



Projects Update

- Exploration to commence immediately upon grant of Exploration Licences at Eyre Peninsula Kaolin Project – expected in current quarter
- Project area expanded by new Exploration Licence Application
- Brine sampling program complete at the Salta Lithium Brine Project – 2,000 litre Evaporation Testing program to commence

The Directors of PepinNini Minerals Limited (PepinNini, PNN, the Company) are pleased to provide the following update on its Eyre Peninsula Kaolin Project in South Australia and its Salta Lithium Brine Project in Argentina.

Eyre Peninsula Kaolin Project

PepinNini has completed the acquisition of all issued share capital in Hillside Minerals Pty Ltd (Hillside), which represents the completion of the first stage of the acquisition of the Eyre Peninsula Kaolin Project (ASX announcement, 7 April 2021) (Figure 1).

The second, and final, stage of the acquisition is the granting of the exploration licences applications (ELAs) at the Project, which is expected in the current quarter.

The Company aims to rapidly expedite exploration at the project upon granting of the exploration licences, with the aim of commencing a maiden, targeted drilling program as soon as possible (subject to regulatory requirements and approvals).

PepinNini is committed to maximising time and resource management at the Project to ensure the immediate commencement, and delivery, of its field works program, and is currently undertaking detailed preparations for the program.

This work includes:

- Identification of priority drill targets, utilising remote sensing interpretation from high-quality satellite imagery.
- Stakeholder engagement with regional leadership and landowners.
- Establishing sampling and analytical protocols to provide adequate on-ground resources and high-quality information.

ABOUT

PepinNini Minerals Limited is a diversified ASX listed Australian Exploration Company focused on exploring, discovering and developing a significant mineral resource. PepinNini has exploration tenements prospective for nickel-copper-cobalt-PGE in the Musgrave Province of South Australia and hold a lithium brine resource in Salta Province, Argentina. The company also holds a copper-gold exploration project in Salta Province, Argentina

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Indicative Exploration Timeline is as follows:

- Tenements granted: end May/early June
- Stakeholder engagement and land access: June/July
- Regional Reconnaissance: July
- Maiden Drilling Program: August/September

The above assumes no regulatory or other time delays.

In addition, PepinNini has expanded the Project area via the addition of a third, adjoining, ELA (ELA 2020/229), which, in conjunction with the two current ELAs (ELA 2020/210 and ELA 2020/175), increases the total Project area to 1,413km²

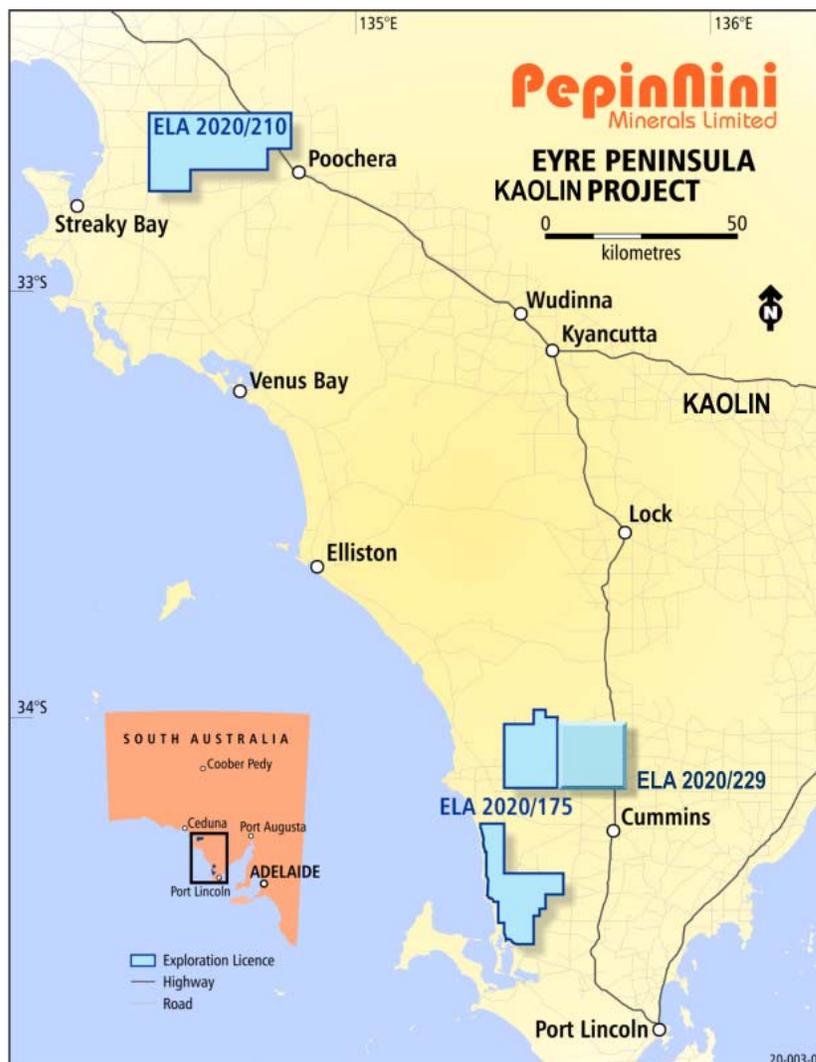


Figure 1: Eyre Peninsula Kaolin Project Location

Salta Lithium Brine Project

The Company is also pleased to announce the completion of its brine sampling program at the Salta Lithium Brine Project in Argentina.

1,000 litres of brine from each of Rincon Salar and Incahuasi Salar, for 2,000 litres in total, have been collected and will be transported to Antofagasta in Chile for evaporation testing.

The testing process is estimated to be completed in the following quarter, and results will be confirmed by a Competent Person and reported when available. The brine sampling and testing program represents a significant step in the Project's development pathway.



Figure 2 – Brine Sampling Incahuasi and Rincon Salares

The Brine Testing Program will involve:

- pre-concentration evaporation testing
- Using a wind tunnel to accelerate brine evaporation
- Taking chemistry samples and assays of brines at different points during the test
- Measuring the final chemistry of salt precipitated and determine the type of salts

To ensure the results are reportable protocols have been established for: brine and salt sampling, brine and salt assays and measurement, as well as process control actions. This testing follows the first stage of beneficiation test work on computer simulations of blended brines which resulted in an enriched lithium brine concentrate containing 3.05% (30,500 ppm – parts per million) lithium and a very low magnesium contaminate ratio of 1.6:1 Magnesium:Lithium (ASX:PNN announcements 16 July 2019 and 4 October 2019).

The sampling and testing of a blended brine product is testing the possibility of delivering a high-grade lithium brine concentrate from a potentially large-scale combined lithium brine project.

Background

PepinNini's Salta Lithium Brine Project is located in the Salta province of north west Argentina within South America's lithium triangle, which holds 65% of the world's lithium (see Figure 3 Project location map).

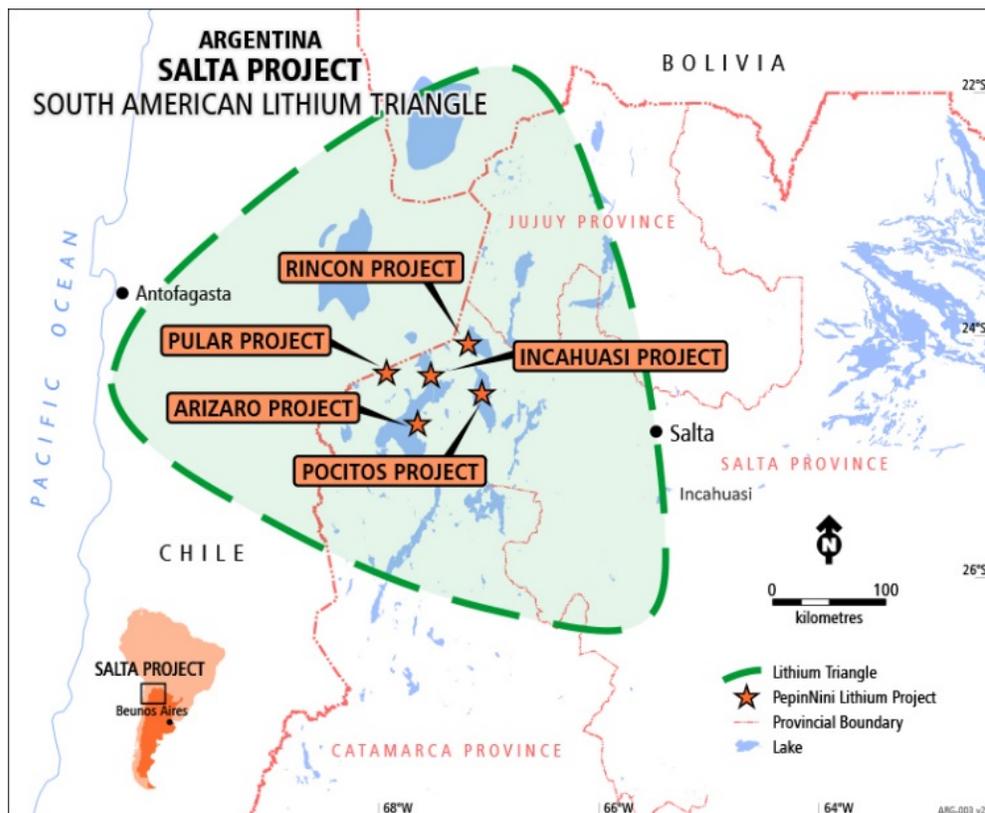


Figure 3 – Salta Lithium Brine Project Location

It comprises five separate project areas and covers a total area of 13,713 hectares over dried salt lakes - at elevations of approx. 3,700 metres above sea level in the Andes

Mountains. A JORC 2012 resource of Lithium Carbonate equivalent was defined ASX 24 June 2018 and 23 January 2019 respectively and is summarised as 127,000 tonnes Measured plus 24,000 tonnes Indicated Resources and 88,000 tonnes Inferred Resource up to a grade of 313mg/l (milligrams per litre) lithium.

This announcement regarding the Salta Lithium project has been prepared with information compiled by Marcela Casini, MAusIMM. Marcela Casini is the Exploration Manager-Argentina of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Marcela Casini consents to the inclusion in the report of the matters based on her information in the form and context in which it appear.

The information in this document that relates to the kaolin project has been prepared based on historical and public information compiled by Suziany Rocha de Souza, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Ms Suziany Rocha de Souza is the Exploration Manager of the Company and is a part-time employee of the Company. Ms Suziany Rocha de Souza has sufficient experience which 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'. Ms Suziany Rocha de Souza consents to the inclusion in the announcement of the matters based on her information in the form and context in which it appears.

This announcement was authorised for issue by the Directors of PepinNini Minerals Ltd

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Note: Additional information on PNN is available at www.pepinnini.com.au