WHITE KNIGHT KAOLIN
PITTONG OPERATIONS

9 September 2021

ASX ANNOUNCEMENT

Up to 38.9% Halloysite in Trawalla Refined Clay Sample

- **Suvo test work on Trawalla refined clay shows significant concentrations of halloysite to 38.9%**

- **Results confirm ultra-bright white (>84 ISO Brightness) of 86.7 and 91.3 after bleaching**

- **Trawalla's halloysite-kaolin hybrid offers Suvo the opportunity to produce high-quality kaolin products with high modulus of rupture and good casting properties, providing end-users with better yield and higher efficiency.**

- **Halloysite applications are both existing (ceramics, pharmaceuticals & cosmetics) and rapidly evolving (battery technologies and nano technologies)**

- **Trawalla's halloysite-kaolin also offers Suvo the opportunity to be the first halloysite-kaolin producer in Australia and the ability to enter new markets covering both kaolinite and halloysite products immediately**

- **Test work and product commercialisation is now being planned with independent world-class testing labs, technical partners and downstream end-users, which include, BGRIMM, LIXIL and Rezel, Suvo's technical research and MOU partners as well as our existing customer base**

- **In-house research and development on high-grade pharmaceutical refined kaolin based on the Trawalla halloysite-kaolin and Pittong's processing methods will enrich Suvo's existing product portfolio with new products with high value applications.**

- **Trawalla is 100% owned by Suvo Minerals Australia with a granted Mining License (ML5365) comprising of 236 hectares and is only 23km from Suvo's operating Pittong hydrous kaolin processing facility, the only hydrous kaolin plant in Australia**

- **JORC resources for Trawalla and Pittong sites are imminent**

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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 refined clay samples from Trawalla contained up to 38.9% halloysite. Samples were submitted to James Hutton for bulk mineralogy by X-ray powder diffraction as part of the resource estimation at Trawalla. The samples analysed from Trawalla all contained halloysite with amounts ranging from 12.2% to 38.9%. Work is ongoing on other samples.

Commenting on the results, Suvo's Executive Chairman, Robert Martin said "*The number of true halloysite-kaolin deposits are rare, those that are within granted mining tenure and close to a hydrous processing facility and yet to be developed, are at the moment non-existent, in this regard Trawalla stands alone. Trawalla offers Suvo the opportunity to be the first halloysite-kaolin producer in Australia utilising its currently operating production facility at Pittong. Suvo plans to use its current market position to not only complete test work with global leaders in the industry, but to also define additional market segments that can be addressed immediately with Trawalla clay.*"

Technical Partnerships and Commercialisation Opportunities

On the 31 March 2021, Suvo announced an MOU and cooperation agreement with one of the world's leading downstream kaolin and halloysite end-users, LIXIL, who is a Tier 1 multinational ceramic producer with annual turnover of A$ 20 billion to produce tailor-made premium quality refined kaolin products for the ceramic industry who will now also commence work on Trawalla's halloysite-kaolin samples.

On August 5th, 2021, Suvo announced that it had signed an MOU and collaboration agreement with Rezel, the global catalysts and molecular sieve producer. Both parties agreed to develop further specialised, high-quality catalyst-grade premium kaolin products and technical solutions for the global catalysts industry. The Trawalla halloysite resource will help advance this technical partnership between Suvo and Rezel to develop a more functionalised halloysite-based catalysis product, molecular sieves and synthetic zeolites. Future research and development with Rezel will now also focus on halloysite nanotubes intercalated with catalytic metal nanoparticles and rare earth elements.

Together with Suvo's technical and commercial partners, the company will now work to advance Suvo's kaolin products based on its unique kaolin resources, and to help directly commercialise these products into global markets for their end user customers' supply chains.

Trawalla halloysite-kaolin samples will also be sent to one of the world's leading industrial mineral laboratories in the UK for further testing on its morphology, rheology, high-temperature firing properties for processing into "tailor-made" premium grade kaolin products based on the clay's unique properties to identify its most suitable process and products.

Research and development work with BGRIMM, a leading mineral process technology and mineral product development research institute in China will continue to focus on batteries and super capacitors, developing Halloysite Nanotubes (HNTs) based modified and functionalised nanomaterials for carbon capture, hydrogen storage, water purification and coagulants.

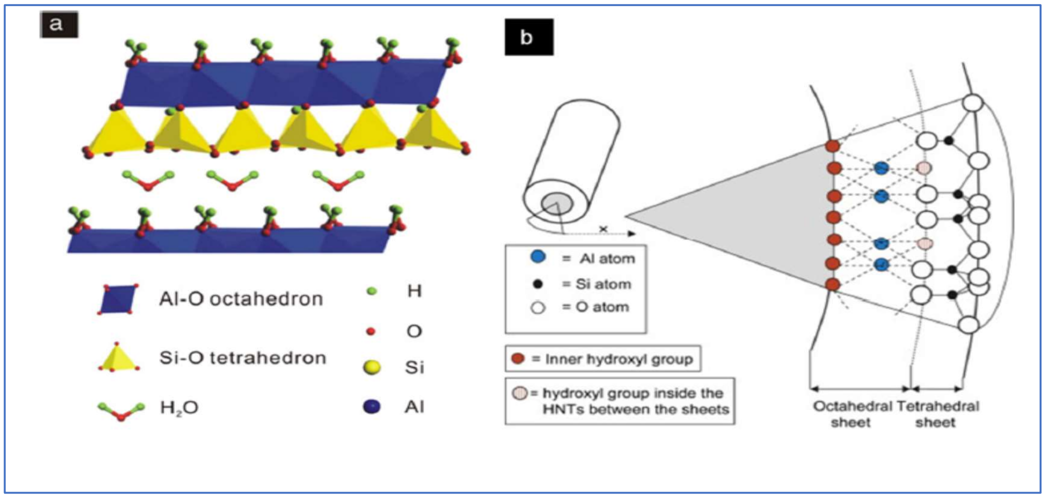
Simultaneously and together with Suvo's existing customers, Suvo will carry out in-house research and development on medicine and cosmetic based applications as a special carrier and anti-inflammatory agent based on the unique Trawalla halloysite-kaolin.

What is Halloysite

Halloysite is an aluminosilicate clay mineral in the kaolin group with the empirical formula $Al_2Si_2O_5(OH)_4$. Its main constituents are oxygen (55.78%), silicon (21.76%), aluminium (20.90%), and hydrogen (1.56%).

Halloysite naturally occurs as small cylinders known as Haylloysite Nanotubes (HNTs) and have a wall thickness of 10–15 atomic aluminosilicate sheets, an outer diameter of 50–60 nm, an inner diameter of 12–15 nm, and a length of 0.5–10 μm. Their outer surface is mostly composed of SiO_2 and the inner surface of Al_2O_3, and hence those surfaces are oppositely charge.

Figure 1: HNT's crystal morphology and atomic structure



Suvo's Trawalla kaolin is a naturally occuring hybrid blend clay of halloysite and kaolinite, containing halloysite with amounts from 12.2% to 38.9%. This unique blending offers Suvo the opportunity to produce premium quality kaolin products having both good plasticity, strength and casting properties, which is ideal material for ceramic manufacturing, a product that is not currently produced by the Pittong operations.

Unique naturally occurring nanotube structures leads halloysite into a wide range of nanotechnology applications, although the traditional use of halloysite-kaolin is in ceramic manufacturing, halloysite has also been used and has the potential for applications in nanocomposites with polymers, as vehicle for active agents, in medicine, agricultural applications, cosmetics, environmental remediation, as well as in nano templating, as supports for catalyst immobilisation and as a heterogeneous catalyst.

For medical applications, halloysite is not only used as a carrier for active agents and drug delivery, but is also used in wound-dressing, tissue engineering scaffolds as anti-inflammatory agents.

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.

Halloysite used in catalysis

Halloysite is an efficient adsorbent both for cations and anions. It has also been used as a petroleum cracking catalyst. Owing to its structure, halloysite can be used as filler in either natural or modified forms in nanocomposites. Halloysite nanotubes can be intercalated with catalytic metal nanoparticles made of silver, ruthenium, rhodium, platinum or cobalt, thereby serving as a catalyst support.

Research and development using halloysite with rare earth elements is also being actively carried out by the world's leading fluid cracking catalyst producers, including Suvo's customer and technical partner, Rezel Catalyst, who is co-owned by the second largest rare earth producer globally Shenghe Resources, who have in-depth knowledge on rare earth elements and experience in the supply of REE's worldwide.

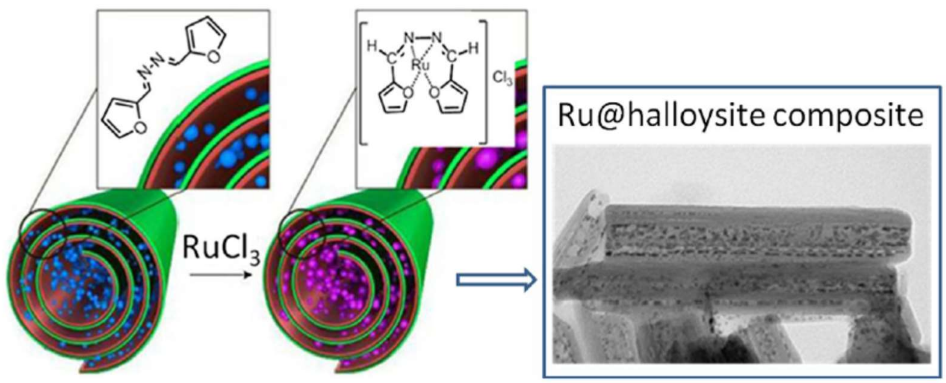


Figure 2: An example of ceramic core-shell materials based on abundant halloysite clay nanotubes with enhanced Ru ions loading through Schiff base binding.

Carbon Capture

Physical adsorption of carbon dioxide on various mineral adsorbents is attracting attention in the field of energy and environment where Carbon Capture and Storage technology (CCS) is an option for CO_2 emission reduction.

Halloysite has been assessed in terms of its potential use as a CO_2 adsorbent as a natural occurring mineral with unique nanotube structure, large specific surface area, and special absorption and capture properties.

Owing to the layered structure of the halloysite, it has a large specific surface area, which can reach 117 m²/g giving halloysite the advantages of good absorbability. Both CH_4 and CO_2 sorption properties of the measured halloysites were tested and were reported with good results which is very important for carbon capture technologies that require the use of significant amounts of sorbent.

Compared to synthetic nanomaterials such as activated carbon, zeolites, modified graphene or artificial nanotubes, the cost of mining halloysite-kaolin is much lower compared to the synthesis of nanomaterials.

The partnership between Suvo and BGRIMM, a leading mineral process technology and product development research institute in China will now also focus on development of HNT based nanomaterials for carbon capture and HNT CO_2 and CH4 adsorbent to reduce carbon emission and for environment protection.

The two parties will also study HNT used in hydrogen storage , water purification and coagulants for municipal and industrial wastewater treatment, as well as developing a clay-based geosynthetic product to be used as a component in the rehabilitation of industrial or mining degraded areas.

Next steps

Further test work is underway to determine the Trawalla halloysite kaolin's geological and mineralogical aspects. Morphology, rheology, calcination properties of the Trawalla halloysite kaolin 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 also develop a broad range of applications of HNT nanomaterials based on the unique properties of Trawalla halloysite kaolin.

Meanwhile, the research work with Suvo's technical partner, BGRIMM, one of China's leading mineral processing, technology and mineral product development research institutes will now be focusing on battery and super capacitors applications, developing HNT based modified and functionalised nanomaterials for carbon capture, hydrogen storage, water purification and coagulants.

Trawalla halloysite kaolin 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.

Table 1: Halloysite applications and evolving technological uses

Historic Applications		New Applications		Evolving Applications	
Application	Relevance	Application	Relevance	Application	Relevance
Ceramics	Established market and products. Halloysite is suitable due to whiteness and molecular structure	Carbon capture	Halloysite activated porous carbon is six times more absorbent than that of activated carbon	Batteries and Super capacitors	Natural halloysite nanotubes enhance lithium ionic conductivity in high energy lithium-sulphur batteries. Halloysite can be used for electrodes in super capacitors due to high conductivity and structural/electrochemical properties
Cosmetics	Halloysite is an effective humectant for cosmetics applications	Anti-corrosion	Self-healing coatings to provide increased anti-corrosion protection	Pharmaceuticals	Halloysite nanotubes (HNTs) are key in development of nanomedicine
Paint and inks	Halloysite increases strength and adhesiveness of paint	Water purification	The removal efficiency of halloysite is higher than most conventional mineral adsorbents	Nano technologies	Nanotechnologies identified as critical technologies of the 21st century by the European Commission. Applications across technology, industry, energy and environment

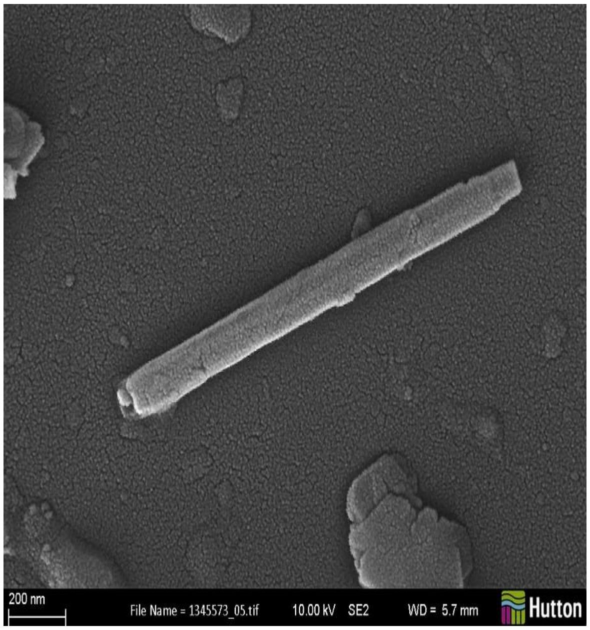


Figure 3: Trawalla Halloysite Nanotube

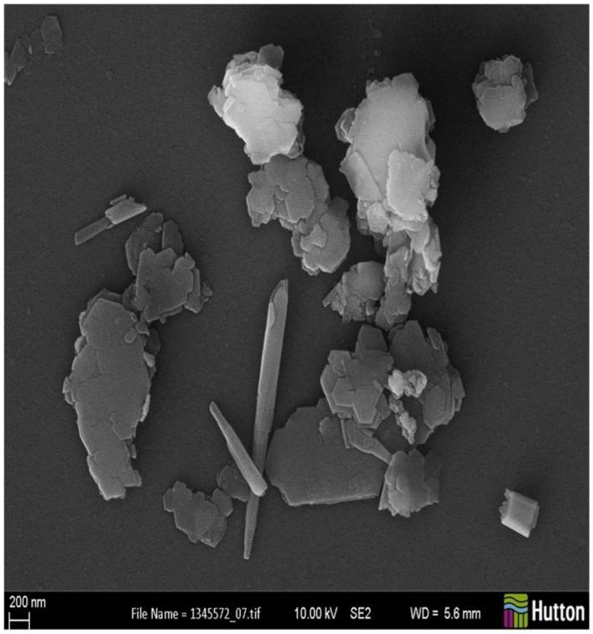


Figure 4: Trawalla Halloysite-Kaolinite Hybrid

Test Work

Samples of refined clay from Trawalla 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:

Collar	From	To	Quartz	K-feldspar	Goethite	Anatase	Mica	Halloysite	Kaolinite	Total
T21005	5	7	1.5	0.5	1.6	0.2	0.2	16.5	79.3	100
T21005	9	11	0.9	0.2	0.4	0.2	0.2	13.7	84.5	100
T21005	13	15	0.8	nd	Nd	0.1	0.2	12.2	86.6	100
T21005	17	19	0.8	0.2	Nd	0.1	0.2	33.2	65.5	100
T21005	21	23	1	4.6	Nd	0.3	0.4	38.9	54.8	100

Table 2: XRD mineralogy (weight %) by RIR Method

			ISO Brightness	ISO Brightness	Yield
Collar	From	To	ISO-a	ISO-b	%
T21005	5	7	64.8	68.4	32.9
T21005	7	9	67.4	73.4	27.6
T21005	9	11	71.3	80.5	29.8
T21005	11	13	72.9	85.7	33.8
T21005	13	15	79.9	88.7	36.9
T21005	15	17	78.7	86.4	22.1
T21005	17	19	86.7	91.3	22.5
T21005	19	21	84.5	90	18.4
T21005	21	23	79.4	85	22.8

Table 3: ISO Brightness (ISO-a) and bleached brightness (ISO-b) and yield

Figure 5: Refined clay samples

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. Only T21005 has been processed by XRD to date but further work is ongoing to determine the full extent of the halloysite occurrence. Holes surrounding the discovery hole will be processed and sent for analysis.
The clay was refined by the Pittong method with the sample made down with water to 50% solids and blunged for 30 minutes. This allows the clay to be separated from the other constituents such as quartz.

The Pittong method uses 3kg samples to which 10% NaOH and 80% dispersant are added and the blunged sample is sieved at 0.25mm. The refined clay that settles after passing the sieve has the water poured off and the pH adjusted to 3.8-4.2 by adding acid. The clay is filter pressed, dried at low temperature, then analysed by XRF, sized by Micromeritics Sedigraph and a sample is sent for brightness analysis.

The refined clay samples all have halloysite with between 12.2% and 38.9%, the natural brightness of all of the samples ranged from 59.8 to 86.7, bleached brightness ranged from 64.3 to 91.3. These results highlight the potential of Trawalla refined clay to address high end ceramic markets. In addition, the impurities, Fe_2O_3 and TiO_2, of the clay are low adding to its desirability.

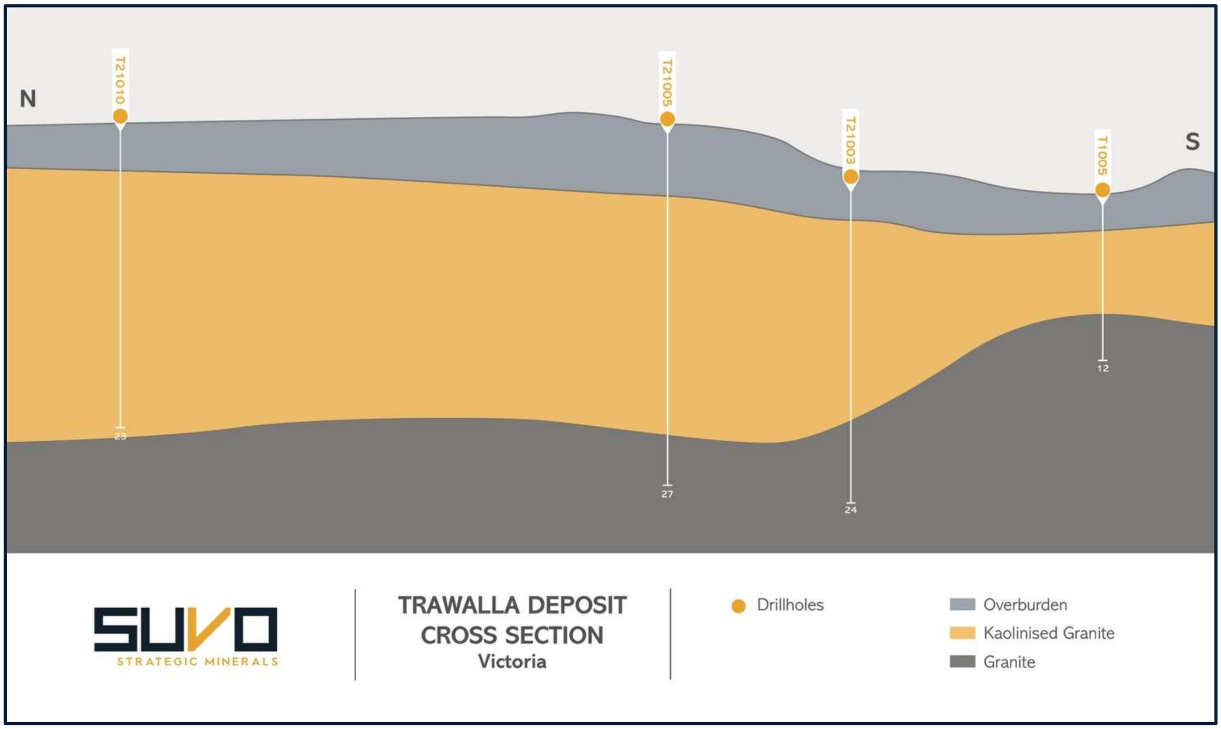


Figure 6: Trawalla drill hole cross-section

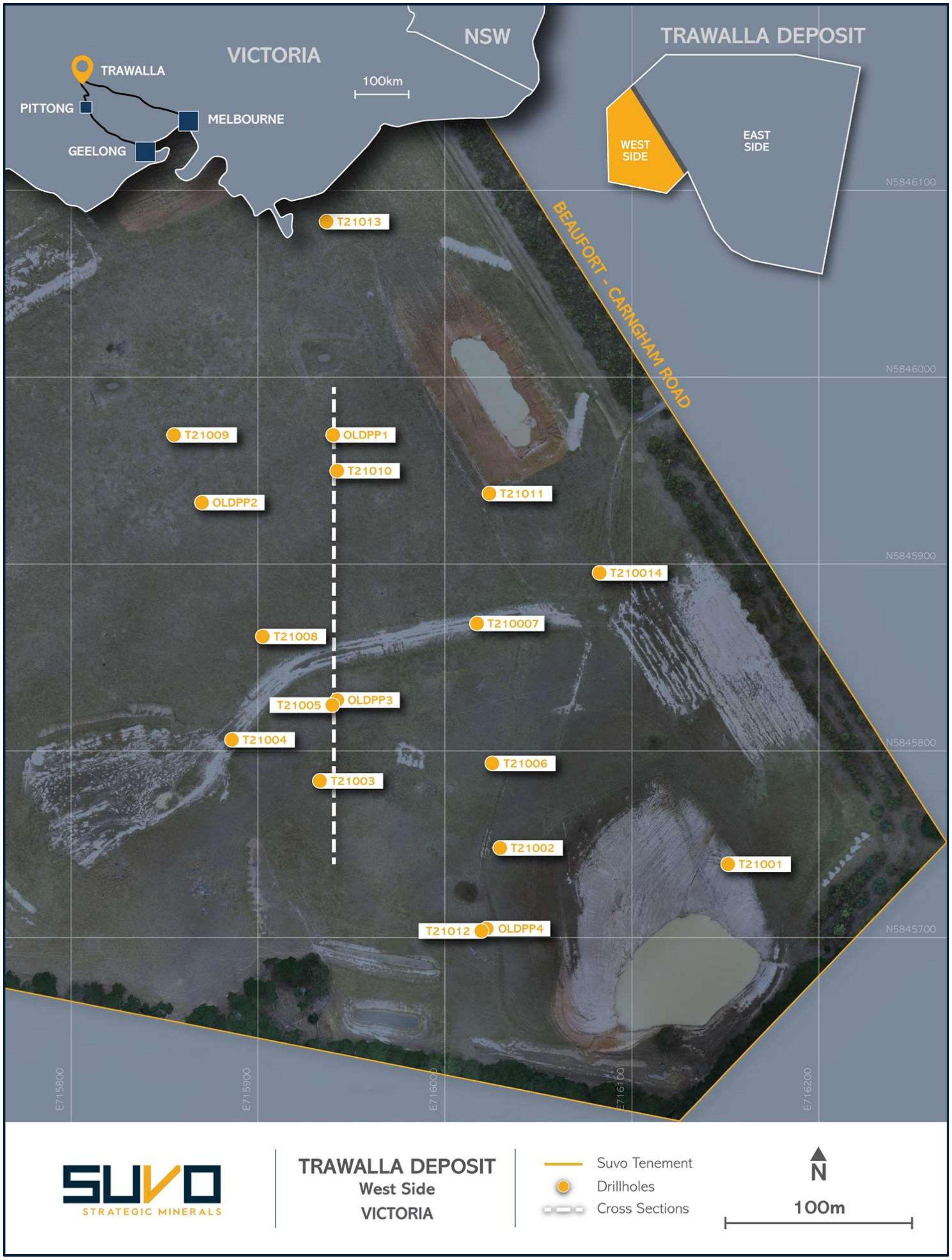


Figure 7: Trawalla drill hole location plan

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

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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 413km^2, 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 169km^2.

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.

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.

Competent Person Statements

The information in this announcement which relates to Exploration Results and Mineral Resources is based on information compiled by Dr Ian Wilson. Dr Ian Wilson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the JORC Code, by virtue of his being a member of IOM3, a Recognised Professional Organisation. 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.

Scoping Study

The White Cloud Kaolin Project Scoping Study (the "Study" or the "Project") referred to in this ASX announcement was first announced on 27 May 2021, is conceptual in nature and has been undertaken to assess the potential for the development of the Project. The Study is based on the Mineral Resources set out below. The Study is preliminary in nature and, although based entirely on Indicated Mineral Resources, the overall deposit includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be categorised as Ore Reserves. Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. The Study includes a preliminary economic analysis based on a number of possible production targets ("Production Target") and assumptions on Modifying Factors and evaluation of other relevant factors estimated by a Competent Person to be at the level of a Scoping Study. The Study outcomes, Production Target and forecast financial information are based on information that is considered to be at a Scoping Study level. The information applied in the Study is insufficient to support the estimation of Ore Reserves. While each of the Modifying Factors was considered and applied to a level that is considered to be appropriate for a Scoping Study, there is no certainty of eventual conversion to Ore Reserves or that the Production Target will be realised. Further exploration and evaluation studies are required before the Company will be in a position to estimate any Ore Reserves or provide any assurance of an economic development case.

	White Kaolinised granite (Mt)	ISO Brightness (%)	Yield (%)	Kaolin (Mt)
Indicated	26.9	80.4	41.3	11.1
Inferred	45.6	80.6	41.1	18.8
Total	**72.5**	**80.5**	**41.2**	**29.9**

Mineral Resource estimate (<45 microns)

The Mineral Resource was first released on 25 March 2021. The Company confirms that it Is not aware of any new Information or data which materially affects the mineral resource and that the material assumptions underpinning the mineral resource continue to apply.

Location data and analytical results for T21005, XRF, XRD and other analytical measurements conducted.

Hole	Noth	East	Rl	Depth	Azimuth	Dip
T21005	5845824.2	715942.2	385.5	27	0	-90

			ISO Brightness	ISO Brightness	Yield	XRD Results %				
Collar	From	To	ISO-a	ISO-b	%	Quartz	K spar	Smectite	Halloysite	Kaolinite
T21005	4	5	59.8	64.3	40.8	Not analysed				
T21005	5	7	64.8	68.4	32.9	1.5	0.5	nd	16.5	79.3
T21005	7	9	67.4	73.4	27.6	Not analysed				
T21005	9	11	71.3	80.5	29.8	0.9	0.2	nd	13.7	84.5
T21005	11	13	72.9	85.7	33.8	Not analysed				
T21005	13	15	79.9	88.7	36.9	0.8	nd	nd	12.2	86.6
T21005	15	17	78.7	86.4	22.1	Not analysed				
T21005	17	19	86.7	91.3	22.5	0.8	0.2	nd	33.2	65.5
T21005	19	21	84.5	90	18.4	Not analysed				
T21005	21	23	79.4	85	22.8	1	4.6	nd	38.9	54.8

			XRF Results %																
Collar	From	To	SiO2	Al2O3	Fe2O3	TiO2	CaO	MgO	Na2O	K2O	P2O5	Mn3O4	Cr2O3	BaO	ZrO2	ZnO	V2O5	SrO	LOI1000
T21005	4	5	48.1	34.8	2.6	0.8	0.0	0.1	0.1	0.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
T21005	5	7	45.3	37.7	2.2	0.5	0.0	0.1	0.1	0.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
T21005	7	9	45.1	38.2	1.6	0.4	0.0	0.0	0.1	0.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
T21005	9	11	45.4	38.5	1.2	0.4	0.0	0.0	0.1	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
T21005	11	13	45.6	38.7	1.0	0.4	0.0	0.0	0.1	0.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
T21005	13	15	45.5	38.9	0.6	0.3	0.0	0.1	0.1	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4
T21005	15	17	45.1	38.6	0.5	0.5	0.0	0.1	0.1	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
T21005	17	19	45.7	39.0	0.3	0.4	0.0	0.1	0.1	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7
T21005	19	21	46.2	38.4	0.4	0.4	0.0	0.1	0.1	0.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
T21005	21	23	46.5	37.3	0.6	0.6	0.0	0.1	0.2	0.92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0

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
Sampling techniques	• *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.* • *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 (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.*	• Since 1991 some 1220 auger, RC and diamond core holes have been drilled, for a total depth 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.
Drilling techniques	• *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).*	• 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.
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.*	• A quantitative assessment of recovery was made by the supervising geologist/driller. • Samples were geologically logged and composite samples 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.
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*	• 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.

Criteria	JORC Code explanation	Commentary

	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.*
		• 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 have been established.*
		• 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,
		  ○ Delaminate,
		  ○ Fluid Clay, Non-fluid Clay.

Criteria	JORC Code explanation	Commentary
		○ XRF analysis of SiO_2, Al_2O_3, Fe_2O_3, TiO_2, CaO, MgO, Na_2O, K_2O 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 VC64.0 ○ 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% H_2SO_4 ○ Analysis by XRF, sizing by Malvern, ISO Brightness and Yellowness. • Some samples also prepared and tested via Nagrom to check the veracity of the Pittong method which included the following preparation: ○ Crush approx. 2kg sample to 10mm

Criteria	JORC Code explanation	Commentary
		○ 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 Micromeritics Sedigraph and Malvern and 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.
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.*	• 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.
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.*	• 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.
Sample security	• *The measures taken to ensure sample security.*	• Samples are in the care of Company personnel during drilling and transport to Pittong
Audits or reviews	• *The results of any audits or reviews of sampling techniques*	• An audit of the resources and reserves of Imerys Kaolin Australia was

Criteria	JORC Code explanation	Commentary
	and data.	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
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.*	• 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
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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 - $Al_2Si_2O_5(OH)_4$, kaolinite is a platy silicate clay mineral, halloysite has a tubular crystal structure.

Drill hole Information	• *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*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis*
		• All holes were drilled vertically with none inclined
		• The information in this release relates to T21005 a hole drilled as a twin to an existing drill hole at Trawalla as part of the PERC to JORC conversion process
		• Easting, northing, elevation, depth azimuth and dip of T21005 is reported
		• The remainder of the samples are yet to be processed

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Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	• *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.*	• 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.
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 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.
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.*	• Detailed maps are included in this 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.*	• Not all samples have been analysed as yet, as this is part of a larger program that will be reported in time.
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.*	• 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.
Further work	• *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*	• 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.

Criteria	JORC Code explanation	Commentary
	commercially sensitive.	