30 April 2019

Quarterly Activities Report
For the Period Ended 31 March 2019

Highlights

- **New drill results confirm continuity of high grade NdPr mineralisation from surface**
- **Significant expansion in Longonjo NdPr Project Mineral Resource estimate**
- **Wood Group appointed for Longonjo expedited development studies**
- **PFS technical programmes advancing, drill programmes nearing completion – first results demonstrate continuity of high grade NdPr mineralisation**
- **Subsequent to quarter end: Appointment of new CEO, Tim George**

Pensana Metals Ltd (ASX: PM8) (the Company or Pensana) is pleased to present its quarterly activities report for the period ended 31 March 2019.

New drill results confirm continuity of high grade NdPr mineralisation from surface

RC ("Reverse Circulation") drilling was used to infill the area of highest grade weathered zone mineralisation to a 50 metre x 100 metre hole spacing. This will provide the data required to support an Indicated JORC (2012) category Mineral Resource estimate scheduled for completion in July 2019.

The RC drilling programme was completed on 16th March for a total of 66 holes for 2,032m.

Assay results for the first 24 holes (LRC109 to LRC132) have now been received and confirm the continuity of high grade NdPr mineralisation from surface with intersections including:

Drill hole	Intersection*
LRC112:	**30 metres** at **4.15% REO** including **0.85% NdPr** from surface to end of hole
LRC113:	**27 metres** at **4.52% REO** including **0.90% NdPr** from surface to end of hole

*NdPr% of REO grade

LRC116: **13 metres** at **4.43% REO** including **0.83% NdPr** from surface to end of hole

LRC128: **22 metres** at **4.33% REO** including **0.81% NdPr** from surface

LRC131: **30 metres at 5.07% REO** including **0.99% NdPr** from surface to end of hole

LRC132: **26 metres at 5.31% REO** including **0.95% NdPr** from surface to end of hole

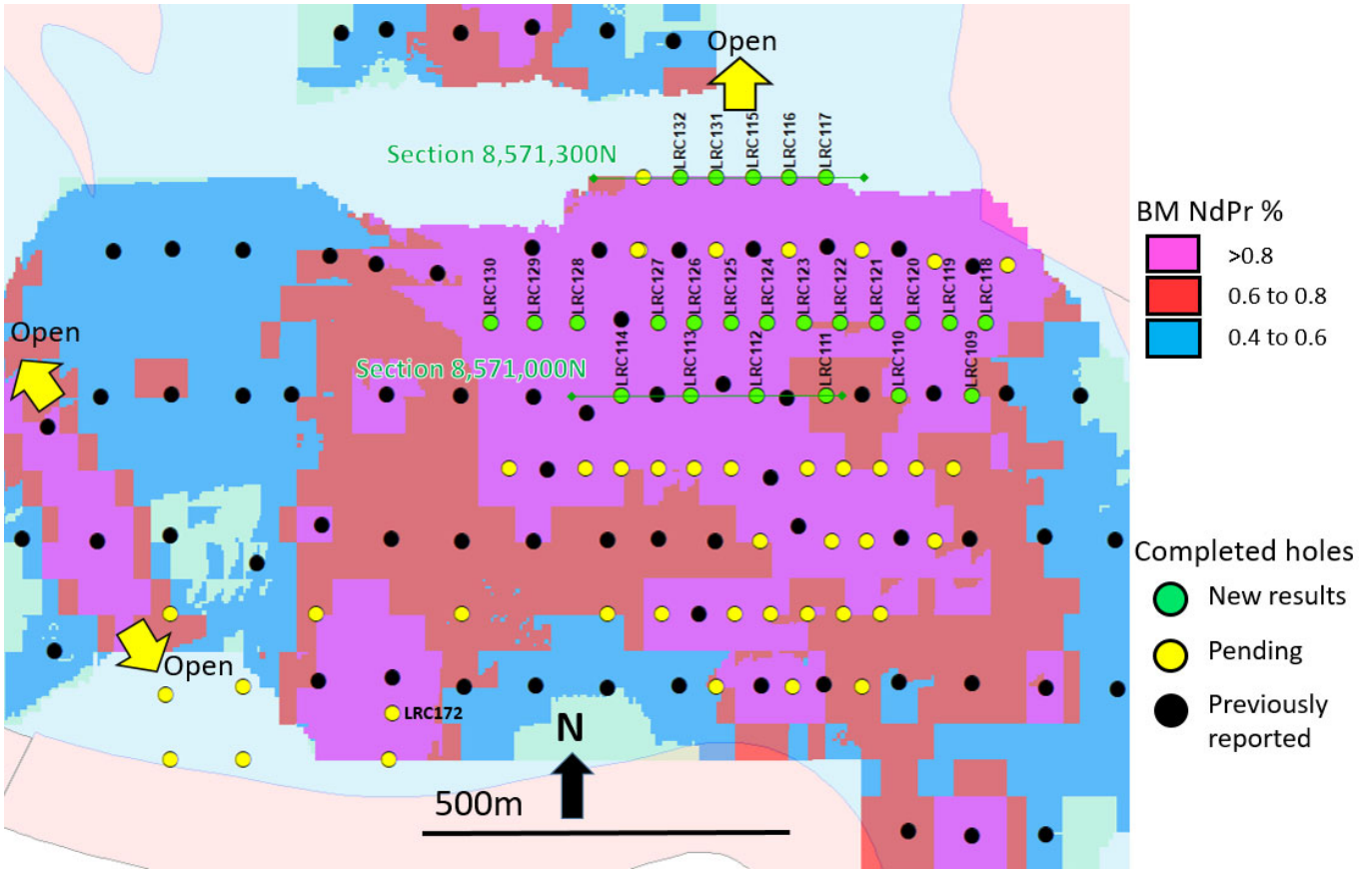
*Intersection highlights reported at ≥0.20% NdPr. NdPr = neodymium + praseodymium oxide: Nd_2O_3+Pr_6O_{11}. REO = total rare earth oxides, the sum of La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3. Table 5 provides all NdPr and REO intersections ≥0.20% and ≥0.40% NdPr together with drill hole details.

Above: RC drilling at Longonjo, March 2019

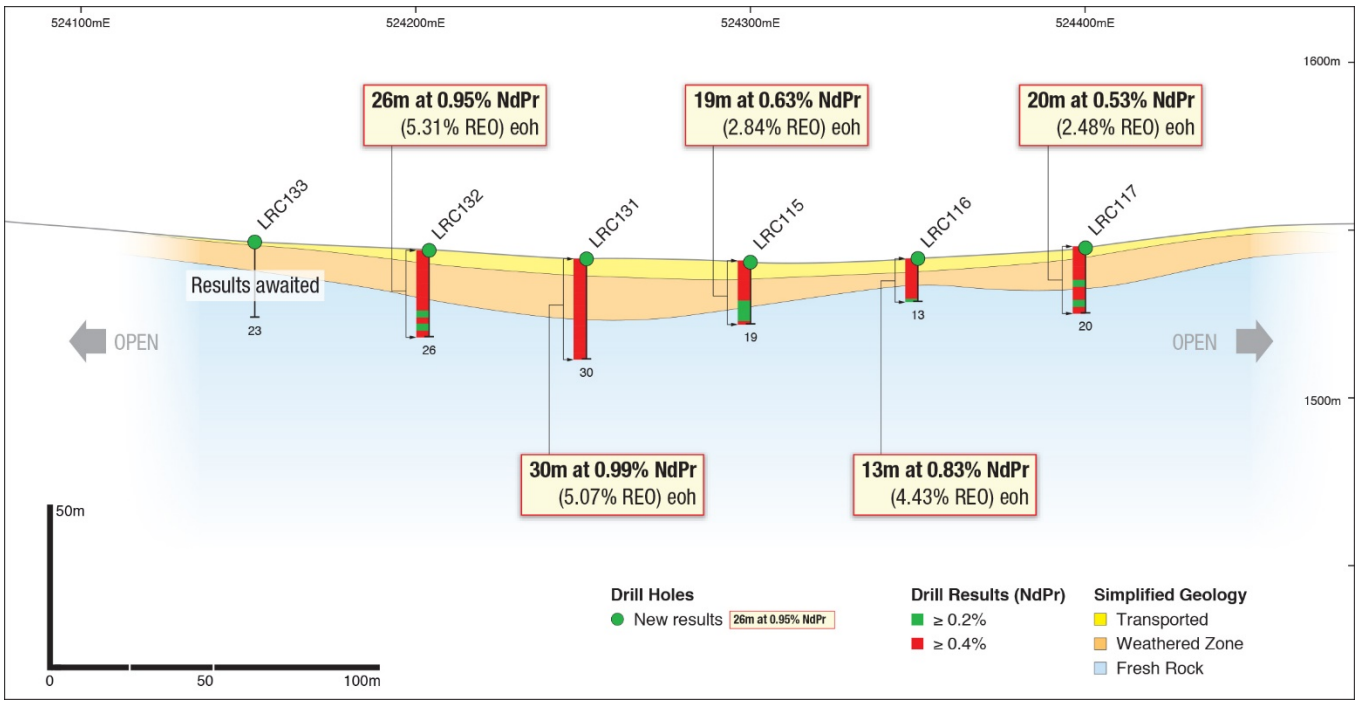
The new assay results show that every hole has intersected mineralisation from surface. The highest grades were returned from the most northern drill section tested. This extends the mineralisation a further 100 metres to the north, where it remains open for 200m, as well as to the east and west.

In addition to the infill RC drilling, nine exploration RC holes were completed in the south of the project to test for extensions to the mineralisation. Deeply weathered carbonatite up to 70 metres in thickness were intersected along the southern margin of the carbonatite (LRC172).

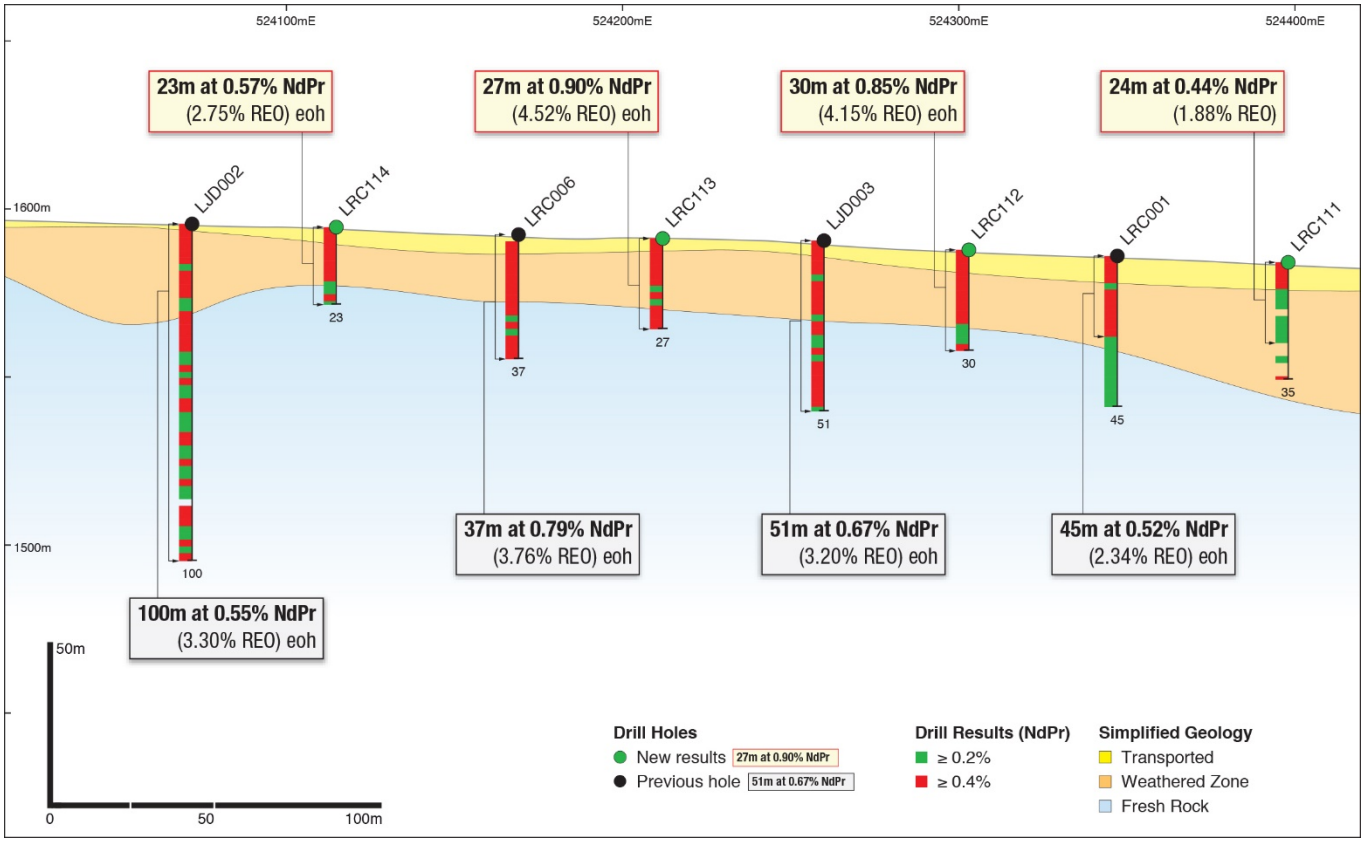
Remaining assays from the RC programme are expected to be received in May.



Above: Plan showing location of infill RC drilling and new assay results over Mineral Resource block model coloured by maximum NdPr grade. Previous drilling shown as black circles.



Above: high grade mineralisation from surface on section 8,571,000N, the most northern section drilled. Mineralisation remains open to the north, east and west



Above: infill holes (LRC111 to LRC114) confirm the continuity of high grade weathered zone mineralisation from surface

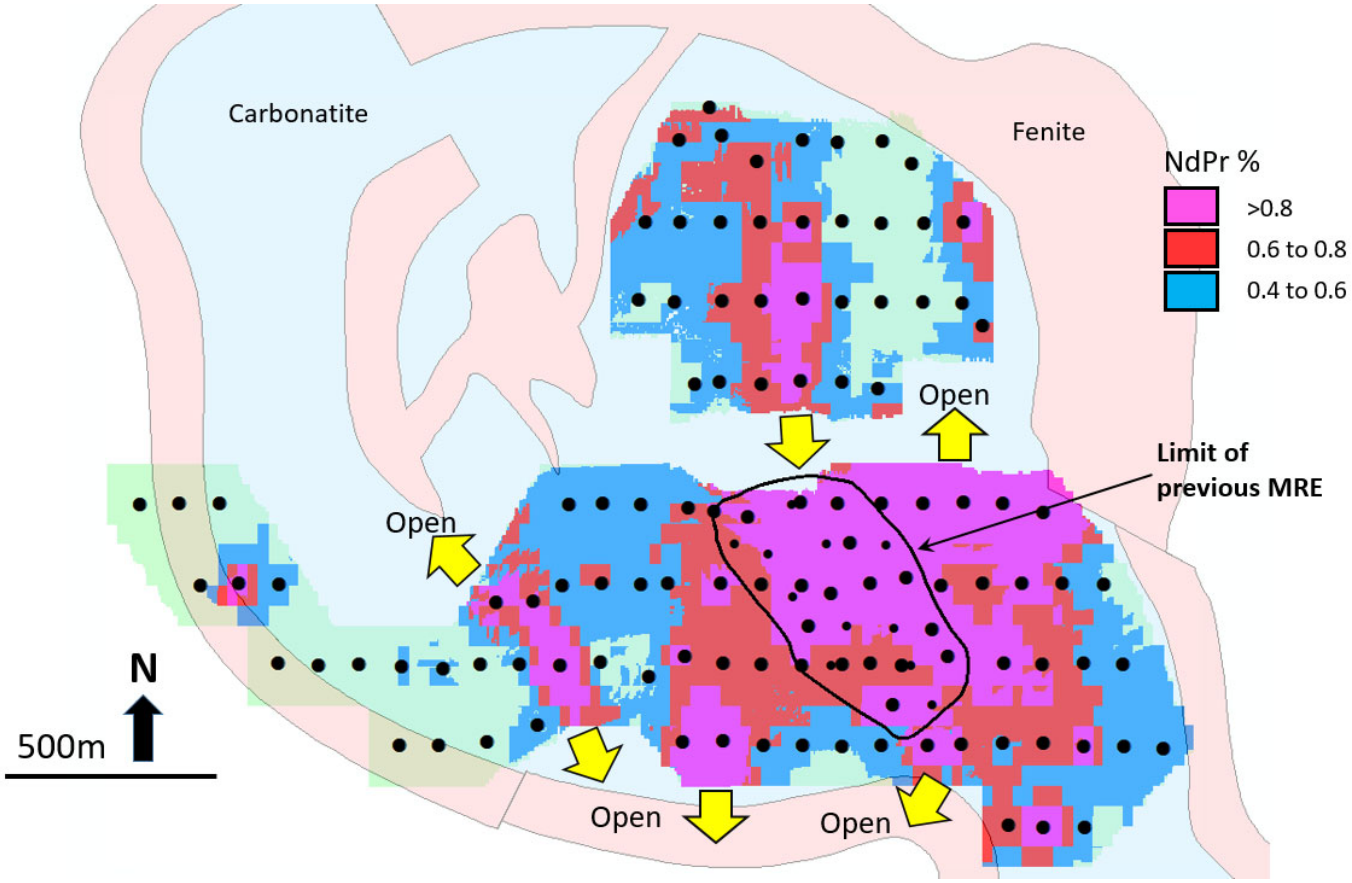
Significant Expansion in Longonjo NdPr Project Mineral Resource estimate

The Company was pleased to announce a significant expansion to the Longonjo NdPr Project Mineral Resource estimate in February following the receipt of final drill results from the 108 hole 2018 RC drilling programme early in the Quarter. Respected international industry consultants SRK Consulting completed the work and reported an Inferred Mineral Resource estimate of:

240 million tonnes at 1.60% REO including 0.35% NdPr for 3,850,000 tonnes of REO including 840,000 tonnes of NdPr

*NdPr = neodymium+praseodymium oxide. REO = total rare earth oxide. A 0.1% NdPr lower grade cut is applied. ASX Announcement of 19 February 2019 provides further details. Tables 1 to 4 summarise the estimate at a range of cut off grade, material types and rare earth oxide grades.

The new Mineral Resource estimate represents a more than seven-fold increase in tonnes and contains over four times the amount of NdPr compared to the Maiden Mineral Resource estimate reported to the ASX on 26 September 2017 at equivalent cut-off grades.



Plan view of Mineral Resource block model coloured by maximum NdPr grade over simplified geology of the Longonjo Carbonatite. Drill holes are shown as black dots. The limit of the previous Mineral Resource is shown as the black outline.

The mineralisation occurs as a blanket of soft material from surface, averaging around 30 metres in thickness and up to 70 metres in places.

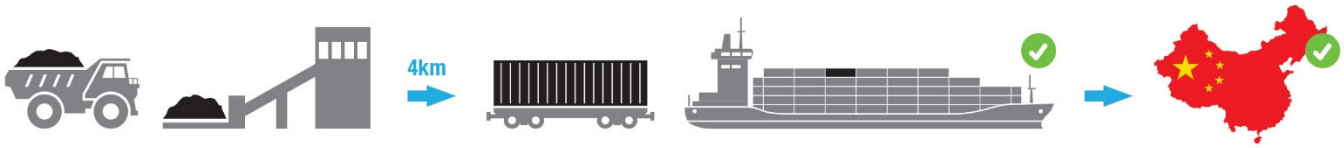
As the plan above shows, the high grade, near surface mineralisation remains open in several directions, offering the potential for further extensions to the Mineral Resource estimate with additional drilling.

The initial focus for development studies will be on the higher grade component of the weathered zone Mineral Resource, which at a cut of .65% NdPr comprises **22.9 million tonnes at 4.16% REO and .86% NdPr containing around 953,000 tonnes REO including 197,000 tonnes NdPr.**

Wood Group appointed for Longonjo expedited development studies

Pensana have appointed international engineering company Wood Group to execute a Preliminary Feasibility Study (PFS) for the expedited development of the Longonjo NdPr Project. Wood Group previously undertook the Scoping Study for Longonjo and have an experienced rare earth mining and development team.

The study will focus on the delivery of a low capital cost open pit mining operation and exporting floatation concentrates to customers in China via the recently upgraded Benguela rail line and the Atlantic Port of Lobito.



Shallow, low strip open pit mine and flotation plant onsite at Longonjo

Modern rail and port infrastructure already in place

Demand for NdPr raw materials from China

Pensana has identified a practical path to early development that aims to position Longonjo as an important supplier of NdPr raw materials in time to meet looming demand from the electrification of vehicles

The Company is of the view that, given the work completed to date and the relative simplicity of the operation, following the completion of the PFS, it should be possible to move immediately into Front End Engineering Design (FEED) and Engineering Procurement Construction (EPCM).

PFS technical development programmes

Working with Wood, the Company has defined technical programmes to deliver the PFS by September 2019.

Studies include additional drilling, optimisation of the floatation process and comminution work, mining optimisation studies, a revised Mineral Resource estimate and detailed cost studies based on engineering design work.

Longonjo Preliminary Feasibility Study Technical Programmes

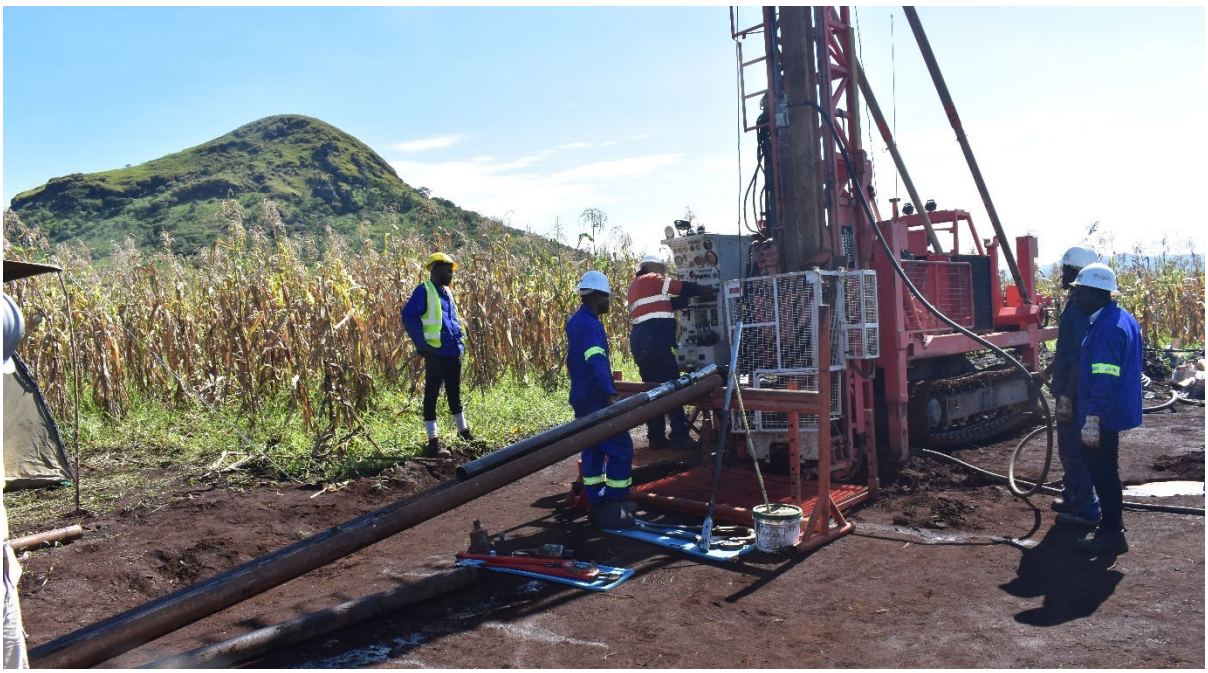
Additional drilling programmes are well advanced with an infill reverse circulation (RC) drilling programme now completed and a diamond core programme in progress.

Diamond Core Drilling

A diamond drilling programme commenced just before quarter end on 27 March and is now well advanced.

The programme of 16 holes for an estimated total of 500 metres of vertical PQ3 drilling is designed to provide information for the PFS:

- samples for metallurgical optimisation testwork
- samples for density determinations of the different rock types
- geotechnical information for mine engineering design
- twinning of the RC drilling results for Mineral Resource estimation



Above: diamond drilling at Longonjo, March 2019

The diamond drilling programme is scheduled for completion by mid-May 2019.

Appointment of experienced Anglo American veteran as CEO

On 23 April 2019, the Company announced the appointment of Tim George as Chief Executive Officer.

Tim is a Minerals Engineer with over 30 years of experience in the mining and engineering sectors, with a broad experience in mining project development throughout Sub-Saharan Africa.

He holds an honours degree in Minerals Engineering from Leeds University and has spent over a decade in production management at several Anglo American operations in Africa and was involved with plant design and feasibility studies in various base and precious metal projects.

Tim is based in Cape Town and has previous experience working in Angola as Chairman and CEO of Xceldiam an AIM listed diamond exploration company based in Angola which was bought out by Petra Diamonds in 2007.

For further information please contact:

Tim George
CEO

Pensana Metals Ltd
Tel +61 8 9221 0090
www.pensanametals.com

Competent Persons Statement

The information in this report that relates to Geology, Data Quality and Exploration results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australasian 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 contest in which it appears.

The information in this statement that relates to the 2019 Mineral Resource estimates is based on work done by Rodney Brown of SRK Consulting (Australasia) Pty Ltd. Rodney Brown is a member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 edition).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the above original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The following tables summarise the Mineral Resource estimate at a range of NdPr cut off grades and mineralisation styles. All are categorised as Inferred according to the JORC (2012) Code and Guidelines.

Table 1: Longonjo NdPr Mineral Resource estimate – Total

		Grade		Contained oxide	
Cut off (% NdPr)	**Million tonnes**	**NdPr %**	**REO %**	**NdPr (tonnes)**	**REO (tonnes)**
0.10	240	0.35	1.60	840,000	3,850,000
0.20	178	0.42	1.94	744,000	3,460,000
0.30	114	0.51	2.43	585,000	2,770,000
0.40	68.4	0.63	2.98	428,000	2,040,000
0.50	44.3	0.72	3.47	321,000	1,540,000
0.60	29.6	0.81	3.93	240,000	1,160,000
0.65	23.9	0.86	4.16	205,000	997,000
0.70	19.3	0.90	4.39	174,000	848,000
0.80	11.7	1.00	4.92	117,000	577,000
0.90	6.87	1.11	5.53	76,200	380,000
1.00	4.05	1.22	6.12	49,600	248,000

NdPr is contained within and is a subset of REO. 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. See Table 4 for breakdown of all individual rare earth oxides. Figures may not sum due to rounding

Table 2: Longonjo NdPr Mineral Resource estimate – Weathered* mineralisation

		Grade		Contained oxide	
Cut off (% NdPr)	**Million tonnes**	**NdPr %**	**REO %**	**NdPr (tonnes)**	**REO (tonnes)**
0.10	106	0.45	2.03	474,000	2,130,000
0.20	85.2	0.52	2.38	444,000	2,030,000
0.30	65.6	0.60	2.81	395,000	1,840,000
0.40	51.5	0.67	3.18	346,000	1,640,000
0.50	39.5	0.74	3.53	292,000	1,40,000
0.60	28.1	0.82	3.93	229,000	1,100,000
0.65	22.9	0.86	4.16	197,000	953,000
0.70	18.6	0.90	4.39	168,000	816,000
0.80	11.4	1.00	4.91	114,000	560,000
0.90	6.68	1.11	5.51	74,200	368,000
1.00	3.92	1.23	6.10	48,100	239,000

*The Weathered Mineral Resource is contained within and is a subset of the Total Mineral Resource

Table 3: Longonjo NdPr Mineral Resource estimate – Unweathered* mineralisation

		Grade		Contained oxide	
Cut off (% NdPr)	**Million tonnes**	**NdPr %**	**REO %**	**NdPr (tonnes)**	**REO (tonnes)**
0.10	135	0.27	1.27	366,000	1,710,000
0.20	92.7	0.32	1.54	301,000	1,430,000
0.30	48.0	0.40	1.92	190,000	921,000
0.40	17.0	0.49	2.37	82,500	403,000
0.50	4.83	0.60	2.97	29,000	143,000
0.60	1.51	0.74	3.85	11,100	58,000
0.65	1.02	0.79	4.23	8,130	43,300
0.70	0.71	0.85	4.52	6,010	32,100
0.80	0.30	0.99	5.60	2,910	16,600
0.90	0.19	1.07	6.34	1,990	11,800
1.00	0.13	1.13	6.78	1,430	8,530

*The Unweathered Mineral Resource is contained within and is a subset of the Total Mineral Resource

Table 4: Longonjo Mineral Resource estimate: Individual rare earth oxide grades and % of total REO

Rare Earth Oxides		**Oxide grade (%)**	**% of Total REO**
Lanthanum	La_2O_3	0.385	24.05
Cerium	CeO_2	0.737	46.09
Praseodymium	**Pr_6O_{11}**	0.079	4.91
Neodymium	**Nd_2O_3**	0.271	16.98
Samarium	Sm_2O_3	0.039	2.45
Europium	Eu_2O_3	0.009	0.57
Gadolinium	Gd_2O_3	0.019	1.22
Terbium	Tb_4O_7	0.002	0.13
Dysprosium	Dy_2O_3	0.009	0.59
Holmium	Ho_2O_3	0.001	0.09
Erbium	Er_2O_3	0.003	0.20
Thulium	Tm_2O_3	0.000	0.02
Ytterbium	Yb_2O_3	0.002	0.11
Lutetium	Lu_2O_3	0.000	0.02
Yttrium	Y_2O_3	0.041	2.57
Total REO*	**REO**	**1.60**	**100.00**

*Above distribution is calculated for all mineralisation at a 0.10% NdPr lower grade cut.

Table 5: Longonjo NdPr Project, RC drill intersections at least 4m thick and ≥0.20% NdPr lower grade cut. Intersections ***> 0.40% NdPr*** lower grade cut shown in ***bold italics***

Hole ID	East	North	RL	Hole Depth (m)	From (m)	To (m)	Interval (m)	REO %	NdPr %
LRC109	524,597	8,571,002	1,570	25	0	8	8	1.92	0.42
				(incl.	***0***	***4***	***4***	***2.82***	***0.57)***
LRC110	524,501	8,571,003	1,570	30	0	8	8	2.26	0.50
				(incl.	***0***	***4***	***4***	***3.62***	***0.74)***
LRC111	524,398	8,571,002	1,571	35	0	24	24	1.88	0.44
				(incl.	***0***	***8***	***8***	***3.25***	***0.76)***
LRC112	524,303	8,571,001	1,578	30	0	30	30eoh	4.15	0.85
				(incl.	***0***	***22***	***22***	***4.65***	***0.93)***
LRC113	524,212	8,571,001	1,582	27	0	27	27eoh	4.52	0.90
				(incl.	***0***	***14***	***14***	***5.70***	***1.11***
				and	***20***	***27***	***7eoh***	***4.40***	***0.89)***
LRC114	524,115	8,571,002	1,584	23	0	23	23eoh	2.75	0.57
				(incl.	***0***	***12***	***12***	***3.19***	***0.66)***
LRC115	524,300	8,571,300	1,612	19	0	19	19eoh	2.84	0.63
				(incl.	***0***	***12***	***12***	***3.50***	***0.80)***
LRC116	524,350	8,571,302	1,609	13	0	13	13eoh	4.43	0.83
				(incl.	***0***	***12***	***12***	***4.67***	***0.88)***
LRC117	524,400	8,571,302	1,617	20	0	20	20eoh	2.48	0.53
				(incl.	***0***	***10***	***10***	***2.88***	***0.62***
				and	***12***	***16***	***4***	***2.66***	***0.53)***
LRC118	524,619	8,571,101	1,579	35	0	16	16	1.50	0.33
				(incl.	***0***	***4***	***4***	***2.21***	***0.49)***
					26	35	9eoh	1.44	0.28
LRC119	524,569	8,571,100	1,581	30	0	10	10	4.63	0.83
					16	22	6	4.70	1.10
LRC120	524,519	8,571,102	1,584	35	0	6	6	1.80	0.41
LRC121	524,470	8,571,103	1,581	27	0	18	18	1.78	0.41
				(incl.	***0***	***8***	***8***	***2.81***	***0.63)***
					20	24	4	1.03	0.22

Hole ID	East	North	RL	Hole Depth (m)	From (m)	To (m)	Interval (m)	REO %	NdPr %
LRC122	524,416	8,571,102	1,577	30 ***(incl.***	0 ***0***	30 ***16***	30eoh ***16***	2.37 ***2.95***	0.53 ***0.66)***
LRC123	524,366	8,571,104	1,582	35 ***(incl.***	0 ***0***	20 ***14***	20 ***14***	2.06 ***2.44***	0.49 ***0.58)***
LRC124	524,320	8,571,102	1,583	35 ***(incl.*** 	0 ***0*** 26	22 ***12*** 35	22 ***12*** 9eoh	2.34 ***3.41*** 1.07	0.52 ***0.72)*** 0.31
LRC125	524,263	8,571,100	1,586	33 ***(incl.*** ***and***	0 ***0*** ***10***	22 ***8*** ***18***	22 ***8*** ***8***	2.22 ***3.71*** ***1.40***	0.52 ***0.76*** ***0.46)***
LRC126	524,212	8,571,101	1,591	23 ***(incl.*** ***and***	0 ***0*** ***16***	23 ***8*** ***20***	23eoh ***8*** ***4***	2.14 ***3.07*** ***2.25***	0.45 ***0.64*** ***0.48)***
LRC127	524,169	8,571,099	1,592	30 ***(incl.*** ***and***	0 ***0*** ***26***	30 ***6*** ***30***	30eoh ***6*** ***4***	2.42 ***3.80*** ***3.81***	0.48 ***0.76*** ***0.72)***
LRC128	524,060	8,571,101	1,592	26 ***(incl.***	0 ***0***	22 ***16***	22 ***16***	4.33 ***5.23***	0.81 ***0.97)***
LRC129	524,001	8,571,101	1,589	20 ***(incl.***	0 ***0***	20 ***12***	20eoh ***12***	3.15 ***3.99***	0.65 ***0.81)***
LRC130	523,940	8,571,102	1,595	13	0	13	13	1.22	0.28
LRC131	524,251	8,571,296	1,607	30	***0***	***30***	***30eoh***	***5.07***	***0.99***
LRC132	524,204	8,571,300	1,609	26 ***(incl.***	0 ***0***	26 ***18***	26eoh ***18***	5.31 ***6.60***	0.95 ***1.17)***

REO = Total rare earth oxide includes NdPr and is 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. 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. Maximum of 2m internal subgrade included. NSI= No Significant Intersection.

APPENDIX

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (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.*	• 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.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• 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
	• *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.*	• 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	• *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, whether core is oriented and if so, by what method, etc).*	• 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
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• 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.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• RC sample weights are compared against expected weights for the drill diameter and geology. • Drill pipes and cyclone were flushed and cleaned regularly
	• *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.*	• 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.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• 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.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• All logging was quantitative. All RC chip trays were photographed.
	• *The total length and percentage of the relevant intersections logged.*	• All holes were logged in full 100%
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• RC drilling only, no core drilling results reported
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• 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.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• 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.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	• 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
	• *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 grainsize 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.*	• 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.
	• *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.*	• Laboratory data only. No geophysical or portable analysis tools were used to determine assay values stored in the database.
	• *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.*	• 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.*	• Significant intersections have been verified by company management.
	• *The use of twinned holes.*	• No twin holes undertaken at this early stage.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Field data was logged into an Ocris logging package and uploaded to the main, secure, database in Perth once complete. The data collection package has 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
	• *Discuss any adjustment to assay data.*	• 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 La_2O_3 – 1.1728 Ce to CeO_2 – 1.2284 Pr to Pr_6O_{11} – 1.2082

		Nd to Nd_2O_3 – 1.1664 Sm to Sm_2O_3 – 1.1596 Eu to Eu_2O_3 – 1.1579 Gd to Gd_2O_3 – 1.1526 Tb to Tb_4O_7 – 1.1762 Dy to Dy_2O_3 – 1.1477 Ho to Ho_2O_3 – 1.1455 Er to Er_2O_3 - 1.1435 Tm to Tm_2O_3 – 1.1421 Yb to Yb_2O_3 – 1.1387 Lu to Lu_2O_3 - 1.1371 Y to Y_2O_3 – 1.2699 • Intersection grades are reported as REO (the sum of the above oxides) and as NdPr (the sum of Nd_2O_3 and Pr_6O_{11}, which is included in the REO grade
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• 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
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• 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. • 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

Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• 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.
Sample security	• *The measures taken to ensure sample security.*	• 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.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• 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
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• 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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous workers in the area include Black Fire Minerals and Cityview Corporation Ltd.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
		• Refer to the Table 5 in the body of the text. All holes are vertical

	○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No material information was excluded.
Data aggregation methods	• *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.*	• 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
	• *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.*	• Intercepts may include a maximum of 2m internal dilution.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• 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.
	• *If it is not known and only the down hole lengths are reported,*	• Drill hole intercepts reported can be considered true thicknesses

	there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	

Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate plans and sections are included in this release.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All new exploration results above the specified cut off grade are reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Previously reported evaluations of the NdPr mineralisation at Longonjo, including the February 2019 Mineral Resource estimate and drilling programme results are contained within ASX releases
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly*	• The reported results are the first 24 of a 66 hole infill RC drilling programme testing the shallow weathered zone mineralisation at Longonjo. Remaining results are expected to be received before the end of May 2019. Drilling is designed to test a 700m x 700m area of the highest grade mineralisation identified to date. Eight RC holes were also drilled to test for southerly extensions to the known NdPr mineralisation – results are awaited for these holes. Diamond core drilling (16 holes) is also in progress. A revised Mineral Resource estimate will be completed once all assay results are received.

	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.

Summary of Tenement Information as at 31 March 2019

Country	Project Name	License Name	License no.	% Held at 31 Dec 2018	Change	% Held at 31 March 2019
Angola	Ozango	Ozango Minerais SA	Nº013/03/09/T.P/ANG-MGM/2015	84%	-	84%
Tanzania	Kitongo	Ugambilo East	PL11175/2017	100%	-	100%
	Kitongo	Kitongo West	PL10655/2015	100%	-	100%
	Kitongo	Mwamazengo SE (2)	PL6543/2010	100%	-	100%
	Kitongo	Mwamazengo South (2)	PL6631/2010	100%	-	100%
	Kitongo	Ugambilo	PL10067/2014	100%	-	100%
	Kitongo	Kitongo	PL10068/2014	100%	-	100%
	Kitongo	Mwamazengo	PL10069/2014	100%	-	100%
	Kitongo	Isengwa Hills North	PL10060/2014	100%	-	100%
	kitongo	Busongo Northeast	PL10065/2014	100%	-	100%
	Kitongo	Gulumungu	PL10656/2015	100%	-	100%
	Kitongo	Ntalebujika	PL10660.2015	100%	-	100%
	Miyabi	Miyabi Dyke	PL8933/2013	100%	-	100%
	Miyabi	Miyabi South New	PL10149/2014	100%	-	100%
	Miyabi	Miyabi North	PL10908/2016	100%	-	100%
	Miyabi	Miyabi Airport New	PL10556/2015	100%	-	100%
	Miyabi	Mwabombo	PL10836/2016	100%	-	100%
	Mtemi G	Kitongo	PL8148/2013	100%	-	100%
	Canuck	Canuck North	PL11016/2017	100%	-	100%
	Canuck	Canuck South	PL11017/2017	100%	-	100%