

ACN 123 567 073

# Diamond Drilling & Electromagnetic Geophysics Planned for Plato Nickel Prospect

- Diamond core drilling and Electromagnetic geophysics brought forward at Plato Nickel Prospect
- Diamond drilling to commence 12<sup>th</sup> May; rig being mobilised to site
- Surface and downhole electromagnetic (EM) surveys to commence in parallel
- Plato geology interpreted as a zoned mafic gabbronorite intrusion prospective for nickel sulphides; the Plato Igneous Complex (PIC)
- Laboratory assays received for selected zones in PLRC002
- RC drilling suspended temporarily due to rain and access difficulties

Enterprise Metals Limited ("Enterprise"; "the Company", ASX: ENT) advises that based on the presence of visual sulphides in RC chips from holes PLRC002 and PLRC003, the planned RC precollar program at Plato has been revised. It is now intended to complete a total six RC holes, four of which are planned to be deepened by diamond core (DC) to approximately 450m. DC drilling is expected to commence on or about 12<sup>th</sup> May. (refer Figure 1 overleaf)

In parallel, the Company will also mobilise both Downhole EM and surface EM contractors to Plato to undertake:

- a) Downhole EM (DHEM) with a search radius of approximately 200m around selected holes on the already drilled section at 6434150m N, and
- b) A high-powered surface EM program over the broader Plato and interpreted Plato East and West magnetic features.

The Plato Igneous Complex is interpreted to be a Proterozic-aged intrusion of similar type to intrusions that host significant nickel mines in Canada and also at Nova-Bollinger. Such intrusions display clear zonation in mineralogy and chemistry, with the zonation a clear vector for explorers to locate the most prospective areas.

Drilling results to date are summarised overleaf, along with a schematic cross section (Figure 1) illustrating interpreted geology and actual and planned drilling.

PLRC001: Hole terminated at 250m in gabbro. (tight rods)

**PLRC002**: Hole terminated in gabbronorite at 252m. Extensive pyrrhotite mineralisation with trace visual sulphides. Disseminated sulphides associated with both ultramafic rocks and gabbro. 4 metre composite assays awaited. Refer Summary of selected zones below. Full assays for 1m splits shown in Table 3.

From	То	Interval	Co ppm	Cu ppm	Ni ppm
m	m	m			
76	80	4	146	173	1,611
86	96	10	126	247	1,654
100	108	8	127	69	1,224
222	228	6	78	75	435

 Table 1. PLRC002: Summary of Assays from 1 Metre Samples

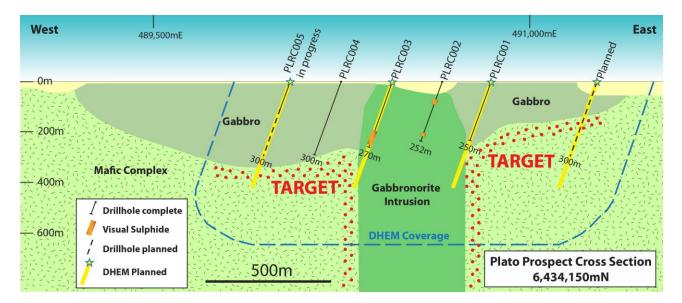
**PLRC003:** Hole terminated in gabbronorite at 270m. Iron sulphides (pyrrhotite) and trace copper sulphides (chalcopyrite) associated with gabbro. Assays awaited.

PLRC004: Hole terminated in unmineralised gabbro at 300m. Assays awaited.

PLRC005: Hole now in unmineralised gabbro at 101m. (Hole suspended due to rain)

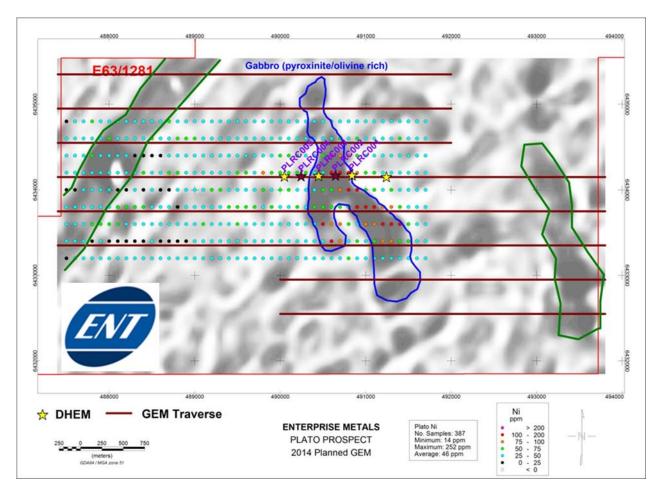
The Company will continue to report exploration progress as results dictate.

Figure 1. Schematic Cross Section - Proposed Diamond Core Tails & Planned DHEM Coverage



**Cautionary note:** No sulphides of anticipated economic grades have been discovered to date at Plato. The Company is however highly encouraged by the geology and sulphides intersected at this early stage of the exploration program.

Shown in Figure 2 below is a magnetic image of Plato with Ni soil geochemical results, and the near completed scout RC line of holes. Two other magnetic lows, at Plato East and Plato West, have now been interpreted as being of interest. The planned ground EM survey (shown in brown lines) has been planned to cover Plato and these other features.



## Figure 2 . Plan of Magnetic Image and Ni Soil Geochemistry, Showing RC Hole Locations and proposed Surface EM lines

#### COMMENTS

The Company is encouraged by these early RC drilling results, which have demonstrated the existence of the Plato Igneous Complex which appears to cross cut and postdate a large gabbro sequence. The drilling results also provide the Company with the confidence to deepen four of the RC holes with diamond core, undertake downhole EM on these holes and undertake a substantial surface EM program.

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Dermot Ryan Managing Director

Email: admin@enterprisemetals.com.au

#### **Competent Persons statement**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Dermot Ryan, who is employed as the Managing Director of the Company through geological consultancy Xserv Pty Ltd. Mr Ryan is a Fellow of the Australasian Institute of Mining & Metallurgy, a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Hole Name	Easting	Northing	RL (m)	Dip (degrees)	Azimuth (degrees)	Depth (m)
PLRC001	490846	6434158	310	-70	270	250
PLRC002	490652	6434153	310	-70	270	252
PLRC003	490454	6434150	312	-70	270	270m
PLRC004	490249	6434146	312	-70	270	300m
						Suspended at 101m
PLRC005	490052	6434157	312	-70	270	due to rain
PLRC006	491246	6434158	312	-70	270	Planned

#### Table 2. RC Drill Collar Attributes

Grid system is GDA94(MGA), zone 51



#### Table 3. RC Hole PLRC002 - Analytical Results – 1 Metre Samples

Hole	Fro	То	Sample	AI	Со	Cr	Cu	Fe	Mg	Mn	Ni	S	v	Zn
Id	(m)	(m)	Number	%	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm
PLRC002	76	77	E031134	2.13	147	2173	68	15.23	18	2323	1326	0.12	87	134
PLRC002	77	78	E031135	2.21	152	2063	233	14.7	18	2212	1806	0.31	81	122
PLRC002	78	79	E031136	2.26	139	2016	99	13.69	18.11	2198	1427	0.14	84	121
PLRC002	79	80	E031137	2.49	145	1786	293	13.28	18.74	1936	1883	0.33	68	107
PLRC002	86	87	E031138	5.71	28	463	49	3.8	4.06	760	300	0.04	28	59
PLRC002	87	88	E031139	2.94	127	2029	87	11.34	17.25	1855	1359	0.11	74	97
PLRC002	88	89	E031140	2.28	158	2040	512	13	18.66	1887	2376	0.54	84	99
PLRC002	89	90	E031141	2.23	162	2053	822	12.98	18.26	1900	2910	0.82	84	94
PLRC002	90	91	E031142	2.55	132	2007	125	11.93	17.89	1882	1528	0.16	78	93
PLRC002	91	92	E031143	4.02	87	1956	88	8.1	11.86	1235	927	0.12	59	104
PLRC002 PLRC002	91	92	E031145	3.18	131	2122	112	11.5	17.27	1255	1393	0.12	80	104
PLRC002 PLRC002	92	95 94	E031145	2.59	131	2056	112	11.5	18.58	1977	1395	0.13	83	103
PLRC002 PLRC002	94	94 95	E031140	2.39	136	2030	150	12.4	18.18	1977	1483	0.14	90	103
PLRC002	95	96	E031147	2.47	161	2141	412	13.4	18.18	2016	2743	0.17	85	106
T ENCOUZ		50	2031140	2.25	101	2101	-112	13.4	10.52	2010	2745	0.7	00	100
PLRC002	100	101	E031149	2.54	143	2235	295	12.56	18.68	1904	1909	0.3	79	100
PLRC002	101	102	E031150	2.29	137	2135	48	12.7	18.74	2001	1353	0.06	86	105
PLRC002	102	103	E031151	2.71	130	2173	44	12.22	18.61	1960	1231	0.06	88	100
PLRC002	103	104	E031152	2.25	136	1861	29	12.9	19.61	2124	1291	0.06	73	84
PLRC002	104	105	E031153	2.46	138	1970	32	13.06	19.24	2161	1270	0.05	72	93
PLRC002	105	106	E031154	2.48	134	2108	30	12.5	18.61	2069	1217	0.05	72	100
PLRC002	106	107	E031155	2.43	131	1979	29	12.59	18.75	2008	1171	0.05	78	105
PLRC002	107	108	E031156	5.7	64	776	45	12.83	7.09	2237	347	0.1	167	157

Level 1, 640 Murray Street, West Perth, WA 6005 PO Box 992, West Perth, WA 6872 www.enterprisemetals.com.au Tel: (+61 8) 9436 9200 Fax: (+61 8) 9436 9220 Email: admin@enterprisemetals.com.au

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Hole	Fro	То	Sample	AI	Со	Cr	Cu	Fe	Mg	Mn	Ni	S	v	Zn
Id	(m)	(m)	Number	%	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm
PLRC002	222	223	E031157	3.83	75	1190	52	10.77	11.78	2386	420	0.07	182	119
PLRC002	223	224	E031158	3.72	77	1202	43	11.16	12.01	2438	417	0.07	180	122
PLRC002	224	225	E031159	3.45	82	1192	66	12.08	11.85	2723	442	0.11	197	135
PLRC002	225	226	E031160	4.06	85	550	216	15.1	8.48	3430	466	0.49	242	187
PLRC002	226	227	E031162	5.3	64	1005	27	10.14	9.66	2311	278	0.05	172	113
PLRC002	227	228	E031163	4.6	83	1488	47	11.21	8.97	2120	588	0.06	159	122

Assay Technique	MA4010										
Elements	Al	Со	Cr	Cu	Fe	Mg	Mn	Ni	S	V	Zn
Units	%	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm
Lower Detection Limit	0.01	1	1	1	0.01	0.01	2	1	0.01	2	2
Upper Detection Limit	10	10000	10000	10000	50	20	10000	10000	5	10000	10000

All samples analysed at Minanalyical Laboratory Services Australia Pty Ltd.

# JORC Code, 2012 Edition – Table 1 report

# **Section 1 Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Drillingtechnique	<ul> <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> <li>Reverse Circulation (RC) drilling with face sampling hammer bit accounts for all of Enterprise's drilling at the Plato prospect.</li> </ul>
Drill sample recovery	<ul> <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> <li>RC recoveries were logged visually as a volume percentage.</li> <li>Each RC sample was split into 10% (for laboratory analysis) and 90% into a large green plastic bag through a triple tier splitter</li> <li>Not applicable as whole sample obtained.</li> </ul>
Logging	<ul> <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> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC drilling has been geologically logged to a level of detail deemed appropriate for mineral exploration.</li> <li>RC drill logs record lithology, mineralogy, mineralisation, weathering, colour and other appropriate features.</li> <li>All RClogging is quantitative.</li> <li>First 2 RC drill holes reported were logged in full</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <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> <li>No core drilling undertaken.</li> <li>RC samples were cyclone split. Samples were collected mostly dry.</li> <li>4m composite samples and 1m samples have been sent to Minanalytical Laboratory Services Australia Pty Ltd for geochemical analysis.</li> <li>The sample preparation of RC samples follows industry best practice. All samples will be pulverized to a minimum of 85% passing 75 microns.</li> <li>RC samples are collected at 1m intervals from a cyclone and split into 10% and 90% representative samples.</li> <li>4mSamples of equal volume are composited from 1 metre 90% green bag samples using a spear. In house blank and duplicate samples are inserted as 1 in 20 samples to be analysed with each batch of samples.</li> <li>Samples sizes are appropriate to the size of the RC chips.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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> <li>The proposed analytical technique uses mixed acid digest on 4m composite samples and 4 acid digest on 1 metre samples.</li> <li>Not applicable at this stage.</li> </ul>

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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <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> <li>Significant intersections of the RC chips were visually verified by the Managing Director and an independent technical consultant.</li> <li>There have been no been twinned holes to date.</li> <li>Primary sampling and logging data was collected by excel templates using flat files.</li> <li>No Adjustments or Calibrations were made to the assay data reported.</li> </ul>
Location of data points	<ul> <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> <li>Drillhole collars were located by GPS. Elevation values were in AHD. Expected accuracy is +/- 3m for northing and easting and +/-10m for elevation coordinates.</li> <li>The grid system is GDA94(MGA), zone 51</li> <li>The GPS is +/- 5m. A digital terrain model has beenderivedfromdatacollectedduring the airborne magnetic surveyofthe whole tenement.</li> </ul>
Data spacing and distribution	<ul> <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> <li>The nominal drill hole spacing is 200m on northings at Plato prospect.</li> <li>There is insufficient data to establish geological and grade continuity at this stage.</li> <li>4 metre composite samples have been collected and sent for analysis.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>There is no outcrop on which to base geological control. The drill section is arbitrarily eastwest.</li> <li>Drill intersections are not true widths.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Chain of custody is managed by Toll Ipec and then Minanalyical Laboratory. Samples are stored at drill site and then delivered by Enterprise personnel to a Toll Ipec for transport to the Perth laboratory.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews have been set up at this stage.</li> </ul>

# **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	<ul> <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> <li>The drilling is located wholly within Exploration Licence E63/1281.The tenement is 100% owned by Enterprise Metals Ltd</li> <li>The tenement is granted and in good standing with no known impediments to exploration.</li> </ul>			
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No known exploration by other parties on Plato Prospect.			
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Plato occurs within the Albany-Fraser Orogen which consists of gneiss, mafic rocks including gabbro with significant garnet in the metamorphic rocks.</li> <li>Further drilling and assaying is required to fully assess the geologyand style of mineralisation. Mineralogy and petrology studies are planned.</li> </ul>			
Drill hole Information	<ul> <li>Asummary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>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.</li> </ul>	refer to Table1. All drill hole locations.			
Data aggregation methods	<ul> <li>In reporting Exploration results, weighting averaging techniques, maximumand/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All assay results received have been reported.</li> <li>No use of metal equivalents has been used in this report</li> </ul>			
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration results.</li> <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>	<ul> <li>The geometry of mineralisation is not known at this early stage. Intercepts are of holes drilled at -70 dip. These are not true thicknesses.</li> <li>Downhole lengths only are reported. These are not true widths.</li> </ul>			

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Criteria	· JORC Code explanation	· Commentary
Diagrams	<ul> <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> <li>A schematic cross section has been prepared based on geological logging of 4 holes, and partial assays from one hole.</li> </ul>
Balanced reporting	<ul> <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>	All significant results are reported.
Other substantive exploration data	<ul> <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> <li>Previous exploration results at Plato reported in ENT:ASX releases dated:</li> <li>30/04/2014</li> <li>29/04/2014</li> <li>21/06/2013</li> <li>19/03/2013</li> <li>20/11/2012</li> <li>17/09/2012</li> </ul>
Further work	<ul> <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> <li>At this stage, geology and mineralisation at Plato are not well understood.</li> <li>Further RC drilling, and then diamond core (DC) drilling to allow effective DHEM surveys has been planned.</li> </ul>