been processed at the Pittong laboratory in Victoria, which was initially established by ECC and Imerys, and the Nagrom Laboratory in Perth.

Raw clay samples from the drill holes were refined by the standard Pittong method. This includes slurry preparation at 50% solids with water, NaOH and dispersant which is blunged for 30 minutes to separate clay from the other mineral constituents. The blunged sample is screened at 250 microns with the passing fraction allowed to settle for a designated time, after which the upper fine fraction is decanted, adjusted to pH 4, then filtered and dried. Various tests are made on each sample to indicate quality including chemistry by XRF, brightness, bleached brightness and particle sizing by Sedigraph.

The refined samples contain halloysite at levels between 13.7 and 32.4% as measured by XRD at the James Hutton Institute. ISO Brightness (unbleached) reached as high as 86.6% indicating good potential for high quality paint and paper coating applications. Samples from T21004 have good plasticity at 29.9 to 46.1 Kg/cm² as measured by Modulus of Rupture and high fired brightness at 85.5 to 86.1 indicating good potential in high end ceramics.

Next steps

Further test work is underway to determine the Trawalla halloysite clays geological and mineralogical aspects. Morphology, rheology, calcination and other properties of the Trawalla halloysite mineral are planned to be tested and studied by one of the world's leading industrial mineral laboratories in the UK. The aim of the research is not only to examine traditional ceramic manufacturing aspects of halloysite-kaolin but to also develop a broad range of applications of HNT nanomaterials based on the unique properties of Trawalla halloysite.

Trawalla halloysite samples will undergo further testing and processing to be prepared into "tailor-made" premium grade kaolin products based on the clay's properties, identify the most suitable process, and products together with end-users input and technical support.

Suvo plans to use its current market position as the only hydrous kaolin producer in Australia to not only complete test work with global leaders in the industry, but to also define and commercialise additional market segments that can be addressed from Trawalla.

What is Halloysite?

Halloysite is an aluminosilicate clay mineral in the kaolin group with the empirical formula $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$. Its main constituents are oxygen (55.78%), silicon (21.76%), aluminium (20.90%), and hydrogen (1.56%).

Halloysite naturally occurs as very small, hollow tubes which are 100% inorganic and biocompatible. Dimensions are very small typically tube length 0.5 to 10 microns, out diameter 0.1 to 0.2 microns and inner diameter (lumen) 10 to 20 nanometres, hence they are often referred to as Halloysite Nanotubes (HNT). The outer surface is predominantly composed of SiO_2 with a negative charge whilst the inner surface is composed of Al_2O_3 with a positive charge. Aspect ratio, surface area, chemical and thermal stability are all very high.

Whilst the traditional use of halloysite has been in top end whiteware ceramics such as porcelain and bone china the unique properties described above have led to other higher technical applications which have been established for a number of years, including catalytic cracking of oil, honeycomb catalyst support for vehicle exhausts, polymers, geosynthetic clay liners and others.

Academic and industrial research into new opportunities for halloysite continues at a rapid pace covering a very diverse range of applications which includes medical applications such as wound dressings, tissue engineering scaffolds, dental/bone implants and drug delivery: environmental applications including CO_2 capture, water purification and nano templating and others.

Suvo, is currently one of the world's leading producers of pharmaceutical-grade refined kaolin products from their Pittong operations. The halloysites from Suvo's Trawalla kaolin resource will greatly assist the company's in-house research and development on new pharmaceutical grade kaolin products and enlarge the company's product portfolio for more medical applications.

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Figure 1: Trawalla drill hole location plan showing samples with halloysite, those being, and to be, tested

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The release of this announcement has been approved by the Board of Directors.

<ENDS>

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Company Profile

Suvo Strategic Minerals Limited is an Australian hydrous kaolin producer and exploration company listed on the Australian Securities Exchange (ASX:SUV). Suvo is focused on production at, and redevelopment of, their 100% owned Pittong hydrous kaolin operation located 40km west of Ballarat in Victoria. Suvo's exploration focus is on their 100% owned White Cloud Kaolin Project located adjacent to Gabbin in the Central Wheat Belt, and the 100% owned Nova Silica Sands Project located in the Gin Gin Scarp near Eneabba, both situated in Western Australia.

Pittong Operations

The 100% owned Pittong Operations, located in Victoria 40km west of Ballarat, is the sole wet kaolin mine and processing plant in Australia and has been in operation since 1972. Pittong comprises the Pittong, Trawalla and Lal Lal deposits located on approved Mining Licences MIN5408, MIN5365 and MIN5409 respectively.

At Pittong mining contractors deliver crude kaolin ore to stockpiles from the two currently operating mines, Pittong and Lal Lal. The plant takes its feedstock from the ROM and it is processed into four separate products for end users. These products are 10% moisture lump, high solids slurry, 1% moisture powder and 1% moisture pulverised powder. The solids slurry is used in paper and board manufacturing. The other products are used in paper, coatings, paint and specialist industries including rubber and pharmaceutical applications. Around 20-25kt per annum is supplied to various end users.

Current Reserves and Resources at Pittong are reported to PERC code and are in the process of being upgraded to JORC 2012 compliance.

The White Cloud Kaolin Project

The 100% owned White Cloud Project is located 215km northeast of Perth, Western Australia. The project area comprises four granted exploration licences (E70/5039, E70/5332, E70/5333, E70/5517) for 413km², centred around the town and rail siding of Gabbin.

The generally flat area is primarily cleared farming land devoid of native bushland and is currently used for broad-acre cereal cropping. A mining access agreement is in place over the current resource area with the landowner and occupier.

The main rock types at White Cloud are primarily Archaean granite, gneiss, and migmatite. These rocks are overlain and obscured by Tertiary sand and Quaternary sheetwash. The weathering profile is very deep and contains thick kaolin horizons capped by mottled clays or laterite zones. The current JORC 2012 Mineral Resources are 72.5Mt of bright white kaolinised granite with an ISO Brightness of 80.5%, <45µm yield of 41.2% results in 29.9Mt of contained kaolin.

Nova Silica Sands Project

The 100% owned Nova Silica Sands Project is located 300km north of Perth, Western Australia. The project comprises four granted exploration licences (E70/5001, E70/5322, E70/5323, E70/5324) for 169km².

The project is located on the Eneabba Plain whose sandy cover is very flat to gently undulating. Outcrop is rare due to the accumulations of windblown and alluvial sand at surface. Below this is a thin hard silcrete or lateritic claypan which overlies deep white and yellow sands.

Preliminary exploration has included 54 drillholes for 1,620 metres to depths of up to 30m. This program is anticipated to deliver an initial resource for the project and a process route.

Competent Person's Statement

The information in this report that relates to Mineral Resources is based on, and fairly reflects, information compiled by Dr Ian Wilson who is the Overall Competent Person and who is a member of IOM3, a Recognised Professional Organisation. Dr Ian Wilson has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Dr Ian Wilson is a full-time employee of Ian Wilson Consultancy Ltd and also a Non-Executive Director of Suvo Strategic Minerals Limited. Dr Ian Wilson receives board fees in relation to his directorship. Dr Ian Wilson consents to the inclusion of the information in the release in the form and context in which it appears.

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Forward looking statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Appendix 1: JORC Table 1, TRAWALLA

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i>	- Since 1991 some 1220 auger, RC and diamond core holes have been drilled, for a total of approx. 9800 metres. - Drilling targeted kaolinised granite, to be used at the Pittong processing plant as the source material for kaolin suitable for use primarily in coating applications. - Drilling at Trawalla was carried out by various contractors over time. Diamond drilling core samples were placed in core boxes and taken from Trawalla to Pittong where sampling would take place. Core recovery was more than 90%. - In 2021 an air core drilling program was completed, 14 holes for 332 metres with the purpose of converting the PERC resources to JORC compliance. - Samples were collected from a Mantis 200 air core rig. The 1 metre samples were approximately 4kg each and collected from beneath the cyclone. - Sample quality and representivity was acceptable with no appreciable loss of sample noted. - Drilling generally continued to blade refusal or until the material type changed to a non-kaolinitic domain.
<i>Drilling techniques</i>	<i>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).</i>	- A variety of drilling contractors were used ranging from auger, RC and diamond core holes. - In 2021 the drill holes were completed by Indicator Drilling with a track mounted Mantis 200 air core drill rig with 80mm 3m drill rods utilising a blade bit. - All holes were drilled vertically.
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i>	- A quantitative assessment of recovery was made by the supervising geologist/driller. - Samples were geologically logged and composite samples were created based on the colour of the matrix for testing purpose. - Drill and sampling equipment is routinely cleaned to reduce any sample contamination. - There was no evidence of bias in the samples.

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.	- The boreholes samples were geologically logged for all intervals by an experienced geologist on-site at Pittong. - Logging noted the lithology, colour, degree of weathering and alteration. - A lithology control file (LCF) was established: - ovb - overburden - gfk - granite fully kaolinised - pkg - poor quality kaolinised granite - obb - basaltic lithology - oib – interburden - guk – granite unkaolinised - Level of detail deemed sufficient to enable the delineation of geological domains appropriate to support a future Mineral Resource estimation and classification. - The geology log and data are deemed to be qualitative. - Photographs were taken of the chip trays for the 2021 drilling program and were compared to logging when selecting composite samples. - All kaolinised intercepts were logged and sampled.
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.	- Each 1m interval was collected from the drill was collected separately and bagged at the rig. Historically core was split and bagged at Pittong. - Samples from the 2021 drilling were collected from the splitter and were approximately 4kg each and consistent apart from lithological changes. No significant sample loss was recorded, and the samples are considered representative and were of a generally even volume. - Composites were prepared using weighted subsamples of the one metre intervals. Composite samples were mostly 2 or 3 metres in length. - Field samples were sufficiently dry to obtain a representative sample and create appropriate composites. - Kaolinitic domains show good continuity between drill holes and horizons are generally >5 and <20m thick. The method of manually homogenising each 1m interval equally to obtain a representative composite of each domain is deemed appropriate and representative.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision	- Quality of assay data was based on the standards set by English China Clays and subsequently Imerys, both recognised industry leaders in kaolin. Much of the routine testing for borehole evaluation was carried out at Pittong Laboratory and included : - Kaolin Recovery (Yield), - Particle size distribution (Micromeritics), - Brightness (ISO B), Yellowness (ISO Y), - Flowability, Viscosity Concentrations (VC), - Shape Factor (NSF), Aspect Ratio,

Criteria	JORC Code explanation	Commentary
	<i>have been established.</i>	○ Delaminate, ○ Fluid Clay, Non-fluid Clay. ○ XRF analysis of SiO₂, Al₂O₃, Fe₂O₃, TiO₂, CaO, MgO, Na₂O, K₂O and Loss on Ignition. ○ All the borehole data has been categorised in terms of “fitness for use criteria” ○ Four lithology designations have been selected for clay of potential commercial interest. These designations are based on bleached brightness values (“ISOB”) and viscosity concentration (“VC”) measured on a refined (-12um), unpugged sample of clay. ○ A list of the four categories together with a fifth denoting clay of no commercial interest (“pkg”) are shown below. ○ High Brightness & Fluid - “hbf” ▪ ISOB ≥84.0, and VC≥64.0 ○ Moderately Bright & Fluid – “mbf” ▪ ISOB≥80 but ≤84 and VC≥64 ○ High Brightness & Non-Fluid - “hnf” ▪ ISOB ≤ 84.0 and, VC ≤64 ○ Moderately Bright & Non-fluid - “mnf” ▪ ISOB ≥80, but ≤84 and VC 64 ○ Poor quality Kaolinised Granite - “pkg” ▪ ISOB ≤80.0 • Mineralogical (by XRD) and Scanning Electron Microscopy (SEM) test work on some samples by Ballarat University with some being tested by ECC/Imerys in the UK at James Hutton. • XRD completed by Bruker D8 using Ni-filtered Cu Kα radiation, fixed divergence slits, and a Lynxeye XE detector, sample preparation is McCrone milling followed by spray drying as per the description in Hillier (1999). • Umpire laboratory testing was completed at Nagrom in Perth and duplicated the Pittong preparation method which included : ○ Crush approx. 3kg sample to 10mm ○ Attrition and blunging with a water pulp density of 50% with the following conditioning agents 10% NaOH and 80% dispersant, blunge with D12 Joy Denver Unit double propeller unit at 800RPM until sample is dispersed and then allow to stand for 3 minutes ○ Decant sample over 0.25mm sieve to produce a fine and coarse fraction ○ Adjust refined clay to pH 3.8 – 4.2 using 10% H₂SO₄ ○ Analysis by XRF, sizing by Malvern, ISO Brightness and Yellowness. • Some samples also prepared and tested via Nagrom to check the

Criteria	JORC Code explanation	Commentary																																																															
		veracity of the Pittong method which included the following preparation: ○ Crush approx. 2kg sample to 10mm ○ Attrition with a water pulp density of 50% for 30 minutes with a D12 Joy Denver Unit double propeller unit at 800RPM until sample is dispersed ○ Wet screen sample at 0.18mm and 0.045mm ○ Analysis by XRF, sizing by Malvern, ISO Brightness and Yellowness.																																																															
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.	• Dr Ian Wilson, when working for ECC/Imerys would visit Australia on a regular basis as was the Group Geologist for ECC Pacific. • No historical twinned holes were drilled but detailed drilling was carried out. • In 2021 three historical drill holes were twinned with air core drilling. • No adjustments were made to assay data.																																																															
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Historical surveying was carried out on a regular basis by registered surveyors and entered into the company system by onsite staff. • All holes were vertical, and depths of drilling were generally less than 30m. • The 2021 drilling was surveyed using a Leica GS18T GNSS RTK Rover used in conjunction with the Trimble VRS New Cors Network. Coordinate system used was MGA94 zone 54 and the accuracy 10-25mm in x and y position, 50-100mm in z. Details of 14 borholes are shown below: <table><tr><th>Hole</th><th>East</th><th>North</th><th>RI</th><th>Depth</th><th>Azimuth</th><th>Dip</th></tr><tr><td>T21001</td><td>716152.025</td><td>5845738.352</td><td>380</td><td>27</td><td>0</td><td>-90</td></tr><tr><td>T21002</td><td>716030.682</td><td>5845746.994</td><td>381.6</td><td>18</td><td>0</td><td>-90</td></tr><tr><td>T21003</td><td>715935.625</td><td>584783.043</td><td>381.2</td><td>24</td><td>0</td><td>-90</td></tr><tr><td>T21004</td><td>715888.061</td><td>5845804.648</td><td>386</td><td>20</td><td>0</td><td>-90</td></tr><tr><td>T21005</td><td>715942.258</td><td>5845824.233</td><td>385.5</td><td>27</td><td>0</td><td>-90</td></tr><tr><td>T21006</td><td>716026.515</td><td>5845792.246</td><td>384.4</td><td>20</td><td>0</td><td>-90</td></tr><tr><td>T21007</td><td>716018.6</td><td>5845866.382</td><td>387.2</td><td>26</td><td>0</td><td>-90</td></tr><tr><td>T21008</td><td>715904.193</td><td>5845859.967</td><td>386.2</td><td>25</td><td>0</td><td>-90</td></tr></table>	Hole	East	North	RI	Depth	Azimuth	Dip	T21001	716152.025	5845738.352	380	27	0	-90	T21002	716030.682	5845746.994	381.6	18	0	-90	T21003	715935.625	584783.043	381.2	24	0	-90	T21004	715888.061	5845804.648	386	20	0	-90	T21005	715942.258	5845824.233	385.5	27	0	-90	T21006	716026.515	5845792.246	384.4	20	0	-90	T21007	716018.6	5845866.382	387.2	26	0	-90	T21008	715904.193	5845859.967	386.2	25	0	-90
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		T21009 715857.469 5845967.077 384 21 0 -90
		T21010 715944.247 5845948.334 386 23 0 -90
		T21011 716024.875 5845935.78 387.1 30 0 -90
		T21012 716021.365 5845703.389 380.1 20 0 -90
		T21013 715937.858 5846080.649 385 27 0 -90
		T21014 716084.038 5845893.717 387.8 24 0 -90
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i>	- Holes were drilled on a regular pattern of roughly 100 m spacing. - This is sufficient to establish continuity of kaolin which can be traced between drillhole 100m apart. The data and geological continuity is considered sufficient to estimate a Mineral Resource. - Down-hole composites were prepared using weighted subsamples of the one metre intervals. Composite samples were mostly 2 or 3 metres in length.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i>	- All drill holes are vertical, which means that the sampling is orthogonal to the horizontal to sub horizontal kaolin zones. - Orientation based sampling bias is not expected from vertical drillholes.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Samples are in the care of Company personnel during drilling and transport to Pittong
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	An audit of the resources and reserves of Imerys Kaolin Australia was carried out in 2018 (this included Trawalla)

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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</i>	- ML 5365 is 100% owned and comprises 236Ha and is known as the Trawalla Project. - There are no known impediments to mining in the area

Criteria	JORC Code explanation	Commentary
	<i>park and environmental settings.</i> <i>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.</i>	
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	- The original exploration licence was granted in 1991 some 1,220 auger, RC and diamond core holes have been drilled, for a total depth of approximately 9,800 m prior to 2021. - Some bulk samples of Trawalla material have been processed through the Pittong Process plant.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	- The Trawalla deposit was formed from the meteoric weathering of coarse-grained granite mainly composed of quartz and feldspar with minor amounts of other constituents. Trawalla is considered to be a weathering deposit. The intense weathering of this rock has dissolved and leached selected constituents in the rock and formed an in-situ deposit of white kaolin, halloysite and quartz. - Kaolinite and halloysite are silicate clay minerals of interest. The feldspar in the granite has been altered to kaolinite and halloysite. - Kaolinite and halloysite have the same formula - $\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$, kaolinite is a platy silicate clay mineral, halloysite has a tubular crystal structure.
<i>Drill hole information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	- All holes were drilled vertically with none inclined - A location map of the 14 boreholes drilled is in the main report. - Full details of easting and northing of the drill hole collar, elevation, dip and azimuth of the hole and hole length are shown earlier in "Location of data points" - Boreholes T21005 and T21006 were drilled adjacent to previous holes giving "twin" holes as part of the PERC to JORC conversion process.
<i>Data aggregation methods</i>	<i>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.</i> <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	- Most samples were tested in the Pittong Laboratory, some at Nagrom and some in the UK - The quality of those samples tested is reported. This covers a wide range of tests as mentioned earlier. - The range of quality is determined from all the test work and various parameters explained earlier.

Criteria	JORC Code explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
<i>Relationship between mineralisation widths and intercept lengths</i>	- 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 down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	The kaolin is hosted within a horizontal near-surface weathering profile. It is an in-situ weathered product of a granitic intrusive rock. The weathering profile is zoned vertically. Drillholes are all vertical. Reported widths of kaolin are assumed to be true widths.
<i>Diagrams</i>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Detailed maps are included in this report.
<i>Balanced reporting</i>	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not all samples have been analysed as yet, as this is part of a larger program that will be reported in time.
<i>Other substantive exploration data</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.	- The report shows the detailed metallurgical work that has been carried out. The test work was carried out in Pittong Laboratory and some in the UK laboratory of ECC/Imerys. - The deposit is shallow, and no groundwater problems are foreseen.
<i>Further work</i>	- The nature and scale of planned further work (eg 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.	- Detailed work will be carried out on the Trawalla deposit. All data will be entered into an appropriate software such as Micromine or other software. - Further work will be planned once all results are returned.