PepinNini Lithium Limited

ASX RELEASE 4 October 2019 ASX:**PNN**

EXPLORATION UPDATE

- **NiCul Minerals Musgrave Project –** negotiations are continuing with Anangu Pitjantjatjara Yankunytjatjara(APY) Lands Executive Board for access to the highly prospective nickel targets prompted by renewed market interest in nickel. Nickel has posted its best quarterly performance since 2010 rising to US$17,120 tonne (Mitsui Bussan Commodities).

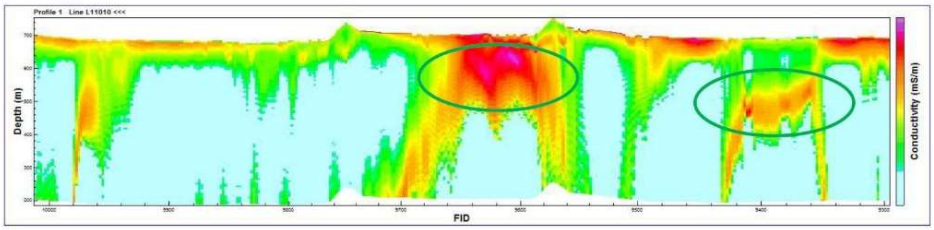

Figure 1 – Pink Slipper Geophysical Target ELA 2015/214*(courtesy CSIRO Spectrem EM Survey Mar 2019)*

PepinNini wholly owned subsidiary NiCul Minerals Ltd hold 2 granted and 8 applications over 14,003km^2 in the Musgrave Province(Figure 2) and with RioTinto; NiCul is the operator on behalf of the project participants for the Pink Slipper ELAs covering 615km^2. Norman Kennedy former Chairman and Managing Director of PepinNini who died in 2013 negotiated the agreement with RioTinto in 2009.

Photo 1 – Norman Kennedy with Anangu Pitjantjatjara Yankunytjatjara in 2007

ABOUT

PepinNini Lithium Limited is a diversified ASX listed Exploration Company focused on exploring and developing a lithium brine resource and production project in Salta Province Argentina within the Lithium Triangle of South America. The Company also holds strategically located exploration tenements in the Musgrave Province of South Australia.
The company also holds a copper-gold exploration project in Salta Province, Argentina

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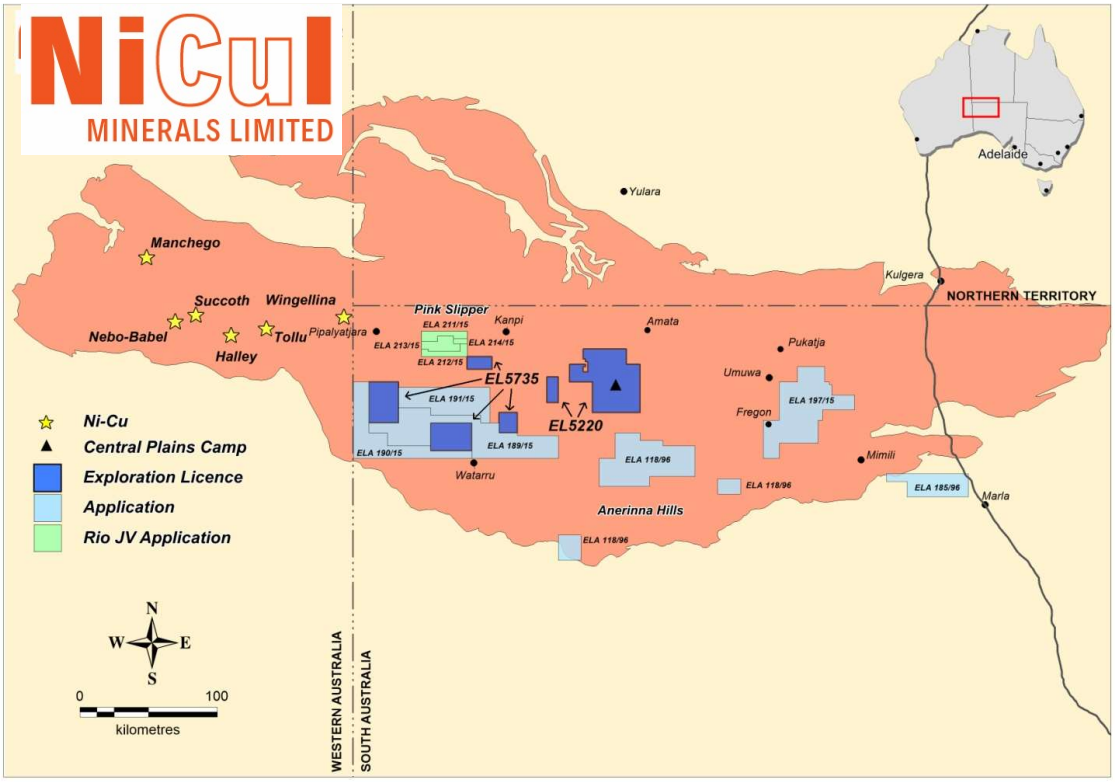

Figure 2: Musgrave Project locations, South Australia

- **Argentine Lithium Brine Project –** Brine sampling from 15 surface trenches on the Incahuasi Salar Project has now completed. Brine is very close to the surface(0.37 to 0.5m) within a coarse halite layer of high porosity up to 0.85m thick. Analysis of the brine return lithium grades up to 203mg/l(figure 4) . Blended brine simulations of brine from Rincon and Incahuasi Projects(Figure 3)of were repeated by the chemical engineering consultancy Door2Design(Salta) confirming and improving the results announced ASX:16 July 19 which indicate an enriched brine evaporate with a concentration of 3.05% (30,500 parts per million(ppm)) lithium and very low magnesium contaminate at 1.6:1 Mg:Li(Table 1). These results confirm the potential of a high grade lithium product from blended brines using

Photo 2 – Brine Sampling Incahuasi Salar

conventional evaporation:concentration methodology(Figure 6). The next step will be wind tunnel evaporation testing using the brine samples taken from Rincon and Incahuasi projects.

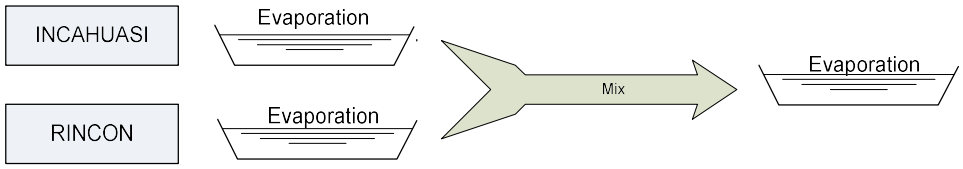

Figure 3 Concentrated Brine Mix Pathway

	H_2O Water %	Li Lithium %	Na Sodium %	K Potassium %	Ca Calcium %	Mg Magnesium %	Cl Choride %	SO_4 Sulphate %	BO_2 Borate %
Final Brine	59.61	3.05	0.12	0.11	0.47	5.04	31.42	0.005	0.00003

Table 1 - Final Brine Composition – Rincon Incahuasi Blend

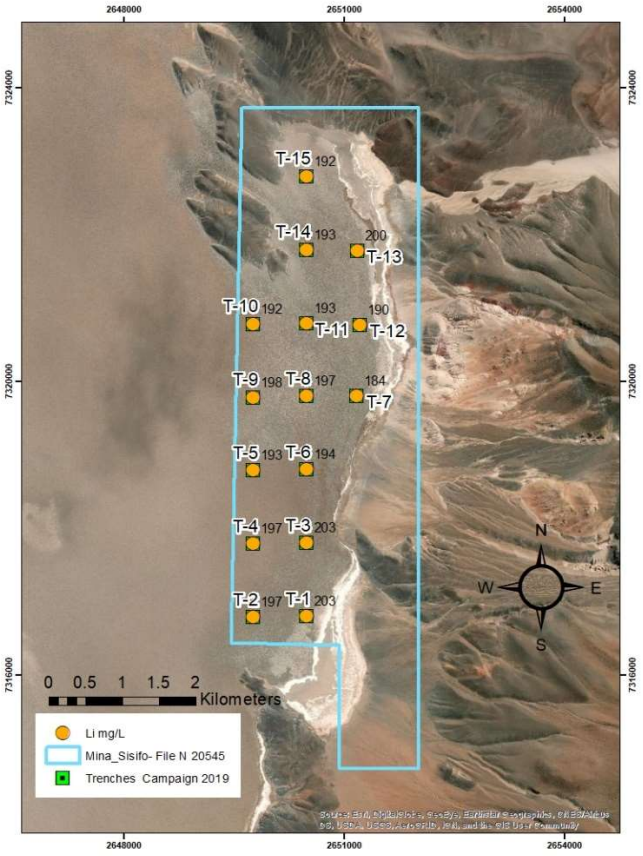

Figure 4 – Brine Trenching locations and results

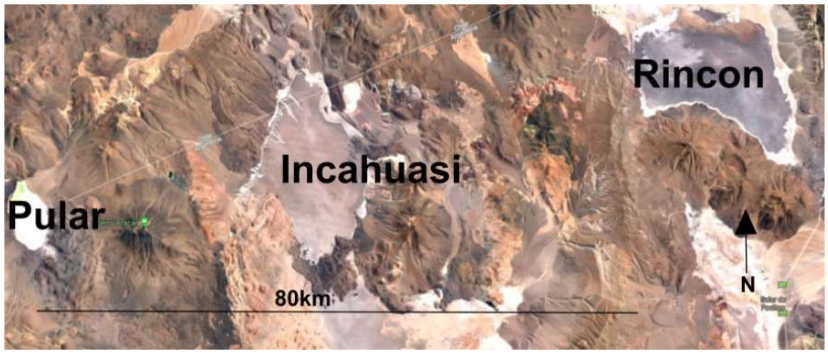

Figure 5 – Pular, Rincon and Incahuasi Projects

Figure 6 – Examples of Evaporation Ponds and Harvesting of Concentrate

The section on the Salta Lithium project has been prepared with information compiled by Marcela Casini, MAusIMM. Marcela Casini is the Exploration Manager-Argentina of PepinNini Lithium Limited 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 appears.

The information in this report that relates to Exploration Results and Mineral Resources for the Australian projects is based on information compiled by Phil Clifford BSc MAusIMM. Phil Clifford is a Non-Executive Director of PepinNini Lithium Limited 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". Phil Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

JORC TABLE 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (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 representability 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.*	• Liquid samples were collected from trenches dug with an excavator shovel  • The trenches were dug 2 metres wide, 8 metres long and the depth was limited by a harder material where the excavator could not dig deeper

Criteria	JORC Code explanation	Commentary
		   • The wall of the trenches will be described according ▪ Lithology ▪ Texture (Massive, porous, cavern fractured etc.) • The Phreatic level was identified in each trench and recorded in metres • Samples were taken from each trench (1 for the lab and one duplicated back up) • A complete QAQC program was carried out, inserting blanks and duplicates every 3 samples. • Samples were taken after one hour of reaching the static level • Density of the brine was checked in site before collecting the sample
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, 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).*	• No Driling was undertaken
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*	• No drilling was undertaken

Criteria	JORC Code explanation	Commentary
	fine/coarse material.	

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 aquifer was recognized in its two phases: brine and sediments
		• The wall of the trenches was described according
		  ○ Lithology
		  ○ Texture (Massive, porous, cavern crystals, etc.),
		 
		• Brine density is measured

Criteria	JORC Code explanation	Commentary
		 • Phreatic level of the brine in the trenches is measured 
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.*	• Sample bottles are several times partly filled and rinsed with the brine to be sampled, emptied and then re-filled before the bottle top is installed and securely taped. • 25 samples were sent to the laboratory

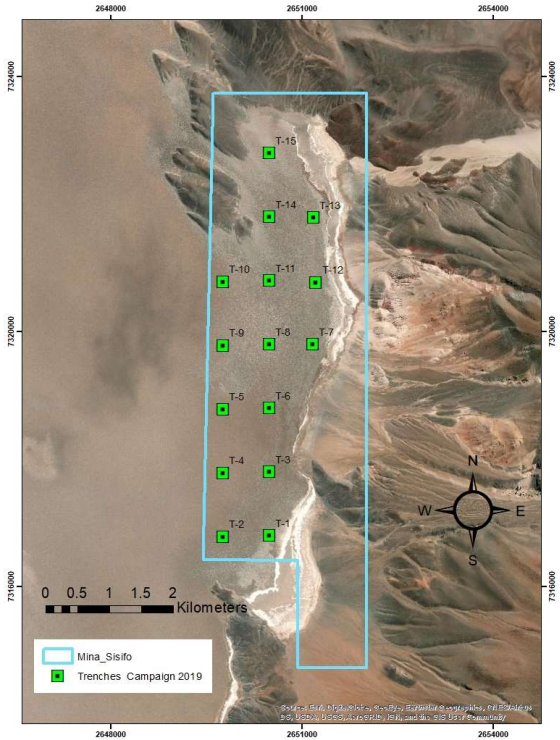
Criteria	JORC Code explanation	Commentary
	• *Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The complete batch of samples includes QAQC program, 5 duplicates and 5 blanks were inserted as blind samples (every 3 samples) • The results delivered by the lab included two assays more: duplicates of the samples 262 and 282 which were carried out as internal control of the lab. • Only Duplicates and Blanks were submitted to the lab as standards were not used as no previous collections of brine allowed for the creation of standards by the laboratory. • The Blanks shows no contamination with Lithium of the batch of samples the concentration is below the detection limit *Table 3: Blanks Incahuasi trenches 2019* • 5 duplicates were sent to the lab, the results came with 7 because the laboratory SGS used 2 in addition for internal control so 7 results for blanks are given. The duplicates 262 and 282 were not blind samples for the lab, but are used in this QAQC analysis, All the duplicates show an acceptable error lower or equal 5%.

#	sample N	Litio
1	266	-10
2	271	-10
3	276	-10
4	281	-10
5	286	-10

Criteria	JORC Code explanation	Commentary
		Table 4: Duplicates Incahuasi trenches 2019

#	Duplicate	SAMPLE	Lithium mg/L	SAMPLE	Lithium mg/L	% ERROR
1	DUPL	265	198	264	203	5%
2	DUPL	270	197	269	194	3%
3	DUPL	275	194	274	198	4%
4	DUPL	280	188	279	190	2%
5	DUPL	285	187	284	192	5%
6	SGSA 262 * Duplicado LAB	262	203	262	203	0%
7	SGSA 282 * Duplicado LAB	282	198	282	200	2%

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, spectrometres, handheld XRF instruments, etc, the parametres 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 (i.e. lack of bias) and precision have been established.*	• A chain of custody was maintained for samples from trenching location to laboratory receipt. • The Lithium concentration was analysed with ICP (induced coupled plasma) • 25 Samples were sent to the lab, this included 5 duplicates and 5 blanks , the results came with 7 duplicated because the laboratory SGS used 2 in addition for internal control . The duplicates 262 and 282 were not blind samples for the lab, but are used in this QAQC analysis, • All the duplicates show an acceptable error lower or equal 5%. • The blanks show no contamination
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.*	• A Competent person(CP) is used for oversight verification of sampling techniques, laboratory verification and reporting review • 25 samples were sent to the laboratory
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.*	• Geographic positioning control for trench location using both latitude and longitude and Gauss_Kruger POSGAR 98 Zone 2 datum WGS-84 • Handheld GPS device for trench locations • The grid system used is Argentina Gauss_Kruger POSGAR datum WGS-84

Criteria	JORC Code explanation	Commentary
		 Zone 3.
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.*	• Trenches were 2 m wide and 8 metres long and up to 0.8m deep • 1km between trench stations
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.*	• Trenches dug into horizontal layers

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• A chain of custody is established for samples from field to laboratory with each stage signed off and handed over to final receipt by laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Data collection, processing and analysis protocols aligned with industry best practice.

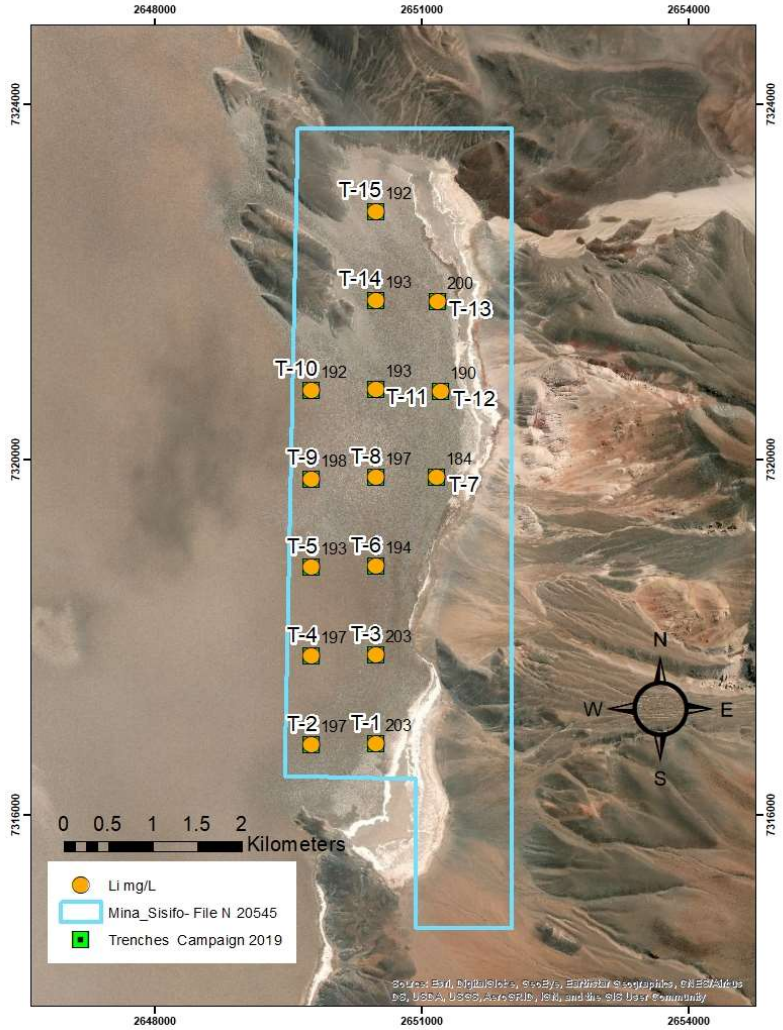
Section 2 Reporting of Exploration Results

(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.*	• Mina Sisifo File Number 20545, Held 100% by PepinNini SA an Argentina entity wholly owned by PepinNini Lithium Ltd. • Held under grant from Mining Court of Salta Province, Argentina Tenure (Mina) held in perpetuity and appropriately maintained.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Technical Report Salar de Incahuasi, Salta Argentina, Dr Ricardo N Alonso MAusIMM, Walter R Rojas, August 2011 – Lithea Inc. • TSX-V:LAT 13 Nov 2008 – Latin American Minerals Inc. acquires Lithium project in Argentina following positive initial sampling program - Sampling and Analytical Protocols: Sampling and analytical protocols were implemented and supervised by or under the direction of Dr. Waldo Perez, the Corporation's internal Qualified Person as defined by National Instrument 43-101. All of the lithogeochemical samples were collected by geologists taking into account the nature of the material being sampled. The crust sample was collected with a hammer from surface, weighted between 2 to 4 kilograms and was collected in a plastic bag, tagged with a pre-numbered ticket and tightly closed with plastic tape. The brines samples were collected in a brand new plastic bottle filled atop containing 1 litre of brine and tightly closed. All samples were tagged with a prenumbered ticket and stored in a secured location at the base camp for no more than 10 days. The brines were stored in a dark room. The samples were shipped by courier to Alex Stewart Assayers Argentina S.A. ("ASAA") laboratories in Mendoza (Argentina). ASAA is an ISO 9001-2000-certified laboratory with headquarters in England. The crust

Criteria	JORC Code explanation	Commentary
		samples were grinded to #200 mesh, then split and dissolved in hot water. A total of 500 ml of sample have been separated for ICP analysis. The brine samples were filtered and read directly by ICP analysis. All samples were assayed for 13 elements by ICP. Accuracy and precision of results is tested through the systematic inclusion of blanks and duplicates.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• PepinNini is primarily exploring for brine aquifers in salars (salt lakes) and the geological setting is suitable for lithium bearing brines in commercial quantities. • The Lithology is uniform across, and along the project area, All the area is covered by a thick crust of halite, in all the trenches was encountered cubic Crystals and caverns of halite with great porosity , below the upper crust the mineralisation (brine) is hosted in the porous of the halite • The depth of the trenches was limited by harder halite where the excavator couldn't dig more deep • That layer could be massive and harder halite
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 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.*	• No drilling was undertaken
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*	• No data aggregation cut off was estimated

Criteria	JORC Code explanation	Commentary
	typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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 beds of sediments, hosting the mineralisation are horizontal • The Lithology is uniform across, and along the project area, All the area is covered by a thick crust of halite, in all the trenches was encountered cubic Crystals and caverns of halite with great porosity , below the upper crust • The depth of the trenches was limited by harder halite where the excavator couldn't dig more deep • That layer could be massive and harder halite

Criteria	JORC Code explanation	Commentary
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.*	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades*	• All results are reported

Criteria	JORC Code explanation	Commentary
	and/or widths should be practiced to avoid misleading reporting of Exploration Results.	*Table 2: samples Results*

Data	Trenches	sample N	Kind of samples	Tds (mg/L)	Density (g/ml)	Litio (mg/L)
1	T1	262	SAMPLE	360300	1.206	203
			Duplicado 262 SGS	356100	1.206	203
2	T2	263	SAMPLE	354500	1.206	197
3	T3	264	SAMPLE	353600	1.206	203
4	T3	265	DUPL	351600	1.209	198
5		266	BLK	100	0.997	<10
6	T4	267	SAMPLE	353500	1.207	197
7	T5	268	SAMPLE	351200	1.208	193
8	T6	269	SAMPLE	354100	1.207	194
9	T6	270	DUPL	353200	1.207	197
10		271	BLK	200	0.907	<10
11	T7	272	SAMPLE	355500	1.206	184
12	T8	273	SAMPLE	358000	1.207	197
13	T9	274	SAMPLE	358300	1.207	198
14	T9	275	DUPL	358700	1.207	194
15		276	BLK	200	0.9967	<10
16	T10	277	SAMPLE	360200	1.207	192
17	T11	278	SAMPLE	356000	1.207	193
18	T12	279	SAMPLE	359900	1.207	190
19	T12	280	DUPL	359600	1.207	188
20		281	BLK	100	0.9968	<10
21	T13	282	SAMPLE	359100	1.207	200
			Duplicado 282 SGS	361000	1.207	198
22	T14	283	SAMPLE	359500	1.207	193
23	T15	284	SAMPLE	358700	1.207	192
24	T15	285	DUPL	358800	1.207	187
25		286	BLK	100	0.9971	<10

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*	• One excavated the trench; the brine started to fill the hole right away the static level was reached in less of 5 minutes in all the trenches • Samples were collected from all the trenches, the concentration is

Criteria	JORC Code explanation	Commentary
	samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	constant through all the project area. • The 15 samples collected show density: 1.21 (g/cm3) • The Lithology is uniform across, and along the project area, All the area is covered by a thick crust of halite, in all the trenches was encountered cubic Crystals and caverns of halite with great porosity , below the upper crust • The depth of the trenches was limited by harder halite where the excavator couldn't dig more deep • That layer could be massive and harder halite, which is consistent with the Geophysics, TEM carried out December 2018, which is indicating that some hard layers do not allow the pass of the electromagnetic waves . These layers are common in the mature salares where there are cycles of different textures of halite alternating with sedimentary cycles.
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 commercially sensitive.*	• Drilling should be carried out to check the thickness of the harder halite and lithology below; packer samples should be carried out to check the consistency of the chemistry at depth. • Solid Samples should be sent for drainable porosity measurements