

FURTHER STRONG RESULTS FROM ORE SORTING TESTWORK AT KAYELEKERA URANIUM PROJECT

Lotus Resources Limited (ASX: LOT, OTCQB: LTSRF) (Lotus or the Company) is pleased to announce the results from the second round of ore sorting testwork which has further improved upon the already impressive results seen in phase one. This most recent testwork used a combination of sensors and also tested reduced crush sizes when compared to the original phase one results.

Whilst the increase in uranium grade remained excellent, with increases of up to 100% compared to the feed material, this second round of results also saw recoveries increase from 86% in the original testwork to up to 92%.

HIGHLIGHTS

- The second phase of ore sorting testwork has further improved the initial strong results (ASX announcement 5th July 2021), with higher recoveries achieved when combining sensors (>90% uranium recovery)
- In line with the first round of results, grades increased by up to 100% compared to the feed grade, however recoveries also improved to 92% (Phase 1 testwork – 86%)
- Ore sorting has the potential to both increase the feed-grade (annual production) and extend the life-of-mine through the utilisation of low-grade ores as plant feed
- The results of further ore sorting testwork will be incorporated into a Feasibility Study which is expected to commence in September 2021



Image 1: Drum 26 feed - ROM feed to the ore sorter before separating into product and tailings



Keith Bowes, Managing Director of Lotus, commented:

“This second round of testing has provided further validation regarding the use of ore sorting at the Kayelekera Project. We are very confident that this technology has the potential to improve the economic returns of the Project, by increasing annual production and extending the mine life with the further potential benefit of reducing operating costs. We will continue to provide additional information on the additional testwork planned over the coming months.”

Ore sorting testwork results

The Company tested two additional samples of run of mine ore (~500kg) at the STEINERT testing facility in Perth. The tests were completed in a commercial scale ore sorting unit, with one sample (Image 1 - drum 26) using a combination of the colour and density sensors. The second sample (Image 2 - drum 32) was tested with a finer crush size (10-30mm vs. the original 20-60mm) to test the impact of particle size on separation efficiency.

A total of three products were produced from each test – the primary concentrate sample based on the colour sort, a middlings sample based on the density sort and a final tailings sample. Each of these samples were collected, weighed and prepared at the laboratory, then submitted for chemical assay. The mass splits, upgrade ratios (defined as product assay/head assay) and the distributions in each stream are shown below in Tables 1 and 2 for the coarse sorting and fine sorting respectively.

Table 1: Colour and Density Ore Sorting Results (20-60mm)

Sample	Phase 2			Phase 1	Improvement achieved
	Mass Split	Upgrade Ratio	Distribution	Colour sorting only	
Fines (-20mm)	16.5	1.0	16.2	16.2	
Ore sorter (+20mm)	83.5	1.0	83.8	83.8	
Concentrate	33.5	2.1	69.9	61.8	8.1
Middlings	10.6	0.6	5.7	8.0	
Tails	39.4	0.2	8.2	14.1	6.1
Products					
Conc + Fines	50.0	1.7	86.0	77.9	8.1
Conc + Midds + Fines	60.6	1.5	91.8	85.9	5.9
Head Sample	100	1.0	100	100	

Table 2: Colour and Density Ore Sorting Results (10-30mm)

Sample	Mass Split	Upgrade Ratio	Distribution
Fines (-10mm)	33.9	1.0	32.5
Ore sorter (+20mm)	66.1	1.0	67.5
Concentrate	37.3	1.6	61.3
Middlings	7.3	0.4	2.8
Tails	21.5	0.2	3.4
Products			
Conc + Fines	71.2	1.3	93.8
Conc + Midds + Fines	78.5	1.2	96.6
Head Sample	100	1.0	100



The results show that colour is the most effective sorting criteria. In the case of the coarser feed sample, the results indicate an upgrade ratio of 1.7 at recoveries of 86% or an upgrade ratio of 1.5 with 92% recovery (compared with upgrade ratio of 1.6 and recoveries of 71% in the original testwork).



Image 2: Drum 26 finer feed being processed through the ore sorter before being separated into product and tailings

Testwork on the finer sample showed higher recoveries could be achieved (94% at 1.3 upgrade ratio) but that the quantity of fines generate by crushing to this finer size was substantial and adversely impacted the grade.

In the data shown above, it is assumed that the fines material is added directly back into a final product stream, with no upgrading on that fraction. Lotus is currently undertaking additional testing on the finer sample material to see if it can be upgraded with more tradition techniques e.g., flotation, gravity and size separation (desliming etc).



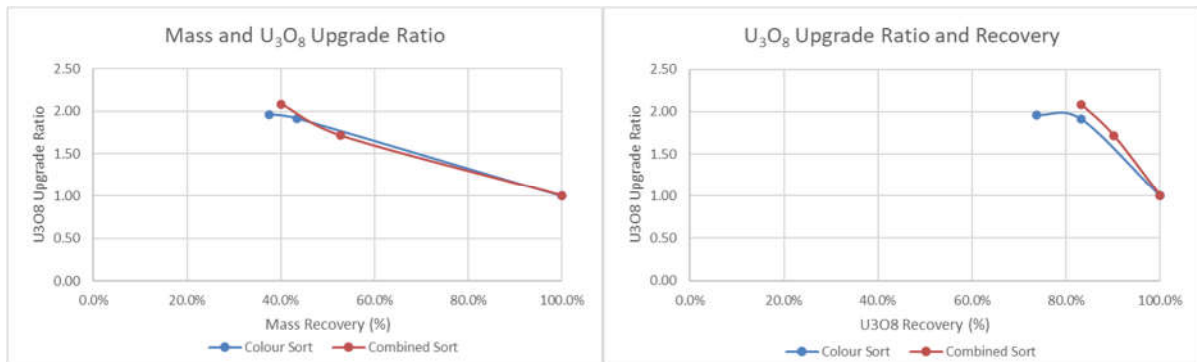


Figure 3: Combined Colour and Density Sorting (20-60mm)

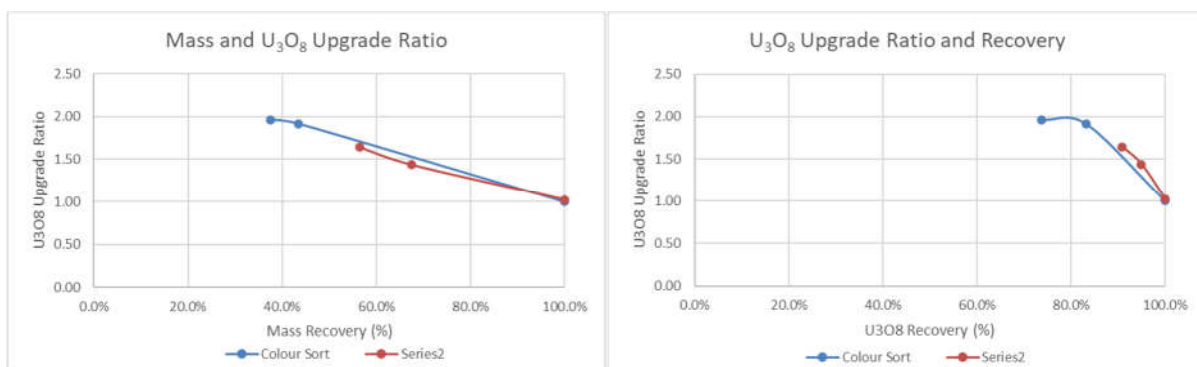


Figure 4: Combined Colour and Density Sorting (10-30mm)

Figure 3 and Figure 4 show the results of ore sorting tests without incorporating the fines into the results. The data is presented as upgrade – recovery curve similar to what would be shown for flotation results. Figure 3 shows the results for the coarse material and is compared against the results from the original testwork (colour sensor only). Figure 4 shows the results for the finer crushed material and is again compared against the results from the original testwork (colour sensor only).

The results indicate similar mass splits to the original work, but that at an equivalent uranium recovery, the product grade is higher as indicated by the higher upgrade ratio. This means more uranium in the same mass which would allow increased production rates for the same tonnage treated.

Next steps

The upgrading of the fines portion of the feed material is ongoing, with results expected to be received in the coming months.

The next phase of ore sorting testwork will incorporate the new samples from site including lower grade materials and other rock types treated at Kayelekera. The Company expects these results to be available towards the end of 3Q 2021.

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

For further information, contact:

Keith Bowes
 Managing Director
 T: +61 (08) 9200 3427

Adam Kiley
 Business Development
 T: +61 (08) 9200 3427



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 37.5M lbs U₃O₈ (see table below), and historically produced ~11Mlb of uranium between 2009 and 2014. The Company completed a positive Restart Study¹ 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.

Kayelekera Mineral Resource Estimate – March 2020²

Category	Mt	Grade (U ₃ O ₈ ppm)	U ₃ O ₈ (M kg)	U ₃ O ₈ (M lbs)
Measured	0.7	1,010	0.7	1.5
Measured – RoM Stockpile³	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 Stockpiles⁴	2.4	290	0.7	1.5
Total All Materials	27.1	630	17.0	37.5

For more information, visit www.lotusresources.com.au

¹ See ASX announcement 20 October 2020. Lotus 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.

² See ASX announcement dated 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 continue to apply and have not materially changed.

³ RoM stockpile has been mined and are located near mill facility.

⁴ 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.

