ASX Announcement

14 April 2021

MULTIPLE WORK PROGRAMS UNDERWAY AT KAYELEKERA MINE

Lotus Resources Limited (**ASX: LOT) (Lotus** or the **Company**) is pleased to announce that multiple work programs at the Kayelekera mine (**Kayelekera** or the **Project**) are under way that will position Kayelekera for an accelerated restart of the operation. Kayelekera is a proven uranium operation having successfully produced 11Mlbs U_3O_8 over 5 years, ceasing operations in 2014 due to sustained low uranium prices.

HIGHLIGHTS

- **Development Study – Operational cost reduction initiatives identified in the 2020 Scoping Study are being assessed in individual Technical Studies that will form part of a Feasibility Study**
    - Technical Studies include a power assessment study, ore sorting, acid recovery and tailings facility assessment. All studies are either under way or will shortly commence
- **Uranium and Rare Earth Exploration ~5,000 metre RC drilling program to commence next month to test near mine uranium targets (2-4km from the Kayelekera processing facility) as well as the inaugural drill program at the high-grade Milenje Hills Rare Earth's prospect**
- **A highly regarded Environmental, Social and Governance (ESG) consultant has been engaged to assist in performance measurement, reporting methods and a communication strategy related to ESG considerations**
- **The Company has advanced numerous corporate related activities including:**
    - USA OTC Listing – expected to be completed in the coming weeks. This listing aims to increase shareholder diversity as well as global market awareness
    - Marketing Consultant – finalise a high calibre appointment as the Company continues to build relationships with global utilities
    - Increased Project ownership to 85% – shareholder meeting expected to be held later this quarter

	Q2	Q3	Q4
Technical Studies			
Feasibility Study			
Uranium Exploration			
Rare Earth Exploration			
Corporate Activities			
Marketing Activities			

Table 1: Indicative timeline for 2021 work programs

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

TEL +61 892782441
ABN: 38 119 992 175

Lvl 1, 1202 Hay St, West Perth WA 6005
PO BOX 1968, West Perth WA 6872

Keith Bowes, Managing Director of Lotus, commented:

"With renewed optimism in the uranium sector due to the ever-increasing supply-demand gap, brownfield uranium projects with proven production history, such as Kayelekera, are well placed to be the first to respond and meet this demand.

Given these factors, as well as our strong existing cash position of more than $17m, the Company is accelerating a number of work programs aimed at positioning Kayelekera to quickly and economically restart operations.

Whilst the Company is working on a number of initiatives, including the first exploration program in more than a decade, outlining a long term ESG strategy as well as expanding our North American investor base with an OTC listing, the key short-term focus is the testwork program that has been developed to test the cost reduction strategies identified in the 2020 Scoping Study.

The Scoping Study cost assumptions were largely based on actual operational data achieved over the Project's five-year period of production. Since its closure in 2014, there has been a number of proven technological advancements not available at the time, as well as a number of other relevant initiatives that the Company is considering. We believe that if all of the initiatives prove to be successful, there is potential for savings in the order of10-20% from the previous estimate.

The Company looks forward to keeping shareholders updated through the year, in what will be a very busy second half to 2021."

Figure 1: Kayelekera Processing Plant

Technical Studies and Feasibility Study

The Company released a Scoping Study in October 2020 which set the baseline for the Project (ASX announcement 21 October 2020). This Study helped identify four key areas that preliminary investigations have shown could substantially reduce the operating costs.

Ore Sorting

Of the four key areas being assessed for operating cost savings; ore sorting technology could possibly have the largest impact, as it has potential to not only increase the uranium grades in plant feed, but to also reject high acid consuming gangue minerals (e.g. calcites) from the feed.

The ore upgrading is particularly pertinent for the lower grade stockpiles that would be treated at the end of mine-life. The rejection of the high acid consuming gangue minerals is applicable to all ore feeds and could be implemented from the start of operations.

At a high level, ore sorting is a very simple process which is based on determining the attributes of each particle or rock that passes under its detectors and then deciding whether to "accept" the particle or "reject" the particle to waste. The intricacy comes with the detectors, the algorithms for the selection criteria and the computing speed to allow efficient and accurate processing of materials. The process flowsheet requires the material crushed and screened to specified size range (e.g. 20-60mm or 100mm) and then fed to the unit in a consistent and uniform manner for separation (see Figure 2).

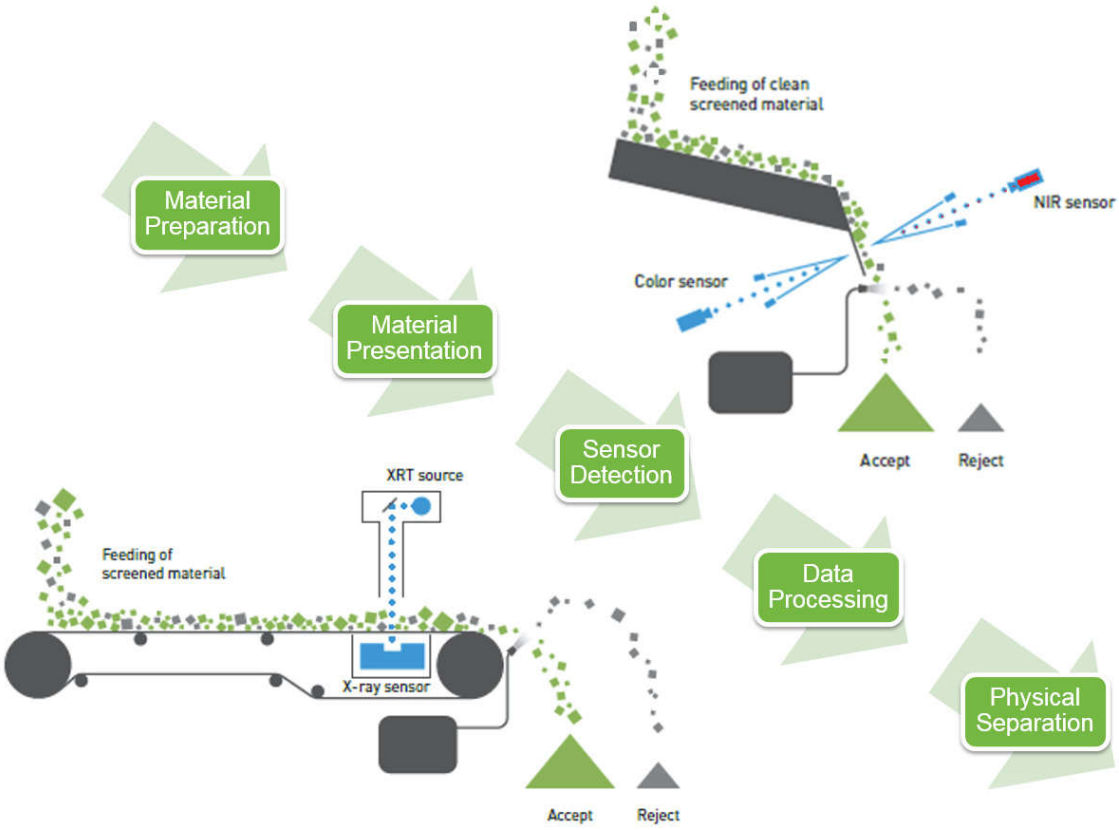

Figure 2: Schematic of the ore sorting stages (multiple detectors will be used for the Kayelekera application).

A number of companies have developed this technology to a point now where it is well established in the recycling industry and is making significant advances in the mining industry with multiple applications installed at various gold and base metal mines.

It is important to recognise that ore sorting is most effective with coarser materials and any fines generated from crushing and screening must be processed separately. Lotus's strategy is therefore to include more traditional upgrading concepts such as desliming, gravity and density classification for these fine materials in the current assessment.

With these concepts in mind, a testwork program has commenced in Perth, with samples previously collected from the Kayelekera site. The initial work will include proof-of-concept ore sorting testwork with a well-known equipment supplier of the technology (see Figure 3). Samples produced from the work will be characterised with upgrade ratios, leaching characteristic etc. Assuming a successful outcome, additional representative samples from site, that include all possible feed types, have already been collected and will be sent to Perth for a second round of testing.

Figure 3: An example of an ore sorting unit applicable to the Kayelekera site.

Power Study

Power for the site is currently from diesel generators. Power costs are ~US$0.28 - 0.32/kWh based on the current diesel price. Significant reductions in power costs could be achieved by connecting the site to the national grid. Discussions have already commenced with ESCOM, the Malawian electricity supply company, with indications that sufficient power is currently available at the nearby town of Karonga (~50km from Kayelekera). Negotiations are ongoing to confirm availability and costs.

In addition, a solar-battery alternative is being considered, specifically for the camp facilities, as well as the option to recover power from the onsite acid plant by retrofitting a steam turbine. This is a particularly attractive option as up to 2MW of power (~25% of total demand) could be recovered from the plant at minimal cost.

Acid recovery

Acid recovery within the process is an important component of the Project as not only is acid an expensive reagent, but the site has limited acid production capacity (the onsite acid plant

produces ~235 tonnes per day sulphuric acid). By recovering more acid, there is an option to either reduce the production of fresh acid (and reduce costs) or increase plant throughput to consume the additional acid. The optimal solution will be investigated as part of the Feasibility Study work.

The acid recovery work will focus on improvements in the already installed nano-filtration circuit (recovers acid from the resin elution circuit) and improved recycling of acid within the leach circuit.

Tailings Storage Facility

The original production schedule from the Scoping Study shows that a second tailings storage facility (**TSF**) would be required after approximately five years of production. Deferring the timing of this new build, by optimising the existing TSF is beneficial for Project cash flow. A more attractive option however is to look at using the depleted pit as a disposal area for tailings as this could eliminate the need for the second TSF completely. Both of these options have the potential to reduce all-in-sustaining-costs.

Exploration Programs

As previously announced, there are six radiometric anomalies to south of the existing pit that cover areas of outcrop and have similar signatures to the Kayelekera anomaly (see Figure 4). These targets are between two and four kilometres from the plant and have received no historical drilling.

A ~5,000 metre RC drilling program has been planned that will test the five individual anomolies (targets 1- 5) as well as the step-out target (target 6) adjacent to the current resource. A smaller infill drill program on the western edge of the resource outside the current mine plan has also been included in this program. The Company is in the process of obtaining proposals from drilling contractors and will be able to update the market as to the timing of the program when the preferred contractor has been selected.

It is proposed that once the uranium exploration program has been completed a smaller drill program will be undertaken at the Milenje rare earths discovery to gauge the depth profile of the mineralisation. Prior to this drill program further field work, including additional ground magnetic surveys and modified trenching will be undertaken to help define the drill collar locations and drill orientation.

To support the evaluation of the rare earth potential, samples collected from the drilling and trenching program will be used in bench-scale metallurgical testwork program to define the potential for the ore to be beneficiated such that a physical concentrate could be produced that could be economically transported to a suitable processing facility for further downstream processing.

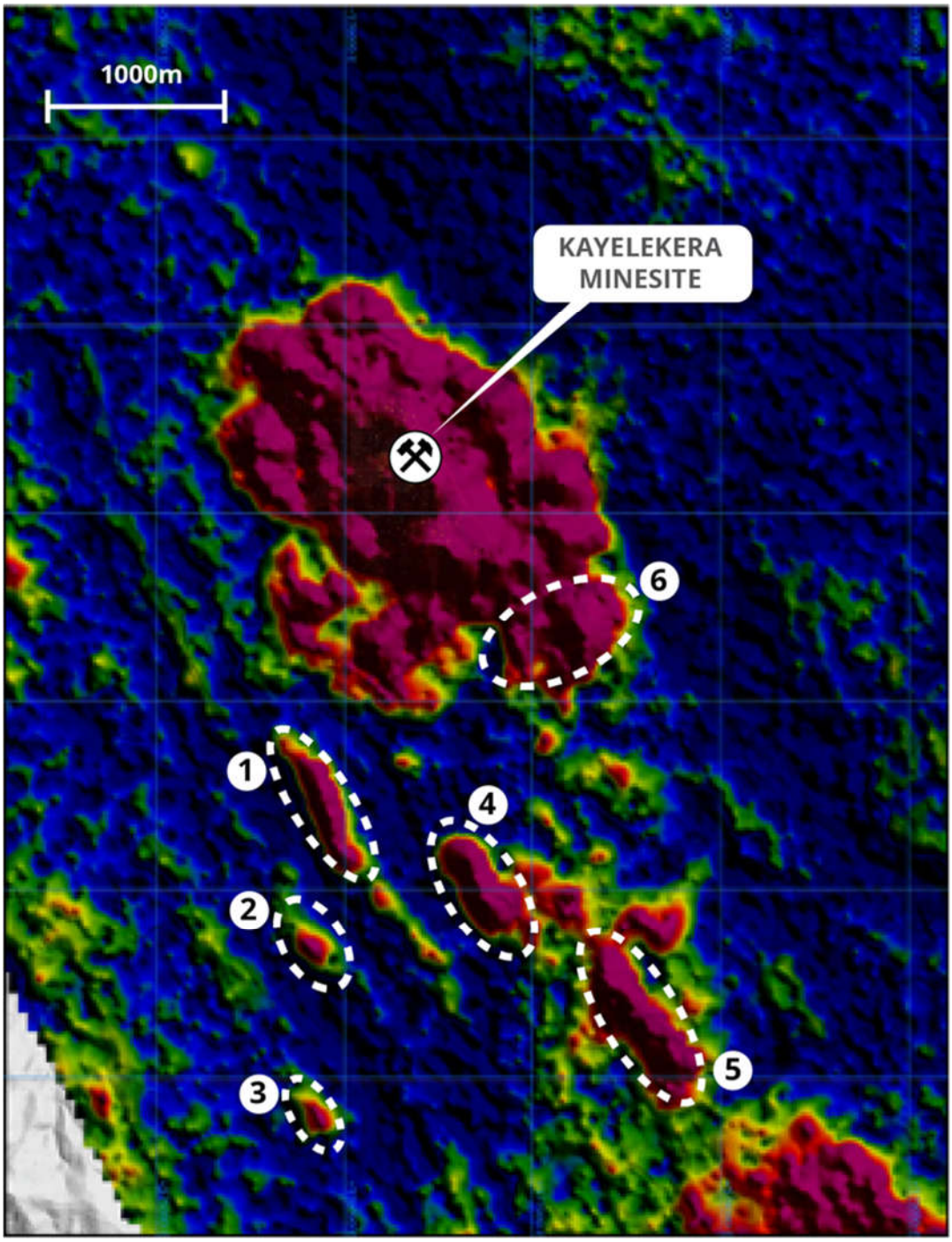

Figure 4: Kayelekera airborne radiometrics and key targets

Site visits

As part of the preparation work for the Restart Feasibility Study, site visits by selected engineering consultants to assess in detail the current state of the plant and associated infrastructure are being arranged. A visit by the acid plant consultant has already taken place, with the same consultant also preparing a report on the retrofitting of a steam turbine to recover energy from the acid plant.

Visits planned for other expert consultants include:

- Process plant and services
- Uranium dryer, drumming and packaging facility
- TSF and associated water storage dams
- Site geotechnical assessments
- Mine pit assessments,
- Camp and camp services

These visits will be staged over the coming months to allow the necessary information to be collated and reviewed so that a sufficiently accurate cost estimate can be developed as part of the Feasibility Study work program.

Environmental, Social and Governance

The Company has number of ongoing initiatives regarding ESG, as it aims to further develop its ESG profile and associated reporting. To assist the Company with these initiatives, Futureproof Consulting, an independent expert in the area of ESG, has been engaged.

The purpose of this engagement is to conduct materiality assessments for each stage of the project re-development, prepare a roadmap that aligns with global ESG frameworks and develop a communication plan that will outline the Company's ESG related objectives and performance.

Initiatives regarding ESG that are current and on-going at the Project include:

- Clean water project for Karonga town
- School initiatives – new buildings, teachers (Figure 5)
- Maximise local content / supply for all activities during the current care and maintenance stage.

Figure 5: New buildings at local school constructed by Paladin (Africa) Limited

Corporate

The key corporate focus areas over the coming months are the registration of the Company's shares for trading on the OTC platform in the USA, the appointment of a marketing advisor to support the product marketing activities as well as completing the necessary work regarding the roll-up of increased interest in the Project to 85%.

OTC

Trading on the USA based OTC platform is expected to be finalised in the coming weeks. The OTC listing is aimed at increasing investor awareness of the Company in North American and diversify the Company's shareholder base, thereby supporting an increase the Company's liquidity both on the ASX and OTC platforms. A number of the Company's ASX peers have recently been listed on this platform with strong success.

Marketing Consultant

The appointment of a marketing advisor will assist the Company in developing relationships with the utilities, with the objective of ensuring the Company will be able to participate in potential off-market discussions and future requests for proposals. A key area for developing these relationships will be China and India, where the majority of the uranium demand growth is forecast to come from.

When appointed, the marketing advisor will also assist the Company in the set-up and execution of the various agreements necessary with the major conversion facilities and logistic suppliers, so that the Company is well positioned to deliver product into the market effectively. Through developing these relationships, it is also anticipated that Lotus and the Project will gain greater exposure to the market, including specialist groups in the uranium sector.

Roll up

The Company remains on track to complete a transaction to increase in Project ownership to 85% later this quarter (see ASX announcement 25 March 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

On completion of the acquisition of Kayelekera's interest in Lily, Lotus 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 Study[1] 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 2020[2]

Category	Mt	Grade (U_3O_8 ppm)	U_3O_8 (M kg)	U_3O_8 (M lbs)
Measured	0.7	1,010	0.7	1.5
Measured – RoM Stockpile[3]	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[4]	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.

info@lotusresources.com.au
lotusresources.com.au
TEL +61 892782441
ABN: 38 119 992 175
Lvl 1, 1202 Hay St, West Perth WA 6005
PO BOX 1968, West Perth WA 6872