

Salta Brine Blending Program Continues to Deliver Exceptional High-Grade Lithium

Highlights

- **Highest lithium (Li) concentrate to date - 5.3% - delivered from evaporation tests of blended brine from the Incahuasi and Rincon salares at the Salta Lithium Project**
- **Very high-grades also returned from individual brines from the Rincon and Incahuasi salares which supplied the brines for the blending program**
 - **Brine from the Rincon salar also achieved a lithium concentrate >5% Li.**
 - **Brine from the Incahuasi salar returned a concentrate of 3% Li – result restricted due to a lack of brine for continued evaporation**
- **Evaporation testing of blended brines now complete - provided conclusive evidence that brines evaporate to a high concentration of lithium with low contaminants**
- **Final results due in April and will help determine development options for the Project - given the positive progressive results, plans are well advanced**

Diversified minerals company PepinNini Minerals Limited (ASX: PNN) (**PepinNini** or **the Company**) is pleased to report a further increase in lithium grade from its brine blending program at the Salta Lithium-Brine Project, in Salta province in north-west Argentina.

The brine blending program is in its final stages of completion with the evaporation testing now complete. The program has continued to deliver exceptionally high-grade lithium concentrate results, which have progressively increased as the blended brines have evaporated over the duration of the program.

The latest results have produced a brine mix concentrate of 5.3% lithium (Li) with low levels of contaminants (Table 1). This represents an increase on the previous reported result of 5.2% Li, reported in January (ASX announcement, 20 January 2022).

Also of significant importance is the similarly very high-grade results returned from the individual brines from the Rincon and Incahuasi salares (salt lakes) within the Salta Project, which supplied the brines for the blending program (Figure 1).

The brine from the Rincon salar has also achieved a lithium concentrate in excess of 5% Li from the evaporation tests. Brine from the Incahuasi salar returned a concentration of 3% Li, and restricted from delivering a higher concentrate (potentially also in excess of 5% Li), due to a lack of brine to continue the evaporation process.

The evaporation testing of the blended brines for the Rincon and Incahuasi salares is now complete, and has provided conclusive evidence to indicate that the brines evaporate to a high concentration of lithium.

Directors

Parameters		Unit	004/1
			395
Lithium	Li	%	5,32
Sodium	Na	%	0,094
Potassium	K	%	0,367
Magnesium	Mg	%	1,57
Calcium	Ca	%	0,215
Sulphate	SO ₄	%	0,019
Chloride	Cl	%	31,80
Boron	B	%	0,472
Density	Density	g/cc	1,282

Table 1: Laboratory Analysis: Concentrated Blended Brine

About the Brine Blending Program

PepinNini’s brine blending program commenced in May 2021. It was designed to assess that if by blending the different chemical properties of the lithium brines from the Incahuasi salar and the Rincon salar, it is able to deliver a higher lithium concentration with minimal deleterious elements and high lithium recoveries in the concentrated brine, relative to the lithium concentrate values of the individual salares – and at a relatively lower cost.

The positive results of the program indicate the potential to deliver lower production costs in evaporation ponds and lithium carbonate processing plant in any possible future lithium operation at the Salta Project.

Significance of results include:

- Very high 5.3% lithium concentration achieved from evaporation of blended brine
- Very low loss of lithium to sulphate contaminant residue precipitates i.e., high Li recovery
- Low contaminants (Ca, Mg, SO₄) in concentrated Li

The brines have been blended at a ratio of ~3:1 from the Incahuasi salar and Rincon salar respectively.

Testing is ongoing to determine the different concentration paths and process reagent inputs for individual Rincon and Incahuasi lithium brines compared to the 3:1 blended lithium brine. Further, to compare PepinNini’s brine-blending results with production processes of industry peer Li chemical companies.

Next Steps

Lithium consultants, Ad-Infinitem Spa are expected to provide a final report on conclusions, implications and recommendations from the brine blending program in April. The final results will be used by PepinNini



to help determine development options for the Salta Project. Given the positive progressive results, these plans are well advanced, and the Company will provide further details in due course.

A drilling and sampling program to define a JORC lithium brine resource at the Incahuasi salar is planned. The Rincon salar has an existing JORC resource.

Previous updates and results from the brine-blending program are detailed in ASX announcements of 22 September 2021, 25 November 2021 and 20 January 2022.

Authorised for release by the Board of PepinNini Minerals Limited.

-ENDS-

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About PepinNini Minerals

PepinNini Minerals Limited is a diversified ASX-listed mineral resources exploration company with a portfolio of projects in demand driven commodities. It is focused on the systematic exploration and development of its projects. These include the Salta Lithium Brine Project in the prolific lithium triangle in the Salta Province in Argentina, the Eyre Peninsula Kaolin-Halloysite Project, strategically located on the Eyre Peninsula in South Australia, and the Musgrave Nickel-Copper-Cobalt-PGE Project in the Musgrave Province in northern South Australia. The Company also holds the Santa Ines Copper-Gold Project in Argentina, located in the same geological setting as BHP's world-class, nearby Escondida Copper-Gold Mine in Chile.

Competent Persons Statements

The information contained herein that relates to the lithium brine laboratory test work and study development related activities have been directed by Mr. Marcelo Bravo. Mr. Bravo is Chemical Engineer and managing partner of Ad-Infinitem Spa. with over 25 years of working experience and he is a Member of the Chilean Mining Commission (register 0412) and has sufficient experience which is relevant to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Bravo consents to the inclusion of his name in the matters based on the information in the form and context in which it appears.

Forward Looking Statements

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.