



PROJECTS- AUSTRALIA



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 the Musgrave Province of South and Western Australia and the Georgetown Inlier of North Queensland. A portfolio of prospective exploration tenements has been established in Argentina.

DIRECTORS

**Rebecca Holland-Kennedy**  
Managing Director  
**Philip Clifford**  
Technical Director  
**Robert WeiSun**  
Non-Executive Director  
**Sarah Clifton-Brown**  
Finance Director  
**Justin Nelson**  
Company Secretary

CONTACT

PepinNini Minerals Limited  
ABN 55 101 714 989

Level 6, 108 King William Street,  
Adelaide SA 5000  
TEL: +61 (0)8 8218 5000  
FAX: +61 (0)8 8212 5717  
EMAIL: admin@pnn-adelaide.com.au

FURTHER INFORMATION

**Ms Rebecca Holland-Kennedy**  
Managing Director  
TEL: +61 (0)8 8218 5000  
www.pepinnini.com.au



## EXPLORATION UPDATE SPINFEX RANGE WEST MUSGRAVE PROJECT, WA

**PepinNini Minerals (ASX: PNN) has now completed preliminary exploration investigations of targets at the Spinifex Range Project in the West Musgrave Region of Western Australia (Figure 1). The project is being explored for Nickel(Ni), Copper(Cu) and Platinum Group Elements (PGEs) under a purchase option agreement with Phosphate Australia Limited the 100% holder of the tenure.**

The Spinifex Range Project (E69/2864) has been recognized for its potential for Ni-Cu-Vanadium(V)-Titanium(Ti)-PGE minerals associated with large mafic intrusions. The tenement block covers part of the large Jameson Intrusion and is located within 50 kilometres of the Nebo-Babel and Succoth mineral deposits held by Cassini Resources (ASX:CZI) (Figure 2).

The project is being explored by PepinNini Minerals for magmatic nickel-copper sulphides and platinum group elements under an option agreement with Phosphate Australia Limited (ASX:POZ) which commenced in September 2014. The option involves a two year period whereby the Company can investigate and potentially acquire an 80% share of exploration licenses E69/2864 and E69/3191 which cover an area totalling 785.7km<sup>2</sup>. Should PepinNini choose to complete the purchase an 80%:20% joint venture will be established with POZ to develop the project.

PepinNini recently completed sub-surface soil geochemical vacuum drilling of Ni-Cu-PGE targets across the northern part of the E69/2864. The activities were designed to examine geochemical distributions across a number of prospect areas where an interpretation of the detailed airborne magnetic and proximal historic exploration results suggested untested potential for nickel - copper sulphide or PGE mineralisation associated with the north west extension of the Jameson Intrusion that still required additional investigation.

A total of six hundred and twenty two (622) vertical holes were completed using the company's vacuum drill rig to an average depth of 5.1m for a combined total of 3,170m. Soil cuttings collected from bottom of hole (BOH) were submitted for multi-element geochemical analyses. These results have now been received.

Five prospect areas (Canaan Ni-Cu Trend, Canaan East, Sword Blade, West Lirra Rd and PGE Recon Area - see Figure 3) returned vacuum soil samples with anomalous geochemical results.

- *Canaan East - 685ppm Ni, 1020ppm Cu, 241 ppb (Pt+Pd+Au)*
- *Sword blade - 599ppm Ni, 721ppm Cu, 54 ppb (Pt+Pd+Au)*
- *Canaan Cu-Ni - Trend - 531ppm Ni, 721ppm Cu, 143 ppb (Pt+Pd+Au)*
- *West Lirra Rd - 284ppm Ni, 561ppm Cu, 163 ppb (Pt+Pd+Au)*
- *PGE Recon - 1,140ppm Ni, 3,040ppm Cu, 294 ppb (Pt+Pd+Au)*

(see Table 1)



The most encouraging Ni-Cu and PGE results were returned from the "PGE Recon" prospect where five traverses of close spaced holes were completed across a 2.5 kilometre section of magnetic ridge interpreted to represent enriched basal PGE-magnetite mineralisation (Figure 4). The variable results up to 140ppb Platinum(Pt), 151ppb Palladium(Pd), 107ppb Gold(Au), 0.11% Ni and 0.3% Cu confirm the interpreted geological setting of this feature. The "Canaan East" prospect also returned encouraging soil geochemistry including up to 685ppm Ni, 1020ppm Cu, 109 ppb Pt, 101 ppb Pd and 35 ppb Au across a magnetic feature interpreted to represent a small intrusive "feeder" structure (Figure 5). Trace sulphides were observed in some vacuum samples across this target.

The variable results from the closely spaced samples suggest that limited sections of the bedrock sequence do contain Ni-Cu, Pt-Pd and Au mineralisation at a small scale. However, the ground geophysical surveying Electromagnetic (EM) undertaken by PepinNini at the Canaan East prospect, and historic sampling, geophysics (EM and Induced Polarisation (IP)) and drilling work undertaken by Western Mining Corporation(WMC) across the adjoining stratigraphy are not indicative of the presence of massive or disseminated magmatic sulphide systems .

Further integration of the anomalous results with the existing geophysical and geochemical data sets is ongoing to evaluate whether additional field investigations and bedrock drill testing will be pursued.

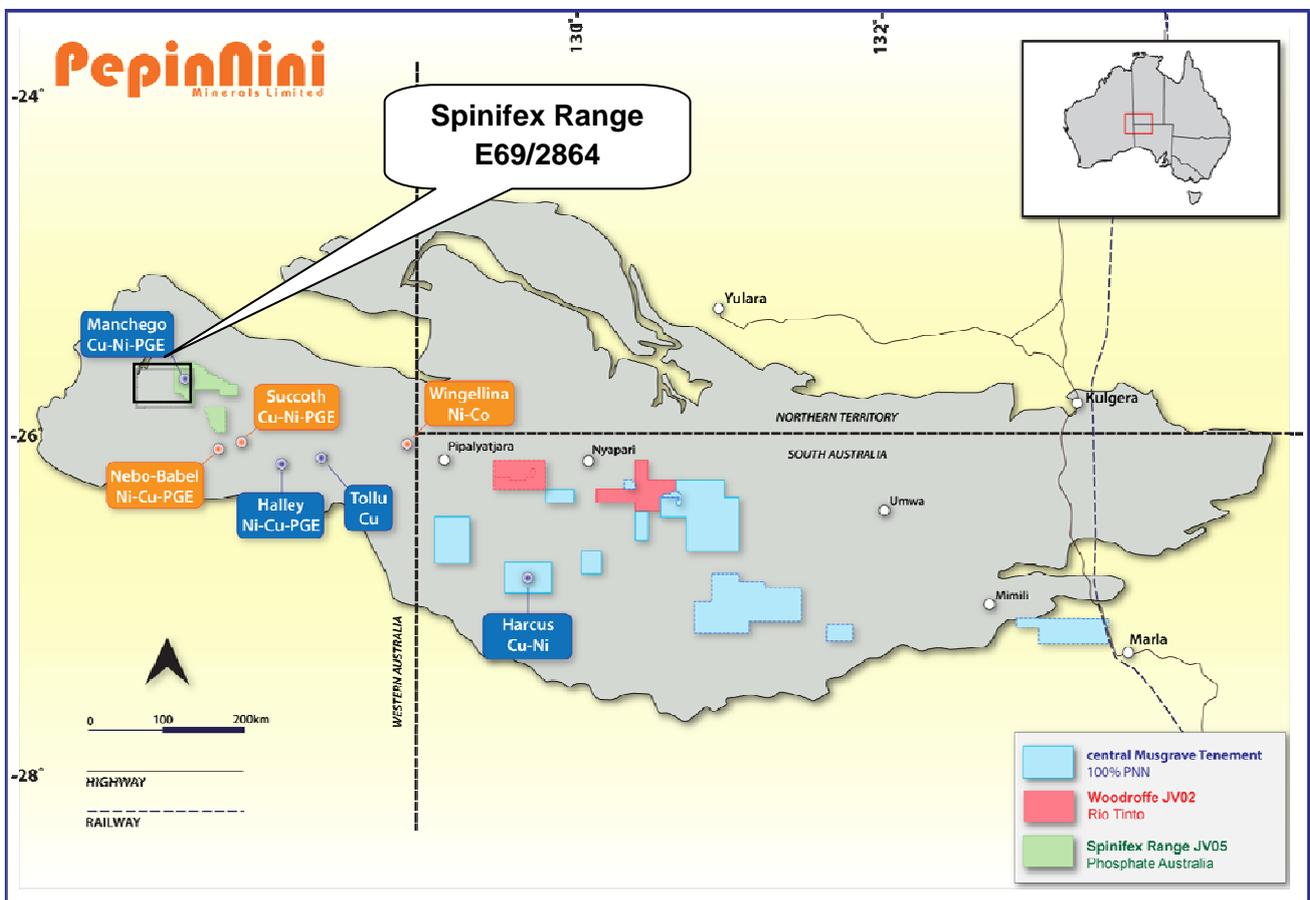


Figure 1: Location of Musgrave Project Tenure



**Table 1 - Summary of Anomalous Vacuum Soil Drilling Results**

(East/North coordinates - MGA zone 52, ppm = parts per million, ppb = parts per billion, \* = combined results, < = below detection)  
Ni=Nickel, Cu=Copper, Co=Cobalt, Au=Gold, Pt=Platinum, Pd=Palladium

Hole	East	North	Thickness (From - To)	Metal Anomalism	Ni (ppm)	Cu (ppm)	Co (ppm)	Ni-Cu-Co (ppm)*	Au (ppb)	Pt (ppb)	Pd (ppb)	PGE (ppb)*
<b>Sword Blade Prospect</b>												
VSR0002	356252	7161535	0.9m (3-3.9m)	Cu	63	291	52	406	1	10.1	13	24.1
VSR0003	356274	7161535	1.2m (2.1-3.3m)	Ni	367	168	83	618	<	8.3	17	25.3
VSR0004	356298	7161533	1.8m (6.6-8.4m)	Ni-PGE	269	187	65	521	7	8.3	30	45.3
VSR0008	356399	7161538	0.9m (2.1-3m)	PGE	140	112	50	302	<	11.4	43	54.4
VSR0017	356685	7161823	0.9m (4.8-5.7m)	Ni	599	30	130	759	3	1.3	15	19.3
VSR0027	356410	7161817	0.9m (5.7-6.6m)	Ni-PGE	341	84	83	508	1	23	11	35
VSR0043	356559	7162076	0.6m (3-3.6m)	Cu-PGE	78	271	51	400	1	25.6	9	35.6
				<b>Maximum</b>	<b>599</b>	<b>291</b>	<b>130</b>	<b>759</b>	<b>7</b>	<b>25.6</b>	<b>43</b>	<b>54.4</b>
<b>Canaan East Prospect</b>												
VSR0268	354862	7161786	0.9m (12-12.9m)	Ni-PGE	545	152	159	856	4	15.1	46	65.1
VSR0270	354822	7161720	0.9m (3-3.9m)	Cu-PGE	150	217	64	431	7	17.5	9	33.5
VSR0272	354801	7161676	0.9m (3.9-4.8m)	Ni	484	122	95	701	3	7.5	12	22.5
VSR0275	354763	7161608	0.9m (3-3.9m)	PGE (Pd), Ni-Cu-Co (Cu)	308	927	117	1352	13	65.2	64	142.2
VSR0276	354753	7161589	0.9m (2.1-3m)	PGE (Pt-Pd), Ni-Cu-Co (Cu)	310	1020	120	1450	31	109	101	241
VSR0277	354739	7161566	0.9m (3-3.9m)	Ni-PGE (Pt)	349	163	122	634	4	84.4	30	118.4
VSR0279	354715	7161522	0.9m (3-3.9m)	Ni-PGE	323	178	113	614	3	41.5	25	69.5
VSR0282	354680	7161456	0.9m (2.1-3m)	Ni	426	87	106	619	1	7.7	9	17.7
VSR0297	354630	7161778	0.9m (3-3.9m)	Ni-PGE	241	114	62	417	3	14.4	24	41.4
VSR0299	354603	7161734	0.9m (3-3.9m)	Ni-PGE	334	142	82	558	4	11.8	16	31.8
VSR0303	354557	7161650	0.9m (2.1-3m)	Ni-PGE	358	77	87	522	2	19.4	10	31.4
VSR0305	354533	7161608	0.9m (3-3.9m)	Ni-PGE	624	65	145	834	3	36.9	21	60.9
VSR0307	354507	7161562	1.3m (1.2-2.5m)	PGE (Pt)	291	66	74	431	3	94.2	29	126.2
VSR0312	354438	7161432	0.9m (2.1-3m)	PGE	191	103	61	355	2	21.6	21	44.6
VSR0313	354425	7161411	0.5m (2.1-2.6m)	PGE	130	17	48	195	<	10	22	31.5
VSR0317	354374	7161323	0.9m (5.7-6.6m)	Ni-Cu-Co	624	279	53	956	20	3.1	10	33.1
VSR0318	354361	7161301	0.7m (8.4-9.1m)	Ni-Cu-Co	352	261	110	723	3	7.4	19	29.4
VSR0319	354353	7161279	0.9m (12-12.9m)	Ni-Cu-Co (Ni)	685	187	119	991	11	3.7	9	23.7
VSR0320	354338	7161259	0.9m (10.2-11.1m)	Ni-Cu-Co	451	312	282	1045	2	5.4	11	18.4
VSR0605	354462	7161731	0.9m (3.9-4.8m)	Ni-Cu-Co-PGE	401	174	105	680	2	23.3	11	36.3
VSR0611	354613	7161645	0.9m (3.9-4.8m)	Ni-Cu-Co-PGE	380	206	100	686	2	38.1	15	55.1
VSR0612	354636	7161635	0.9m (3-3.9m)	Ni-Cu-Co-PGE	337	227	85	649	5	22.6	25	52.6
VSR0614	354680	7161609	0.9m (5.7-6.6m)	Cu-Ni	206	307	69	582	5	12	16	33
VSR0615	354702	7161599	0.9m (2.1-3m)	Cu-Ni	199	463	68	730	6	13.6	18	37.6
VSR0616	354722	7161587	0.9m (3.9-4.8m)	Ni-Cu-Co-PGE	362	90	112	564	1	108	25	134
VSR0617	354767	7161561	0.9m (3-3.9m)	Cu-Ni-PGE	255	404	93	752	6	52.3	45	103.3
VSR0618	354787	7161550	0.9m (3-3.9m)	Cu-Ni-PGE	289	613	105	1007	28	43.3	61	132.3
VSR0619	354812	7161540	0.9m (5.7-6.6m)	Cu-Ni-PGE	263	617	87	967	16	47.8	38	101.8
VSR0620	354833	7161527	0.9m (3.9-4.8m)	Cu-Ni-PGE	219	339	71	629	3	25.9	22	50.9
				<b>Maximum</b>	<b>685</b>	<b>1020</b>	<b>707</b>	<b>1450</b>	<b>31</b>	<b>109</b>	<b>101</b>	<b>241</b>



Hole	East	North	Thickness (From – To)	Metal Anomalism	Ni (ppm)	Cu (ppm)	Co (ppm)	Ni-Cu-Co (ppm)*	Au (ppb)	Pt (ppb)	Pd (ppb)	PGE (ppb)*
<b>Canaan Cu-Ni Trend</b>												
VSR0092	358098	7160317	0.9m (12-12.9m)	<i>Cu-PGE</i>	61	213	41	315	5	5.7	20	30.7
VSR0094	358107	7160340	0.9m (6.6-7.5m)	<i>Cu-PGE</i>	93	446	61	600	10	10.6	16	36.6
VSR0134	358610	7161233	0.9m (9.3-10.2m)	<i>Ni-Cu-Co</i>	362	270	445	1077	<	3.6	15	18.6
VSR0135	358624	7161257	0.9m (13.8-14.7m)	<i>Ni-Cu</i>	245	265	24	534	1	4	9	14
VSR0148	357046	7161281	0.9m (14.7-15.6m)	<i>Ni-Cu-Co</i>	531	109	236	876	<	7.3	14	21.3
VSR0153	357107	7161391	0.9m (6.6-7.5m)	<i>PGE</i>	126	145	42	313	2	15.1	40	57.1
VSR0190	355963	7162322	0.9m (1.2-2.1m)	<i>PGE</i>	87	39	46	172	<	0.8	56	56.8
VSR0324	353656	7163909	1.4m (6.6-8m)	<i>PGE</i>	60	149	55	264	22	5.8	17	44.8
VSR0331	353523	7163670	0.9m (14.5-15.4m)	<i>Cu</i>	94	461	56	611	2	8.4	10	20.4
VSR0340	353414	7163470	0.9m (1.2-2.1m)	<i>Cu-PGE</i>	88	286	35	409	8	19.4	20	47.4
VSR0344	353365	7163384	0.9m (1.2-2.1m)	<i>PGE (Pt)</i>	132	217	63	412	3	104	36	143
VSR0349	353304	7163276	0.3m (0.9-1.2m)	<i>PGE</i>	71	109	46	226	3	18.7	14	35.7
VSR0371	351628	7163810	0.9m (8.4-9.3m)	<i>Au</i>	157	54	57	268	35	1.9	5	41.9
VSR0373	351607	7163768	0.9m (12-12.9m)	<i>Ni-Cu</i>	486	251	126	863	4	7.4	12	23.4
VSR0374	351580	7163726	0.9m (11.1-12m)	<i>Ni-Cu-Co (Cu-Co)</i>	213	721	707	1641	2	3.6	6	11.6
VSR0403	350471	7163640	0.4m (6.6-7m)	<i>Ni</i>	448	137	102	687	12	5.2	5	22.2
VSR0410	350388	7163488	0.9m (3.9-4.8m)	<i>Ni-Cu-Co</i>	240	423	263	926	6	5.9	4	15.9
VSR0415	350326	7163380	0.9m (10.2-11.1m)	<i>Cu</i>	127	411	31	569	1	5.3	6	12.3
				<b>Maximum</b>	<b>531</b>	<b>721</b>	<b>707</b>	<b>1641</b>	<b>35</b>	<b>104</b>	<b>56</b>	<b>143</b>
<b>PGE Recon Area</b>												
VSR0503	347176	7158918	1.2m (0-1.2m)	<i>PGE</i>	138	82	43	263	3	18.8	19	40.8
VSR0507	347177	7158835	0.9m (5.7-6.6m)	<i>Ni-Cu-Co (Cu), PGE</i>	298	1140	49	1487	6	36.1	29	71.1
VSR0510	347677	7158738	0.9m (3-3.9m)	<i>Ni-Cu-Co (Cu)</i>	82	812	52	946	4	12.8	12	28.8
VSR0516	347676	7158678	0.9m (3.9-4.8m)	<i>PGE (Au-Pd), Cu</i>	142	3040	61	3243	107	47.9	121	275.9
VSR0517	347676	7158665	0.9m (5.7-6.6m)	<i>Cu-PGE</i>	196	628	52	876	3	14.3	15	32.3
VSR0518	347676	7158646	0.5m (5.7-6.2m)	<i>Ni-Cu-Co (Ni) PGE</i>	927	148	122	1197	5	23.5	37	65.5
VSR0520	347676	7158603	0.9m (5.7-6.6m)	<i>PGE (Pt-Pd)-Ni</i>	571	86	153	810	3	140	151	294
VSR0521	347674	7158613	0.9m (4.8-5.7m)	<i>Ni-Cu-PGE</i>	341	356	82	779	2	34.2	41	77.2
VSR0522	347676	7158580	0.9m (4.8-5.7m)	<i>Ni-Cu</i>	252	251	16	519	5	1.2	7	13.2
VSR0523	347675	7158559	0.9m (4.8-5.7m)	<i>Ni-Cu-Co (Ni)</i>	1140	396	34	1570	3	7.3	15	25.3
VSR0524	347675	7158541	0.9m (4.8-5.7m)	<i>Ni-Cu-Co (Cu-Ni)</i>	626	1270	105	2001	2	23.5	26	51.5
VSR0526	347675	7158501	0.9m (3.9-4.8m)	<i>PGE</i>	125	84	30	239	1	14.2	16	31.2
VSR0538	348255	7158513	0.9m (3.9-4.8m)	<i>Cu-PGE</i>	93	304	40	437	4	14.3	16	34.3
VSR0543	348256	7158449	0.9m (5.7-6.6m)	<i>Ni-Cu-PGE</i>	374	216	79	669	3	9.3	31	43.3
VSR0545	348740	7158461	0.9m (3.9-4.8m)	<i>PGE</i>	80	169	46	295	3	26	19	48
VSR0546	348741	7158450	0.9m (4.8-5.7m)	<i>PGE (Pt-Pd), Ni- Cu-Co (Cu)</i>	161	1020	91	1272	18	83.4	64	165.4
VSR0547	348740	7158440	0.9m (4.8-5.7m)	<i>Cu-Ni-PGE</i>	239	520	83	842	7	14.8	15	36.8
VSR0552	348739	7158387	0.9m (3.9-4.8m)	<i>Cu</i>	91	505	67	663	2	8.6	9	19.6
VSR0553	348741	7158377	0.9m (3.9-4.8m)	<i>Cu</i>	45	627	52	724	2	5.6	11	18.6
VSR0559	348740	7158304	0.9m (4.8-5.7m)	<i>Cu-PGE</i>	190	325	47	562	13	35.9	25	73.9
VSR0560	348739	7158284	0.9m (4.8-5.7m)	<i>Cu-Ni-PGE</i>	265	387	50	702	8	7.7	17	32.7
VSR0565	349327	7158080	0.9m (3-3.9m)	<i>Cu</i>	83	418	71	572	4	5.6	11	20.6
VSR0570	349325	7158020	1.8m (3-4.8m)	<i>Cu</i>	85	546	53	684	8	9.9	11	28.9



Hole	East	North	Thickness (From - To)	Metal Anomalism	Ni (ppm)	Cu (ppm)	Co (ppm)	Ni-Cu-Co (ppm)*	Au (ppb)	Pt (ppb)	Pd (ppb)	PGE (ppb)*
VSR0571	349325	7157997	1.1m (3.9-5m)	Cu	118	452	51	621	3	12.5	14	29.5
VSR0572	349327	7157975	1.1m (3.9-5m)	Ni-Cu-Co (Cu)	254	682	74	1010	5	12.4	18	35.4
VSR0574	349326	7157934	1.1m (3.9-5m)	Cu-Ni	279	328	35	642	3	4.4	15	22.4
VSR0575	349326	7157912	0.9m (5.7-6.6m)	Ni-Cu-Co (Cu)	258	718	44	1020	8	15.1	20	43.1
VSR0586	349325	7157989	0.9m (3.9-4.8m)	PGE	141	449	60	650	11	57.8	24	92.8
VSR0587	348740	7158447	0.9m (3.9-4.8m)	Cu-PGE	80	358	50	488	4	14.9	14	32.9
VSR0588	348740	7158436	0.9m (3-3.9m)	Ni-Cu-Co (Cu)	253	927	109	1289	8	18.2	14	40.2
VSR0600	347675	7158610	0.9m (5.7-6.6m)	Ni-PGE	296	86	61	443	<	20.5	14	34.5
VSR0601	347674	7158601	1.8m (1.2-3m)	Ni-Cu-PGE	290	214	39	543	5	10.6	15	30.6
<b>Maximum</b>					<b>1140</b>	<b>3040</b>	<b>153</b>	<b>3243</b>	<b>107</b>	<b>140</b>	<b>151</b>	<b>294</b>
<b>West Lirra Rd</b>												
VSR0439	345154	7161497	0.9m (5.7-6.6m)	Cu-PGE	151	253	55	459	10	6	16	32
VSR0440	345050	7161499	0.9m (4.8-5.7m)	Cu-PGE	50	279	47	376	7	14.2	11	32.2
VSR0442	344851	7161500	0.9m (6.6-7.5m)	Cu-PGE	114	413	118	645	2	15.4	12	29.4
VSR0445	344551	7161498	0.6m (4.8-5.4m)	Cu-PGE	28	280	10	318	3	13.3	15	31.3
VSR0446	344548	7161247	0.9m (3.9-4.8m)	Ni-PGE	284	119	97	500	2	15.3	28	45.3
VSR0452	345155	7161248	0.9m (4.8-5.7m)	PGE (Au)	88	264	51	403	122	21.6	19	162.6
VSR0457	345651	7161011	0.9m (4.8-5.7m)	Cu-PGE	133	347	50	530	7	22.2	47	76.2
VSR0462	345149	7160999	0.9m (3.9-4.8m)	PGE (Pt-Au)	106	561	58	725	24	80.2	35	139.2
VSR0469	344551	7160749	0.9m (3.9-4.8m)	Cu-PGE	83	262	56	401	3	33.7	34	70.7
VSR0470	344650	7160747	0.9m (3.9-4.8m)	Cu-PGE	54	248	41	343	12	50.7	33	95.7
VSR0474	345053	7160752	0.9m (3.9-4.8m)	Cu-PGE	70	277	53	400	6	16.2	13	35.2
VSR0480	345654	7160750	0.9m (8.4-9.3m)	Cu-PGE	77	188	40	305	24	7.5	15	46.5
VSR0489	345551	7160498	0.9m (5.7-6.6m)	Cu-Ni	231	357	50	638	1	9	12	22
<b>Maximum</b>					<b>284</b>	<b>561</b>	<b>118</b>	<b>725</b>	<b>122</b>	<b>80.2</b>	<b>47</b>	<b>162.6</b>

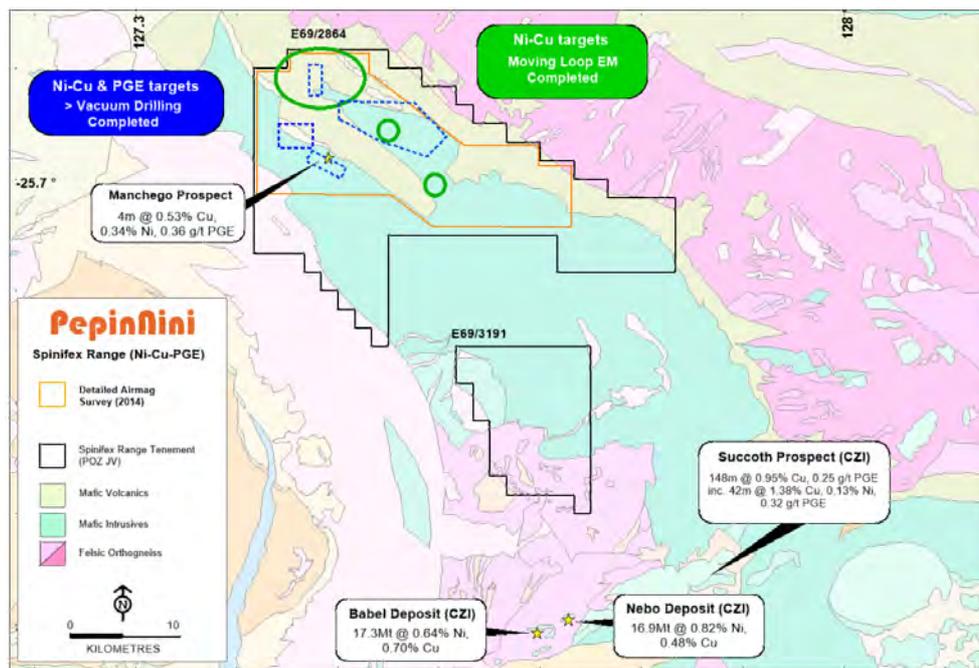
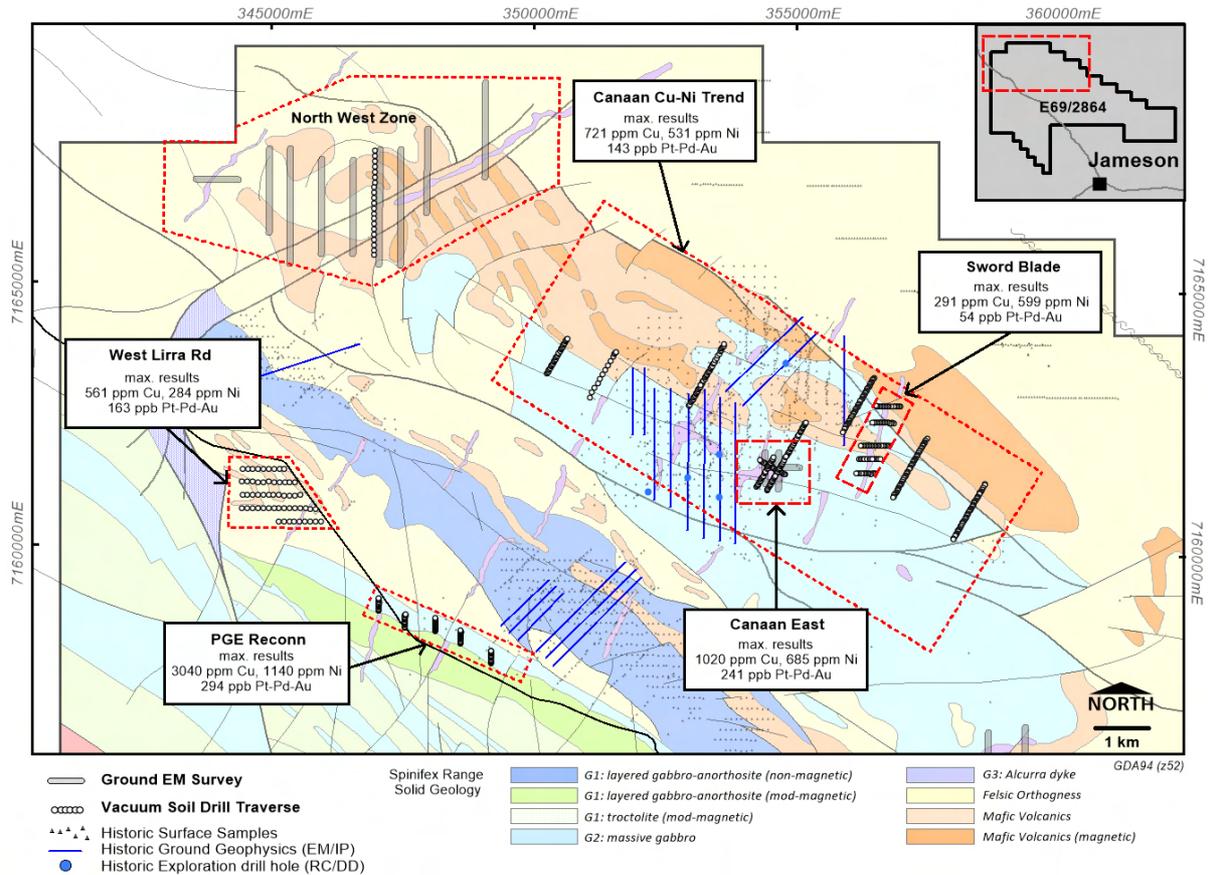
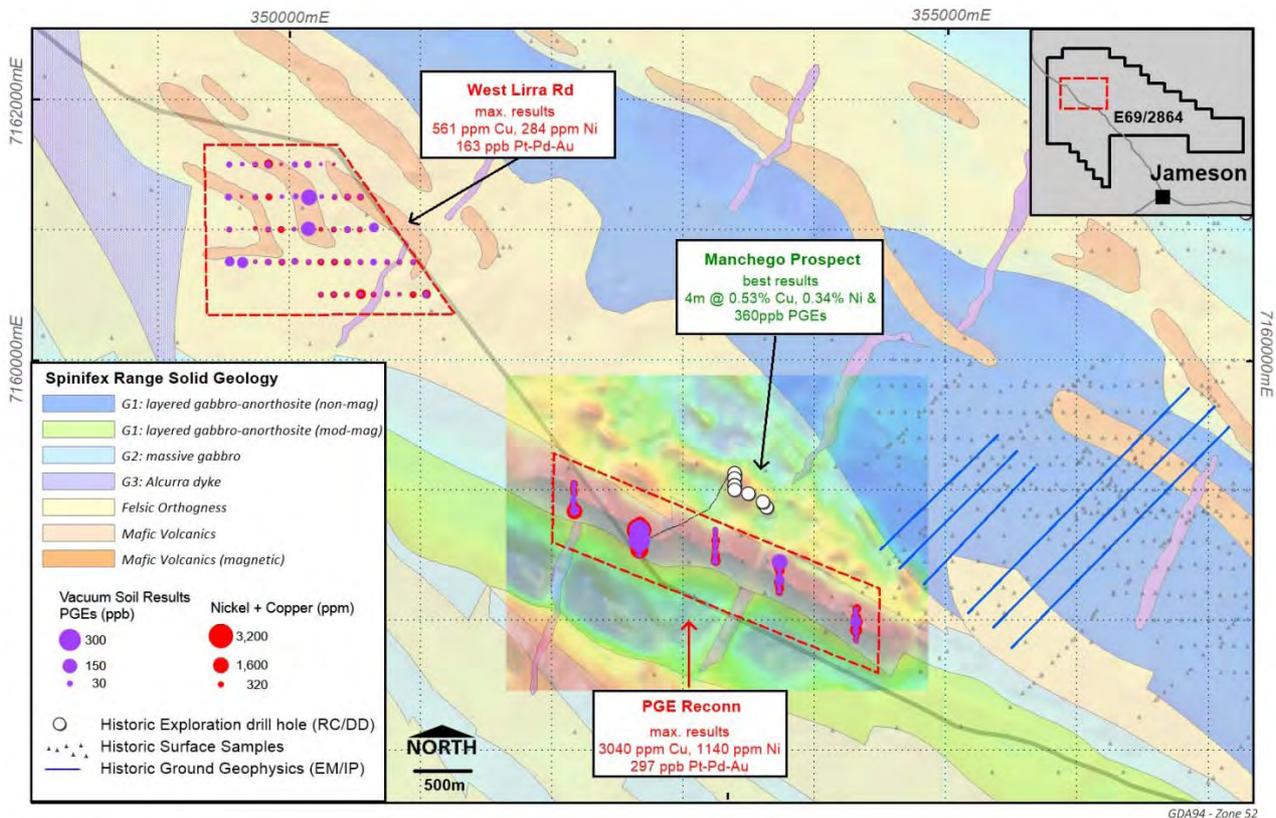


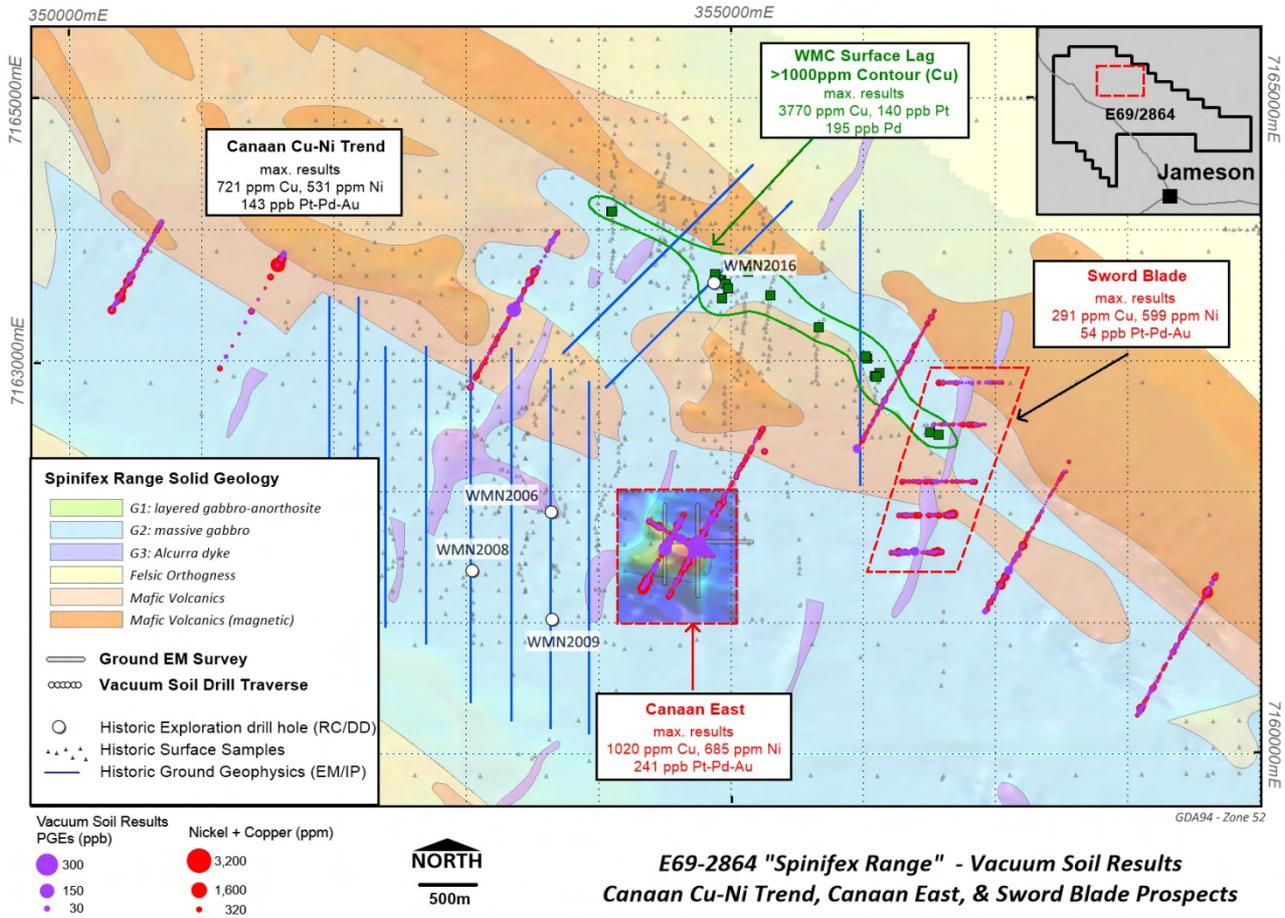
Figure 2: Schematic Regional geology of the Spinifex Range Project (E69/2864)



**Figure 3:** Location of completed vacuum regolith soil drilling within E69/2864 "Spinifex Range".



**Figure 4:** Vacuum regolith soil drilling - West Lirra Rd - PGE Recon Prospects



**Figure 5: Vacuum regolith soil drilling - Canaan Cu-Ni Trend, Canaan East & Sword Blade Prospects**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Philip Clifford who is a member of the Australasian Institute of Mining and Metallurgy. Mr Clifford is employed full time by the company as Technical Director and has a minimum of five years relevant experience in the style of mineralisation and type of deposit under consideration and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Clifford consents to the inclusion of the information in this report in the form and context in which it appears.

**For further information please contact:**

Rebecca Holland-Kennedy  
Managing Director, PepinNini Minerals Limited  
Phone: (08) 8218 5000

**Note:** Additional information on PepinNini Minerals Limited can be found on the website: [www.pepinnini.com.au](http://www.pepinnini.com.au)

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum Soil Drilling - Regolith geochemical sampling &amp; analysis.</li> <li>Grab sample of bottom of hole (BOH) drill spoil cuttings recovered from vacuum drill hole. Sample material commonly includes the 90cm of material directly overlying drill refusal (where the drill bit is unable to penetrate further).</li> <li>Samples nominally consist of 1-2 kg of cuttings</li> <li>Samples are reconnaissance in nature.</li> <li>Ideal samples will represent detrital material or hydromorphic chemical redistribution directly overlying weathered bedrock.</li> <li>Loose sands may dilute sample (uncommon)</li> <li>soil moisture may reduce sample recovery (uncommon)</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum Soil (regolith) Drilling - Geochemical sampling.</li> <li>All holes are vertical (-90 dip / 000 Az)</li> <li>Drill equipment 3" tungsten face sampling cutting bit. 1.8m x 1.5" diameter rod string. 30 psi vacuum suction extracts cuttings from hole through bit face and thence through centre of rod string and accumulates cuttings in 5 litre perspex collection vial. 90cm sample piles laid out sequentially on tarpaulin.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Volume of cuttings commonly 2x 5 litre vial per 1.8m drill rod. Thus each sample pile represents 90cm of penetration.</li> <li>Sample recovery effected by moisture or impenetrable clay/calcrete/silcrete/rock (ie refusal) .</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<ul style="list-style-type: none"> <li>Regolith cover sequence is recorded.</li> <li>Rock chips / weathered rock chips identified at BOH recorded &amp; logged as representing underlying stratigraphy.</li> <li>Magnetic susceptibility of BOH cuttings is recorded.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are taken as grab of vacuum cutting pile/s commonly from the bottom of hole interval.</li> <li>Samples are dry (otherwise no recovery)</li> <li>Due to regolith variability &amp; reconnaissance nature of regolith testing no QA/QC is undertaken.</li> <li>Sample interval depths approximated to closest decimetre</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Regolith geochemical analysis undertaken by ALS Adelaide</li> <li>4 acid digest, broad 36 element suite. 33 Elements ICP-AES, Au,Pt,Pd (30g FA ICP MS). Analytical techniques appropriate for detecting styles of mineralisation sought.</li> <li>Standard laboratory QA/QC</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>After extensive experience analysing vacuum soil samples across the Musgrave Region, and evaluation of previous robust field QA/QC (field duplicates and certified standards-blanks) the company does not consider the continued application of such measures critical due to the reconnaissance nature of the sub-surface sampling program.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum drill collars recorded using hand held Garmin 76 GPS.</li> <li>Coordinate system MGA94 (Zone 52) / WGS84 datum</li> <li>Topographic control from Spinifex Range Airborne Magnetic Survey - DTM (2014 - PepinNini)</li> <li>Geographic positioning control appropriate for exploration technique</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum soil drill traverse lines across selected stratigraphic targets. Hole spacing at nominal 25m and 50m centres. Detailed spacing down to 5m centres across "PGE Recon" prospect.</li> <li>Traverse lines positioned to minimise environmental disturbance.</li> <li>Traverse lines positioned in consideration of heritage approvals</li> <li>Survey lines variably positioned to test geological targets based on detailed</li> </ul>

Criteria	JORC Code explanation	Commentary
		aeromagnetic data and historic exploration work.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Traverse lines nominally perpendicular to target stratigraphic trends</li> <li>Positioning of sample traverse lines considered appropriate for initial reconnaissance testing / first-pass surveying.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples collected and held in custody of company personnel at remote field accommodation. Samples delivered by hand to ALS distribution facility in Alice Springs and thence in custody of ALS sample security protocol.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Data collection, processing and analysis protocols aligned with industry best practice.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Reconnaissance soil geochemical survey confined within E69/2864 ("Spinifex Range") in the west Musgrave Province of Western Australia. E69/2864 is held 100% by Phosphate Australia Limited</li> <li>PepinNini Minerals Ltd (through its 100% subsidiary NiCul Minerals Limited) has an option agreement with Phosphate Australia Limited (POZ) whereby it can investigate and potentially acquire an 80% share of exploration licenses E69/2864 and E69/3191 which cover an area totalling 785.7km<sup>2</sup>. Should PepinNini choose to complete the purchase an 80%:20% joint venture will be established with POZ to develop the project.</li> <li>The POZ option agreement expires on 11th September 2016.</li> <li>Phosphate Australia has a Mineral Exploration Access Agreement (MEAA) with Ngaanyatjarra Council covering exploration access to the tenement. PepinNini Minerals operates under the MEAA. All exploration activities are approved by Ngaanyatjarraku.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Western Mining Corporation explored the licence area between 1999-2006. Anglo American Exploration (AAE) in joint venture with Phosphate Australia Ltd explored the tenement 2012-13. AAE withdrew from the JV in March 2014.</li> <li>Modern exploration across the tenement has included regional airborne</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>magnetics-radiometrics, airborne electromagnetics, ground gravity surveying, ground magnetics, ground IP, ground EM, magnetic lag sampling, rock chip sampling, soil sampling, RC drilling and diamond drilling.</p> <ul style="list-style-type: none"> <li>The focus of vacuum soil geochemical drilling traverses are in areas where detailed airborne magnetic data suggests a prospective geological environment that have not been adequately tested by historic surface sampling, geophysical surveying (IP/EM) or exploration drilling. Several of the traverse areas lay directly along strike from previously identified Ni-Cu-PGE prospect areas.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>PepinNini is exploring for massive magmatic Ni-Cu sulphide &amp; PGE systems related to mafic intrusions of the 1,070Ma Giles Event.</li> <li>The targeted prospects contained structural and magnetic features considered prospective environments for massive sulphide accumulation.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Vacuum soil drilling is reconnaissance in nature. Hole easing and northing locations are recorded with stand alone Garmin 76 GPS (+/- 5m). Vacuum hole elevation (RL) are extrapolated from digital elevation models derived from the detailed airborne magnetic survey flown by the company in 2014.</li> <li>Vacuum soil drill holes are approximately vertical.</li> <li>Down hole measurements are estimated to closest decimetre using conventional metric tape measure.</li> <li>Hole lengths are extrapolated from measurement of rod sections used to penetrate the cover sediments.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sample results are first pass / reconnaissance in nature and relate to individual sample assays. Gold plus Platinum plus Palladium analyses are combined as "PGE ppb" for ease of presentation.</li> </ul>
<b>Relationship between</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>Vacuum drilling holes are vertical and penetrate soft and friable cover</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	sediments and soils. Sample depth intervals are approximated to +/- 0.1m.
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Regional location map and Ni-Cu deposits are provided in Figure 1</li> <li>Tenement and prospect scale maps showing the location of activities are provided as Figures 2 &amp; 3.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Previous mineral exploration has occurred within the licence area with low grade copper-nickel- +/- PGE mineralisation identified at the Manchego prospect and Canaan Prospect.</li> <li>Soil traverse lines return spotty weak anomalous Ni, Cu, or PGE surface geochemistry. The results do not reflect a strong potential for the presence of a significant mineral system in the prospect areas.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Previous mineral exploration has occurred within the licence area with low grade copper-nickel- +/- PGE mineralisation identified at the Manchego prospect and Canaan Prospect.</li> <li>Soil traverse lines are commonly adjacent (along strike) from prospect areas where significant geochemical, geophysical and drilling work was undertaken between 1999-2002 by Western Mining Corporation.</li> <li>Ultra-detailed fixed-wing airborne magnetics-radiometrics was acquired across the northern part of the E69/2864 tenement in December 2014. The data from the survey was used to identify potential targets in areas of minimal previous work.</li> <li>Regional airborne electro-magnetics (SPECTREM) had been flown across the tenement area by Anglo American Exploration in 2012. Palaeochannel responses [either flanking or coincident to structural magnetic targets] considered to possibly mask bedrock conductors in airborne data.</li> <li>High power Moving Loop Electro Magnetic (MLEM) surveys at Canaan East prospect completed June 2015.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Bedrock drill testing at the PGE and Canaan East prospect areas is being considered to further investigate the mineralogical context of the anomalous soil PGE and Ni-Cu results.</li> </ul>