

ASX Announcement

13 July 2023

REVISED: LETLHAKANE URANIUM MINERAL RESOURCE ESTIMATE REPORTING

Lotus Resources Limited (ASX: LOT, OTCQB: LTSRF) (Lotus or the **Company)** is providing an update to the market on the Mineral Resource Estimate for the Letlhakane Uranium Project, located in Botswana, and held by A-Cap Resources Ltd (**A-Cap**). A-Cap and Lotus have agreed to a merge via a Scheme of Arrangement, under which Lotus will acquire 100% of the A-Cap Shares on issue.

HIGHLIGHTS

- The Mineral Resource Estimate (MRE) has been completed utilising Localised Uniform Conditioning incorporating the excellent results from the 2014 drilling programme;
- Better grade definition at the mining scale using a Specific Mining Unit (SMU) based on surface miners and selective grade control methodology;
- Potential pit areas show higher grades;
- A large increase in lbs of uranium at a 300ppm cut-off.

LETLHAKANE MINERAL RESOURCE ESTIMATE

The mineral resource upgrade was completed using Localised Uniform Conditioning (LUC) which takes into account mining and grade control selectivity. The global Mineral Resource Estimate is as follows:

Cut-off	Total Indicated				Total Inf	erred	Global Total			
(U₃O₅ ppm)	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈ (MLbs)	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈ (MLbs)	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈ (MLbs)	
100	197.1	197	85.5	625	203	280.1	822.1	202	365.7	
200	59.2	323	42.2	209.7	321	148.2	268.9	321	190.4	
300	22.2	463	22.7	81.6	446	80.3	103.8	450	102.9	

Table 1: Letlhakane LUC	Mineral Reso	ource Estimate
-------------------------	--------------	----------------

The LUC estimate best reflects the mining methodology envisaged, taking into account the surface miner's selective mining capability combined with the proposed grade control methodology. The accurate mining characteristics of surface miners and the ability to generate a detailed measure of gamma radiation on the surface during mining will ensure the optimum grade delivery to the process heap. The SMU of 20m x 4m x 0.25m forms the basis for the LUC estimation. Historic resource estimations were more reflective of conventional open pit mining and therefore had averaged resource data into blocks of bigger mining panels and smoothed or averaged the grade data.

info@lotusresources.com.au lotusresources.com.au TEL +61 (08) 9200 3427 ABN 38 119 992 175



Uniform conditioning (UC) and LUC is used for assessing recoverable resources inside a mining panel when the drill spacing does not provide sufficient coverage for direct grade estimation at the SMU scale. UC provides the proportion of SMUs inside a panel that are above cut-off and its corresponding average grade. LUC takes the UC result and localises it into SMU scale blocks, making it more suited to extraction and optimisation studies.

The 2014 drilling programmes targeted the early optimised shells which typically represent the earliest production potential. Previous results as reported in the A-Cap ASX Announcements during 2014 (August 27th and December 15th) highlighted some of the better grade intersections which would be exploited early in the potential production sequence. The results of the drilling programme increased confidence in these early production areas within Letlhakane, namely Kraken, Gorgon South and Serule West. The global resource area is 14km long and 11km wide and is divided into the aforementioned main prospect areas. The Letlhakane Uranium Project is divided into prospect areas as defined in the figure below.

At a 200 ppm U_3O_8 cut-off the resource by prospect is:

	2015 Mineral resource estimate for the Gojwane and Serule deposits - 200 ppm U_3O_8 cut off (LUC)										
One Trune	Demosit	Descent		Indicate	ed		Inferred	1		Total	
Ore Type	Deposit	Prospect	Mt	U ₃ O ₈ ppm	U ₃ O ₈ Mlbs	Mt	U ₃ O ₈ ppm	U ₃ O ₈ Mlbs	Mt	U ₃ O ₈ ppm	U ₃ O ₈ Mlbs
		Gorgon Main/West									
Secondary Gojw	Gojwane	Mokobaesi	2.0	371	1.6				2.0	371	1.6
		Kraken	0.1	261	0.0	0.0	202	0.0	0.1	261	0.0
	То	tal Secondary	2.1	367	1.7	0.0	202	0.0	2.1	367	1.7
		Gorgon Main/West	6.1	313	4.2	9.3	280	5.7	15.4	293	10.0
	Goiwane	Mokobaesi	3.4	365	2.7				3.4	365	2.7
Gojwane	Cojwane	Kraken	3.9	310	2.6	0.7	280	0.4	4.5	306	3.1
Oxide		Gorgon South	4.4	323	3.1	2.6	292	1.6	7.0	312	4.8
	Sorulo	Serule East				0.5	246	0.3	0.5	246	0.3
	Jerule	Serule West	0.4	302	0.2	11.7	322	8.3	12.1	322	<mark>8.</mark> 6
		Total Oxide	18.1	324	13.0	24.8	301	16.4	42.9	311	29.4
		Gorgon Main/West	15.4	280	9.5	98.2	313	67.7	113.5	309	77.2
	Goiwane	Mokobaesi	0.5	359	0.4	0.3	330	0.2	0.8	347	0.6
	Cojwane	Kraken	7.7	350	5.9	1.0	349	0.8	8.7	349	6.7
Primary		Gorgon South	12.1	337	9.0	22.8	309	15.5	34.9	319	24.5
	Sorulo	Serule East				0.4	259	0.2	0.4	259	0.2
	Seruie	Serule West	3.3	376	2.8	62.4	345	47.4	65.7	346	50.2
	T	otal Primary	39.0	321	27.5	185.0	323	131.8	223.9	323	159.4
		Total	59.2	323	42.2	209.7	321	148.2	268.9	321	190.4

Table 2: 2015 Letihakane	LUC resource	estimate a	t 200ppm	cut-off
	. FOC 16300166	commune a		C01-011

The technical study that was completed during 2014/2015, the outcomes of which were disclosed in the A-Cap ASX Announcement on the 11th September 2015, had utilised the 2012 Mineral Resource to determine the results. Following an assessment and review, the 2013 resource estimate was found to be unsuitable for mining optimisation studies. In comparison the LUC resource has a notable grade increase over prior resource estimations due to the incorporation of mining selectivity and the assessment of recoverable grade. This is a positive outcome for the economics of the Project and will be used as the basis of future mine schedules, optimisations and financial modelling.





Figure 1: Drill holes and Prospect areas used in modelling

When comparing the 2015 LUC Resource against previous estimates, the LUC resource contains more tonnes and slightly more grade. The reasons are twofold:

• Firstly, the 2015 resource utilised wireframes that delineated continuity over larger areas, whereas the 2013 resource was completed using a categorical modelling approach. The global resources were similar, however it was found that the categorical approach, although

info@lotusresources.com.au lotusresources.com.au TEL +61 (08) 9200 3427 ABN 38 119 992 175





correctly estimating the quantum of the uranium resource, had less continuity of grade extrapolation compared to using a wireframe.

• Secondly, the LUC result has more tonnes at higher cut-offs, as a larger initial mining block that was reporting below a cut-off now may have a higher grade recoverable proportion of the mining block represented as SMUs above the cut-off.

The 2012 and 2015 resource estimates both utilised interpreted wireframes for constraining the resource estimation. The 2015 wireframing was more selective as the 2014 grade control patterns demonstrated that the stacked mineralised lenses could be clearly delineated on a mining scale. The current wireframes incorporated less dilution in the interpreted volume than the 2012 resource. The LUC estimation method and the decreased internal dilution in the interpretation has increased the grade and produced a more accurate estimate of recoverable resources.

Cut-off	T	otal Indic	ated		Total Inf	ierred	Global Total		
(U ₃ O ₈ ppm)	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈ (Mlbs)	Mt	U₃O₅ (ppm)	Contained U3O8 (Mlbs)	Mt	U₃O₅ (ppm)	Contained U3O8 (Mlbs)
100	131.9	198	57.5	530.5	215	250.9	662.4	211	308.1
200	49.4	269	29.4	198.6	319	139.8	248.1	309	168.9
300	11.3	376	9.4	72.4	458	73.2	83.7	447	82.5

Table 3 – July 2013 Mineral Resource Estimate for comparison (ASX announcement 30 July 2013.)

Table 4: June 2012 Mineral Resource Estimate for comparison at 100ppm & 200ppm U₃O₈ cut-offs

Cut-off Total Indicated				Total In	ferred	Global Total			
(U3O8 ppm)	Mt	U3O8 (ppm)	Contained U3O8 (Mlbs)	Mt	U3O8 (ppm)	Contained U3O8 (Mlbs)	Mt	U3O8 (ppm)	Contained U3O8 (Mlbs)
100	221.3	153	74.7	819.1	153	277.0	1,040.5	153	351.8
200	32.6	274	19.7	110.7	287	70.0	143.2	284	89.7

Work completed by Perth-based resource specialists Optiro on a drill study comparison at the Kraken deposit confirmed that at a starting drill spacing of 200m by 200m, the change of contained metal is within +/-10% when infilled to 100m by 50m drill spacing. The current criteria for inferred resources is nominally greater than 100m by 100m drill spacing. A-Cap has confidence that the deposit will retain its mineralisation continuity when it is further drilled out.

The heap leach process under consideration utilises a 2-stage acid leach process with solvent extraction, ion exchange and UO₂ precipitation. Potential savings on process OPEX costs can be realised from an increase of grade. The more selective interpretation may result in a higher strip ratio than the 2.2 reported for the of 2012 resource optimisation results. OPEX costs from the technical study and the strip ratio were announced in the A-Cap ASX Announcement on the 11th September 2015.

info@lotusresources.com.au lotusresources.com.au







Competent Persons' Statements

Information in this report relating to Mineral Resources is based on information compiled by Mr Ian Glacken, Principal Consultant at SnowdenOptiro Pty Ltd and a Fellow of the AusIMM. Mr Glacken has sufficient experience that 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 under the 2012 Edition of the Australasian Code for reporting of Exploration Results Mineral Resources and Ore Reserves. Mr Glacken consents to the inclusion of the data in the form and context in which it appears.

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

For further information, contact:

Keith Bowes Managing Director <u>keith.bowes@lotusresources.com.au</u> T: +61 (08) 9200 3427 Martin Stulpner Business Development martin.stulpner@lotusresources.com.au T: +61 (08) 9200 3427

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









ABOUT LOTUS

Lotus Resources Limited **(ASX: LOT, OTCQB: LTSRF)** owns an 85% interest in the Kayelekera Uranium Project in Malawi. The Project hosts a current resource of 51.1Mlbs U₃O₈ (see table below), and historically produced ~11Mlb of uranium between 2009 and 2014. The Company completed a positive Restart Study¹ which has determined an Ore Reserve of 23Mlbs U₃O₈ and 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.

Project	Category	Mt	Grade (U₃O8 ppm)	U₃O₅ (M kg)	U ₃ O ₈ (M lbs)
Kayelekera	Measured	0.9	830	0.7	1.6
Kayelekera	Measured – RoM Stockpile ³	1.6	760	1.2	2.6
Kayelekera	Indicated	29.3	510	15.1	33.2
Kayelekera	Inferred	8.3	410	3.4	7.4
Kayelekera	Total	40.1	510	20.4	44.8
Kayelekera	Inferred – LG Stockpiles ⁴	2.4	290	0.7	1.5
Kayelekera	Total All Materials	42.5	500	21.1	46.3
Livingstonia	Inferred	6.9	320	2.2	4.8
Total		49.4	475	23.3	51.1

Kayelekera Mineral Resource Inventory – June 2022²

Kayelekera Ore Reserve Inventory – July 2022⁵

Project	Category	AA+	Grade	U ₃ O ₈	U ₃ O ₈
riojeci	Calegory	/4/1	(U ₃ O ₈ ppm)	(M kg)	(M lbs)
Kayelekera	Open Pit - Proved	0.6	902	0.5	1.2
Kayelekera	Open Pit - Probable	13.7	637	8.7	19.2
Kayelekera	RoM Stockpile – Proved	1.6	760	1.2	2.6
Kayelekera	Total	15.9	660	10.4	23.0

¹ See ASX announcement dated 11 August 2002 for information on the Definitive Feasibility Study

² See ASX announcement dated 15 February 2022 for information on the Kayelekera mineral resource estimate. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 15 February 2022 and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in that announcement continue to apply and have not materially changed.

³ RoM stockpile has been mined and is located near mill facility

⁴ Low-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.

⁵ Ore Reserves are reported based on a dry basis. Proved Ore Reserves are inclusive of RoM stockpiles and are based on a 200ppm cutoff grade for arkose and a 390ppm cut-off grade for mudstone. Ore Reserves are based on a 100% ownership basis of which Lotus has an 85% interest. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 11 August 2022 and that all material assumptions and technical parameters underpinning the Ore Reserve Estimate in that announcement continue to apply and have not materially changed



Appendix 1: Material Information Summary (Letlhakane Mineral Resource)

Pursuant to the ASX Listing Rule 5.8.1 the following summary of information has been provided as material to understanding the Mineral Resource Estimate.

Geology and Geological Interpretation

Geologically, the Letlhakane uranium mineralisation is hosted within shallow, flat lying sedimentary rocks of the Karoo Super Group. These Permian to Jurassic aged sediments were deposited in a shallow, broad, westerly dipping basin, generated during rifting of the African continent. The source area for the sediments was the extensively weathered, uranium-bearing, metamorphic rocks of the Archaean Zimbabwe Craton which outcrops in the eastern portion of the licence area. The sandstone hosted mineralisation has roll front characteristics, where the uranium was precipitated at redox boundaries. Three ore types have been identified; Primary Ore, Secondary Ore and Oxide Ore. The most abundant is the Primary ore.

Drilling Information

All drill holes are vertical as the mineralisation is generally flat with a 1-3 degree dip to the west most common. Diamond coring was undertaken using NQ and PQ diameter holes, while Percussion Reverse Circulation (RC) used 5¹/₄ inch holes.

Hollow auger (HA) holes were also drilled and half 'core' samples were obtained by cutting the sample for each metre with a blade. Rotary Air Blast (RAB) holes were probed.

Primary and oxide resources were estimated using radiometric gamma logging equipment. Secondary resources were calculated with XRF results as the primary assay and gamma if no assay was present.

Drill spacing is variable, but generally the inferred resources are drilled at 200 – 400m spacing and indicated resources at 100m spacing.

	Reverse circulation (RC)	Diamond Drill Hole (DDH)	Rotary Air Blast (RAB)	Hollow Auger (HA)	Total
Number of Holes	2,948	269	25	499	3,741
Metres Drilled	137,814	12,577	2,270	3,544	149,043

Sampling and Sub-sampling

Reverse circulation (RC) chips were collected at 1m intervals over the mineralised zone. The chips were collected into plastic sample bags from a cyclone to ensure maximum recovery. The samples were



split using a standard riffle splitter to around 0.25 to 0.5 kg per sample and were sent to an accredited laboratory. RC recoveries were monitored by weighing each 1m sample interval.

Diamond samples are collected based on lithological boundaries. Core and HA recoveries were monitored and were generally very good (>95%).

Core, chip and HA samples were logged geologically.

No sub sampling was undertaken, as all results reported are derived from downhole gamma responses. Gamma responses are derived from the in-situ material surrounding the hole drilled.

Duplicate hole logging and annual calibration were used to ensure the accuracy of the logs. The 2014 programme used an additional gamma tool and source to calculate density, which was compared against the gamma logs.

XRF assays used in the resource estimate are based upon splits from RC, HA and DDH hole types.

All splitting and sub-sampling has been carried out according to best practice.

Sample Analysis Method

Grades for the resource estimation are a mixture of probe and chemical assays. The primary method of grade determination was through gamma logging for equivalent uranium (eU_3O_8) using an Auslog natural gamma sonde equipped with a Sodium lodide crystal. The sonde used for the data collection was calibrated in the Adelaide Models in May of 2014 and calibration factors were obtained using the polynomial method by 3D Exploration (Pty) Ltd. Checks using a gamma source of known activity are performed prior to logging at each hole to determine crystal integrity. Readings were obtained at 5cm intervals downhole.

Chemical assays have been used to check for correlation with gamma probe grades; disequilibrium is not considered an issue for the project. Industry standard QAQC measures such as certified reference materials, blanks and repeat assays were used. Chemical assays are, in general, used in preference to probe values where both are available.

Estimation Methodology

The estimation method used was Ordinary block Kriging (OK) into (100 x 100 x 0.25m) panels followed by Localised Uniform Conditioning as a post-processing method. This is appropriate due to the selectivity of the proposed mining and grade control methods, i.e. truck-mounted probes for grade

info@lotusresources.com.au lotusresources.com.au







control giving high selectivity ($2 \times 1 \times 0.25m$), followed by the use of Continuous Surface mining units, leading to an effective selective mining unit of 20 m by 4 m by 0.25m depth.

A number of previous estimates have been generated using a variety of techniques, including simple OK into large panels and probabilistic approaches using a grade-based indicator method. It is possible to reconcile the current estimation approach with the previous models.

Estimation panels reflect the size of the drilling grid and the variable drill spacing.

Estimation was into zones defined by a U_3O_8 cut-off grade of 100 ppm, with a distinction made between secondary, primary and oxide mineralisation from logging information. Each lens or set of lenses was defined as a domain within the broad mine area groupings. Moderate grade caps (top-cuts) were applied to outlier U_3O_8 grades.

Panel models were validated against the input flagged and composited drillhole (probe) data. The UC model at zero cut-off was compared against the OK model and the LUC model was compared to the UC model for selected domains. No mining, and thus no reconciliation data, was available.

Classification Criteria

Indicated – Areas where the drill spacing is 100 by 100m or less.

Inferred – defined by drill spacings of 400m by 400 and 200 by 200, where continuity of lenses is observed.

Unclassified - A boundary string has been generated to reflect mineralisation that is deemed too thin or too low grade to be considered economic, i.e. no reasonable prospects of eventual economic extraction. This string was defined by considering spatial accumulations of tonnage and grade. Lower grade have been incorporated into the Inferred category where the lenses are stacked, increasing the grade tonnage product.

The classification appropriately reflects the Competent Person's view of the location and confidence in the Mineral Resource estimate.

Mining and Metallurgical Assumptions

Surface miners are envisaged to be able to mine the flat tabular orebody with a high degree of accuracy, assuming an average mining depth of 0.25m. The Mineral Resource model reflects this selectivity in the vertical dimension and the moderate selectivity available in the horizontal directions.

Uranium extraction by acid leach from the primary and oxide proportions of the resources has been verified by test work conducted at ANSTO and SGS.

info@lotusresources.com.au lotusresources.com.au







Cut-off Grade

Tonnes were reported above a 100ppm cut-off grade, reflecting the grade required to generate an average grade of the correct magnitude. Due to the use of probes and reasonably selective excavation methods (Continuous Surface Miners), any reasonable average grade can be defined above cut-off.

Comparison to Historical Mineral Resource Estimates

A-Cap completed a Mineral Resource Estimate for Letlhakane in July 2013. The 2013 resource is shown below for comparative purposes. This MRE was completed using a categorical modelling approach. Although the global resources are similar, it was found that the categorical approach, although correctly estimating the quantum of the uranium resource, had less continuity of grade extrapolation compared to using a wireframe.

Cut-off	Total Indicated			Total Inferred			Global Total		
(U₃O₅ ppm)	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈	Mt	U₃O₅ (ppm)	Contained U ₃ O ₈	Mt	U₃O₅ (ppm)	Contained U3O8
100	131.9	198	57.5	530.5	215	250.9	662.4	211	308.1
200	49.4	269	29.4	198.6	319	139.8	248.1	309	168.9
300	11.3	376	9.4	72.4	458	73.2	83.7	447	82.5

Table A1 - 2013 Mineral Resource Estimate for comparison







Appendix 2: JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

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

Criteria	Commentary						
Sampling techniques	 Grades for assays. The logging for sonde each collection calibration Exploration performe Readings Chemical probe grain and strain performation of the second strain performation of the second strain and strains and strai	assays. The primary method of grade determination was through gamma logging for equivalent uranium (e U ₃ O ₈) using an Auslog natural gamma sonde equipped with a Sodium Iodide crystal. The sonde used for the data collection was calibrated in the Adelaide Models in May of 2014 and calibration factors were obtained using the polynomial method by 3D Exploration (Pty) Ltd. Checks using a gamma source of known activity are performed prior to logging at each hole to determine crystal integrity. Readings were obtained at 5cm intervals downhole. Chemical assays have been used to check for correlation with gamma probe grades; disequilibrium is not considered an issue for the project. Industry standard QAQC measures such as certified reference materials, blanks and repeat assays were used. Chemical assays are, in general, used in preference to probe values where both are available. Reverse circulation (RC) chips were collected at 1m intervals over the mineralised zone. The chips were collected into plastic sample bags from a cyclone to ensure maximum recovery. The samples were split using a standard riffle splitter to around 0.25 to 0.5 kg per sample and have been sent to an accredited laboratory. Diamond samples are collected based on lithological boundaries.					
Drilling techniques	 Diamond Percussic used for Hollow a obtained Primary a logging e results as Rotary Ai in the res 	Diamond coring using NQ and PQ diameter holes. Percussion 5¼ inch Reverse Circulation (RC); no physical samples were used for the announced results. Hollow auger (HA) holes were drilled and half 'core' samples were obtained by cutting the sample for each metre with a blade. Primary and oxide resources were estimated using radiometric gamma logging equipment. Secondary resources were calculated with XRF results as the primary assay and gamma if no assay was present. Rotary Air Blast (RAB) holes were probed; no physical samples were used in the resource estimate.					
		Reverse circulation (RC)	Diamond Drill Hole (DDH)	Rotary Air Blast (RAB)	Hollow Auger (HA)	Total	
	Number of Holes Metres Drilled	2,948 137,814	269 12,577	25 2,270	499 3,544	3,741 149,043	







Criteria	Commentary
Drill sample recovery	 Core and HA recoveries were monitored and were generally very good (>95%). RC recoveries were monitored by weighing each 1m sample interval. Core, chip and HA samples were logged geologically.
Logging	For gamma logging, see sampling techniques above.Core has been photographed.
Sub- sampling techniques and sample preparation	 No sub sampling was undertaken, as all results reported are derived from downhole gamma responses. Gamma responses are derived from the in situ material surrounding the hole drilled. Duplicate hole logging and annual calibration were used to ensure the accuracy of the logs. The 2014 programme used an additional gamma tool and source to calculate density, which was compared against the gamma logs. XRF assays used in the resource estimate are based upon splits from RC, HA and DDH hole types. All splitting and subsampling has been carried out according to best practice.
Quality of assay data and laboratory tests	 Calibration and control hole logging was done on a routine basis for gamma probe grades and a representative set of re-logging has also been undertaken. A QAQC programme, including the use of standards, blanks and field duplicates, has been carried out over the drilling history of the deposit.
Verification of sampling and assaying	 Significant intersections were reviewed internally. Data entry procedures are well established and data is held in an Acquire database. Equivalent eU₃O₈ grade are determined by calculation from the calibration of the probes. Calibration occurred in the Adelaide test pits in Australia.
Location of data points	 Collar positions were located using a handheld GPS and surveyed after drilling using a differential GPS.
Data spacing and distribution	 Drill spacing is variable, but generally the inferred resources are drilled at 200 400m spacing and indicated resources at 100m spacing.
Orientation of data in relation to geological structure	 All drill holes are vertical. The mineralisation is generally flat, with 1-3 degree dip to the west most common.
Sample security	 All data used to prepare the recent exploration results were radiometric gamma log data.





Criteria	Commentary
	 Appropriate measures were taken to ensure sample security of the chemical samples used for QAQC purposes.
Audits or reviews	 Audits and reviews on sampling and assaying are not relevant as no physical samples or assays were used in the results. Gamma data and data calculations to eU₃O₈, including deconvolution, were carried out under the guidance of David Wilson from 3D Exploration (Pty) Ltd.







Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	• PL45 is granted and has an approval from the DOM to extend the licence period to 30th September 2015, while that initial application for extension was applied to 31st December 2015. Subsequently a Mining Licence application was submitted over the resource area.
Exploration done by other parties	 Not material for primary deposit.
Geology	 Geologically, the Letlhakane uranium mineralisation is hosted within shallow, flat lying sedimentary rocks of the Karoo Super Group. These Permian to Jurassic aged sediments were deposited in a shallow, broad, westerly dipping basin, generated during rifting of the African continent. The source area for the sediments was the extensively weathered, uranium- bearing, metamorphic rocks of the Archaean Zimbabwe Craton which outcrops in the eastern portion of the licence area. The sandstone hosted mineralisation has roll front characteristics, where the uranium was precipitated at redox boundaries. Three ore types have been identified; Primary Ore, Secondary Ore and Oxide Ore. The most abundant is the Primary ore.
Drill hole Information	• Drill hole information has been systematically reported to the ASX since the initial drilling of the deposit in 2006. Refer to ACB ASX releases for hole details.
Data aggregation methods	 A deconvolution filter designed for the crystal length in the sonde is applied to the downhole gamma data.
Relationship between mineralisation widths and intercept lengths	 Due to the flat nature of the deposit, intersections can be thought of as being true width, as the difference of dip will fall within the fluctuations of mineralised thicknesses between holes.
Diagrams	• Appropriate diagrams and sections have been provided in the respective Exploration Results market releases to the ASX.
Balanced reporting	• Exploration Results have been reported systematically to the ASX.



Criteria	Commentary
Other substantive exploration data	 Metallurgical testwork has been undertaken with the latest 4 metre columns completed at ANSTO and SGS.
Further work	 Further work will include further infill drilling to take inferred resources to indicated and measured.









Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	 The database is managed by an Acquire database software interface. The database software allows validation of the dataset to be assessed. Gamma files are imported directly into the database, where e U₃O₈ grades are calculated.
Sife visits	 Site visits have occurred in previous years, ian Glacken (Optiro) and David Wilson (3D Exploration) have conducted multiple site visits.
Geological interpretation	 Mineralization wireframes were interpreted across the deposit generally at the 100ppm cut-off level. Internal dilution was incorporated to maintain continuity of lenses. Stacked lenses were resolved by separate wireframes. Geology was used in guiding mineralized interpretations and was most effective when identifiable units could be traced between holes. Some variation in dip was modelled laterally. Small scale faulting is likely to be present, but is not possible to reflect at the current drill spacing. Flattening of the lenses was part of the estimation methodology so grade estimation is unaffected by changes in dip or possible small scale faulting.
Dimensions	 The area spans 14 km long (N-S) and up to 11km wide (E-W). The resource is from surface to approximately 125m. The deeper intersections are to the west and becomes shallower to the east.
Estimation and modelling techniques	 The estimation method used was Ordinary block Kriging (OK) into (100 x 100 x 0.25m) panels followed by Localised Uniform Conditioning as a post-processing method. This is appropriate due to the selectivity of the proposed mining and grade control methods, i.e. truck-mounted probes for grade control giving high selectivity (2 x 1 x 0.25m), followed by the use of Continuous Surface mining units, leading to an effective selective mining unit of 20 m by 4 m by 0.25m depth. A number of previous estimates have been generated using a variety of techniques, including simple OK into large panels and probabilistic approaches using a grade-based indicator method. It is possible to reconcile the current estimation approach with the previous models. Estimation panels reflect the size of the drilling grid and the variable drill spacing. Estimation made between secondary, primary and oxide mineralisation from logging information. Each lens or set of lenses was defined as a domain within the broad mine area groupings. Moderate grade caps (top-cuts) were applied to outlier U₃O₈ grades. Panel models were validated against the input flagged and composited drillhole (probe) data. The UC model at zero cut-off was compared against the OK model and the LUC model was compared to the UC model for selected domains. No mining, and thus no reconciliation data, was available.
Moisture	• The tonnes are based on a dry density. Density measurements are defined by lithology, and the presence of carbonates.







Criteria	Commentary
Cut-off parameters	• Tonnes were reported above a 100 ppm cut-off grade, reflecting the grade required to generate an average grade of the correct magnitude. Due to the use of probes and reasonably selective excavation methods (Continuous Surface Miners), any reasonable average grade can be defined above cut-off.
Mining factors or assumptions	 Surface miners are envisaged to be able to mine the flat tabular orebody with a high degree of accuracy, assuming an average mining depth of 0.25m. The Mineral Resource model reflects this selectivity in the vertical dimension and the moderate selectivity available in the horizontal directions.
Metallurgical factors or assumptions	 Uranium extraction by acid leach from the primary and oxide proportions of the resources has been verified by test work conducted at ANSTO and SGS.
Environmental factors or assumptions	 The Environmental, Social Impact Assessment (ESIA) was completed by consultants SLR Consultants, South Africa. The ESIA was submitted to the Botswana Department of Mines in May 2015. The ESIA consisted of several studies evaluating potential impacts of the Project, relating to: Topography Soil and land capabilities Biodiversity Surface water, including pollution Groundwater, including pollution Air pollution, dust generation Noise Visual impact Archaeological, cultural and heritage impacts Socio-economic impacts Changes in road use affecting safety Blasting hazards Loss of current land uses, third party infrastructure Socio-economic impact Positive economic impact Each potential impact has been investigated to determine the significance of the impact, both unmitigated and mitigated. The assessment is currently underway with the Department of Environmental Affairs. Waste rock will be located in dumps adjacent to the pits and will be designed to encapsulate coal waste material. Heap Leach pads have been designed and are expandable as the project extends its life. The Heap leach pads will be rehabilitated in place progressively.







Criteria	Commentary
Bulk density	 Density measurements were calculated and defined by lithology within the block model. Density has been physically determined by direct measurements calculated by the gravimetric method. The measurements came from: 261 waxed core samples 438 Standard core samples 30 Bulk pit samples
Classification	 Unclassified - A boundary string has been generated to reflect mineralisation that is deemed too thin or to low grade to be considered economic, i.e. no reasonable prospects of eventual economic extraction. This string was defined by considering spatial accumulations of tonnage and grade. Lower grade have been incorporated into the Inferred category where the lenses are stacked, increasing the grade tonnage product. Inferred – defined by drill spacings of 400m by 400 and 200 by 200, where continuity of lenses is observed. Indicated – Areas where the drill spacing is 100 by 100m or less. The classification appropriately reflects the Competent Person's view of the location and confidence in the Mineral Resource estimate.
Audits or reviews	 The resource has been estimated many times over several years and has changed through additional drilling or changes in ore estimation methodology. Early estimates used indicator kriging techniques, and these were replaced by more conventional block OK methods associated with a re-evaluation of the geological interpretation. A later probabilistic (categorical kriging) approach was replaced by the current method, which considers the recoverable resources available at a mining cut-off, based upon an assumed grade control and mining method as described above. External audits have been carried out periodically of the resource estimates as part of due diligence exercises and no serious concerns have been raised.
Discussion of relative accuracy/ confidence	 The Mineral Resource has been classified on the basis of drill spacing, geological confidence and the prospects of likely eventual economic extraction. No explicit numeric assessment of the relative levels of accuracy has been carried out. The Mineral Resource is believed to be sufficiently precise and accurate to support annual to quarterly mining schedules, and as such reflects a local estimate. The generation of localised Uniform Conditioning blocks at the mining SMU scale has been carried out to assist in pit optimisation studies. No production data is available to compare with the Mineral Resource estimate.

info@lotusresources.com.au lotusresources.com.au TEL +61 (08) 9200 3427 ABN 38 119 992 175

