

ASX Announcement

16 December 2020

MULTIPLE NEW NEAR-MINE EXPLORATION TARGET AREAS IDENTIFIED

Lotus Resources Limited (LOT, Lotus or the **Company**) is pleased to announce the identification of multiple near-mine exploration target areas, all within a short trucking distance of the Kayelekera Mine Site.

HIGHLIGHTS

- An ongoing exploration review has identified two priority target areas within easy trucking distance of Kayelekera.
 - Kayelekera South six anomalous radiometric and lithological targets identified within 3km of the mine site with no historical drilling.
 - Mpata the largest cluster of radiometric anomalies defined outside of the Kayelekera deposit is contained within a 3km strike of Karoo sediments and within 10 km of the mine site.
- The Company plans to complete additional reconnaissance exploration work over each of these exploration targets prior to commencing drilling.

Eduard Smirnov, Managing Director, commented:

"The Company's major focus for 2021 is to progress the recent positive Scoping Study towards a Feasibility Study, positioning Kayelekera to be one of only a handful of projects globally capable of rapidly and effectively recommencing production to meet the growing demand and shortfall in uranium supply expected in the coming years.

"The newly identified exploration target areas provide further confirmation of uranium resource growth potential in the underexplored near-mine areas where uranium mineralization discoveries were made through airborne radiometric surveying.

"We are confident that there is an opportunity to extend the current life of mine. Whilst there is a preference that this is achieved through expansion around the existing resource, which remains open, this recently completed review of near-mine exploration opportunities has identified a number of prospective, and in the case of Kayelekera South, new and untested target areas. Given the clear and strong radiometric anomaly of these newly defined target areas, all of which are similar to the radiometric and lithological characteristics of the Kayelekera Mine, there is a compelling opportunity to expand the existing resource.

"We look forward to providing further updates towards resource growth."

KAYELEKERA SOUTH

The Kayelekera South prospect is located to the south and southwest of the Kayelekera pit and Mineral Resource which has a combined endowment of approximately 50Mlbs contained uranium mineralisation comprising of current resource (37.5Mlbs) and historical production (11M lbs). (ASX announcement 26 March 2020).









A total of six target areas have been identified ranging between 500m and 4km from the existing Kayelekera pit. These exploration targets were identified through a review of airborne radiometric data which clearly shows that a number of anomalous radiometric responses exist over the areas of outcrop as highlighted in Figure 1 below.

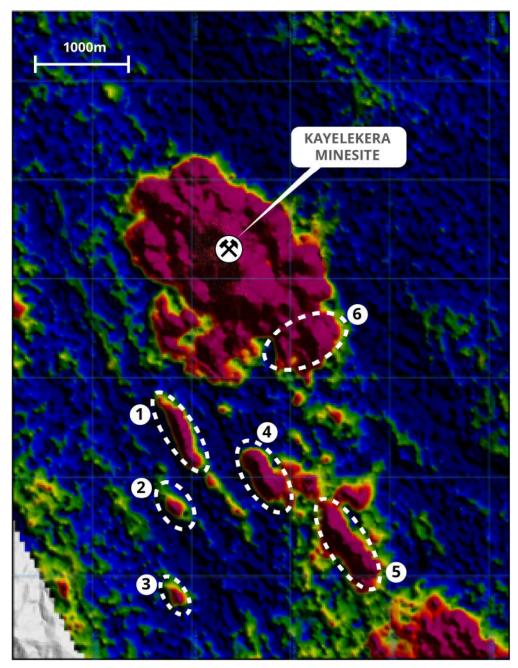


Figure 1 – Kayelekera airborne radiometrics and key targets

Each of these anomalies cover prospective arkose units that extend to surface and are preserved together with other similar lithological units. These arkose units are lower in the stratigraphic sequence associated with the uranium mineralisation seen in the Kayelekera pit and have not been drill-tested to date in this area.



The newly identified target areas are additional to the Exploration Target announced on 2 April 2020 of 2.6-4.4Mlbs of U_3O_8 which has been defined on the margins of the existing classified Mineral Resource and represent the western extensions of the prospective arkose units. ¹ The potential quantity and grade of the Kayelekera Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of mineral resources.

Detailed geological mapping and ground scintillometer surveys are planned to further define the targets prior to drilling.

MPATA TARGET

The Mpata Prospect represents the largest cluster of radiometric anomalies outside of the Kayelekera Resource (Figure 2) and comprises several high priority anomalies associated with arkose units identified over a 3km strike length, all contained within Karoo sediments.

A total of 76 historic drillholes have been completed within the Mpata Prospect area for a total of 9,070m. The drilling has defined several small, narrow bodies of low to medium grade mineralisation. A total of 23 of the holes encountered grades in excess of 250 ppm eU₃O₈. Significant intercepts include 10m at 690 ppm (MP017 from 19m) and 5m at 410ppm (MP031 from 23m). See ASX announcement dated 2 April 2020 for information on the results of previous exploration at the Mpata Prospect.¹

Mineralisation appears to be open along strike, with approximately 600m of trend untested, and is open at depth. Recent structural re-interpretations with regard to the genesis of uranium mineralisation and late-stage faulting has identified a potential focal region for higher-grade mineralised fluids.

The Exploration Target for Mpata estimated between 2 to 9Mt at a grade of between 200 to $400ppm\ eU_3O_8$ for a potential endowment range of between 2 to 4Mlb of contained U_3O_8 as announced on 2 April 2020 remains unchanged. The potential quantity and grade of the Kayelekera Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of mineral resources.

¹ ASX announcement 2 April 2020. Lotus confirms that it is not aware of any new information or data that materially affects the information included in that announcement.









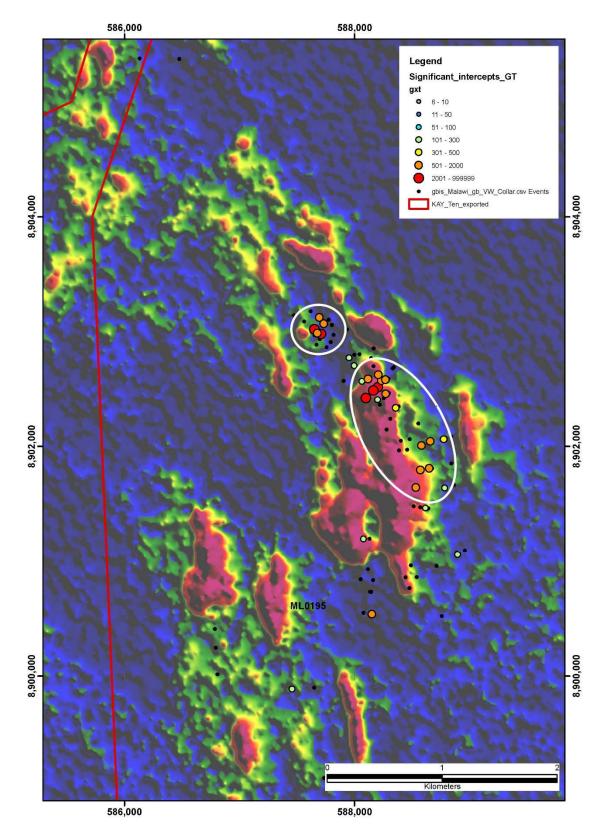


Figure 2 – Mpata airborne radiometric anomalies







CURRENT EXPLORATION TARGET

In addition to the classified Mineral Resource, an Exploration Target of between 6 and 21Mt at a grade of between 300 and 600ppm U₃O₈ has been estimated in the near-mine and brownfields exploration regions. This indicates a potential metal endowment of between 7 and 14Mlb of U₃O₈ (Table 1) (see ASX announcement 2 April 2020). The potential quantity and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of mineral resources.

The Exploration Target for Lotus' Malawian tenements is summarised in Table 1 below. This Exploration Target has only focussed on regions which had sufficient drilling and sampling data either within the project itself to lead to an informed target or had adjacent drilling information next to the project (e.g., Livingstonia North). The Kayelekera South targets have not been included in this target as more work is required prior to determining the target range value.

Table 1: Lotus Malawi Exploration Target

		Tonnage Range		Gro Rar	ide ige	Contained Metal			
Tenement	Project	Min	Max	Min	Max	Min	Max	Min	Max
		Mt	Mt	ppm	ppm	U ₃ O ₈ Kt	U ₃ O ₈ Kt	U ₃ O ₈ MLb	U ₃ O ₈ MLb
ML 152	Kayelekera	1	5	400	1,200	1.2	2.0	2.6	4.4
EPL417	Mpata	2	9	200	400	0.8	1.8	1.8	4.0
EPL418	Livingstonia North	3	8	300	450	1.4	2.4	3.0	5.3
	Total	6	21	300	600	3	6	7	14

Note: that the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

This announcement has been authorised for release by the Company's board of directors.

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Competent Person's Statement

The information in this document that relates to exploration results is based on information provided by Mr Alfred Gillman. Mr. Gillman is a Fellow and Chartered Professional of the Australian Institute of Mining and Metallurgy (AUSIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Gillman consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.









ABOUT LOTUS RESOURCES LIMITED

Lotus owns a 65% interest in the Kayelekera Uranium Project in Malawi. The Project hosts a current resource of 37.5M lbs U_3O_8 (see Table 3), and historically produced ~11Mlb of uranium between 2009 and 2014. The Company completed a positive Restart Study which demonstrated that Kayelekera can support a viable long-term operation and has the potential to be one of the first uranium projects to recommence production in the future.²

For more information, visit <u>www.lotusresources.com.au</u>

Table 2. Kayelekera Mineral Resource Estimate – March 20203

Category	Mt	Grade (U₃O ₈ ppm)	U₃O₅ (M kg)	U₃O8 (M lbs)
Measured	0.7	1,010	0.7	1.5
Measured – RoM Stockpile ⁴	1.6	760	1.2	2.6
Indicated	18.7	660	12.3	27.1
Inferred	3.7	590	2.2	4.8
Total	24.6	660	16.3	36.0
Inferred – LG Stockpiles ⁵	2.4	290	0.7	1.5
Total All Materials	27.1	630	17.0	37.5

⁵ Medium-grade stockpiles have been mined and placed on the medium-grade stockpile and are considered potentially feasible for blending or beneficiation, with studies planned to further assess this optionality.







² In relation to the Restart Study announced on 21 October 2020, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

³ The information in this announcement that relates to the Mineral Resource at Kayelekera was announced on 26 March 2020. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 26 March 2020 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in that announcement of continue to apply and have not materially changed.

⁴ RoM stockpile has been mined and is located near the mill facility.



Appendix 1: JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. 	 The drilling is a combination of diamond core ("DD") and percussion ("P") drill holes. Samples were split to 3cm long pieces of 100g to maximum 300g weight. Each of these core pieces was numbered and weighed. The gamma radiation of each piece was measured by a SPP2 scintillometer over a 30 second period in a lead castle and measurements recorded in the database. Drillholes were downhole gamma logged by a Geotron R3000 logger and a R300 probe from Geotron Systems (Pty) Ltd in South Africa For 2005 drilling: all holes were geologically logged, and down hole gamma logged. Equivalent uranium values were calculated for each 5cm interval. Samples were collected over a sample length of 40cm, each sample weighing approx. 2.5-3kg. Samples were packed and sealed in airtight bags. Ten samples were combined into larger bags and all samples were frozen on site and later transferred into a freezer at PDN's office in Karonga, Five 500 litre chest freezers were acquired, and these were filled with a total of 854 individual samples. For later 2005 to 2013 drilling: RC samples were collected via a cone splitter at 1m intervals. All samples were collected and contained in poly-weave or plastic bags. The nominal drill diameter was 5 inches and all drill samples were bagged from the cyclone and weighed to provide some assessment of the average drill sample recoveries. Majority of drill intervals weighed achieved a better than 80% recovery which was considered to be good. All sampling was carried out under PDN's sampling protocols and QA/QC procedures as per industry best practice. All samples were riffle split into 80/20 proportions. Larger rejects (>20kg) were stored on site if they appeared mineralised or gave a count value of larger than 750cps on the scintillometer. All smaller (approx. <5kg) samples were bagged and stored in the Karonga office of PDN for future reference. A further 200-500g sub-sample was precision riffle split from the 5kg sample for assa







Criteria	JORC Code explanation	Commentary
	Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	 The drilling using combination of DD, P (historical) and RC drilling. All RC drilling has utilised Warman 250 RC rig mounted on a Unimog truck supported by separate truck mounted Atlas Copco 3000 psi compressor to provide additional air capacity and a 9 ton Mercedes Benz flatbed support ruck with drill bit size of 5 inches. Diamond drilling has utilised conventional wireline drill rig with core size of HQ.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 No core recovery information was available. For RC drilling, the nominal drill hole size was 5 inches and all drill samples were bagged from the cyclone and weighed to provide some assessment of the average drilling sample recoveries. The average weight of the 1,978 metres checked was 25.04kg per sample against an expected 29kg for 100% recovery. The majority of poor recovery samples were within the first metre of the drill hole, with these removed, the average weight was 25.25kg for an average recovery of 87%. The vast majority of drill intervals weighed achieved a better then 80% recovery and this is considered to be a very good result. All RC drilling is conducted to industry best practice and PDN QA/QC protocols whereby the hole is cleaned at the end of every metre interval by raising the bit slightly and blowing out the hole before drilling the next metre, and ensuring water ingress into the hole whilst drilling is minimised. No relationship between sample recovery and grade has been observed; studies to date show no correlation exists.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is 	 All holes have been geologically logged (RC on 1m intervals, and DD on 1m intervals or to geological contacts) with recording of lithology, grain size and distribution, sorting, roundness, alteration, oxidation state, and colour, and stored in the database. All holes were logged to a level of detail sufficient to support Mineral Resource estimation, and metallurgical investigations. No routine geotechnical or structural data has been logged or recorded. A limited number of geotechnical holes were drilled by CEGB and these were structurally logged in full. Oxidation, colour, alteration, roundness, sorting, sphericity, alteration and mineralisation are logged qualitatively. All other values are logged quantitatively. All holes (core and chips) have







Criteria	JORC Code explanation	Commentary
	qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	 been photographed and stored in a database. All photographs are of wet samples only. All holes have been logged over their entire length (100%) including any mineralised intersections.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 All sampling was carried out using PDN's sampling protocols and QA/QC procedures as per industry best practice. All RC samples were riffle split into 80/20 proportions. Larger rejects (>20kg) samples were stored on site if they appeared mineralised or gave a count value of larger than 750cps on the scintillometer. All smaller (approx. <5kg) samples were bagged and stored in the Karonga office of PDN for future reference. A further 200-500g sample was precision riffle split from the 5kg sample for assay of U₃O₈. Certified standards, duplicates and blanks were also inserted within the sample batches. All samples went through pressed powder XRF analysis in either Setpoint Lab in Johannesburg or ALS Chemex Lab in Brisbane. Samples were driven by PDN personnel to Lilongwe and air freighted by South African Airways to Johannesburg. Core samples were split to 3cm long pieces of 100g to maximum 300g weight. Each of these core pieces was numbered and weighed. The gamma radiation of each piece was measured by a SPP2 scintillometer over a 30 second period in a lead castle and measured data is used stored in the database. In 2005, equivalent uranium values were calculated for each 5cm interval from gamma log. Samples were calculated for each 5cm interval from gamma log. Samples were calculated for each 5cm interval from gamma log. Samples were frozen on site and later transferred into freezer at PDN's office in Karonga. Five 500 litre chest freezers were acquired and these were filled with total of 854 individual samples. From 2006 all drill holes have been routinely logged using calibrated downhole radiometric logging equipment – from 2008 this equipment was owned and calibrated by the company. Due to the disequilibrium identified in Oxidised Arkose material, all Oxidised Arkose samples (along with representative Reduces Arkose and Mudstone) were sent for laboratory analysis.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is 	 It is known that CEGB drill core was assayed by X-ray fluorescence methods, historical reports available indicate that the sampling and analysis of this core was carried out in a manner comparable to modern standards. The XRF data was used for comparison with the down-hole logging of radiometric values, particularly in an effort to determine the









Criteria	JORC Code explanation	Commentary
	considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	disequilibrium characteristics of the different arkose units. This information covers casing attenuation factors, as the holes were logged inside rods where practicable, instrument dead time and deconvolution. In all cases the factors applied by the CEGB were found to be appropriate by Wrights (Wrights, 1989). However there is no mention of either Water Factor (Hole Size) or Formation Factors being applied to the logged values, this may be because they have been considered as not being significant or may have been accounted for when subsequently applying disequilibrium factor (Barrett, 2005). • Deconvolution and disequilibrium factors for the more recent PDN drilling were determined by Barrett Geophysical from XRF analysis of RC drill samples and radiometric down hole logging undertaken by PDN. It is the opinion of author that these factors are acceptable and are able to be applied to the current and historical radiometrically derived U ₃ O ₈ grades to produce a unified dataset with XRF derived grades. • Field QAQC procedures include the insertion of both field duplicates and certified reference 'standards'. Assay results have been satisfactory and demonstrate an acceptable level of accuracy and precision. Laboratory QAQC involves the use of internal certified reference standards, blanks, splits and replicates. Analysis of these results also demonstrates an acceptable level of precision and accuracy.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Significant intersections were visually field verified by company and consultant geologists. Assay values that were below detection limit were adjusted to equal half of the detection limit value.
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 	 All drill hole collars were surveyed with DGPS equipment in the MMG Zone 36 South grid. Historical collars were also surveyed where collar identity is recognisable. All holes were drilled vertical. Down-hole probe surveys have been undertaken on most of the holes to validate the down-hole measurements. Topographic surveys have been carried out several times.









Criteria	JORC Code explanation	Commentary
	 Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	
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. 	 Initial exploration by various operators prior to 1990 was mostly designed for regional exploration designed for coal and limestone exploration. CEGB holes targeted uranium mineralisation and were mostly drilled on nominal 50m by 50m spacing.
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. 	 Drilling sections are orientated perpendicular to the strike of the mineralised host rocks at Kayelekera. All holes are drilled vertical, which is approximately perpendicular to the flat dip of the stratigraphy. No orientation-based sampling bias has been identified in the data.
Sample security	 The measures taken to ensure sample security. 	 Chain of custody was managed by PDN. Samples were driven by PDN personnel to Lilongwe and air freighted by South African Airways to Johannesburg and samples analysed at Setpoint Lab.







Criteria	JORC Code explanation	Commentary
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	Data was validated by PDN whilst loading into database. Any errors within the data are returned to site geologist for validation.

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 	 The Project is local The Kayelekera descence (ML) 152 April 2007 for an further 10-year possible 2022. The tenements impediments existing 	leposit is covered 2, of 55.5 square 1 initial term of the 1 eriods. The curre 1 are in good	d by a single licen e kilometres grant fifteen years rene ent term expires o	ed on 9th ewable for n 9th April
	national park and	Name	License	Area (km²)	
	environmental settings.	Kayelekera	ML 152	55.5	
	• The security of the tenure held	Nthalire	EPL 489	137.04	
	at the time of reporting along	Uliwa	EPL 418	348.8	
	with any known impediments	Rukuru	EPL 417	146.3	
	to obtaining a licence to	Mapambo	EPL 225	14	
	operate in the area.	Juma-Miwanga	EPL 502	28.65	
		Total	6	730.3	
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	scintillometer su Kayelekera were In 1984 further gr targets for more of (510m) was un mineralisation at of surface occurrent In 1985 a total of deposit contain	atral Electricity G wo Reconnaisson 284 RL004 was of ace, EPL002, which ad again in 1990 educed area. RL efore being dropp gamma-ray spect 2 anomalies for including geo rincluding geo rincluding geo rincluding geo round surveys with detailed investigated adertaken at killing and round surveys with depth, whilst trend ces. 3,994m of drilling ing 7,500t of ama-ray spectror	Generating Board ance Licences, Reconverted to ance the was renewed in for two years as 2005 was renewed ped due to poor rectrometry was conjugical mapping and the completed of the complete of the co	("CEGB") RL004 and Exclusive April 1987 EPL 002/90 ed in both results. Farried out o. Surface ing and isation at delineating ill program investigate study near outlining a e surveys and K were







Criteria	JORC Code explanation	Commentary
		defined existing target areas for ground follow-up and drilling in 1986. During 1986, a further 3,821m of drilling was completed on Kayelekera, increasing the resource to 9,300t of U₃O₅. Seven other targets were drilled (2,503m) although no significant mineralisation was discovered. In 1987, 7,665m of drilling was carried out to infill the existing drilling to 50m by 50m. A number of pits were dug and some preliminary geotechnical holes drilled. Scout drilling on other targets failed to intersect any radiometrically anomalous strata but a two metre thick coal seam was intersected 1km north of the Kayelekera village at Nhkachira. In 1988 no drilling was completed on the uranium deposit at Kayelekera but a total of 1,180m were drilled on various scout targets. One hundred and seventeen metres were drilled to evaluate limestone deposits in the Mwesia basin, for lime that will be needed in the uranium extraction process. In addition 289m were drilled to test the coal seams previously identified. During the latter part of 1988, the British Civil Uranium Procurement Organisation ("BCUPO") received competitive tenders for the execution of a detailed feasibility study for the Kayelekera project. Wright Engineers Limited ("Wright") of Vancouver, Canada was selected to produce the feasibility study which commenced in March 1989 and was completed by June 1990. In 1989, a further 2,017m of drilling was drilled into the deposit and its margins for structural, hydrogeological, geotechnical and metallurgical purposes. An independent evaluation confirmed an in-situ resource of >9,000t of contained U₃O₅. A further 1,805m of drilling was completed to evaluate the Nhkachira coal deposit, which was shown to comprise several thousand tonnes of coal in a single 2m thick seam. Since 2002, PDN conducted extensive drilling programs in 2004, 2005, 2008-2011. Mining at the project was commenced in 2008.
Geology	Deposit type, geological setting and style of mineralisation.	 Kayelekera is situated close to a major tectonic boundary between the Ubendian and the Irumide domains. The Ubendian domain consists of medium to high-grade metamorphic rocks and intrusions cut by major NW-SE dextral shear zones and post-tectonic granitoid intrusions dated at 1.86Ga (Lenoir et al., 1995). These shear zones may well have been reactivated during and after deposition of the Karoo sequence, since many major brittle faults that offset the Karooaged rocks have the same orientation. Mineralisation at Kayelekera is hosted in several arkose units where they are adjacent to the Eastern Boundary Fault zone. The mineralisation forms more or less tabular bodies restricted to the arkoses, except adjacent to the NS strand of the Eastern Boundary fault at the eastern extremity of the pit. Here, mineralisation also occurs in mudstones in the immediate vicinity of the fault.







vicinity of the fault.



Criteria	JORC Code explanation	Commentary
		 Secondary mineralisation tends to be concentrated in vertical fractures and along the contacts between mudstone and arkose and is restricted to the upper parts of the orebody Primary reduced (i.e. carbon and pyrite-bearing) arkose ore accounts for 40% of the total ore. About 30% of the mineralisation is hosted in oxidised arkose (i.e. lacking carbon and pyrite) and is called oxidised ore. 10% of mineralisation is termed "Mixed Arkose" and exhibits characteristics of both primary and secondary arkose mineralisation types. Uranium in primary ore is present as coffinite, minor uraninite and a U-Ti mineral, tentatively referred to as brannerite. Modes of occurrence include disseminated in matrix clay, included in detrital mica grains and intimately intergrown with carbonaceous matter. Individual grains are extremely fine, typically <10µm. Coffinite and uraninite also show an association with a TiO₂ phase, possibly rutile after detrital ilmenite. It is possible that uranium deposition was accompanied by leaching of Fe from detrital ilmenite and precipitation of a TiO₂ polymorph.
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 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. 	Information on previous drilling can be found in the 2005 and 2009 NI43-101 Technical reports submitted by PDN.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually 	 Mineralised intervals were chosen based upon a nominal 200ppm U₃O₈ cut off and over 1m for reporting. No top cut was applied. Metal equivalent values have not been used.









Criteria	JORC Code explanation	Commentary
	 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. 	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 Downhole widths are reported. The majority of the drilling is vertical and the horizontal, layered nature of the deposit all drill intercepts can be considered to represent the true width of the mineralisation.
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. 	Refer ASX announcement 2 April 2020
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.	Balanced reporting has been adhered to.
Other substantive	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological 	 Regional targeting has been greatly aided by a 2008 company- flown Radiometric survey over 2 broad regions - Kayelekera and Chilumba. This survey, which was managed by UTS Geophysics, has been a major aid in guiding exploration with analysis of the









Criteria	JORC Code explanation	Commentary
exploration data	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.	radiometric signature (K, U, and Th bands) combined with mapping and interpretation of the sedimentary units allowing for target generation. The survey was flown using the WGS84 coordinate system (a Universal Transverse Mercator projection) derived from the World Geodetic System and was contained within zone 36 with a central meridian of 33 degrees. Line spacing 50m, tie line spacing 500m, sensor height 50m PAC-750XL fixed wing survey aircraft. UTS proprietory flight planning and survey navigation system. UTS proprietory high speed digital data acquisition system. Novatel, 12 channel precision navigation GPS. OMNISTAR real time differential GPS system. UTS LCD pilot navigation display and external track guidance display. UTS post mission data verification and processing system. Bendix/King KRA-405 radar altimeter. Exploranium GR-820 gamma ray spectrometer. Exploranium gamma ray detectors. Barometric altimeter (height and pressure measurements). Temperature and humidity sensor. The gamma ray spectrometer used for the survey was capable of recording 256 channels and was self-stabilising in order to minimise spectral drift. The detectors used contain thallium activated sodium iodide crystals. Thorium source measurements were made each survey day to monitor system resolution and sensitivity. A callibration line was also flown at the start and end of each survey day to monitor ground moisture levels and system performance. Spectrometer model Exploranium GR820 Detector volume 32 litres Sample rate 1 Hz
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Additional exploration work is being planned and will be announced when appropriate.



