ASX RELEASE 19 December 2016 ASX: **PNN**

EXPLORATION UPDATE

The Directors of PepinNini Minerals report on exploration progress:

- **Salta Lithium Project, Argentina - geophysical survey results have been received for one of the four salars, and are in the processing stage for the other three. Results from the completed salar (Pocitos Salar) indicate a thick conductive layer at shallow depth. Initial results from shallow brine samples from Salar de Pular indicate elevated levels of lithium in some of the samples close to the surface.**
- **Musgrave Province, South Australia - Priority AEM targets identified from first regional survey completed in over 14 years, targets identified at Mt Caroline (EL5220) and Ironwood Bore (ELA 197/15) and potential Nebo-Babel style Ni-Cu mineralization in feeder dyke/ chonolith, modelled for priority Fowler Target, EL5220 Mt Caroline.**
- **Gawler Craton, South Australia - Grant of exploration licence EL5897 'Toondulya Bluff' located within Proterozoic gold province.**

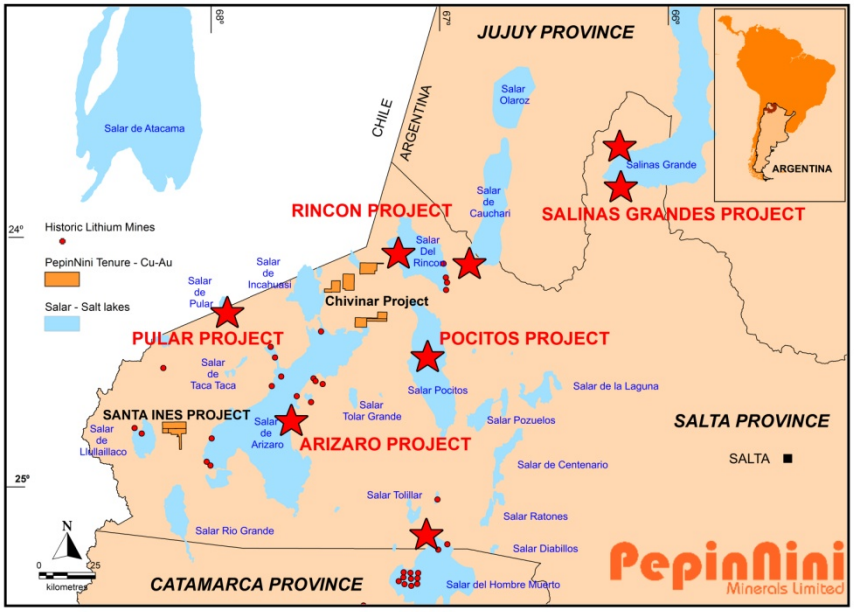

Figure 1 - Lithium Project - Salta Province, Argentina.

"*We are very encouraged by initial indications of elevated lithium levels in the surface brine samples from Salar de Pular and with the geophysical survey's indication of conductive layers at shallow depths* " said Managing Director Rebecca Holland-Kennedy.

ABOUT:

PepinNini Minerals Limited is a diversified ASX listed Exploration Company focused on developing and discovering major new mineral deposits.

The Company has secured strategically located exploration tenements in Australia and Argentina with a focus on Lithium in Argentina and Nickel Copper in Australia.

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Salta Lithium Project Argentina

Cross section (*Figure 2*) generated from the geophysical VES(vertical electric sounding) survey over western Salar Pocitos indicates conductive layers at shallow depths with thickness of 175m. The conductive layers are interpreted as potential aquifer layers with potential to contain lithium-bearing brines. The survey(*Figure 4*) is being conducted to test for high conductivity/low resistivity layers below the surface of the salars.

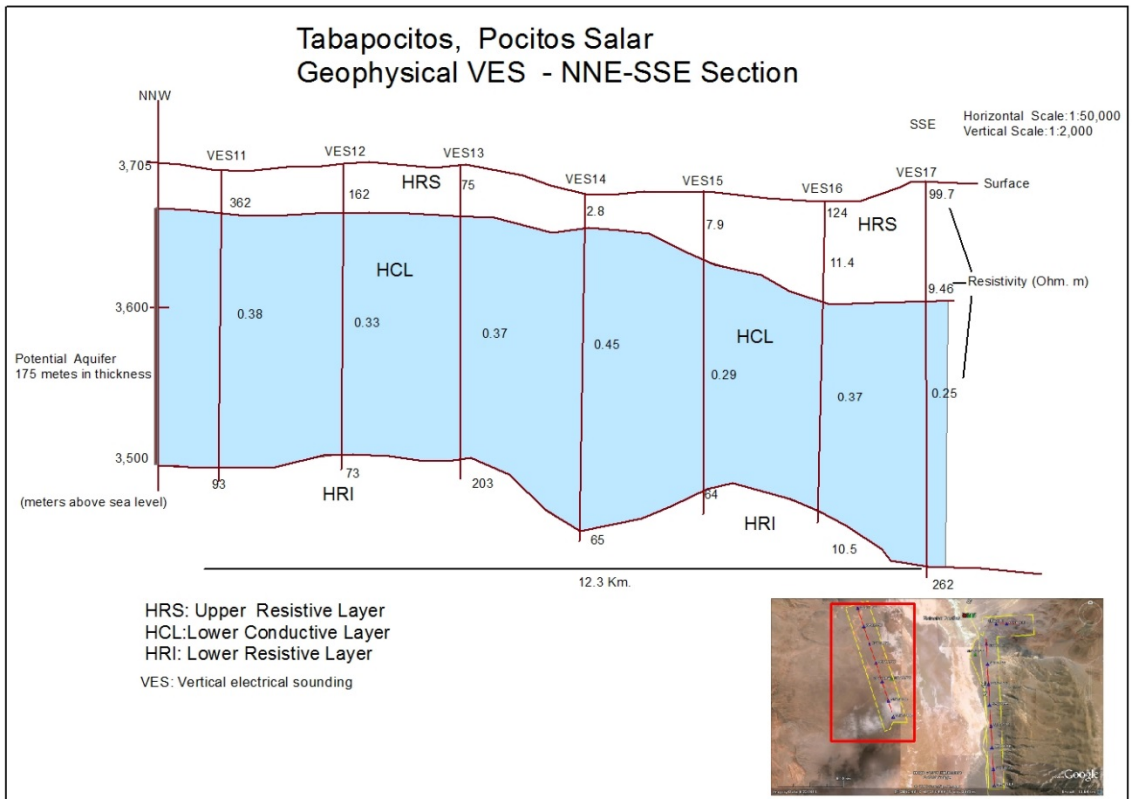

Figure 2 – VES Survey Profile Cross-section Salar Pocitos Mina Tabapocitos 02

Geophysical surveying on the remaining salar at Salinas Grandes(*Figure 3*) commenced 15 December and will complete before the end of December.

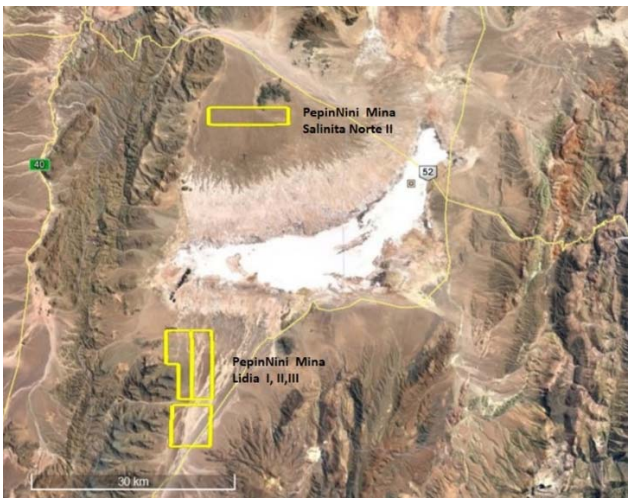

Figure 3 - Salinas Grandes Project, Salta Province, Argentina.

Figure 4 – VES survey Salar Pocitos, Salta, Argentina

Preliminary samples were collected during a reconnaissance trip in September 2016, with the objective of identifying depth to brine, and composition of shallow brine. Samples were collected using a hand auger, with a maximum penetration depth of two meters. Results from Salar de Pular were anomalous, with lithium concentrations ranging up to 105 mg/L. Previous shallow brine samples collected to the north of the PepinNini lease (samples collected in 2011 by others; not validated by PepinNini) showed lithium values as high as 257 mg/L. Surface sample locations are shown in Figure 5.

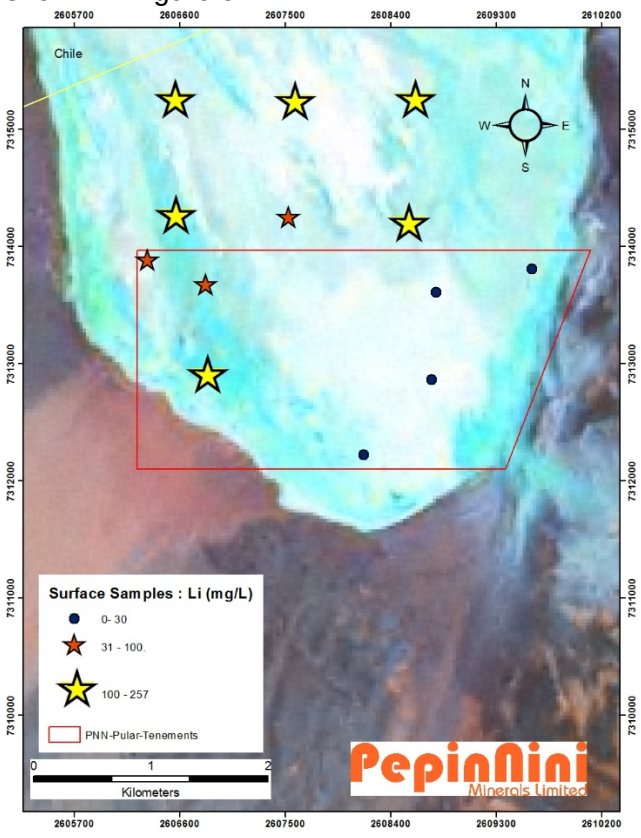

Figure 5 Salar de Pular Sample Locations

The next phase of exploration will be drilling, sampling and pumping tests to provide information on the hydrogeologic properties of the aquifers. Sampling will be conducted in accordance with CIM (Canadian Institute of Mines) guidelines for brine resource evaluation and in accordance with JORC 2012 guidelines, with an appropriate QAQC program for ensuring accuracy and repeatability of the analytical results. Results will be reported promptly as laboratory analytical results are validated. PepinNini SA has engaged Alex Stewart Laboratories of Mendoza, Argentina as the primary analytical provider. The laboratory has extensive experience with lithium brine analyses and is certified under ISO 17025, and in Alex Stewart's case, specifically for determination of lithium and potassium in liquid brines by use of ICP-OES.

PepinNini hold 12 mining leases(mina) covering 27,965ha(279km^2)in the Puna region of Salta Province, NW Argentina and are currently awaiting grant of additional tenure in the region.

The Puna plateau, covers a portion of Argentina, Chile, and Bolivia. It has an elevation of around 4,000m and contains the largest concentration of economic evaporite deposits (dry salt lakes) in the world.

This area is called the *Lithium Triangle*.

Please refer to JORC Table 1 in Appendix 1- Salta Lithium Project Argentina.

This section on Salta Lithium project has been reviewed by Mark King Ph.D., P.Geo., F.G.C., Groundwater Insight, Inc, Halifax, Nova Scotia, Canada, who 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 JORC 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and the Canadian National Instrument 43-101". Mark King consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Musgrave Project - Priority AEM Targets

The regional collaborative AEM survey over the Musgrave Province between PNN and Geoscience Australia, South Australian Dept of State Development and CSIRO is now complete. This was the first regional survey for the Province in over 14 years, covering 31,000km2 and over 50% of PNN tenure.

In collaboration with CSIRO twelve target areas have been covered with close spaced infill AEM data acquisition. Three of the areas, located within the company's Tietkins and Katalina tenure blocks, were completed using CGGs fixed wing Tempest® system and the remaining nine targets located within the company's Caroline, Anerinna Hills and Ironwood Bore tenure blocks utilised SkyTEM's SkyTEM516 system (Figure 6).

Preliminary data sets highlighted a number of exciting priority targets within the Caroline EL5220 and Ironwood Bore ELA197/15 blocks. Delineation of these conductive targets could represent accumulations of Ni-Cu massive sulphides hence warranting follow up ground EM and or vacuum drilling, and diamond drilling. PNN has PACE funding of $160,000 towards drill testing.*EL5220 'Mt Caroline'– Fowler Target:*

Over the Mt Caroline tenure four priority conductive anomalies were identified. The most promising is the Fowler target based on:-

- Distinct negative "bullseye" magnetic anomaly, very similar to Mt Harcus Intrusion which is known Giles complex with Ni-Cu mineralization (Figure 7),
- Coincident late time AEM conductive anomaly (Figure 7),
- Proximal to major favourable NE trending structure,
- And most importantly the morphology of the anomaly is suggestive of a chonolith. Similar to Nebo-Babel style Ni-Cu mineralization in feeder dyke -chonolith (figure 8).

ELA197/15 Ironwood Bore targets:

Over on the eastern side of the Province, in Ironwood Bore two zones of late time conductive anomalies have been identified (figure 9). These clusters are structurally controlled within the Wintininna Shear Zone which to the east hosts low grade mineralization identified by Musgrave Resources. Gossanous outcrops with coincident soil geochemistry identified at Zarek (Ni-Cu) and Roslin (Zn-Cu) Prospects with low grade copper intercepted in drilling at Ragnar (figure 9).

These EM targets potentially represent for structurally controlled mineralization associated with mafic magmatism channelled laterally into the Wintinginna Shear Zone.

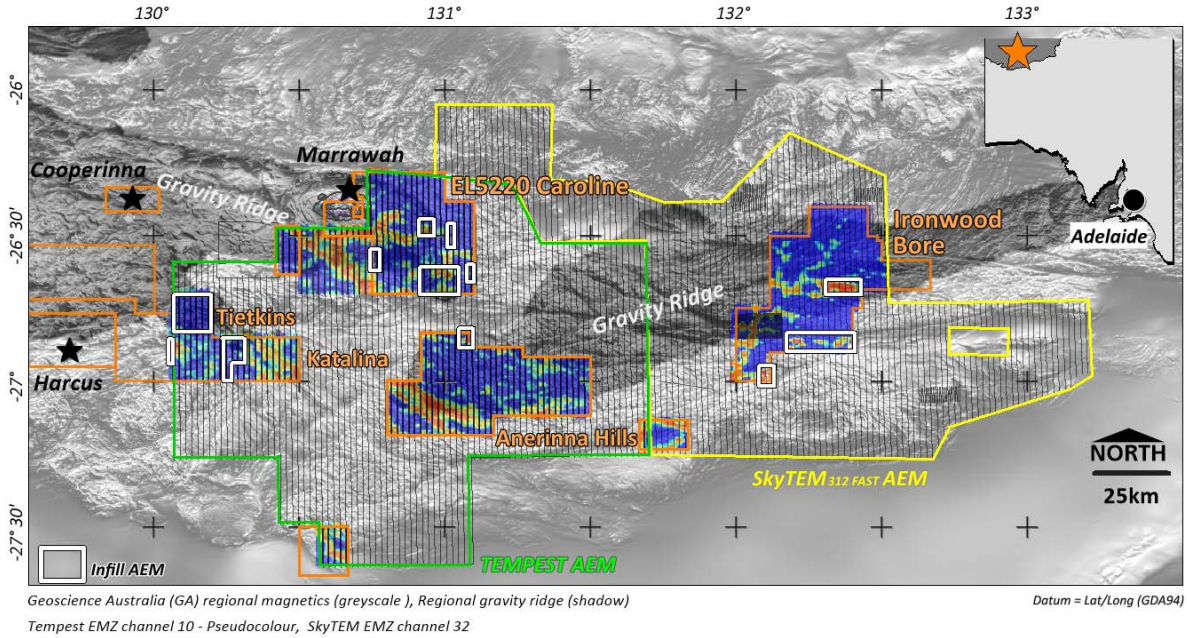

Figure 6: AEM Infill areas

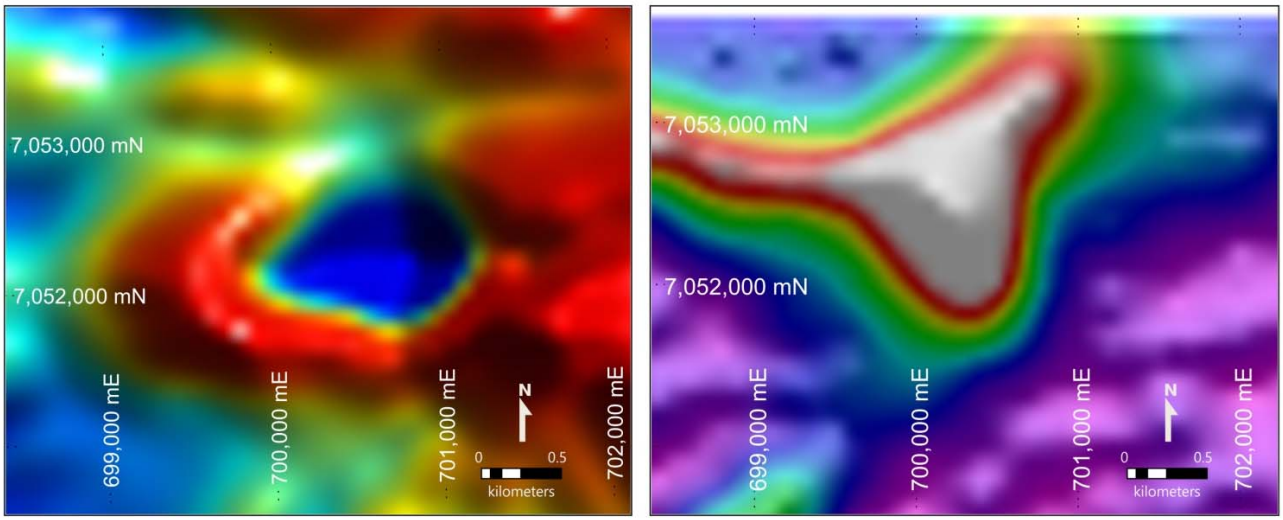

Figure 7: Fowler Target – a) Magnetic TMI image, and b) AEM SkyTEM [516] image (Z component Channel 35)

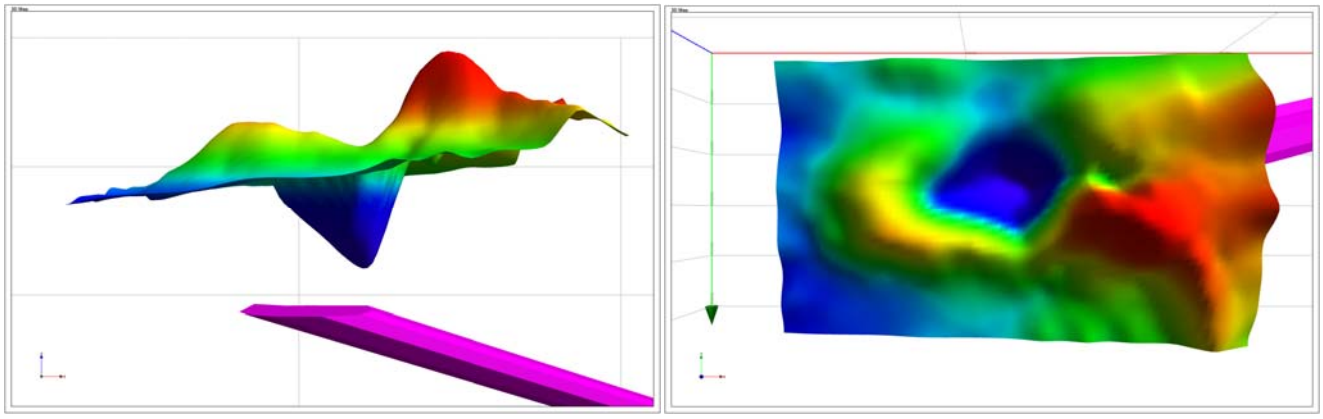

Figure 8: Chonolith Model of Fowler target from magnetic data by James Austin, CSIRO; left - Looking north, and right - Looking down.

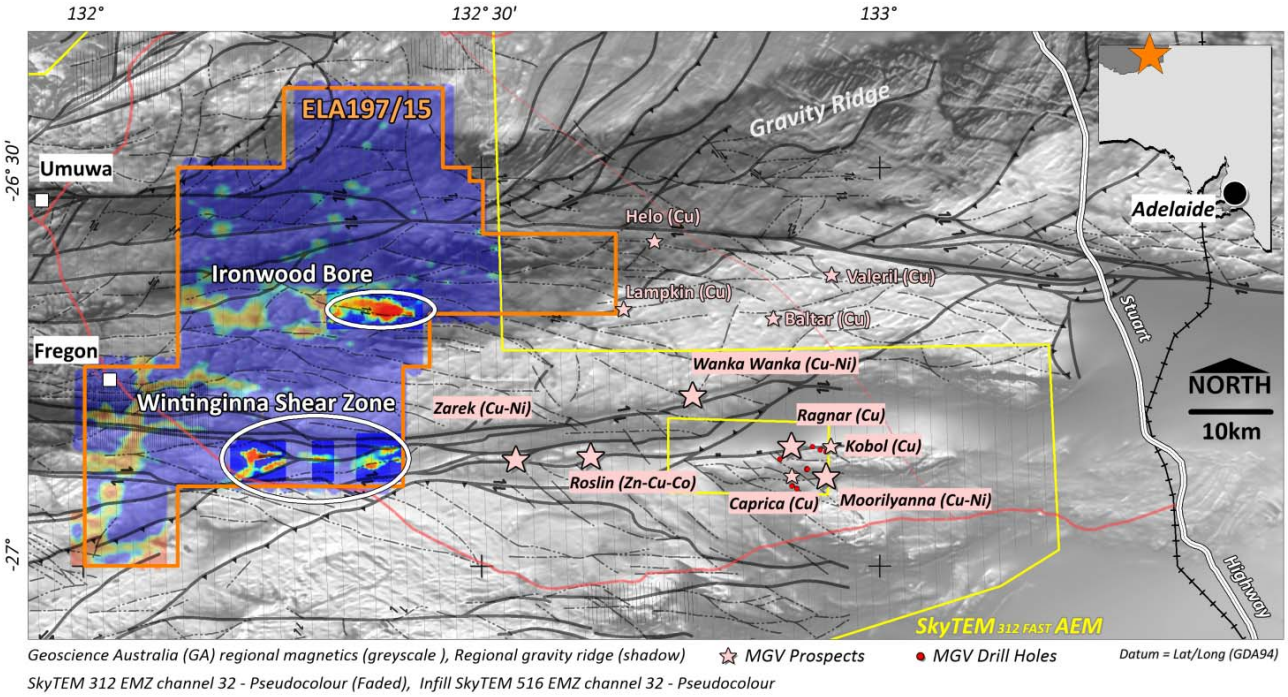

Figure 9: Ironwood Bore AEM anomalies

Please refer to JORC Table 1 in Appendix 1- Musgrave Project, AEM Survey.

Toondulya Bluff Gold Project

PepinNini Minerals Ltd (PNN) is pleased to announce the recent grant of exploration licence EL5897 'Toondulya Bluff' located approximately 100km north east of Streaky Bay, on the Eyre Peninsula, South Australia (*Figure 10*).

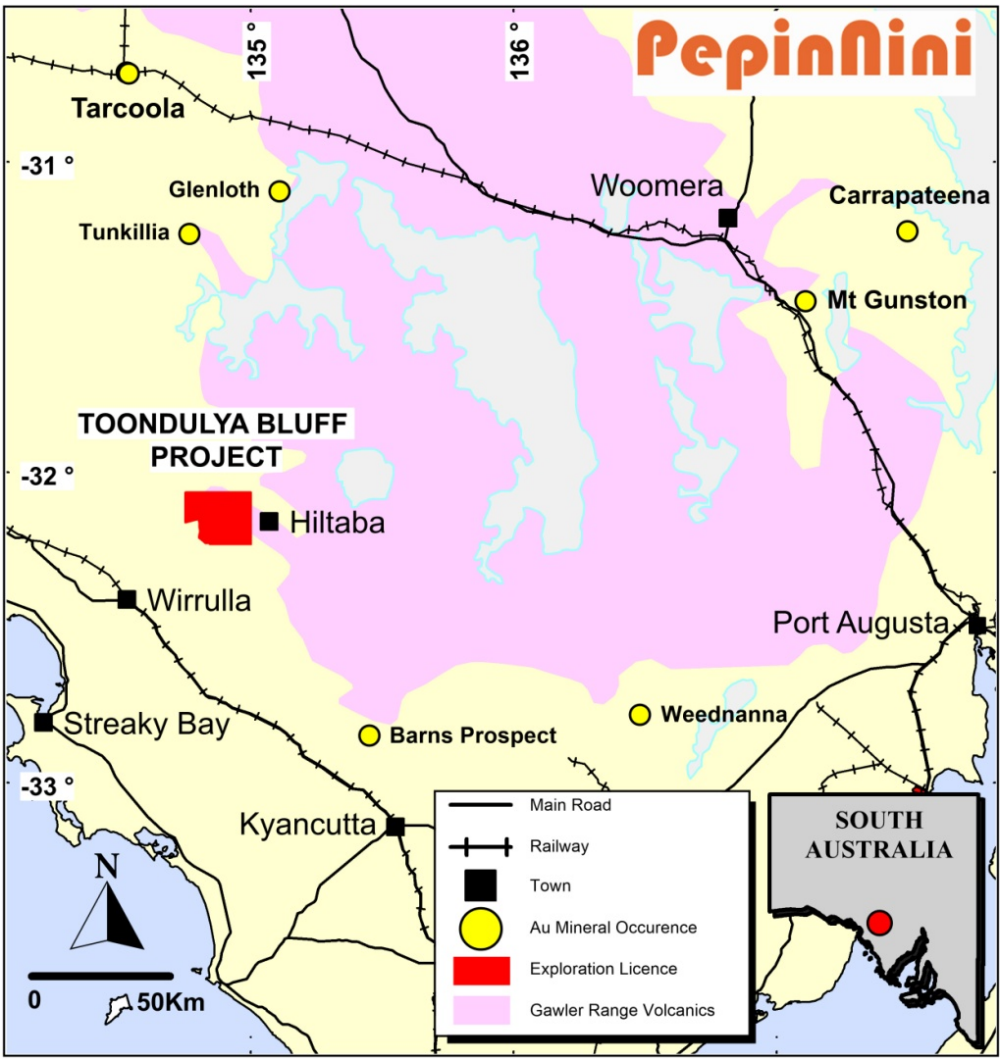

Figure 10: Location of Toondulya Bluff Gold Project South Australia.

EL5897 'Toondulya Bluff' lies within the Proterozoic gold province of the central Gawler Craton along the margin of the Gawler Range Volcanics (GRV) where Hiltaba Suite granitoids intrude older rocks of the Gawler Craton, hosting several gold and silver deposits including Tarcoola, Glenloth, Tunkillia, Paris and Barns (*Figure 9).* The tenure also covers the southern extension of the highly prospective Yalbrinda Shear Zone. This shear zone is known to host a number of mineral occurrences including the Tunkillia Deposit located 100km to the north which has been previously reported to contain a resource estimate of 558,000 ounces of gold and 1.48 million ounces of silver (WPG ASX 28/10/16).

Historic gold exploration over the tenement area included dispersed calcrete sampling with a maximum result of 39ppb Au, shallow aircore drilling (during the 1990s) with maximum results up to 980 ppb Au, airborne magnetic surveying, and gravity surveying. PepinNini's geological team has identified three

priority anomalous gold-in-calcrete zones which appear to have been poorly tested and consider these as prospective targets for further investigation (*Figures 11 and 12*)

PepinNini intends to commence initial field reconnaissance activities early 2017 with the aim to designing and undertaking a program of further shallow drill testing across the three gold-in-calcrete targets to refine primary bedrock targets for deeper RC or diamond drill testing.

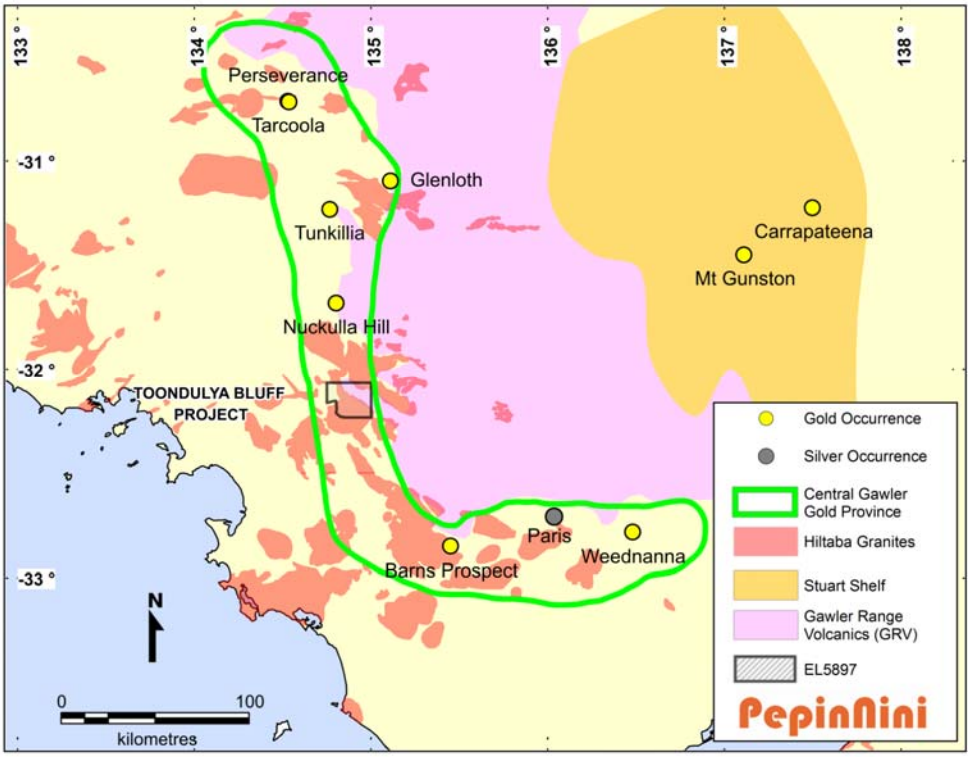

Figure 11: Location of Toondulya Bluff in respect to the Central Gawler Gold Province.

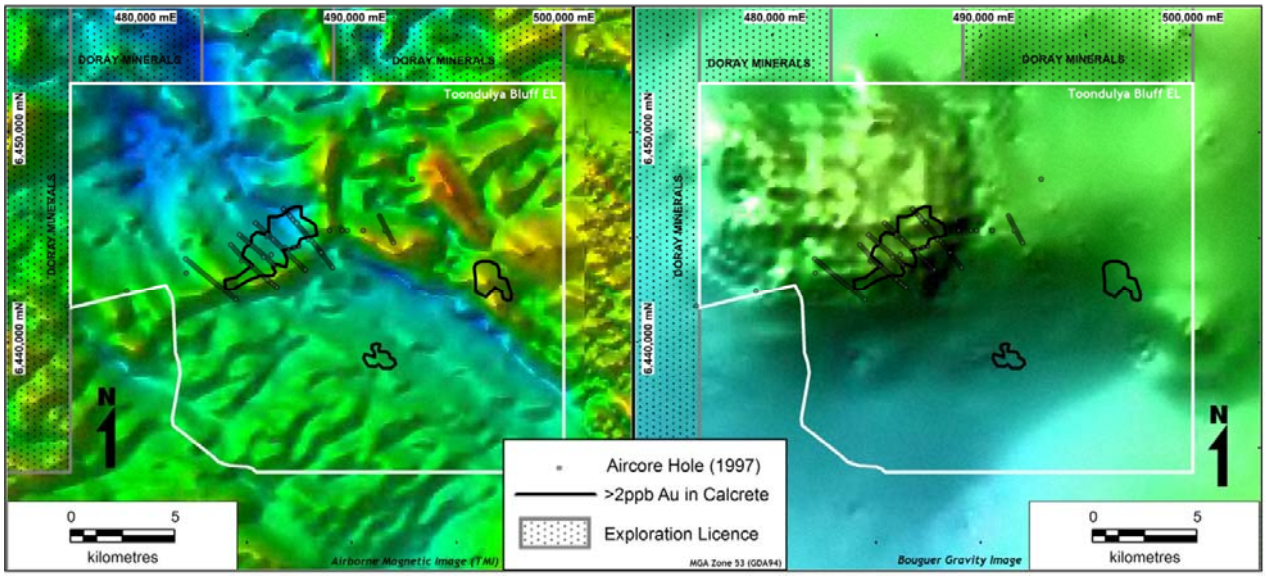

Figure 12: Toondulya Bluff gold-in-calcrete targets on airborne magnetic image (TMI) - Left, and bouguer gravity image - Right.

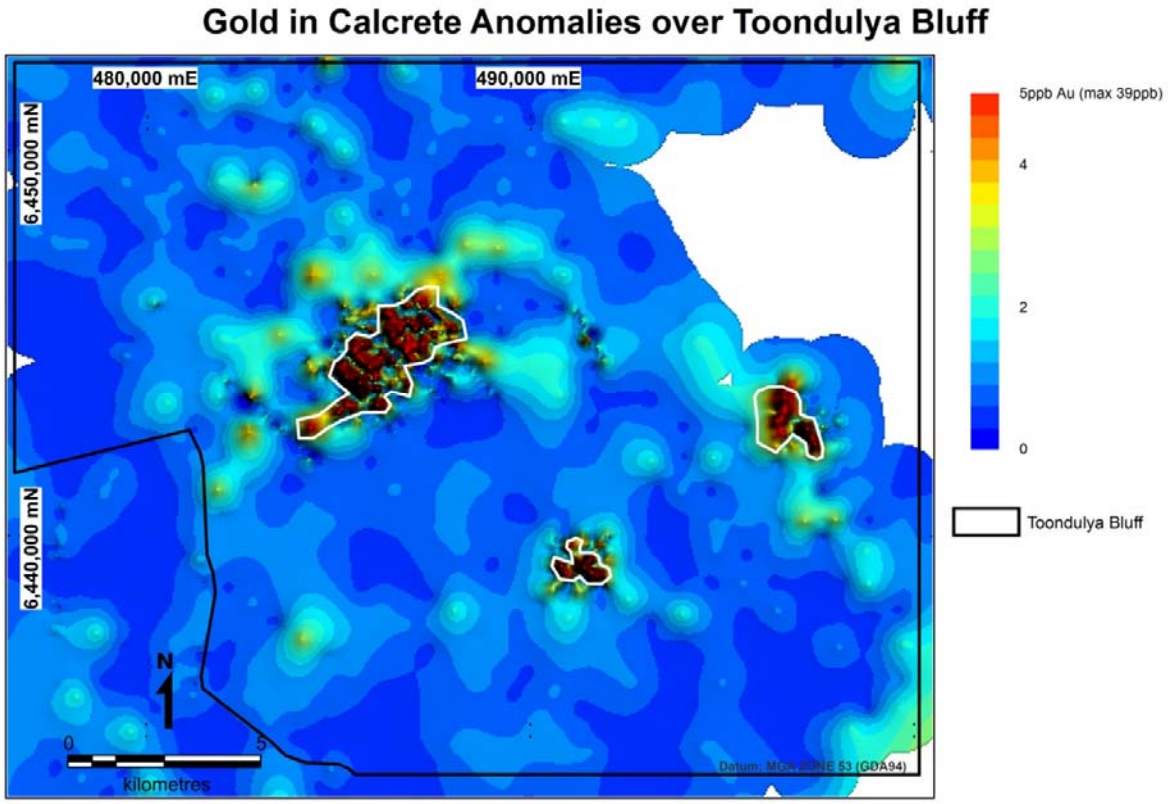

Figure 13: Toondulya Bluff - gridded image of 1990s gold-in-calcrete results

The information in this report that relates to Exploration Results and Mineral Resources from Australia is based on information compiled by Phil Clifford BSc MAusIMM. Phil Clifford is the Technical Director of PepinNini Minerals 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.

For further information please contact:

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Note: Additional information on PNN Minerals Limited can be found on the website: www.pepinnini.com.au

JORC Table 1 in Appendix 1- Salta Lithium Project Argentina

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.*	• Brine samples taken using a hand auger to a maximum depth of 2m from the surface of the salar, were the water level was encountered. • Density was measured on site to ensure brine sampled, All data related with observed physical characteristic of the sample (colour, odour, turbidly, etc) were noted and written in the corresponding section of the Field Notebook • Samples were submitted to two ISO 17025-2014 certified laboratories for brine analysis • The lab received 30% of duplicate and blank control samples as blind insertions in the batch. for Quality Assurance Control(QAQC) according to CIM (Canadian Institute of Mines) guidelines for brine resource evaluation and in accordance with JORC 2012 guidelines
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).*	• No drilling is being reported
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.*	• No drilling is being reported
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.*	• No drilling is being reported • Liquid brine samples from shallow pits

Criteria	JORC Code explanation	Commentary
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 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.*	• Non-core Liquid samples • The pits were excavated to the maximum depth permissible using hands tools. • Brine samples were collected from the height of solution available at every pit. Sample containers were sunk around 10-20 cm below the brine level, after waiting for any silt or clay material present to settle. The sample collection were completed, after any turbidly of the solution disappears. • Clean sample containers were used each time to avoid contamination, brine samples not requiring preparation • Procedures and locations for sampling were outlined before the program commenced and followed during sampling
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 (i.e. lack of bias) and precision have been established.*	• Analysis is total • Samples submitted to two certified laboratories for brine analysis. • 30% of samples sent to the laboratory were blind either as duplicates or blanks for Quality Assurance Control(QAQC) according to CIM (Canadian Institute of Mines) guidelines for brine resource evaluation and in accordance with JORC 2012 guidelines
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.*	• Sampling program was designed and executed under the supervision of PepinNini's senior consulting geologist. A complete chain of custody was followed from sample site to laboratory • 30% of samples sent to the laboratory were blind either as duplicates or blanks for Complete Quality Assurance Control(QAQC) according to CIM (Canadian Institute of Mines) guidelines for brine resource evaluation and in accordance with JORC 2012 guidelines
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.*	• Vertical Electrical Sounding(VES) using quadrupole configuration, Schlumberger with wing extensions up to 1000 meters • Handheld GPS device for traverse and point locations • The grid system used is Argentina Gauss_Kruger POSGAR (WGS-84) zone 2 & zone 3, depending the location of each salar. • Digital Elevation Model(DEM) from Google Earth appropriate for geophysical survey lines
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.*	• Up to 2km between geophysical stations • Geographic positioning control appropriate for exploration survey lines

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	
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.*	• Vertical soundings appropriate for salar horizontal layering • Positioning of survey lines appropriate for first-pass surveying
Sample security	• *The measures taken to ensure sample security.*	• Survey data collected, collated and interpreted by Tecnología y Recursos and securely distributed via electronic communications to Competent Person(CP) for confirmation and review.
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 Tabapocitos 02 File Number 20017, and mina Sulfa I File Number 19188.. Held 100% by PepinNini SA an Argentina entity wholly owned by PepinNini Minerals 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.*	• VES is used extensively by other explorers in the region as the first stage in confirmation of brine aquifers
Geology	• *Deposit type, geological setting and style of mineralisation.*	• PepinNini is primarily exploring for brine aquifers in salars (dried salt lakes) and the geological setting is suitable lithium bearing brines in

Criteria	JORC Code explanation	Commentary
		commercial quantities. • Brine aquifers are indicated by high conductivity/low resistivity responses considered prospective for lithium brine
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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 is being reported
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.*	• No data aggregation used, data presented in range of single sample values
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').*	• Liquid surface samples sampled from shallow pits, no drilling undertaken
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.*	• Regional location map of PNN tenure are provided in Figure 1 • Cross section provided in Figure 2 of VES results with appropriate scale and descriptions.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades*	• Private company brine surface sampling carried out in 2011 on Salar de Pular, results not made public, No substantial exploration work has been

Criteria	JORC Code explanation	Commentary
	and/or widths should be practiced to avoid misleading reporting of Exploration Results.	undertaken on the tenements and prospects covered by the VES survey.
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.*	• Reference technical journals and reports by Ricardo Alonso, University of Salta 1984 to 2006. No exploration data for Salar Pocitos and knowledge of private confidential company data for Salar de Pular, Nicolli et al (1980) CARACTERISTICAS GEO~UlMICAS GENERALES DE AGUAS Y SALMUERAS DE LA PUNA ARGENTINA • Unpublished test results Salar de Pular Mina 19546 August, 2011 • The grid system used is Argentina Gauss_Kruger POSGAR (WGS-84) zone 2 & zone 3 depending the location of each salar.
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.*	• The next phase of exploration will be drilling, sampling and pumping tests to provide information on the hydrogeologic properties of the aquifers and potential extractability of brines.

JORC Table 1 in Appendix 1- Musgrave Project AEM Survey

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.*	• No samples are being reported
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).*	• No drilling is being reported
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.*	• No drilling is being reported
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.*	• No sampling / drilling is being reported

Criteria	JORC Code explanation	Commentary
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.*	• Not applicable - no sampling is being reported
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.*	• Not applicable - no sample analysis is being reported
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.*	• Not applicable - no sampling or analysis is being reported.
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.*	• Geophysical AEM Surveys used built in GPS navigational systems with external GPS mounted antennas with position accuracy +/- 1m. • Coordinate system MGA94 (Zone 52) / WGS84 datum • Topographic control from Digital Terrain models & publicly available topography. • Geographic positioning control appropriate for exploration survey lines

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.*
		• Fix-wing High Moment TEMPEST Survey –25Hz – 37.5kHz bandwidth, EM sensor - Towed bird with 3 component dB/dt coils, at nominal 120m flying height
		  • Regional Survey lines spaced at 2km
		  • Detailed survey lines spaced at 400m
		• Heli-mounted SkyTEM $^{312\ fast}$ system for regional survey
		• SkyTEM ^{516} system for detailed survey

Criteria	JORC Code explanation	Commentary
		• Regional Survey lines spaced at 2km • Detailed survey lines spaced at 400m • Survey lines positioned in consideration of heritage approvals.
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 Survey lines oriented north-south, • Positioning of survey lines appropriate for first-pass surveying
Sample security	• *The measures taken to ensure sample security.*	• Survey data collected and collated by Geosciences Australia (GA) and securely distributed via electronic communications to PepinNini's external geophysical consultant for validation and assessment.
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.*	• Geophysical survey work covered approximately 50% of PNN Musgrave tenure including EL5220, EL 5735, ELA118/96 and EL197/15. All tenure is 100% owned by NiCul Minerals Ltd - subsidiary of PepinNini Minerals Limited • PNN has a Deed of Exploration with the Anangu Pitjantjatjara Yankunytjatjara (APY) for each exploration licence
Exploration done by other	• *Acknowledgment and appraisal of exploration by other parties.*	• Modern exploration across the Musgrave Province has included regional airborne magnetics-radiometrics, airborne electromagnetics, ground gravity surveying, ground magnetics, ground IP, ground EM, magnetic lag

Criteria	JORC Code explanation	Commentary
parties		sampling, rock chip sampling, soil sampling, RC drilling and diamond drilling. • The detailed PNN AEM geophysical surveys are located in areas where no previous exploration activities have been undertaken.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• PepinNini is primarily exploring for massive magmatic Ni-Cu-Co sulphide & PGE systems related to mafic intrusions of the 1070Ma Giles Event, polymetalic Broken Hill Style associated with the Birksgate Complex metamorphic basement and precious metals within listric shear structures within the basement architecture. • The targeted prospects contain structural and magnetic features and conductivity responses considered prospective for massive sulphide or polymetalic mineral accumulations.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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 is being reported
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.*	• Not applicable - no sample results reported
Relationship between mineralisation widths and	• *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.*	• Not applicable. - no sample results reported

Criteria	JORC Code explanation	Commentary
intercept lengths	• *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').*	
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.*	• Regional location map of PNN tenure and survey outline are provided in Figure 4 • Tenement and prospect scale maps showing the location of activities are provided as Figures 4, 5, 6 & 7.
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.*	• No substantial exploration work has been undertaken on the tenements and prospects covered by the AEM survey.
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.*	• Fixed-wing airborne magnetics-radiometrics, digital elevation and ortho imagery (airphotos) was acquired across the Musgrave Region (SA) by the South Australian Government between 2000 & 2002. The data is publicly available. • The grid system used is GDA94 zone 52.
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.*	• Infill vacuum soil sampling and or ground EM is being planned at various prospect areas to investigate AEM conductive targets for potential Ni-Cu sulphide and PGE mineralization.