

27 December 2018

New drill results extend NdPr mineralisation at Longonjo with broad, high-grade intersections starting from surface

Pensana Metals Ltd (ASX: PM8) is delighted to report further excellent drill results from its exploration programme at the Longonjo NdPr Project in infrastructure rich Angola.

Results from the latest 31 holes include a number of high-grade intersections starting from the surface up to 42 metres in thickness.

<u>Drill hole</u>	<u>Intersection*</u>
LRC053:	10 metres at 8.03% REO including 1.98% NdPr from surface and 14 metres at 7.33% REO including 1.86% NdPr from 20 metres
LRC055:	14 metres at 5.45% REO including 1.13% NdPr from surface
LRC057:	42 metres at 3.98% REO including 0.85% NdPr from surface
LRC042:	12 metres at 4.01% REO including 1.01% NdPr from surface

*NdPr = neodymium – praseodymium oxide. A 0.40% NdPr grade cut has been applied. REO = total rare earth oxides

These results follow on from the previously announced results which also included high-grade intersections starting from surface and up to 65 metres in thickness. A number of these deeper intersections remain open at depth.

With just over half of the results reported the mineralisation has been extended in all directions and remains open.

Results from 67 of the 108 holes drilled have extended the area of the Mineral Resource estimate by several hundred metres to the north, east and the west.

The mineralisation appears to have been closed off to the north but remains open in all other directions with broad, high-grade intersections reported at either end of the east-west drill line.

The mineralisation occurs as a weathered blanket, up to 65 metres in thickness, draped across the top of the 3.8 square kilometre carbonatite intrusion.

The results expected shortly from the 41 holes drilled in the 2,200 by 900 metre southern area of the carbonatite are expected to further extend the mineralisation.

Executive Director Dave Hammond commented:

“These broad intersections of high-grade mineralisation from surface are exceptional and they follow on from similar intersections reported in earlier holes.

With just over half of the drill results received to date it’s clear that much of the weathered blanket covering the 3.8 square kilometre carbonatite is mineralised and that we are already looking at the potential for a very substantial expansion of the maiden Mineral Resource estimate.

We are eagerly anticipating the results from the remaining 41 holes in the untested southern area, which has considerable potential to add further extensions to the mineralisation.

Once all the results have been received, we look forward to reporting an upgraded Mineral Resource estimate early in 2019.”

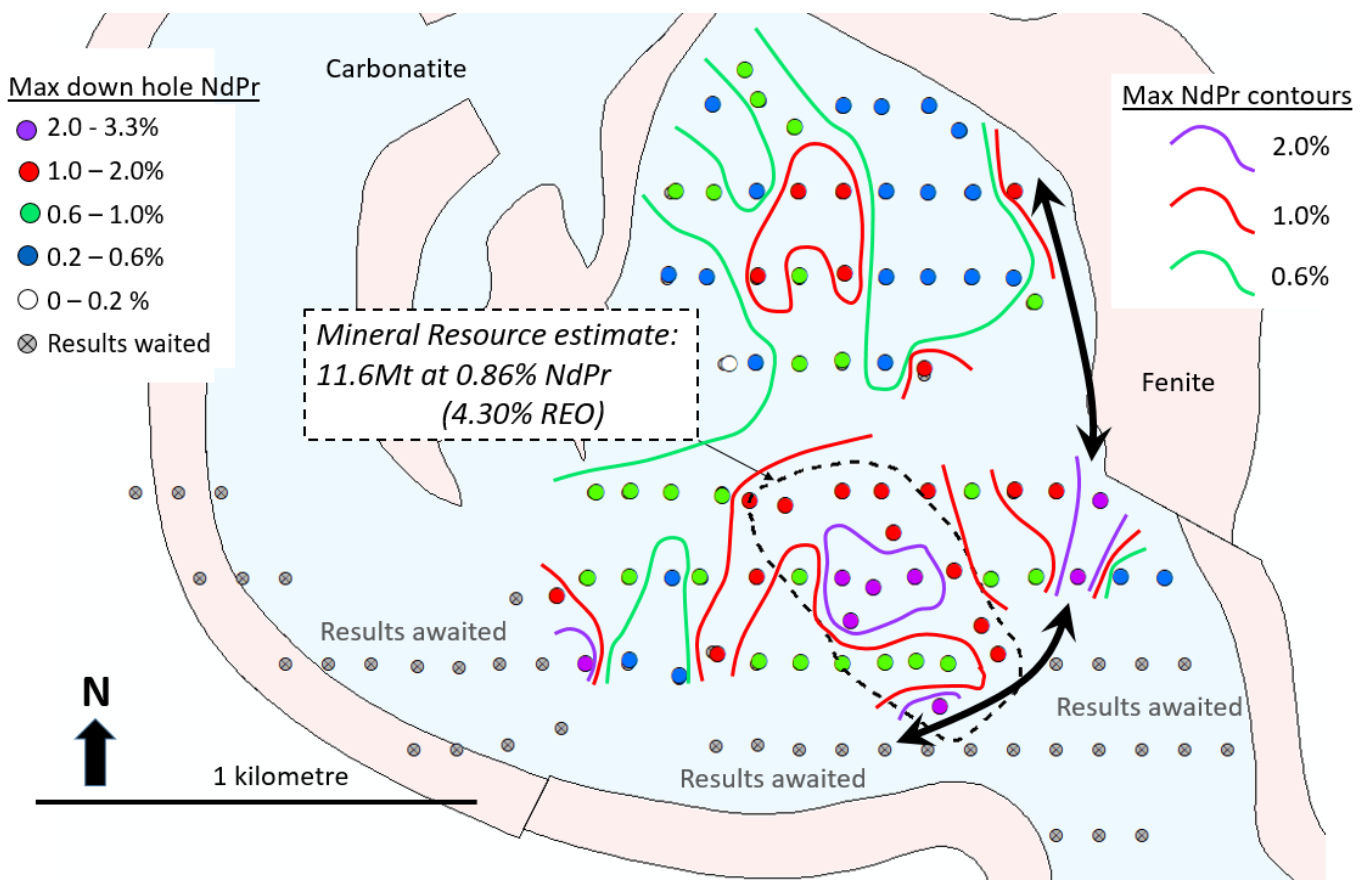
Technical Report

The 4,206 metre reverse circulation programme is testing an area ten times that of the maiden Mineral Resource estimate (**11.6 million tonnes at 4.30% REO including 0.86% NdPr**, ASX announcement 26 September 2017), with a view to generating an upgraded Mineral Resource estimate.

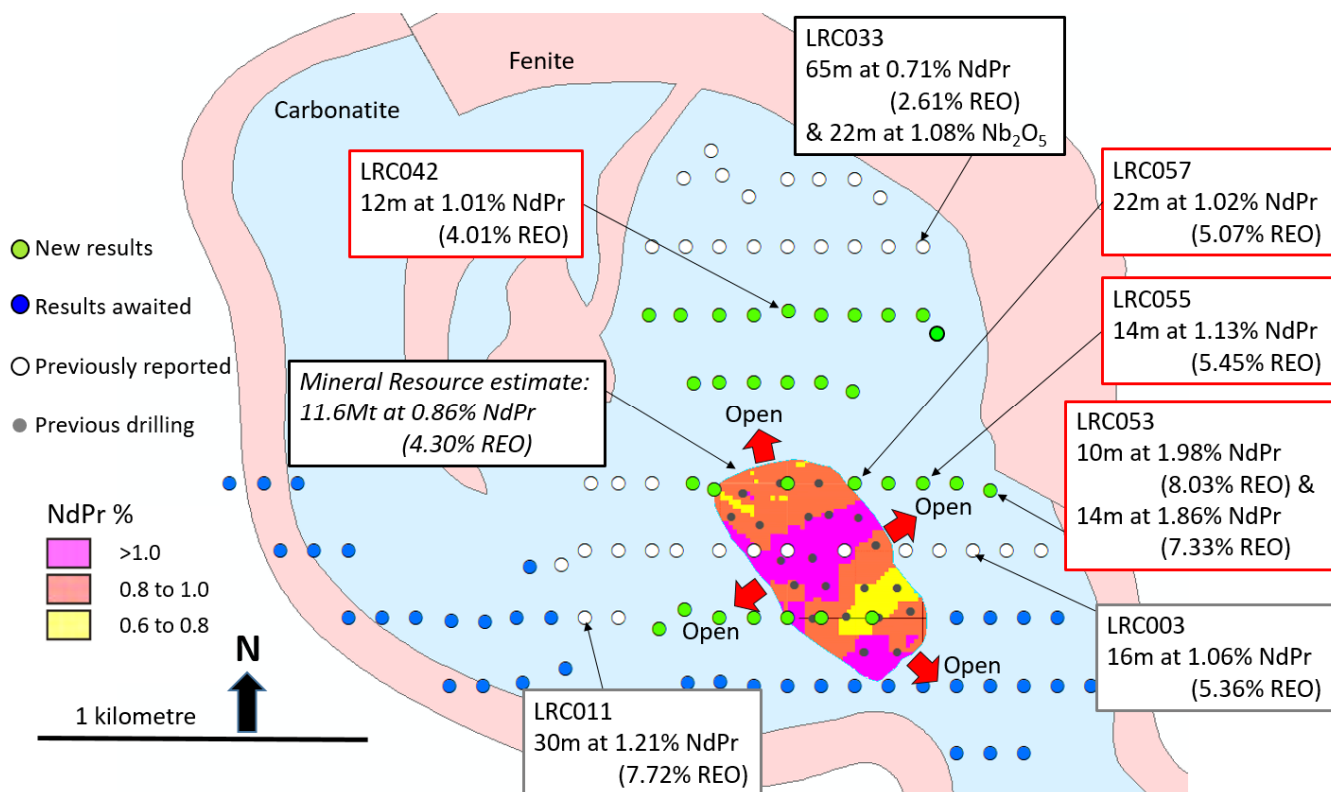
The latest results from 31 wide spaced vertical holes have returned particularly high-grade intersections from surface up to **10 metres at 8.03% REO including 1.98% NdPr from surface** and **14 metres at 7.33% REO including 1.86% NdPr from 20 metres** in the same drill hole, LRC053.

As well as extending the continuous zone of high-grade mineralisation in the maiden Mineral Resource estimate area several hundred metres to both the east and west, results received to date have identified a new high grade zone in the west and another along the eastern margin of the carbonatite.

Broad intersections from surface were also returned from the northern area.



Maximum downhole NdPr plan demonstrates that high grade, near surface NdPr mineralisation extends well beyond the maiden Mineral Resource area at Longonjo.



Location of new drill results with respect to the maiden Mineral Resource estimate and the extent of the prospective Longonjo Carbonatite. Results from a further 41 drill holes are expected over the coming weeks.

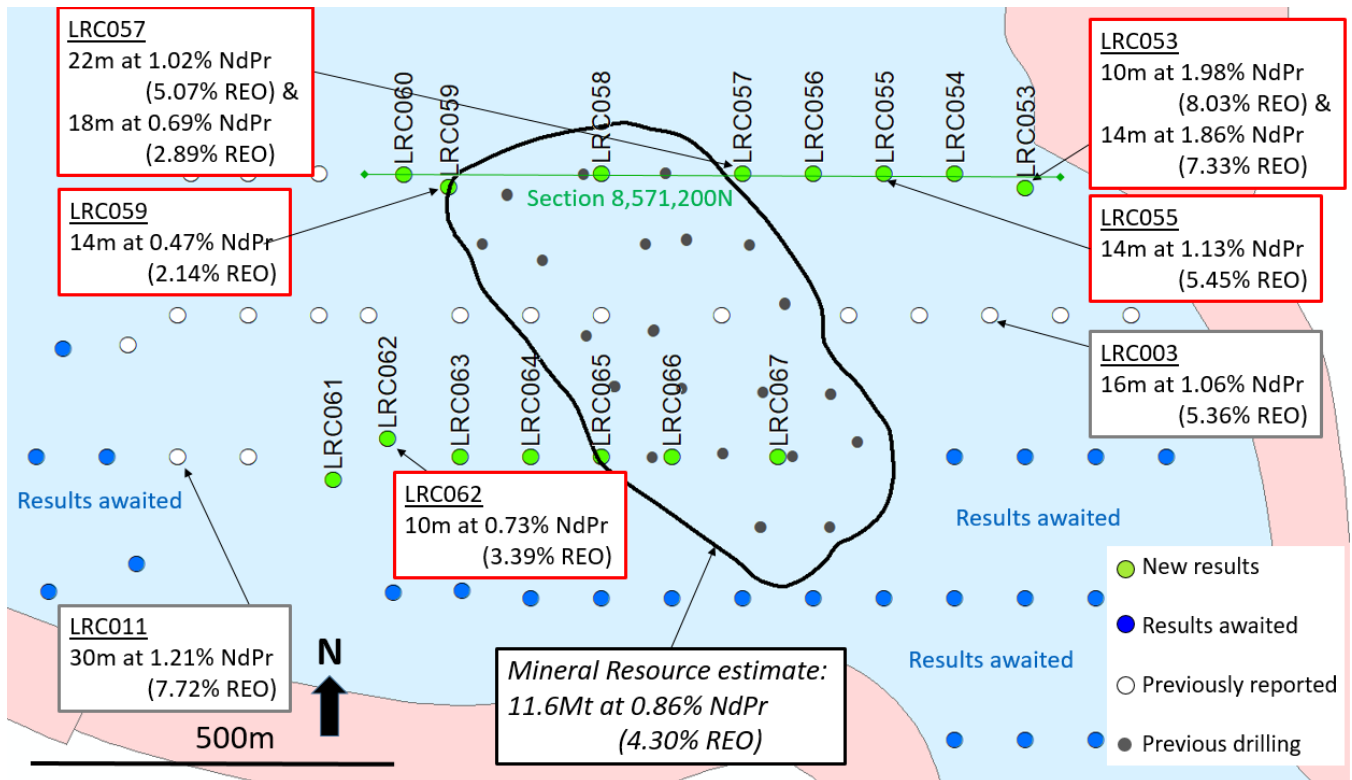
The new results demonstrate the widespread nature of near surface NdPr mineralisation across the carbonatite and that is particularly enriched in the weathered zone. High grade intersections at a 0.40% NdPr grade cut include:

<u>Drill hole</u>	<u>Intersection*</u>
LRC053:	10 metres at 8.03% REO including 1.98% NdPr from surface and 14 metres at 7.33% REO including 1.86% NdPr from 20 metres
LRC055:	14 metres at 5.45% REO including 1.13% NdPr from surface
LRC057:	42 metres at 3.98% REO including 0.85% NdPr from surface
LRC042:	12 metres at 4.01% REO including 1.01% NdPr from surface
LRC044:	16 metres at 3.56% REO including 0.68% NdPr from surface
LRC050:	26 metres at 3.28% REO including 0.76% NdPr from surface
LRC058:	8 metres at 4.01% REO including 0.83% NdPr from surface

*Intersection highlights reported at $\geq 0.40\%$ NdPr. NdPr = neodymium + praseodymium oxide: $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$. REO = total rare earth oxides, the sum of La_2O_3 , CeO_2 , Pr_6O_{11} , Nd_2O_3 , Sm_2O_3 , Eu_2O_3 , Gd_2O_3 , Tb_4O_7 , Dy_2O_3 , Ho_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 , Lu_2O_3 , Y_2O_3 . Table 1 provides all NdPr and REO intersections $\geq 0.20\%$ and $\geq 0.40\%$ NdPr together with drill hole details.

The highest grades returned from the new results (LRC053) are located in the south of the project, 400 metres to the east of the limits of the current Mineral Resource area, on the eastern end of the drill traverse.

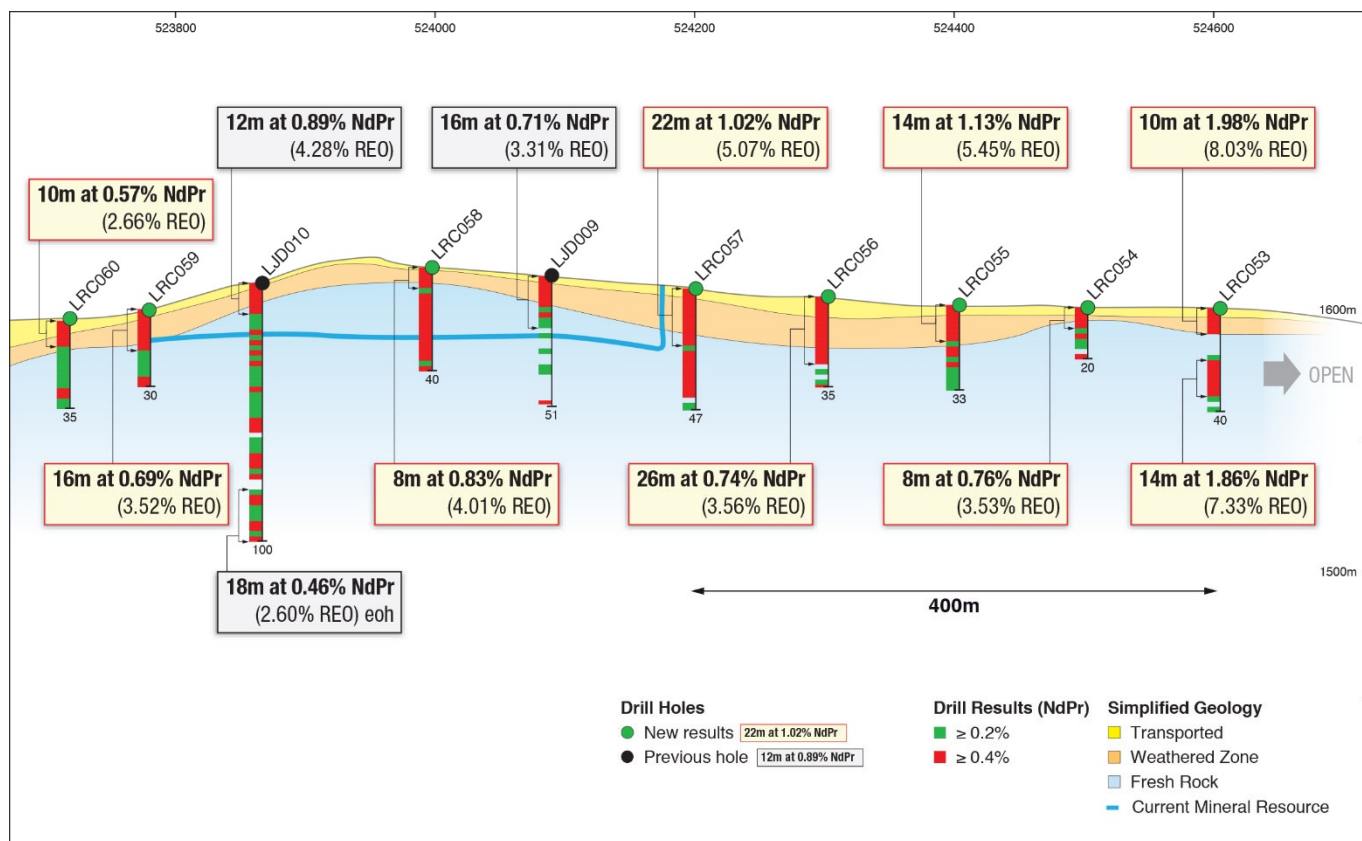
The grades of mineralisation intersected in this previously untested area compare well to the average grades of the current Mineral Resource estimate.



Above: Plan of intersection highlights from the new drilling results (red labels, green drill hole collars) in the southern area of the project. The majority of intersections start at surface (see Table 1). High grade mineralisation has now been identified 400m to the east and 600m west of the limits of the maiden Mineral Resource. Mineralisation remains open to the east, west and south, where results are expected shortly.

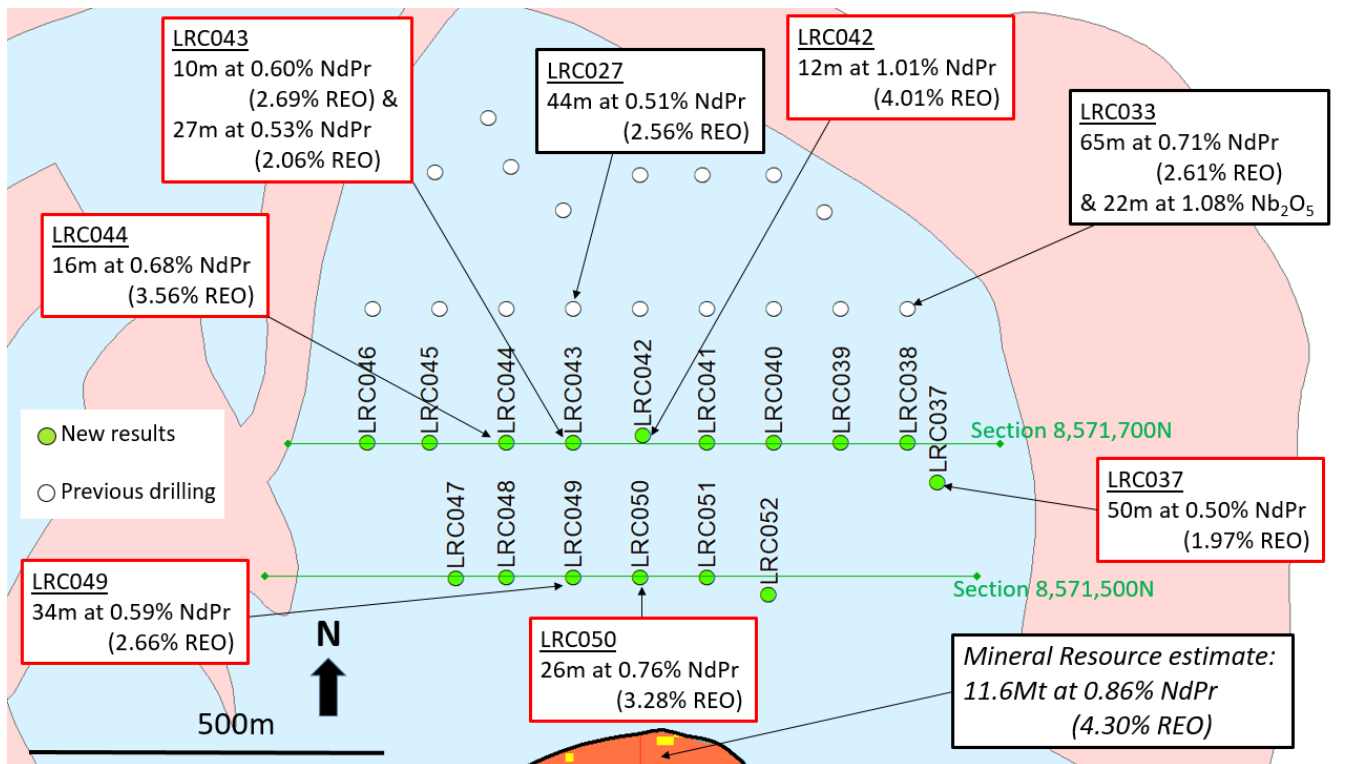
High grade mineralisation has now been identified over a total width of 1,250 metres and remains open to the east, west and south, where results from drilling are awaited.

The following vertical drill section illustrates the continuous nature of the high grade blanket of near surface mineralisation to the east of the current Mineral Resource boundary.



Above: New assay results from section line 8,571,200N show high grade near surface mineralisation continues for a further 400m to the east of the limit of the current Mineral Resource estimate. See plans for location. **Note horizontal scale 2x the vertical - drill holes are 100 metres apart for all sections.**

Assay results from the previously untested northern part of the project, up to 800 metres north of the current Mineral Resource estimate, define a continuous central zone of mineralisation and an eastern zone of deeply weathered mineralisation up to 65 metres thick along the margin of the carbonatite.

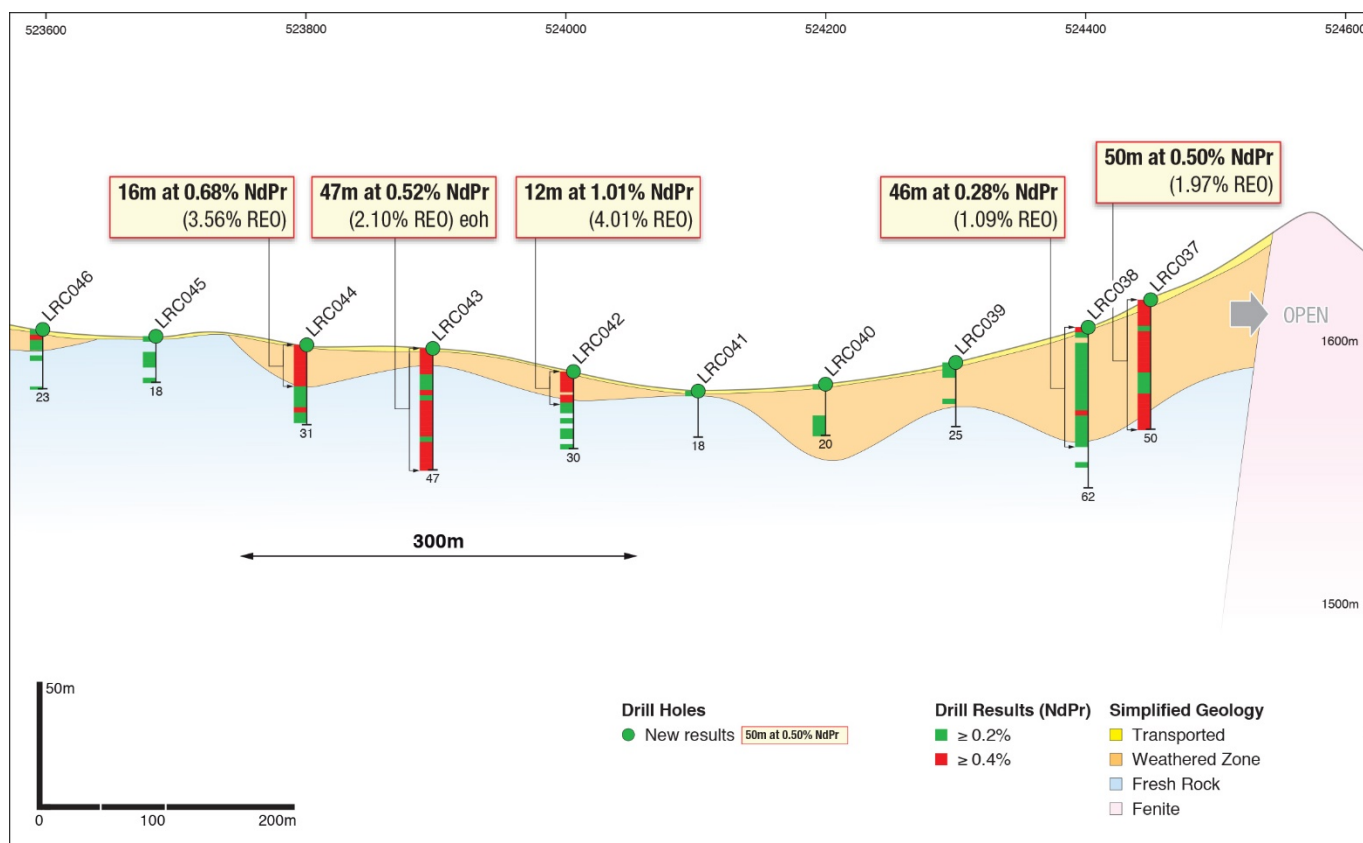


Plan of intersection highlights from the new drilling results (red labels, green drill hole collars) in the northern area of the project, which together with previously reported intersections (black labels, white collars) identify broad zones of NdPr mineralisation up to 600m to the north of the current Mineral Resource estimate. The majority of intersections start at surface (see Table 1).

The high-grade zone on the eastern margin of the carbonatite appears to be increasing in grade towards the contact with the fenite and may extend southwards into the southern part of the project (see first figure, this report).

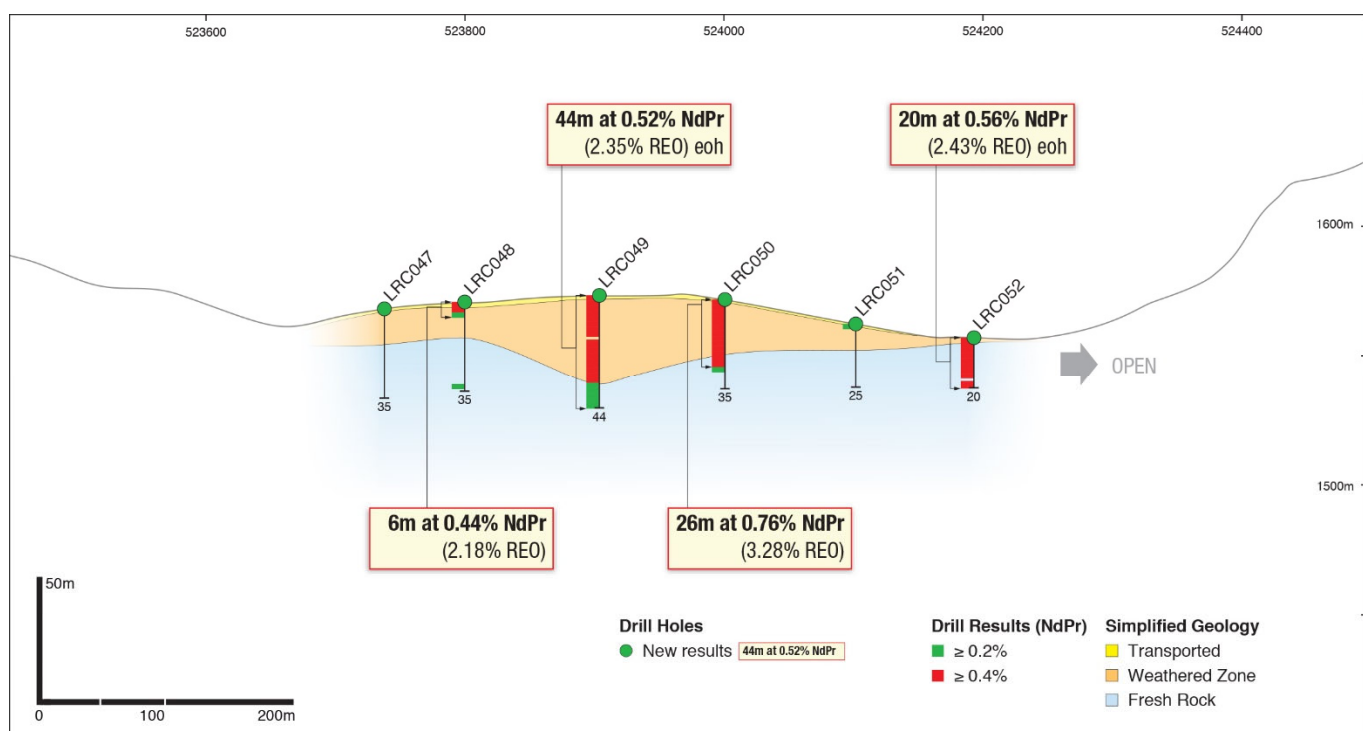
Assays from the remaining drill holes already completed, all located in the southern part of the project, will determine whether this high-grade zone continues along the southern margin of the carbonatite.

Fresh rock carbonatite hosted mineralisation was intersected by the northern drilling, and remains open to the east and with depth (see sections following).



Above: New assay results from section line 8,571,700N, located in the north of the project, 440 metres north of the northern limit of the current Mineral Resource estimate. See plans for location. **Note horizontal scale 2x the vertical** - drill holes are 100 metres apart for all sections.

Below: New results on section line 8,571,500N. Note that fresh rock carbonatite hosted mineralisation remains open to the east and with depth.



The Company looks forward to reporting the assay results from the remaining 41 drill holes in January 2019.

Once the final assays are received, the Company plans to complete a revised Mineral Resource estimate for Longonjo. The successful delineation of a very large expanded NdPr Mineral Resource estimate would allow the Company to identify and select the most favourable, highest quality mineralisation for initial development studies.

Strategic Vision for Longonjo

Pensana Metals is completing studies for a distinctly different, low cost development approach for Longonjo and to determine the potential of the project to become a globally significant supplier of raw materials to the expanding magnet metal market - a market driven by the electrification of transport and the drive to green energy generation.

Longonjo is located only 4 kilometres from a modern rail line that leads directly into an Atlantic port. The potentially free dig, low waste to ore ratio and high grade nature of the surface mineralisation, together with its favourable location and transport infrastructure already in place distinguish Longonjo from other rare earth projects.

The Company's vision is to leverage these unique advantages with the aim to rapidly develop a relatively low capital intensive, low technical risk, conventional open pit mine and on site beneficiation plant to produce a high grade mineral product for export.

Competent Persons Statement

The information in this report that relates to Geology and Exploration results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australian Institute of Mining and Metallurgy. David Hammond is the Chief Operating Officer and a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Mineral Resource estimate for the Longonjo Project is based on information compiled by Dr Heather King who is a member of a 'Recognised Professional Organisation' (RPO)

included in a list posted on the ASX website from time to time, specifically the South African Council for Natural Scientific Professions, and Dr King is registered as a Professional Natural Scientist (Pr. Sci. Nat.). Dr King is a full-time employee of Deloitte, consulting to Pensana Metals Ltd. Dr King has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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". Dr King consents to the inclusion in the report of matters based on her information in the form and context in which it appears.

Table 1: Longonjo NdPr Project, RC drill intersections greater than 4m thick and $\geq 0.20\%$ NdPr. Intersections $> 0.40\%$ NdPr shown in ***bold italics***

Hole ID	East	North	RL	Hole Depth (m)	From (m)	To (m)	Interval (m)	REO %	NdPr %
LRC037*	524,450	8,571,638	1,701	50 <i>(incl. and</i>	0 <i>0</i> <i>36</i>	50* <i>28</i> <i>50</i>	50eoh* <i>28</i> <i>14eoh</i>	1.97 <i>2.14</i> <i>1.98</i>	0.50 <i>0.54</i> <i>0.52)</i>
LRC038	524,399	8,571,699	1,705	62	0	46	46	1.09	0.28
LRC039	524,301	8,571,703	1,692	25	0	6	6	0.99	0.23
LRC040	524,198	8,571,701	1,684	20	12	20	8eoh	1.19	0.28
LRC041	524,101	8,571,702	1,681	18	NSI				
LRC042	524,004	8,571,711	1,689	30 <i>(incl.</i>	0 <i>0</i>	30 <i>12</i>	30eoh <i>12</i>	2.42 <i>4.01</i>	0.56 <i>1.01)</i>
LRC043	523,898	8,571,704	1,697	47	0	47	47eoh	2.10	0.52
LRC044	523,802	8,571,704	1,698	31 <i>(incl.</i>	0 <i>0</i>	30 <i>16</i>	30 <i>16</i>	2.76 <i>3.56</i>	0.53 <i>0.68)</i>
LRC045	523,684	8,571,702	1,702	18	6	12	6	1.31	0.24
LRC046	523,595	8,571,707	1,705	23	0	8	8	1.57	0.33
LRC047	523,736	8,571,499	1,668	35	NSI				
LRC048	523,797	8,571,503	1,670	35 <i>(incl.</i>	0 <i>0</i>	6 <i>4</i>	6 <i>4</i>	2.18 <i>2.53</i>	0.44 <i>0.52)</i>
LRC049	523,899	8,571,499	1,674	44 <i>(incl.</i>	0 <i>0</i>	44 <i>34</i>	44eoh <i>34</i>	2.35 <i>2.66</i>	0.52 <i>0.59)</i>
LRC050	523,998	8,571,507	1,672	35 <i>(incl.</i>	0 <i>0</i>	28 <i>26</i>	28 <i>26</i>	3.14 <i>3.28</i>	0.72 <i>0.76)</i>
LRC051	524,100	8,571,502	1,662	25	NSI				
LRC052	524,191	8,571,488	1,653	20	<i>0</i>	<i>20</i>	<i>20eoh</i>	<i>2.43</i>	<i>0.56</i>
LRC053	524,602	8,571,179	1,597	40 <i>(incl.</i>	<i>0</i> 18 <i>20</i>	<i>10</i> 40 <i>34</i>	<i>10</i> 22eoh <i>14</i>	<i>8.03</i> 5.13 <i>7.33</i>	<i>1.98</i> 1.28 <i>1.86)</i>

Hole ID	East	North	RL	Hole Depth (m)	From (m)	To (m)	Interval (m)	REO %	NdPr %
LRC054	524,500	8,571,202	1,601	20 (incl.	0 0	20 8	20eoh 8	2.53 3.53	0.52 0.76)
LRC055	524,402	8,571,206	1,602	33 (incl.	0 0	33 14	33eoh 14	3.45 5.45	0.68 1.13)
LRC056	524,301	8,571,201	1,605	35 (incl.	0 0	35 26	35eoh 26	2.97 3.56	0.62 0.74)
LRC057	524,199	8,571,201	1,608	47 (incl.	0 0	47 42	47eoh 42	3.68 3.98	0.79 0.85)
LRC058	523,998	8,571,203	1,617	40 (incl. and	0 0 10	40 8 36	40eoh 8 26	3.27 4.01 3.42	0.69 0.83 0.71)
LRC059	523,783	8,571,181	1,597	30 (incl. and	0 0 26	30 16 30	30eoh 16 4eoh	2.70 3.52 2.79	0.52 0.69 0.46)
LRC060	523,719	8,571,192	1,593	35 (incl. and	0 0 26	34 10 30	34 10 4	1.69 2.66 2.08	0.39 0.57 0.50)
LRC061	523,619	8,570,771	1,549	33	0	6	6	1.52	0.31
LRC062	523,709	8,570,822	1,557	37 (incl. and	0 0 14	18 10 18	18 10 4	2.54 3.39 1.86	0.59 0.73 0.52)
LRC063	523,804	8,570,804	1,567	35 (incl. and	0 0 12	32 8 18	32 8 6	1.59 2.75 2.05	0.40 0.66 0.57)
LRC064	523,901	8,570,801	1,577	37	0	12	12	2.69	0.68
LRC065	523,999	8,570,800	1,584	38 (incl. and and	0 0 16 26	30 10 22 30	30 10 6 4	2.27 3.07 2.51 2.30	0.48 0.68 0.46 0.44)
LRC066	524,100	8,570,802	1,584	43	0	30	30	2.11	0.48

Hole ID	East	North	RL	Hole Depth (m)	From (m)	To (m)	Interval (m)	REO %	NdPr %
				<i>(incl.</i>	<i>0</i>	<i>6</i>	<i>6</i>	<i>2.79</i>	<i>0.63</i>
				<i>and</i>	<i>26</i>	<i>30</i>	<i>4</i>	<i>2.20</i>	<i>0.55)</i>
LRC067	524,248	8,570,800	1,578	37	0	30	30	1.87	0.41
				<i>(incl.</i>	<i>0</i>	<i>10</i>	<i>10</i>	<i>2.72</i>	<i>0.59</i>
				<i>and</i>	<i>16</i>	<i>20</i>	<i>4</i>	<i>2.32</i>	<i>0.51)</i>

REO = Total rare earth oxide includes NdPr and is the sum of La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃. NdPr = neodymium + praseodymium oxide. eoh = intersection to end of hole. All holes are vertical reverse circulation. Co-ordinate system is WGS84 UTM Zone 33 south. Assays of 2m composite RC samples from vertical drilling by peroxide fusion and ICP analysis, Nagrom laboratories Perth, Western Australia. *LRC037: first 38m reported previously, assay results for remaining 12 metres now allows the full hole to be reported,

APPENDIX

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"> <i>Nature and quality of sampling (e.g. 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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> All samples are from vertical reverse circulation (RC) drilling sampled to 2m composites using a 3 tier riffle splitter to obtain approximately 4kg of sample from the whole one metre rig sample for sample preparation. Entire down hole lengths were sampled from surface to end of hole. During RC drilling the drill string is cleaned by flushing with air and the cyclone cleaned regularly. Sampling is carried out under Pensana QAQC protocols and as per industry best practise. RC sample returns are closely monitored, managed and recorded. A reference weight is used to calibrate the weighing scale. Samples are riffle split using a 3 tier splitter which is cleaned between every sample Vertical reverse circulation drilling and a riffle splitter were used to obtain 2m samples of approximately 3 to 4kgs. Samples are prepared (dry, split, pulverise, split) to a 100g pulp for analysis at Analabs laboratories Windhoek, Namibia Samples are assayed at for Ca, Fe, K, Mg, Mn, P Pb, S, Si, Sr, Ti, Zn, Ce, Dy, Er, Eu, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Sm, Ta, Tb, Th, Tm, U, Y, Yb, Al, Ba by peroxide fusion followed by ICP analysis at Nagrom laboratories, Perth, Western Australia. All commercial laboratories used use industry best practise procedures and QAQC checks. Entire hole lengths were submitted for assay.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type,</i> 	<ul style="list-style-type: none"> Reverse circulation (RC) drilling was completed using a Super rock 100 drill rig with a face sampling hammer button bit of 131mm diameter and 5 metre rods. A 131mm diameter blade RC bit was used in some holes in the weathered zone, generally for around 10 metres.

Criteria	JORC Code explanation	Commentary
	<i>whether core is oriented and if so, by what method, etc).</i>	
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> 	<ul style="list-style-type: none"> RC recoveries were monitored closely, recorded and assessed regularly over the drilling programme. Every 1m sample from the rig was weighed and recorded for moisture content. The weigh scale was calibrated frequently. RC sample weights are compared against expected weights for the drill diameter and geology. Drill pipes and cyclone were flushed and cleaned regularly Some short intervals 1 to 3 metres of reduced sample recovery occur in the soft weathered zone. Data analysis to date has not identified any relationship between recovery and grade. A selection of holes will be twinned by diamond core drilling to investigate any relationship.
<i>Logging</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> RC 1m samples were geological logged by specifically trained geologists for the entire length of all holes. All relevant features such as lithology, mineralogy, weathering, structure, texture, grain-size, alteration, veining style and mineralisation were recorded in the geological log. All logging was quantitative. All RC chip trays were photographed. All holes were logged in full 100%
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half</i> 	<ul style="list-style-type: none"> RC drilling only, no core drilling this programme 1m rig samples were riffle split using a 3 tier splitter. All samples were dry or wet samples were sun-dried in a protected environment before sampling. The preparation of samples follows industry practice. This involves oven drying of the full 4kg 2m composite sample, splitting to a representative 1kg sample, pulverising to 85% passing 75 micron and splitting to a 100g sample pulp. Field duplicates, certified reference standards and blanks were inserted at random but on average every 27 samples for each as part of Pensana QAQC protocols as per industry best practise. Laboratories also have and report internal QAQC checks including assay and preparation duplicates Field, preparation and assay lab duplicate results indicate no significant sampling variance

sampling.

- Whether sample sizes are appropriate to the grain size of the material being sampled.
- The sample sizes are considered more than adequate for this disseminated style and grain size of material sampled. Repeatability of assays was good.

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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.
- The analysis was carried out by an accredited independent assay laboratory.
- Samples are assayed at for Ca, Fe, K, Mg, Mn, P Pb, S, Si, Sr, Ti, Zn, Ce, Dy, Er, Eu, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Sm, Ta, Tb, Th, Tm, U, Y, Yb, Al, Ba by peroxide fusion, hydrochloric leach and followed by ICP analysis at Nagrom laboratories, Perth, Western Australia.
- The assay technique is total.
- Laboratory data only. No geophysical or portable analysis tools were used to determine assay values stored in the database.
- Certified reference materials (CRM's) –standards and blanks - were submitted at random with the field samples on an average of 1 of each type every in 27 field samples basis, as well as the laboratory's standard QAQC procedures.
- Samples were selected periodically and screened tested to ensure pulps are pulverised to the required specifications.
- Analysis of QAQC data results indicates acceptable levels of accuracy and precision

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.
- Significant intersections have been verified by company management.
- No twin holes undertaken at this early stage.
- Field data was logged into an Ocris logging package and uploaded to the main, secure, database in Perth once complete. The data collection package ghas built in validation settings and look-up codes. All field data and assay data was verified and validated upon receipt. The database is managed by an independent and professional database manager offsite
- Data collection and entry procedures are documented and training given to all staff
- Scans of original field data sheets are stored digitally and never altered
- Digital data entry is checked and validated against original field sheets if not entered directly

	<ul style="list-style-type: none"> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Laboratory assay data for rare earths is received in element form and converted to oxides for the reporting of rare earth results using molecular weight conversion and the oxide states factors: La to La₂O₃ – 1.1728 Ce to CeO₂ – 1.2284 Pr to Pr₆O₁₁ – 1.2082 Nd to Nd₂O₃ – 1.1664 Sm to Sm₂O₃ – 1.1596 Eu to Eu₂O₃ – 1.1579 Gd to Gd₂O₃ – 1.1526 Tb to Tb₄O₇ – 1.1762 Dy to Dy₂O₃ – 1.1477 Ho to Ho₂O₃ – 1.1455 Er to Er₂O₃ – 1.1435 Tm to Tm₂O₃ – 1.1421 Yb to Yb₂O₃ – 1.1387 Lu to Lu₂O₃ – 1.1371 Y to Y₂O₃ – 1.2699 • Intersection grades are reported as REO (the sum of the above oxides) and as NdPr (the sum of Nd₂O₃ and Pr₆O₁₁, which is included in the REO grade)
<i>Location of data points</i>	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • All sample locations were surveyed using a hand held GPS, accurate to within 3m. Hole collars will be surveyed by a professional surveyor using an RTK DGPS at the end of the programme • Holes are vertical and no down hole survey was completed, the collar set up was checked on every hole by measuring the mast is vertical using a spirit level • The grid system used is WGS84 UTM Zone 33S. All reported coordinates are referenced to this grid. • Topography control is currently by GPS and SRTM radar data. A high precision satellite based topographic survey has been completed and will be used for future reporting of RLs and topography. An RTK DGPS survey has been completed on ground control points to ensure accuracy and precision of the satellite DTM survey
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been</i> 	<ul style="list-style-type: none"> • Drill hole spacing is 200m x 100m. Samples are 2m down hole. • Exploration results only being reported. Data spacing is considered sufficient to identify zones of NdPr and REO mineralisation at a reconnaissance level over the area drill tested. Infill drilling will be completed prior to further Mineral Resource estimation.

	<p><i>applied.</i></p> <ul style="list-style-type: none"> • 1m RC drill samples were combined in the field after riffle splitting for a final 2m composite sample for submission to laboratory. • Two metre composites are considered adequate for the resource estimation, variography studies and potential mining techniques for this style of mineralisation
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> <ul style="list-style-type: none"> • The high grade NdPr mineralisation at Longonjo takes the form of a thick horizontal blanket of disseminated mineralisation averaging 20m or more in thickness and with good lateral continuity. The vertical drilling and 2m sampling is optimum for this style of mineralisation. • No sampling bias is considered to have been introduced by the drilling orientation.
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> <ul style="list-style-type: none"> • Sample security is managed by the Company. After collection in the field the samples are stored at camp in locked sea containers. • A customs officer checks and seals the samples into containers on site before transportation by the Company directly to the preparation laboratory. The preparation laboratory submits the samples to the assay laboratory by international air freight – the samples again being inspected by customs and sealed prior to despatch. • The laboratories audit the samples on arrival and reports any discrepancies back to the Company. No such discrepancies occurred.
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> <ul style="list-style-type: none"> • No external review of the sampling techniques has been carried out. The database is compiled by an independent consultant and is considered by the Company to be of sufficient quality to support the results reported. In addition, from time to time, the Company carries out its own internal data audits.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> Prospecting License 013/03/09T.P/ANG-M.G.M/2015. Pensana owns an 84% holding in the Project with Ferrangol (10%), an agency of the Angolan government, and other Angolan partners (6%). The concession is in good standing and no known impediments exist.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> Previous workers in the area include Black Fire Minerals and Cityview Corporation LTD.
<i>Geology</i>	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Longonjo NdPr deposit is a rare earth enriched carbonatite with particularly high grades occurring within the weathered regolith zone from surface as a result of the dissolution of carbonate minerals and residual enrichment. Some mineralisation also occurs within fresh rock beneath. Mineralisation is disseminated in style. The Longonjo Carbonatite is a sub circular and subvertical explosive volcanic vent (diatreme) approximately 2.6km x 2.4km in diameter. Primary rocktypes include carbonatite lava and magma, extensive mixed carbonatite - fenite breccia and tuffaceous deposits. The iron rich weathered zone that is host to the higher grade mineralisation discovered to date extends over much of the carbonatite.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <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"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the</i> 	<ul style="list-style-type: none"> Refer to the Table 2 in the body of the text. All holes are vertical

	<ul style="list-style-type: none"> drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No material information was excluded.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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. 	<ul style="list-style-type: none"> Cut-off grade of 0.20% NdPr oxide applied in reporting of intersections and 0.40% NdPr oxide for high grade 'Highlights'. No upper grade cuts have been applied. Intersections are reported as length weighted averages above the specified cut-off grade. Length weighted grade averages for REO and NdPr are presented Intercepts may include a maximum of 2m internal dilution. No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Geometry of the mineralisation is a sub horizontal blanket, the drill holes are vertical. As such mineralisation is at a high angle to the drill holes. Drill hole intercepts reported can be considered

	<i>only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	true thicknesses
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<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Appropriate plans and sections are included in this release.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • All new exploration results above the specified cut off grade are reported.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Previously reported evaluations of the NdPr mineralisation at Longonjo, including the September 2017 Maiden Mineral Resource estimate and drilling programme results are contained within ASX releases
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> • The reported results are 31 drill holes of a 108 hole programme now successfully completed. Samples from a further 41 holes have been despatched to the laboratory and results are expected in coming weeks. Drilling is designed to test the entire 2.1km x 2.0km area of the weathered zone at Longonjo as well as possible extensions 700 metres to the south east. Drilling is designed to determine the potential for a

globally significant NdPr deposit at Longonjo. A Mineral Resource estimate will be completed once all assay results are received.

- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*
- Appropriate diagrams accompany this release.