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**ASX Announcement – 20 October 2020**

# GOULAMINA LITHIUM PROJECT CONFIRMED AS WORLD CLASS DEPOSIT - STRATEGIC REVIEW COMMENCED

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**Definitive Feasibility Study confirms Goulamina is among world's highest quality lithium assets and will deliver a long life, large scale, low cost open pit project.**

- **Goulamina confirmed as one of the world's best hard rock lithium assets for scale and cost of production when compared to current operations and prospective projects**
- **The project delivers outstanding returns with a pre-tax NPV of A$1.7 billion**
- **A key advantage is the quality of the 6% $Li_2O$ spodumene concentrate (SC6) product, being high in grade and low in impurities**
- **Goulamina is simple and robust with high grades and low strip ratios enhancing profitability**
- **Lithium supply shortage predicted from 2022 with a sharp increase in demand forecast in 2025**

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Mali Lithium Limited to be renamed FireFinch (ASX: FFX) (**MLL** or **the Company**), is pleased to announce the results of the Goulamina Lithium Project (**Goulamina** or the **Project**) Definitive Feasibility Study (**DFS**). Key metrics are:

| | |
|---|---|
| **Mineral Resources (M,I&I)** | **108.5 million tonnes at 1.45% $Li_2O$** |
| **Mine Life** | **23 years minimum** |
| **Ore Reserves (Proven and Probable)** | **52 million tonnes at 1.51 % $Li_2O$** |
| **Average Spodumene concentrate production** | **436,000 tonnes per annum** |
| **Concentrate specifications** | **6% Li2O, <0.6%$Fe_2O_3$, low mica** |
| **Annual Mine throughput** | **2.3 million tonnes** |
| **Pre-tax NPV (8%) at $666/tonne concentrate** | **Approx. A$1.7 billion (US$1.2billion)** |
| **Pre-tax IRR** | **55.8%** |
| **Capital Cost** | **US$194 million** |
| **Cash Costs (Life of Mine)** | **US$281 per tonne concentrate** |
| **All in sustaining cost (AISC) Years 1-5** | **US$306 per tonne concentrate** |

The DFS describes a compelling long life, large-scale, hard rock open pit lithium mine in Mali, West Africa. It confirms that the project is among the best in the world for scale and cost of production when compared to current operations and prospective projects. A key advantage is the quality of the 6% $Li_2O$ spodumene concentrate (**SC6**) product, being high in grade and very low in iron and mica impurities.

Goulamina is simple and robust, with high grades and low strip ratios enhancing financial performance. The Project delivers outstanding returns and, unlike peers, delivers good returns even at todays depressed lithium prices. The Project is not dependant on credits from other minerals.

There is considerable potential to increase the size of open pit Mineral Resources and Ore Reserves through infill and extension drilling. These characteristics make Goulamina an important strategic asset for the world's growing demand for lithium.

The Company has recently agreed to purchase the Morila Gold mine in Mali and that transaction will close on October 31 2020. A strategic review has commenced to evaluate the optimum path to realise value for shareholders from each of these assets.

Alistair Cowden, Executive Chairman commented:

***"It is wonderful to have Goulamina confirmed as one of the world's premier hard rock lithium assets with outstanding returns, few mining projects provide a pre-tax NPV of A$1.7 billion. Goulamina requires a sharp individual focus and we will be reviewing options to achieve that. We are aware of market conditions for lithium at the moment and given the quality of the project we will be patient to ensure we maximise shareholder returns."***

The DFS was supported by Lycopodium Limited and the key outputs are presented below. A summary of material information relating to the Goulamina Ore Reserve Estimate as required by Chapter 5.9 of the ASX listing rules, is also included. An analysis of the sensitivity of the Project to key parameters, including the SC6 concentrate price, is also presented within this announcement.

The key advantages of the Project are:

- Ore grade averages 1.6% $Li_2O$ in the first 5 years and 1.51% for the Life of Mine (**LoM**), one of the highest-grade deposits globally
- Costs are low at an average LoM All in Sustaining Cost (**AISC**) of US$313 per tonne of 6% spodumene concentrate produced, one of the lowest costs globally
- The Ore Reserve is entirely open pit making for straightforward and low risk mining
- Recovery of $Li_2O$ is 77%, again one of the best among peers
- Processing is simple and low cost given a flotation only approach
- Capital costs are low with capital intensity being among the lowest globally
- Iron and mica impurities are low, lower than peers which results in a preferred product for customers
- Production of over 455,000 tonnes per annum of concentrate for the first five years places Goulamina as one of the largest lithium developments in the world
- Mine life is long at 23 years and conversion of additional Mineral Resources to Ore Reserves and Resource potential will likely extend this
- Local communities are supportive of the development and the associated employment and other economic benefits that the mine would bring
- The Project takes advantage of an established export route through Abidjan in Côte d'Ivoire
- Mali has a well-established mining industry

In addition, as required by the listing rules, a summary of material information necessary to understand the Ore Reserve estimate extracted from Table 1 of the JORC Code is provided as Appendix 1 to this release. Table 1 of the JORC Code is also provided as Appendix 2 to this release.

## Key Project Metrics

| **Mineral Resources and Ore Reserves** | | | **Tonnes (Million)** | **Grade (%$Li_2O$)** | |
|---|---|---|---|---|---|
| Measured, Indicated and Inferred Resources | | | 108.5 | 1.45% | |
| Proved and Probable Ore Reserves | | | 52.0 | 1.51% | |
| **Production Summary** | | | | | |
| Mine Life | | | | | 23 Years |
| Strip ratio | | | | | 3.26:1 |
| Annual Crusher Feed (tonnes) | | | | | 2,300,000 |
| Lithium Recovery | | | | | 77% |
| Annual Spodumene Concentrate production (SC6) (tonnes) | | | | | 436,000 |
| **Costs** | | | | | |
| Capital Cost ($US million) | | | | | 194 |
| Life of Mine Operating Costs US$/tonne of SC6 | | | | | 280.80 |
| Life of Mine Sustaining Capital (US$/tonne of SC6) | | | | | 2.70 |
| Closure Costs (US$/tonne of SC6) | | | | | 1.30 |
| Royalties (US$/tonne of SC6) | | | | | 28.60 |
| **All-in Sustaining Costs (AISC) (US$/tonne of SC6, Life of Mine)** | | | | | **313.40** |
| **Project Economics (Real)** | | | | **A$** | **US$** |
| Life of Mine Revenue (millions) | | | | 9,400 | 6,674 |
| Life of Mine Post-Tax cashflow (millions) | | | | 3,439 | 2,442 |
| Average EBITDA (year 1-5) (millions) | | | | 222 | 158 |
| Pre-tax NPV (8% real discount rate) (millions) | | | | 1,737 | 1,234 |
| Pre-tax IRR | | | 55.8% | | |
| Payback period | | | 2 years | | |
| Price for SC6 (tonne) | | | | 938 | 666 |
| Exchange Rate A$/US$ 0.71 | | | | | |
| | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| Ore Mined (million tonnes) | 1.93 | 1.76 | 2.42 | 2.58 | 2.29 |
| Ore Grade (%$Li_2O$) | 1.56% | 1.57% | 1.60% | 1.62% | 1.67% |
| Tonnes per annum SC6 | 382,736 | 462,245 | 471,209 | 478,256 | 492,137 |
| **Cashflow (US$ millions)** | | | | | |
| Revenue | 221 | 303 | 315 | 326 | 326 |
| Operating and other Costs | 131 | 130 | 131 | 135 | 131 |
| Royalties | 9 | 13 | 14 | 14 | 14 |
| **Cashflow** | **84** | **160** | **170** | **178** | **181** |

The DFS has delivered significantly improved results compared to the 2018 Pre-Feasibility Study (**PFS).**

The Project benefits from the experience acquired from the first generation of hard rock lithium operations in Western Australia. There have been significant advances in processing techniques and operations which has allowed the Company to develop a robust technical approach that may become the benchmark for spodumene processing globally.

**Project Contributors**

| | |
|---|---|
| Mining & Reserve | Cube Consulting Pty Ltd |
| Mining Costs | Majesso Consulting Pty Ltd |
| Metallurgical Testwork | Nagrom |
| Tailings Storage Facility | Land & Marine Geological Services (L&MGSPL) |
| Geotech | Peter O'Bryan and Associates |
| Process and Non-Process Infrastructure | Lycopodium Pty Ltd |
| Surface Hydrology | AQ2 Pty Ltd |
| Process Design | DRA Global / Lycopodium Ltd |
| Capital & Operating Costs | Lycopodium Pty Lid |
| Financial Modelling | Model Answer |

**Location**

The Project is in southern Mali approximately 195 kilometres by road south of Bamako (150 kilometres direct distance) and 50 kilometres west of the town of Bougouni. The Project site lies between the villages of Mafèlè (3.5 kilometres south) and Goulamina (1 kilometre north). A sealed road extends to within 27 kilometres of the Project and connects the town of Bougouni to Yanfolila.


**Figure 1: Location Plan of the Goulamina Lithium Project**

**Climate and Environment**

The Project area has a tropical climate with a dry season from November to April and a wet season in May to October. Average annual rainfall is approximately 1,120 millimetres. The topography is relatively flat, and elevation is 405 metres above mean sea level at site.

Soils are typically Indurated ferricrete and laterite is common on elevated areas. On lower ground, poor fertility soils generally consist of loamy sand with gravel.

The Project area is covered by Savannah woodland with a wood cover of 80-100% interspersed by cleared areas where subsistence farming is practised. Wildlife habitats have been influenced by human activities and large mammals are rare due to exploitation by local villagers for bush meat, small mammals are more common. Bird species are common, particularly in wetland and wooded areas.

The Project is in the Sankarani River catchment within the Niger River basin. The Project is drained in a westerly direction towards the Sélingué Hydroelectric Dam by three ephemeral streams which flow only during the wet season. Surface water is mostly used for agricultural and livestock watering. Project water needs will be met by pumping water from the Sélingué Dam augmented by harvesting rainwater and limited groundwater extraction.

**Mining Tenure**

The Exploitation Permit (equivalent to a mining licence) for the project was granted on 23rd August 2019 and has a 30-year validity, renewable in intervals of 10 years, until depletion of ore reserves. It covers an area of 100 square kilometres and has been granted for lithium and other minerals.

**Geology**

The Project is located within broadly north-south trending belts of Birimian (Paleoproterozoic) metavolcanic and metasedimentary rocks which are intruded by syn- and post-orogenic granitoids which host an array of spodumene bearing pegmatite dykes and sills. Outcrop is limited and geology is interpreted from mapping, drilling, and geophysics. Northeast striking metapelite and metagreywacke rocks in the north and east of the property are intruded by granodiorites and pegmatite dykes and sills in the south. Regolith is up to 10 metres thick and comprises a surficial transported gravel horizon overlying a thin laterite weathering profile. Weathering varies from less than a metre to up to 70 metres depth.

The Goulamina deposit consists of a swarm of sub-parallel spodumene bearing pegmatite dykes which intrude the granodiorite. They strike NE-NNE, dip between 50 and 70 degrees to the east, are between 1 and 2 kilometres in length and between 5 metres and 100 metres thick. From east to west the major pegmatite dykes are named; Main, West, Sangar I, Sangar II and Danaya. At Danaya, the pegmatites are variously oriented.

Pegmatite contains between 0.5% and 25% of the lithium bearing pyroxene mineral spodumene, resulting in grades between 0.1% $Li_2O$ and 6% $Li_2O$. The major minerals are quartz and feldspar (albite and microcline) with minor muscovite. The pegmatites are comprised of both coarse-grained pegmatite (up to >10cm spodumene blades) and white fine-grained (<1mm) aplite or albitite. The logged ratio of coarse grained to fine-grained material is about 3:1. Albitite contains only minor spodumene.

**Mineral Resource Estimate**

A Measured, Indicated and Inferred Mineral Resource Estimate for Goulamina of 108.5 million tonnes at 1.45% $Li_2O$ was published in an ASX release dated 8th July 2020. The company can confirm that there is no new information or data that materially changes that estimate.

| Estimate | Classification | Tonnes (Millions) | Contained Tonnes $Li_2O$ | $Li_2O$(%) |
|---|---|---|---|---|
| **DFS June 2020** | Measured | 8.4 | 133,000 | 1.57 |
| | Indicated | 56.2 | 832,000 | 1.48 |
| | Inferred | 43.9 | 606,000 | 1.38 |
| | **Total** | **108.5** | **1,570,000** | **1.45** |
| **PFS June 2018** | Measured | - | - | - |
| | Indicated | 43.7 | 646,000 | 1.48 |
| | Inferred | 59.0 | 715,000 | 1.21 |
| | **Total** | **102.7** | **1,360** | **1.32** |
| **Change** | Measured | +8.4 | +133 | |
| | Indicated | +12.5 | +185 | |
| | Inferred | -15.1 | -109 | |
| | **Total** | **+5.8** | **+209** | |

**Table 1: Goulamina Mineral Resource Estimate - June 2020**

## Ore Reserves

Cube Consulting (Cube) undertook open pit optimisation, open pit designs, production scheduling and reporting of an Ore Reserve estimate in accordance with the JORC Code (2012 Edition).

Proven and Probable Ore Reserves have been derived from Measured and Indicated Mineral Resources respectively and are contained within the final pit design and scheduled to be processed through the planned processing facility. The Ore Reserves do not include any material classified as Inferred and are not included in economic analysis.

| Category | Cut-off grade $Li_2O$% | Tonnes millions | Grade $Li_2O$% | Tonnes $Li_2O$ |
|---|---|---|---|---|
| Proven | 0.00 | 8.1 | 1.55 | 125,000 |
| Probable | 0.00 | 44.0 | 1.50 | 660,000 |
| **Total** | **0.00** | **52.0** | **1.51** | **785,000** |

**Table 2: Goulamina Open Pit Ore Reserve Estimate – October 2020**

The Ore Reserve is contained within an open pit containing 169 million tonnes of waste resulting in a waste to ore strip ratio of 3.26:1 with a total of 222 million tonnes of ore plus waste mined over the life of mine. Included in the waste material is 1.8 million tonnes of Inferred Mineral Resource which is not reported to Ore Reserves and is an opportunity to provide additional reserves with further drilling.
Following the pit optimisation and selection of a pit shell, a final pit design was completed together with internal staged pit designs.

A quarterly pit production schedule provides a 23 year mine life, exclusive of 2 quarters of pre-production in which waste stripping is conducted and a Run of Mine (ROM) stockpile is built. The schedule maintains a consistent process feed rate of 2.3 million tonnes per annum.

**Mining**

A standard open-pit mining operation of drill, blast, excavation, and truck haulage will be employed for the Project. Contractors will be employed for mining operations. Given the nature of the deposit, the pegmatites will be mined from footwall to hanging wall, rather than selectively using a cutoff grade.

The shape and geometry of the final and internal designs allowed the main pit to be mined in four successive stages  A starter pit will be developed on each of the Main and Sangar domains followed by a cutback to fully exploit Sangar and then a further cutback of the sangar pit to exploit the Main and West domains. A satellite pit at Danaya forms an independent fifth stage.

Mining will create flat, 5 metre height working benches to allow geological mapping and grade control via RC and blast hole drilling.  Where possible, waste will be blasted separately from ore.  Blasting primarily 5 metre bench heights using bulk emulsion explosives and non-electric initiation.  There will be some bulk waste areas where higher 10 metre benches will be employed.

Excavation of the ore and waste will be undertaken with 2 x 120 – 150 tonne excavators.  Haulage of ore and waste will be undertaken using up to 10 x 90 tonne dump trucks operating on two-way haul roads with a maximum gradient of 10%.  The ore will be hauled to the ROM pad and tipped onto finger stockpiles of low, medium, and high-grade ore. A front-end loader will feed a blend of ore into the primary crusher to keep the feed grade consistent with the mine production schedule, which seeks to optimise both recovery and concentrate grade.

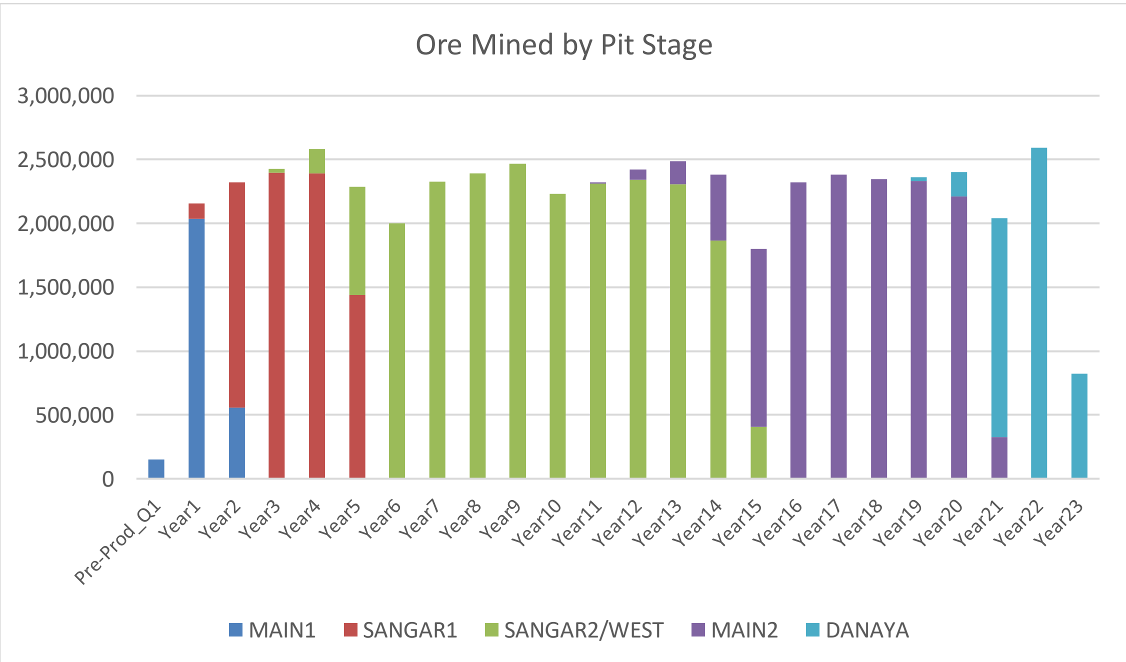


**Figure 2: Ore Mined by Pit Stage**

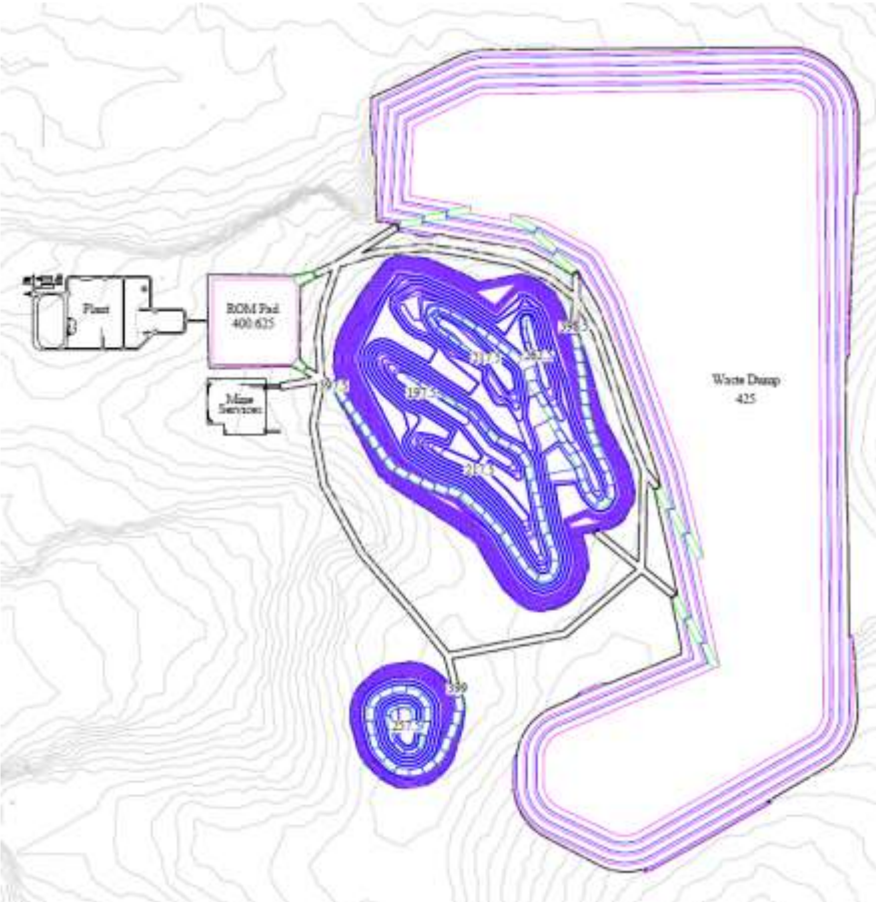


**Figure 3: Mine Site Layout**

Tenders for Contract Mining Services were received in October 2019 from five experienced mining contractors. The mining contract requires the contractor to supply all personnel, plant and equipment, and management required to deliver the scope of work. The company will provide electrical power, water, and accommodation and messing. Three of the tender submissions were comprehensive and conforming. Although there were different approaches to resourcing and methodology, the unit rates were within a narrow range and enabled pricing estimates to be derived.

## Process Selection and Testwork

A comprehensive Metallurgical testwork program was undertaken, using whole core from 33 HQ diamond drillholes selected for metallurgical composites. The drillholes represent the spatial variability (strike and depth) of ore from the Main, West and Sangar domains which contain the bulk of the Ore Reserve. The composites were used for characterisation, comminution, heavy liquid separation, flotation and variability testwork. A Master Composite was selected for HPGR testwork and the main body of the flotation testwork. All testwork was undertaken at ALS and Nagrom in Perth.

With an unconfined compressive strength index of 152MPa, Goulamina pegmatite ore is characterised as hard, and the average abrasive index of 0.5 which characterises the ore as abrasive. The crushing work index of 13.7kWh/t typifies moderately hard crushing duties and the average ball mill work index from all testwork is 20.4kWh/t. for the selected P80<106-150 range of grind size.

High Pressure Grinding Rolls (HPGR) testwork confirmed Goulamina ore compares to benchmark performance and was selected for the final crushing duty to -6mm, based on the testwork results and the excellent power consumption, wear and availability efficiency achieved in the industry on ore with similar comminution characteristics.

Extensive Heavy Liquid Separation (HLS) testwork was undertaken in combination with bulk Dense Medium Separation (DMS) testwork. The results confirmed that although a concentrate can be produced at >6% $Li_2O$, a DMS circuit would not provide a material reduction in ore quantity requiring milling, due to insufficient liberation at the crush sizes generally processed in DMS circuits.

Due to the abundancy of fine-grained spodumene in Goulamina ore, DMS was found to be unsuitable. Consequently, froth flotation was selected as the appropriate and optimal beneficiation process for Goulamina ore.

A Composite, assaying 1.75% $Li_2O$ and 0.44% $Fe_2O_3$, representing the first 5 years of production was used for the flotation testwork program. The program was undertaken using water from the Sélingué Dam which will be used at Goulamina.

The program established the most effective reagent regime, an optimum grind size of P80<150microns and the flotation circuit design to produce consistent concentrate grade and recoveries. The selected reagents are commercially available and commonly used in the flotation of spodumene. Locked cycle testwork and bulk flotation was completed successfully producing 6% $Li_2O$ concentrate at 80% overall recovery, demonstrating a robust and consistent flotation circuit.

The DFS testwork demonstrates that Goulamina ore may be processed using froth flotation after comminution, to produce a spodumene concentrate with an average $Li_2O$ grade of 6% and an average $Fe_2O_3$ grade of 0.56% and mica content of <1%. The overall $Li_2O$ recovery achieved was 77%, which includes losses from desliming, magnetic separation mica removal and flotation.

| Flotation Test Program | Flotation Recovery (%$Li_2O$) | Overall Recovery (%$Li_2O$) |
|---|---|---|
| Stage 1 – Baseline tests | 89.5% | 79.4% |
| Stage 2 – Confirm preparation processes | 84.1% | 75.2% |
| Stage 3 – Multi-stage flotation | 83.0% | 77.1% |
| Stage 4 - Bulk Flotation | 87.9% | 81.1% |

**Table 3: Flotation Recoveries**

Settling and filtration testwork was successfully undertaken on concentrate and tailings samples produced in the bulk testwork program. A slurry density of >50% solids by weight was produced after settling, using commercially available flocculant. The supernatant produced acceptable clarities. The filtration testwork confirmed amenability of flotation concentrate to conventional vacuum filtering equipment, resulting in a final concentrate cake with 12-15% surface moisture, ideal for stacking and transport purposes.

Historically, downstream spodumene processing plants preferred a coarser feed material to reduce fines losses in the decrepitation process. This is no longer the case as modern kiln circuits are now equipped to recover super-fines in off gasses, and most existing kiln circuits have been modified to improve overall recovery.

The concentrate product is low in iron, mica and other impurities with no deleterious elements presents, see Table 4.

| Chemical Composition | (%) | Chemical Composition | (%) |
|---|---|---|---|
| $Li_2O$ | 6.11 | $Ta_2O_5$ | 0.003 |
| $Fe_2O_3$ | 0.56 | $Nb_2O_5$ | 0.002 |
| $Al_2O_3$ | 21.2 | CaO | 0.249 |
| $SiO_2$ | 57.4 | MgO | 0.029 |
| Mn | 0.08 | $K_2O$ | 0.580 |
| P | 0.10 | Rb | 159 |

**Table 4: Concentrate Composition**

The Goulamina Lithium process plant was designed by Lycopodium in Perth in accordance with accepted industry practices. The process flowsheet consists of well proven unit operations and is based on results of results from the PFS and DFS metallurgical testwork programs.

The process plant is designed to treat ore at the rate of 2.3 million tonnes per annum. Ore hauled from the open pits will be stockpiled on a ROM pad and loaded into the crushing circuit via front end loader. Blending of ore from different areas in the pit will be possible by simultaneous loading from numerous ROM stockpiles with different grades recorded.

The dry crushing and screening circuit consists of a conventional open circuit primary jaw crusher and cone crusher in closed circuit with dry screening. A crushed ore bin, with 6 hours live capacity and a dedicated emergency loading facility, allows surge between crushing and screening and the wet processing plant. The final crush size of 6mm will be achieved with the HPGR in closed circuit with wet screening. In preparation for flotation, a 6MW ball mill, designed to grind to $P_{80}$<106-150 µm, will be used in close circuit with conventional cyclone classification for final comminution. The milled ore is deslimed, iron bearing minerals removed with magnetic separators and mica removed prior to spodumene flotation. The multi-stage flotation circuit design includes rougher, cleaner and scavenger tank cells.


**Figure 5: Rendered View of the Process Plant**

Concentrate will be dewatered via conventional vacuum belt filters for thickening and filtration. The dewatered product will be stockpiled in covered sheds, ready for loading onto road transport. All tailings from the processing plant will be dewatered in a thickener and pumped to the nearby tailings storage facility. Reagent storage and mixing facilities will be provided to support operations. The plant layout design was optimised to reduce footprint, pipe racks and conveyor lengths.

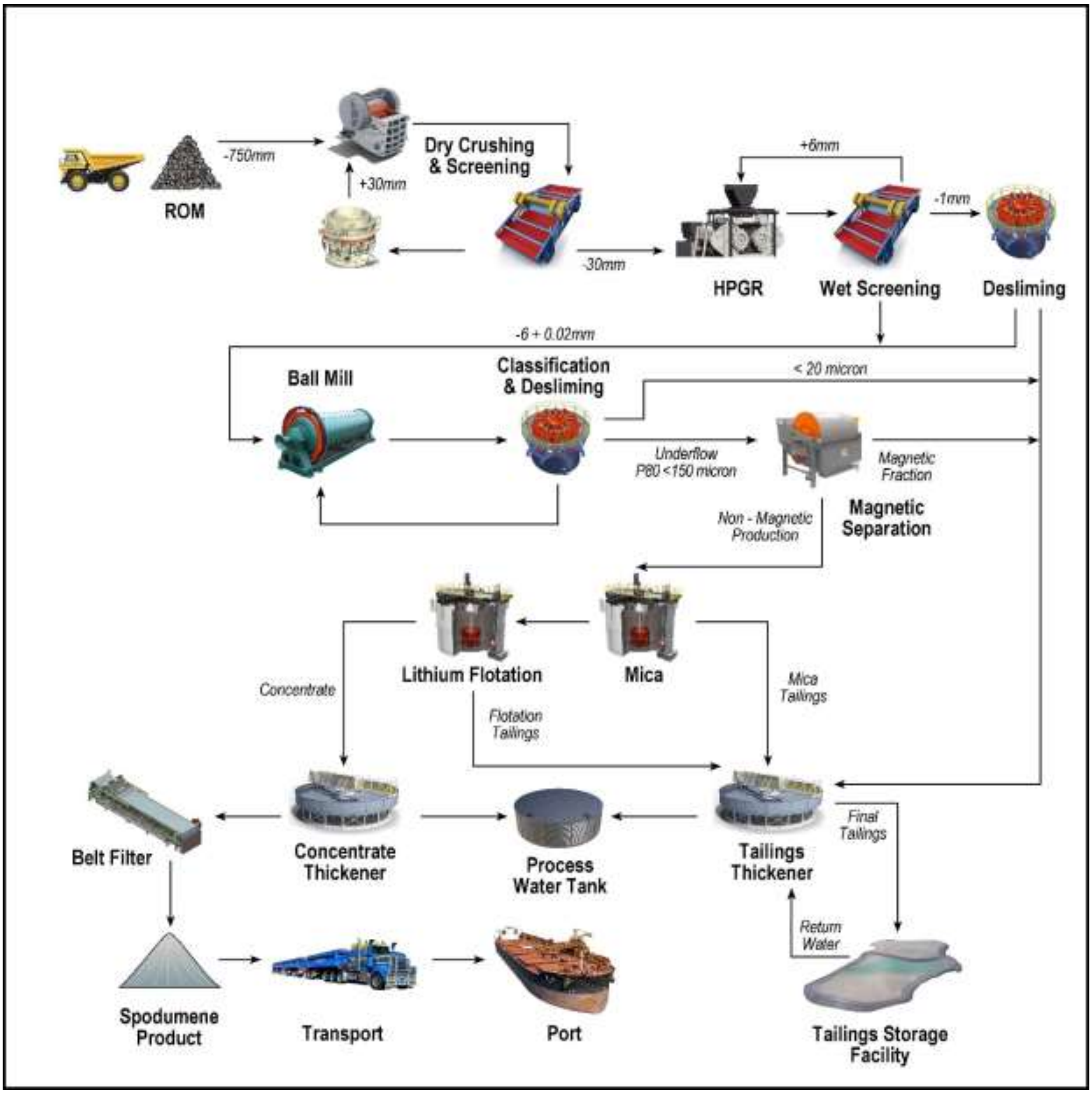


**Figure 6: Simplified Process Flow Diagram**

**Tailings Storage Facility**

The Tailings Storage facility (TSF) was designed by Land & Marine Geological Services. The TSF will be valley storage and constructed using a staged approach. The embankment on stage 1 will be raised by 5 to 10 metres to a final height of 385 metres RL. Embankment raising will be by downstream construction. Initially compacted fill borrowed from within the facility will be used for the starter embankments and then sourced externally for future embankment lifts.

Traffic compacted mine waste rock will be placed on the downstream embankment with an armour layer placed on the outer slope to reduce the potential for erosion. A rock ring filter decant will enable supernatant water to be recovered and returned to the process plant for re-use.

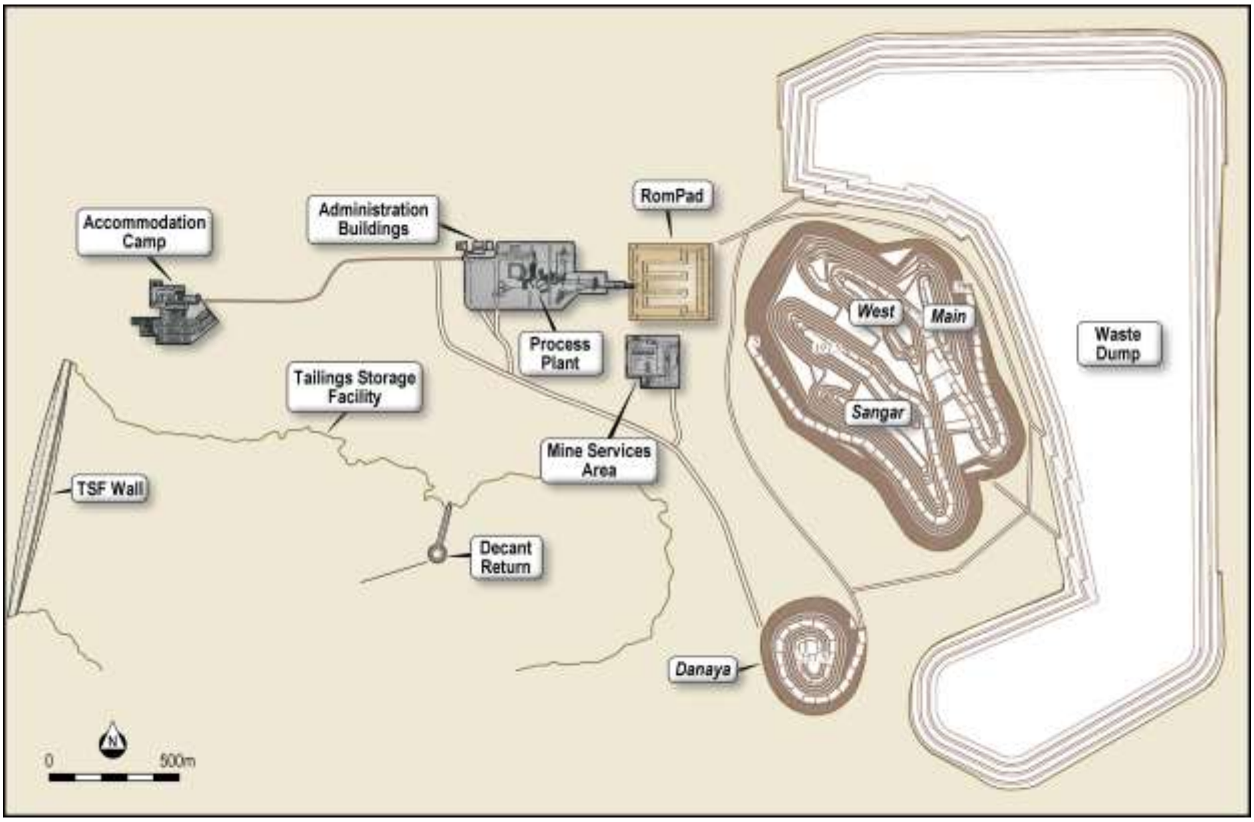


**Figure 4: Overview of Mine Layout**.

**Power**

Power will be supplied from a 15MW on-site power station. A Build Own Operate (BOO) contracting strategy was selected for the study.

**Water Supply**

The bulk of the water supply will be sourced from the Sélingué Dam, pumped via a 29 km pipeline. The company has received approval to extract water.

The TSF will capture rainfall and runoff from the plant site and waste dumps will also be harvested to the TSF. It is estimated that 2.6 million cubic metres of rainfall will be harvested on an annual basis. This will be a major contributor to the overall water balance.

There is potential to the north west and south west of the mine site for development of surface water run-off facilities to provide a buffer in the event of disruption to supply from the Sélingué Dam.

Groundwater studies indicate that only minor water volumes can be sourced from bores. This will, however, be enough to facilitate construction.

**Communications**

Internal communications and IT services will be via a site wide fibre optic network. A local service provider will be contracted to install facilities on site and provide a link into the local, national, and international telecommunication network. A radio network will be established to cover the mine, process plant and infrastructure services. A local ground station will be installed to provide global satellite voice and data connection.

**Camp**

Accommodation for the Project comprises of a 150-person permanent camp which will be used for operations personnel. Temporary accommodation has been allowed for construction. The majority of the workforce are expected to reside in local towns and villages.

**Plant Buildings**

Layouts for site buildings were developed for scope definition and cost estimation. Allowance has been made for the workshops, offices, and other support service buildings common to mine sites.

The mine services area will have offices, workshops, and other facilities to support the mining operation and will be supplied, constructed, and maintained by the Mining Contractor.

Diesel fuel storage will consist of self-bunded tanks providing a total storage of 440,000 litres. Diesel fuel infrastructure will be suitable for refuelling of light vehicles and heavy equipment. Total fuel usage is estimated to be 6 million litres per annum.

**Transportation and Logistics**

Mali is a landlocked country with most of its imports coming by road from the ports of Abidjan in Côte d'Ivoire or Dakar in Senegal. Significant investment has been made by development agencies in road infrastructure in both Mali and Côte d'Ivoire. Concentrates will be loaded onto trucks by the haulage contractor's front-end loader. The payload is limited to 38 tonnes of concentrate per truck. A weighbridge will be installed and maintained by the haulage contractor.

Trucks will haul the product to a shed at Abidjan port supplied and managed by a terminal operator. Mali and Côte d'Ivoire are part of the Africa Continental Free Trade Area which means that tariffs are not applicable. The round trip to Abidjan will take 6 to 7 days requiring a truck fleet of between 220 and 250. Two alternative routes were selected and are shown in the figure below.

**Community and Environment**

An Environmental and Social Impact Assessment (**ESIA**) was completed by Digby Wells Environmental (Mali) The ESIA contains both an Environmental and Social Management Plan (**ESMP**) and a Community development program (**CDP**).

The ESMP describes the framework for the monitoring, evaluation and reporting of environmental and social performance and ensures that environmental risks and liabilities are identified, mitigated, and managed. Mitigation measures minimise negative impacts and enhance positive impacts of the Project.


**Figure 5: Transport Routes**

The ESMP will continue to develop during the life of the Project with continuous improvement of the Project's social and environmental performance. The CDP identifies development projects aimed at improving the livelihoods of project-affected communities.

The Company will develop a Livelihood Restoration Plan (**LRP**) which will consider loss of livelihood from loss of cultivated fields, grazing land and trees of economic importance. Protected trees which incur a tax should they be felled will be identified and recorded. The LRP will also consider the existence of access roads, sacred objects and places of cultural importance within the Project site. The LRP will map out compensation for loss of assets.

**Government and Fiscal Regime**

Mali has an established Mining Code and a track record for facilitating and rapidly permitting mineral development and production. Under Article 65 of the Mining Code, on issue of the Exploitation Permit (granted in August 2019), the Government of Mali receive a 10% free carried interest in the mining company, with an option to purchase an additional 10%. "Lithium du Mali S.A." was created in March 2020 and serves as the exploitation company for the Goulamina Lithium Project.

The fiscal regime in the country consists of a 30% corporate tax and a 6% revenue-based royalty. Allowances made for royalties payable to the Government of Mali are based on an independent legal review of the statutory and regulatory environment in Mali.

Mali has been suffering from political instability in recent months, however, all current mines report no interruption to normal operations, the country is operating largely as normal, a civilian Government has been appointed and a timetable for democratic elections set.

**Capital Costs**

The capital cost estimate for the Project has been compiled by Lycopodium Minerals Pty Ltd with input from the Company on Mining and Owners costs.

| Capital Cost | US$(millions) |
|---|---|
| Mine Development | 9 |
| Process Plant | 95 |
| Non-Process Infrastructure | 31 |
| Management and Owners Costs | 39 |
| Contingency | 20 |
| **Estimated Total** | **194** |

**Table 5: Capital Costs**

General arrangement drawings and a 3D model have been produced to determine engineering quantities for earthworks, concrete, steelwork, mechanical and electrical for the infrastructure. Unit rates have been established for bulk materials, capital equipment and labour from project specific Budget Quotation Requests and from similar projects currently under construction.

Labour rates from the market have been benchmarked against in-house labour gang rates and indirect cost modelling to ensure consistency with the current project market.

Budget pricing for equipment, spares and infrastructure facilities were obtained from suitable suppliers and contractors. The estimate for Engineering, Procurement, Construction and Management (**EPCM**) services costs is based on a preliminary manning schedule for project delivery. The company will provide the owner's Project management team. all government taxes and duties have been excluded.

A contingency analysis has been applied to the estimate that considers scope definition, materials / equipment pricing and installation costs. Contingency applicable to various Owners inputs have been specified by the company. The resultant contingency for the project is 11.3%

**Operating Costs**

The table below summarises operating costs per tonne of concentrate, under the Brook Hunt definition.

| **C1 Costs** | **US$/tonne** |
|---|---|
| Mining | 83.24 |
| Processing | 84.48 |
| SGA | 14.13 |
| Road Transport & Port Handling | 98.98 |
| **Total C1 Costs** | **280.80** |
| **C2 Costs** | **US$/tonne SC6** |
| C1 Costs | 280.80 |
| Initial Capital Depreciation | 16.60 |
| Sustaining Capital Depreciation | 2.70 |
| **Total C2 Costs** | **300.10** |
| **C3 Costs** | **US$/ tonne SC6** |
| C2 Costs | 300.10 |
| Site Closure & Rehabilitation | 1.30 |
| Mali State ISCP Royalty | 17.00 |
| Mali State Ad Valorem Royalty | 11.60 |
| **C3 Costs** | **330.00** |
| **All-in-Sustaining Cost (AISC)** | **US$/ tonne SC6** |
| C3 Costs | 330.00 |
| Initial Capital Depreciation | (16.60) |
| **All-in-Sustaining Cost (AISC)** | **313.40** |

**Table 6: Operating Costs**

The process plant operating cost estimate has been prepared with contributions as follows:

- Power consumption for the plant has been calculated from the comminution characteristics of the ore and similar ore types and installed equipment and estimates
- Power costs are based on a firm proposal for on-site power generation
- General and Administration (G&A) costs were based on Lycopodium experience
- Manning levels and salaries are benchmarked against similar projects located in West Africa
- Reagent consumption based on testwork results, vendor advice and operational experience
- Consumable prices from supplier budget quotations or the Lycopodium database.
- Crushing and grinding consumables, using ore characteristics

Mining costs were derived from tender submissions for the mining services contract. The costs for road transport and port operations were derived from firm proposals from logistics contractors experienced in the region. The costs for storage and stevedoring were provided by a major operator at the Port of Abidjan

**Lithium Market**

A customer and competitor analysis were completed for the PFS and an update was not formally undertaken for the DFS. In addition to the previous analysis, an assessment of likely market windows for spodumene concentrate was undertaken based upon demand and pricing outlooks by peer lithium operations and development companies. There is, a widely held consensus across the industry that, in the medium-term demand will outstrip supply. Forecasters are predicting that there will be supply shortage from 2022 with a sharp increase in demand from 2025.

The long term price for SC6 selected for the purposes of this DFS was derived from an analysis of prices adopted by similar projects, both in development and production. Most of these price forecasts are derived from independent forecasters, and forecasts lie in the range of US$600 to US$700 per tonne of SC6. The PFS released by the Company in 2018 was based on an independent forecast and was US$666 per tonne of SC6. Given there has been no change in market forecasts this price was retained for the financial modelling in this DFS.

**Financial Analysis**

Total earnings before interest, tax, depreciation, and amortisation (EBITDA) over the 23year Project life are US$3,561 million. The project has an EBITDA margin of 53% (operating margin to gross selling price). See below for all key financial performance metrics, tax has been calculated based on the current tax regime in Mali. Corporate tax is 30%, VAT 17% and royalties are 6%.

| | **Life of Mine**<br>**US$ millions** | **A$ millions** | **Average per annum**<br>**US$ millions** | **A$ millions** |
|---|---|---|---|---|
| Gross Revenue from Concentrate Sales | 6,674 | 9,400 | 290 | 409 |
| Downstream Costs (Freight/Royalties etc) | -1,278 | -1,800 | -56 | -78 |
| Net Revenue (Ex Site) | 5,396 | 7,600 | 235 | 330 |
| Site Operating Expenses (including Closure) | -1,835 | -2,585 | -80 | -112 |
| EBITDA | 3,561 | 5,015 | 155 | 218 |
| Initial Capital cost | -194 | -273 | -8 | -12 |
| Sustaining Capital costs | -31 | -44 | -1 | -2 |
| Total Capital Cost | -225 | -317 | -10 | -14 |
| Working Capital Movements | -6 | -8 | -0.3 | -0.4 |
| Undiscounted Cashflow Pre-Tax | 3,330 | 4,690 | 145 | 204 |
| Tax Payable | -888 | -1,251 | -39 | -54 |
| Undiscounted Cashflow Post-Tax | 2,442 | 3,439 | 106 | 150 |
| **NPV** | **Pre-tax** | | **Post-tax** | |
| NPV 8% (real) US$ millions | 1,234 | 1,737 | 897 | 1,263 |
| IRR (real) | 55.8% | | 46.7% | |
| Payback in Years | 1.7 | | 2 | |

**Table 7: Economic Results**

The chart below presents the annual and cumulative pre-tax geared and ungeared free cash flow generated by the Project.

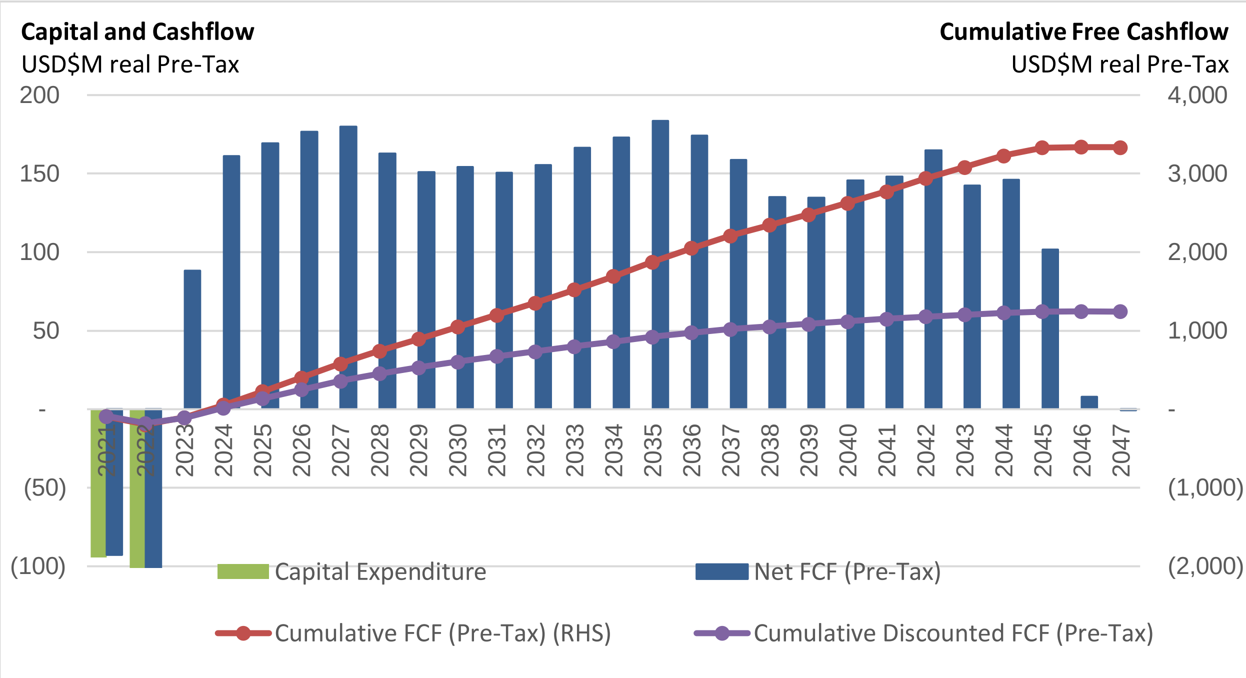


**Figure 6: Free Cashflow Generated by the Project**

The analysis of sensitivity analyses to key parameters and assumptions has been performed using the NPV result of US$1,234 million (discounted at 8% pre-tax, real) as the baseline.

Note that at SC6 prices of around US$450/tonne, NPV is still in excess of US$288 million

| | NPV US$(millions) | | | | |
|---|---|---|---|---|---|
| **Variable** | **Downside** | | **Base case** | **Upside** | |
| Price | (502) | -20% | 1,225 | 502 | +20% |
| Volume Mined | (376) | -20% | | 376 | +20% |
| Operating Costs | (217) | +20% | | 217 | -20% |
| Recovery | (283) | -10% | | 141 | +5% |
| Feed Grade | (280) | -0.2% | | 280 | +0.2% |
| Discount Rate | (236) | 10% | 8% | 312 | 6% |
| Concentrate Target Grade | (69) | 6.2% | 6.% | 196 | 5.5% |
| Capex | (36) | +20% | | 36 | -20% |
| Sustaining Capex | (3) | +20% | | 3 | -20% |

**Table 8: Analysis *of Sensitivity of NPV to major variables***

**Funding and Project Development**

The Company is undertaking a strategic review to consider the optimum path for realising shareholder value for the Project. Such paths may include joint venture, offtake financing, debt financing, equity financing, sale of project equity, a spin out of the Project or a combination of some of the above. Based on the economic robustness and strategic nature of the Project, even at the current low prices, there are reasonable grounds to expect that commercial interest in the Project will be high and that the Project will be developed.

Should the commercial structure chosen to advance the Project include an equity issue, this would be dilutive to existing shareholders. The commercial structure selected may also affect the value of the Company's existing shares and be subject to various offtake, financing, and other conditions.

**Schedule**

A full schedule has been produced for the Project as part of the DFS. Implementation is forecast to take 24 months from award of the Engineering, Procurement and Construction Management (EPCM) contract to production and shipping of first product.

**Opportunities**

Exploration Potential**: There is significant potential to increase resources at Danaya, at depth** at **Sangar** and the confluence between the north eastern and Danaya domains.

Mining: There is an opportunity to reduce overall mining costs by running a competitive Tender process

Processing: Optimisation opportunities include, but are not limited to;

- Configuration of the dewatering cyclones
- Relocation of the mill feed surge bin ahead of the HPGR screen
- Optimising configuration and layout of the magnetic separators
- Refining the desliming process
- High-intensity conditioning / attritioning of the flotation feed stream
- Further separation of process water circuits
- Further reduction of moisture content in the final product to reduce transport costs.

Transport: The haulage strategy will be developed to maximise potential backloading opportunities that may be available with CIM Ivoire with whom the Company has agreed an MOU and other haulage contractors.

**Downstream Processing**

During the DFS a scoping study was completed to evaluate the potential to further process spodumene concentrate to produce a lithium sulphate product. Lithium sulphate can potentially be sold directly to chemical manufacturers for conversion into lithium hydroxide or carbonate. This study identified some promising aspects to the downstream strategy, however further work is required before this can be properly evaluated as a viable option.

**ENDS**

**For Enquiries**


| | |
|---|---|
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## About Mali Lithium

Mali Lithium has been an active gold explorer in Mali, Africa's third largest gold producer, since 2011. In August 2020 it agreed to acquire, subject to conditions, an 80% interest in the Morila Gold Mine. The State of Mali owns 20%. The acquisition is expected to close by the end of October 2020. Morila is an operating gold mine and has a 4.5 million tonnes per annum processing plant and all infrastructure required for a remote mine site (see MLL's ASX Release dated 31 August 2020 for full details).

The hard rock open pit Inferred Mineral Resource at Morila is 1.3 million ounces of gold and there is standout potential to materially increase those resources.

Morila has produced over 7.4 million ounces of gold from open pit mining and processing of stockpiles and tailings over 20 years of Barrick/AngloGold ownership. Hydraulic mining and processing of tailings is providing immediate modest cashflow and the company is investigating supplementing gold production from tailings with open pit mining from Morila, its satellite pits and the Company's Koting discovery on its adjacent Massigui Project. The Measured Mineral Resource for tailings is 4.8 Mt at 0.5g/t gold for 76,000 ounces of contained gold.

Exploration will focus on growing the Morila resource, defining resources at the Morila satellite pits and the Koting discovery and testing multiple high value targets on the 685km2 of combined tenure.

In 2016 the Company acquired the Goulamina Lithium deposit. A Definitive Feasibility Study was completed in October 2020 and reported a Measured, Indicated and Inferred Resource Estimate of 109 million tonnes at 1.45% Li2O with 1.57 million tonnes of contained Li2O making Goulamina one of the world's largest ready to develop lithium deposits. An Ore Reserve of 52 million tonnes at 1.51% $Li_2O$ delivers a 23.5 year mine life, 436,000 tonnes per annum of 6% $Li_2O$ concentrate at a cash cost of US$281/tonne. This makes Goulamina one of the lowest cost open pit lithium opportunities worldwide.

The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources at Goulamina and Morila and the production estimates for Goulamina in the DFS. The

Company also confirms that all material assumptions and parameters underpinning the Mineral Resource estimates and production estimates continue to apply and have not materially changed. Please refer to ASX Announcements of 8th July 2020 and 20 October 2020 (Goulamina), 31 August 2020 (Morila) and 7th September 2020(Morila tailings).

**Competent Person's Declaration**

The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Mali Lithium's Geology Manager, Mr Simon McCracken, a Competent Person. Mr McCracken is a member of the Australian Institute of Geoscientists. Mr McCracken has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)". Mr McCracken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserves is based on information compiled by Mr Quinton de Klerk, who is employed by Cube Consulting. Mr de Klerk is a fellow of the Australian Institute of 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 the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)". Mr de Klerk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Information in this announcement relating to the metallurgical testwork is based on technical data compiled or supervised by Mr Walter Mädel, a full-time employee of Mali Lithium. Mr Mädel is a member of the Australasian Institute of Mining and Metallurgy (AUSIMM) and a mineral processing professional with over 27 years of experience in metallurgical process and project development, process design, project implementation and operations. Of his experience, at least 5 years have been specifically focused on hard rock pegmatite Lithium processing development. Mr Mädel consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

## Appendix 1

### Material Assumptions and Outcomes from the Feasibility Study

| | Comment | Forecast |
|---|---|---|
| **General / Economic** | | |
| **SC6 Price (US$/t)** | Based on Average of long-term pricing forecasts by both lithium development and operating companies. | *$666* |
| **Exchange Rate** | Current AUD: USD | *0.71* |
| **Taxation and Royalties** | Discussed in body of announcement | |
| **Mining / Production** | | |
| **Mineral Resources** | Only Measured and Indicated Mineral Resources were considered in the Mining Study. Material classified as Inferred (1.8 million tonnes) was treated as waste and does not contribute to the economic outcome of the study. | |
| **Mining Method** | A standard open-pit mining operation of drill, blast, excavation, and truck haulage will be employed for the Project. Contractors will be employed for mining operations. | |
| **Ore Mining Rate (tonnes per day, average LoM)** | Required rate to feed process plant | *6,300* |
| **Waste Mining Rate (tonnes per day, average LoM)** | Based on average LoM strip ratio of 3.26:1 | *20,795* |
| **Mining Dilution** | The original resource block model has been re-blocked to match the intended mining unit which is intended to adequately account for the practicalities of mining dilution and ore losses within the operations. | |
| **Cut Off Grade** | The mining inventories have been compiled on the basis of "whole-of-ore" mining, meaning that no selectivity of grade within the ore zone is assumed, effectively mining all of the ore without applying a cut-off grade. This provides higher probability of achieving the reported grades in practice as well as a lower practical mining risk of dilution | |

| | Comment | Forecast |
|---|---|---|
| | occurring within the orebody itself as it is already accounted for by this assumption. | |
| **Processing Rate (tonnes per annum)** | A pit production and process feed schedule was completed in quarterly increments resulting in a 23 year mine life, exclusive of 2 quarters of pre-production in which waste stripping is conducted and a ROM stockpile is built to have process feed material available from the start of production. The schedule demonstrates that the mine can provide sufficient material to maintain a consistent process feed rate of 2.3 million tonnes per annum throughout the planned mine life. | |
| **Reserve Estimate** | The work completed at a feasibility level in support of the modifying factors facilitates the reporting of a maiden Ore Reserve estimate for this project in accordance with the guidelines in the JORC Code (2012 Edition). Proven Ore Reserves have been derived from the Measured Mineral Resources and Probable Ore Reserves and have been derived from the Indicated Mineral Resources contained within the final pit design and scheduled to be processed through the planned processing facility. | |
| **Estimation Methodology** | | |
| WHITTLE® software, uses the Lerchs-Grossman algorithm to determine a range of optimal shells at varying metal prices. The program generates economic shells based on input parameters consisting operating costs (mining & processing costs, royalties, selling costs), metallurgical recoveries, geologic and geotechnical (slope) considerations. The optimal pit shells derived from the open pit optimisation are then used to develop open pit mine plans for the deposit. | | |
| **Processing & Metallurgy** | | |
| **Process Flowsheet** | The metallurgical process selected for Goulamina is a proven contemporary process for the beneficiation of spodumene-containing ores to saleable spodumene concentrates. The process is standard practice and involves crushing, grinding, desliming, magnetic separation, multi-stage flotation, concentrate filtration and bulk transport to consumer. | |
| **Metallurgical Testwork** | Metallurgical testwork was undertaken on composite samples from 33 HQ drill holes. The composites were developed to represent the potential spatial variability of the ore across the three known ore zones (Main, West and Sangar) and biased toward the first three years of anticipated ore supply. These composites were used for | |

| | Comment | Forecast |
|---|---|---|
| | characterisation, comminution, heavy liquid separation and variability testwork. A Master Composite, representing the first 3 years of anticipated ore supply from the Main and West orebodies, was used for High Pressure Grinding Rolls, and the main body of Flotation testwork. The technology used in the metallurgical testwork is well tested and established. Parameters were customised to optimise the processes, specifically to suit the characteristics of Goulamina ore and to produce the desired results. Reagents used in the testwork are commercially available and commonly used in the flotation of spodumene.<br><br>The metallurgical testwork conducted to date has indicated that the Goulamina Ore Reserve may be processed, using froth flotation after comminution, to produce a spodumene concentrate of saleable grade. Testwork conducted on the samples described above demonstrated that a spodumene concentrate with average Li2O grade of >6% and average Fe2O3 grade of 0.56% may be produced. The average flotation recovery of $Li_2O$ in the testwork was 86.1% and average overall recovery of Li2O achieved in all Flotation testwork was 78.2%. | |
| **Process Recovery** | | 77% |
| **Permits and Approvals** | | |
| Environmental consultant Digby Wells were engaged to undertake a formal Environmental and Social Impact Statement (ESIA) of the Project. Formal public consultation meetings for the ESIA were completed successfully.<br><br>Digby Wells completed biodiversity, wetlands, soils and heritage field work in early June 2017. Digby Wells advised the Company that they found no areas of significant concern.<br><br>The ESIA was submitted as part of the application for an Exploitation Permit. The Exploitation or Mining Permit was granted on 23rd August 2019 for the Torakoro tenement for a period of 30 years. | | |
| **Costs** | | |
| **Capital costs** | Capital cost estimates for the DFS have been developed by Lycopodium based on supplier quotations for major equipment items and factored estimates using in-house databases. Costs are to an accuracy of +15/-5% | |
| **Operating Costs** | Operating costs have been estimated by Lycopodium based on;<br><br>• supplier quotes for reagents and consumables<br>• derived local rates for labour costs and their on-costs | |

| | Comment | Forecast |
|---|---|---|
| | • a derived power cost based on a firm proposal from an Independent Power Producer (IPP) and equipment supplier quoted consumption rates<br>• a proposal from an internationally recognised freight logistics management company for concentrate transport and logistics<br>• a tender was issued for contract mining services and costs were derived from tender submissions<br>• LOM C1 cash operating cost for the mine is US$281/t of concentrate, including transport to port and loading to ship.<br>• No allowances have been made for deleterious elements as indicated above. | |
| **Revenue Factors** | | |
| • A planned average head grade of 1.51 % Li2O with quarterly fluctuations ranging from 1.30 % to 1.69 % Li2O<br>• No penalties have been assumed for failure to meet product specification.<br>• Long term pricing for 6% spodumene concentrate (FOB Abidjan) was based on review of the pricing outlook by peer hard rock lithium operating and development companies.<br>• An average concentrate price of $666/t (FOB Abidjan) has been used on this basis<br>• Allowances made for royalties payable to the Government of Mali are based on an independent legal review of the statutory and regulatory environment in Mali.<br>• Royalties of 4.3% of gross revenue, or 6% of royalty price base. | | |
| **Market Assessment** | | |
| The demand and supply for spodumene concentrate consumption trends and factors likely to affect supply and demand into the future were assessed based upon:<br>• The current and mid to long-term primary lithium supply/demand dynamics as presented by peers and available in the market<br>• Pricing outlook by peer lithium operational and development companies.<br>A customer and competitor analysis were completed for the PFS and an update was not formally undertaken for the DFS. As well as reviewing the previous analysis an assessment of likely market windows for spodumene concentrate was undertaken based upon demand and pricing outlooks by peer lithium operations and development companies. | | |

## Appendix 2: Table 1 JORC Code, 2012 Edition

### Section 1 Sampling Techniques and Data

Criteria in this section apply to all succeeding sections

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | • One metre samples were collected using Reverse Circulation (RC) drilling with a ~140mm bit.<br>• The entire sample is collected from the cyclone on the rig in plastic bags and then split by hand using a riffle splitter to collect a nominal 2 kg sample in a prenumbered cotton sample bag.<br>• The entire sample is dried, then is crushed to 75% passing 2mm in a jaw crusher.<br>• A 1.5kg sample is split using a riffle splitter.<br>• The 1.5kg split is pulverised in a tungsten carbide ring and puck pulveriser to 80% passing 75 µm.<br>• Only samples that are not granitic material are prepared for assay.<br>• To ensure that short mineralised intervals in granitic rock are recognized, 6 metre composite samples are split from the collected granitic material<br>• In the case of diamond core drilled for resource purposes, the core is split longitudinally with a core saw, with half being retained in core trays at site or sent to Perth Australia (Mineralised material only) to support metallurgical testing , and the remaining material being split into 1m (dominantly) samples and assayed using the same process as for RC samples.<br>• In the case of core drilled entirely for metallurgical testing the intact mineralised core is sent to Australia to provide sample for metallurgical testing. Over 10 tonnes of core sample was sent to Perth |
| ***Drilling techniques*** | • *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-* | • All samples in the current campaign were collected using RC drilling<br>• Previous campaigns included HQ and HQ3 diamond core collected for resource purposes as well as HQ core collected for Metallurgical |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *sampling bit or other type, whether core is oriented and if so, by what method, etc).* | studies |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • The entire sample was collected from the cyclone and subsequently split by hand in a riffle splitter.<br>• Condition of the sample is recorded (i.e. Dry, Moist, or Wet)<br>• Where samples were wet (due to ground water there is a possibility that the assay result could be biased through loss of fine material.<br>• Core recovery from diamond core is excellent with only minor (<1%) amounts of core lost |
| ***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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Chips or core were geologically logged at site in their entirety. A representative fraction of RC material is collected in a chip tray. The logs are sufficiently detailed to support Mineral Resource estimation. Logged criteria included; lithology, weathering, alteration, mineralisation, veining, and sample condition.<br>• Geological logging is qualitative in nature although percentages of different lithologies, sulphides, and veining are estimated. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • All core is split longitudinally using a core saw, or in some cases a hammer and bolster. Half core is taken for analytical purposes<br>• All RC samples are riffle split by hand using a stand-alone splitter. This technique is appropriate for collecting statistically unbiassed samples. The riffle splitter is cleaned with compressed air and soft brushes between each sample<br>• Samples are weighed to ensure a sample weight of between 2 and 3 kg. Samples of between 2 and 3 kg are considered appropriate for determination of contained lithium and other elements using the sodium peroxide fusion process.<br>• Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | ○ Field duplicates are inserted every 20 samples<br>○ Blanks (derived from unmineralized river sand) and<br>○ Certified reference material standards (CRMs) are inserted alternately every 20 samples |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • Samples are analysed for Lithium using an industry standard technique (SGS method ICP90A).<br>• by:<br>○ drying the sample<br>○ crushing the sample to 75% passing -2mm<br>○ 1.5kg split by riffle splitter<br>○ Pulverise to 85% passing 75 microns in a tungsten-carbide ring and puck pulveriser<br>○ Samples are analysed for lithium and other elements by ICPOES after a sodium peroxide fusion<br>• Laboratory checks include<br>○ Every 50th sample is screened to confirm % passing 2mm and 75 microns.<br>○ 1 reagent blank every 84 samples<br>○ 1 preparation blank every 84 samples<br>○ 2 weighed replicates every 84 samples<br>○ 1 preparation duplicate (re split) every 84 samples<br>○ 3 SRMs every 84 samples<br>• Certified reference standards, Blanks, and duplicates are inserted into the sample stream as the samples are collected at a rate of 10%.<br>○ Field duplicates are inserted every 20 samples<br>○ Blanks (derived from unmineralized river sand) and Certified reference standards (CRMs) are inserted |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | alternately every 20 samples |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • All drilling and exploration data are stored in the company database which is hosted by an independent geological database consultant.<br>• Drilling and sampling procedures have been developed to ensure consistent sampling practices are used by site personnel.<br>• Logging and sampling data are collected on a Toughbook PC at the drill site and provided directly to the database consultant, to limit the chance of transcription errors.<br>• Where duplicate assays are measured the value is taken as the first value, and not averaged with other values for the same sample.<br>• QAQC reports are generated regularly by the database consultant to allow ongoing reviews of sample quality. |
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Drill hole collars are initially located using GPS. They are subsequently surveyed using RTK DGPS systems.<br>• Down hole dip and azimuth are collected using a Gyro measuring every 20 to 50m for RC drilling.<br>• Coordinates are recorded in UTM WGS94 29N<br>• Topographic control is considered adequate for the current drill spacing. |
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • Drill holes are spaced approximately 30 to 50 metres apart on 25m, 50m or 100m spaced sections.<br>• The spacing is sufficient to establish grade and geological continuity and is appropriate for Mineral Resource and Ore Reserve estimation and the resource classifications applied.<br>• Samples from pegmatite rocks are collected every metre and are not composited into longer lengths. Samples in unmineralized granites are collected every metre but are |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | composited to 6m prior to assay. |
| ***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.*<br>• *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.* | • Mineralised zones in the north-eastern domains are interpreted to dip moderately to the northeast. Drilling is generally oriented -60 degrees due west. Intersection angles on the mineralised zone are between 35 and 65 degrees depending on the local strike of the mineralised pegmatite. True widths of mineralisation are between about 75% and 40% of downhole widths.<br>• Mineralised zones in the Danaya resource area are hosted within intersecting dykes and sills that are shown to be variously oriented. RC drilling does not allow orientations of contacts to be measured directly, but subsequent use of acoustic imaging of some boreholes has pointed to the complex nature of the distribution of pegmatites.<br>• The relationship between drilling orientation and structural orientation is not thought to have introduced a sampling bias. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Samples are delivered from the drilling site in batches of 300 to the SGS laboratory in Bamako with appropriate paperwork to ensure the chain of custody is recorded. Prepared pulps are shipped by SGS using DHL from Bamako to their South African Randfontein facility for assay determination |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • QAQC checks of individual assay files are routinely made when the results are issued.<br>• QAQC reports are prepared monthly by MLLs database contractors. Any issues attributable to the assay laboratory e.g. Standards reporting out of specification, are queried with the laboratory directly. These queries have resulted in explanations being provided to MLL, and in various re-assaying campaigns by SGS to the satisfaction of MLL.<br>• QAQC reports are generated for the entire |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | program at the end of the program, to support the resource estimate. |

**Section 2 Reporting of Exploration Results**

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • The Goulamina Project is entirely within the **Torakoro Exploitation Permit PE 19/25** in Mali , PE19/25 is 100% held Timbuktu Ressources SARL a 100% held subsidiary of Mali Lithium. |
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • Mali Lithium (Formerly Birimian Gold) has completed substantial exploration in the area including soil sampling, Auger Drilling, Air-core Drilling and RC Drilling as well as limited diamond drilling. The current program was designed to infill areas of broad spaced (100m sections) drilling and extend the depth potential of the Goulamina deposit. |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • The deposit is a pegmatite hosted spodumene lithium deposit. The pegmatites are hosted entirely within granitic rocks. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***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:*<br>○ *easting and northing of the drill hole collar*<br>○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *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.* | • Drilling completed by Birimian Gold in the period from 2015 to 2018 has been reported in various market updates on the Goulamina Lithium deposit which are available on the Mali Lithium web site<br>• Drill hole collar information for all drilling in the Goulamina area is tabulated elsewhere in this report. |
| ***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 Material and should be stated.*<br>• *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* | • All sample lengths are 1m. a weighting of 1 has been applied to all samples.<br>• Top cuts have not been used.<br>• Metal equivalent grades have not been reported or used. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *shown in detail.*<br>• *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.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • In the north east part of the deposit, five main north-northwest-south-southeast striking pegmatites are interpreted to dip moderately to the east-northeast. Drilling is generally oriented -60 degrees due west. Intersection angles on the north east mineralised pegmatites vary between 35 and 75 degrees. True widths of mineralisation vary depending on the local strike and dip of the pegmatite.<br>• In the Danaya area, pegmatite dykes and sills are variously oriented. Drilling is generally oriented 60 degrees towards the west, and in a few cases 70 degrees towards the east. The true width of any intersection at Danaya is not generally known and depends on the actual orientation of the pegmatite dyke or sill. |
| ***Diagrams*** | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • Appropriate maps and sections (with scales) and tabulations of intercepts are provided elsewhere in this report |
| ***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.* | • Reporting all mineralised intercepts is not practical in this report. They have been presented in previous ASX releases. Intercepts that are not reported in previous releases, can generally be assumed to contain insignificant or no spodumene pegmatite associated lithium mineralisation. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • Other exploration information is not meaningful or material to this report or has been reported previously.<br>• An update about metallurgical test work was released to the market on 27th November 2019. https://malilithium.com/pdfs/GoulaminaMetallurgyTestworkSurpassesExpectations27Nov19.pdf |
| ***Further work*** | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Further drilling to infill areas of the Danaya resource where the drilling is limited to 100m Sections, and where the Danaya pegmatites are thought to intersect the Sangar ll domain will be planned and scheduled dependent on the results of the DFS.<br>• Diagrams showing areas of high potential are presented elsewhere in this report. |

**Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Database integrity*** | • *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* | • The Drilling database is maintained by Mali Lithium's database consultant (Rock Solid Data Consultancy) using Datashed software. Look-up tables and fixed formatting are used for entering logging, spatial, and sampling data for the deposit databases. Sample numbers are uniquely coded and pre-numbered bags are |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Data validation procedures used.* | used. Lithology, collar and downhole survey, and sampling and assay data is transferred to the database consultant from Mali Lithium's offices in Mali electronically via email. |
| ***Site visits*** | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | • Two site visits have been made to the Goulamina project prior to and while drilling was being undertaken by Mr. Simon McCracken, the Competent Person. Local Geology, and general site set up as well as the sample preparation laboratory were observed on the first visit and drilling and sampling practices and procedures were reviewed while drilling was underway, on the second visit.<br>• The sample preparation laboratory was changed to SGS as they could offer pulverisers made of Tungsten Carbide which result in lower iron contamination. The SGS laboratory sample preparation facility was observed to be clean, tidy, and well organized.<br>• Drilling and sampling practices were found to be industry standard and no deleterious issues were noted. |
| ***Geological interpretation*** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | • The geological interpretation of the northern part of the resource encompassing the Main, West l, West ll, Sangar l and Sangar ll domains is well understood. The recent drilling campaign has confirmed the interpretation of these zones.<br>• The geological confidence in the interpretation of the Danaya has been increased by utilising optical and acoustic sounding techniques to measure the orientation of some of the geological contacts and foliations. However, the orientation and structural relationships of the dykes and sills remains uncertain and can only be resolved with further diamond drilling.<br>• There is a strong correlation between pegmatites and lithium mineralisation. there is usually a sharp cut off in mineralisation at the contact between the lithium bearing pegmatites and the host granitic material. The boundaries of |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | the pegmatites are in most cases used as a defacto grade boundary. In some instances, where it appears that the contact has not been interpreted correctly possibly due to metasomatic or metamorphic alteration at the boundary, the grade boundary is based on the grade distribution. |
| ***Dimensions*** | • *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.* | • The Goulamina Mineral Resource has an overall strike extent of 2.9km N-S, and 1.5km E-W. Mineralisation is exposed at surface in the central portion of the Main Zone. The remaining mineralisation domains are buried below laterite and weathered saprolite, and saprock. Weathering and laterisation processes have removed most of the $Li_2O$ from the pegmatites between the surface and the base of oxidation (BOCO). No resources have been defined in the weathered part of the resource as this clay rich material is deleterious to the process and cannot be economically beneficiated.<br>• The deepest drilling extends to 230m below surface and the deepest known mineralisation is at 220m below surface. The Inferred Mineral Resource extends to 300m below surface. The interpreted mineralisation has not been closed off at depth, although in a few areas, deep watercourses appear to have preferentially eroded spodumene (and $Li_2O$ ) from the pegmatite host. |
| ***Estimation and modelling techniques*** | • *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen* | • The continuous and consistent nature of the mineralised northern domains (Main, West I, West II, Sangar I, Sangar II) allows a range of estimation techniques to be used. In the Northern domains, where geostatistical studies (variography) can be used to develop weighting parameters for kriging, ordinary kriging (OK) has been used.<br>• In the Danaya zone where the distribution and orientation of spodumene pegmatites is uncertain, a probabilistic approach to modelling |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *include a description of computer software and parameters used.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of* | the pegmatites has been taken.<br>• Previous estimates completed by Cube Consulting in 2018, have used Ordinary Kriging based on 3m composites, and Uniform conditioning. Uniform conditioning provides a view as to the local variation of block grades and is important for defining selective mining units. At Goulamina economic pegmatites are strongly spatially associated with economic spodumene mineralisation. Mali Lithium plans to mine and process the pegmatites from footwall to hangingwall which obviates the need for pattern grade control drilling. Block selectivity is relatively unimportant except in the context of where the pegmatites pinch out, so it is not considered necessary to pursue uniform conditioning.<br>• High grade lithia values were reviewed, and the application of top cuts is not considered necessary.<br><br>In the north-eastern domains<br>• Mineralised domains for all mineralised pegmatites (except for several insignificant narrow structures of uncertain orientation), were digitised on cross sections and wireframed into three dimensional shapes. Six domains are identified in the north-eastern part of the resource (Main; West l; West ll; Sangar l; and Sangar ll)<br>• Drill hole sample data was flagged using domain codes generated within each of the mineralised domain wireframes.<br>• Following creation of a blank block model, each block is assigned a domain number, a lithology code, a weathering code, and subsequently a resource classification code.<br>• Anisotropic search directions are used by digitizing a trend surface which is then added to the block model and is used to inform the search |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *reconciliation data if available.* | ellipsoid orientation for each block.<br>• Three separate estimation runs are completed for each lode with increasing search ellipse sizes (75m, 150m, 400m) The largest size search ellipsoid is used so that blocks distal from drilling, for example at depth are informed with a grade. This allows a scoping level optimization to be undertaken to defined areas that have reasonable prospects of eventual economic extraction and to ensure that placement of process plant elements does not compromise the resource potential.<br>• The number of drill holes and individual samples required to inform a block varies with each estimation run. The 75m sized search ellipsoid required a minimum of four samples from each of four drill holes and a maximum of 20 samples. The 150m sized search ellipsoid requires at least 4 samples from a minimum of three drill holes, and the 400m search ellipsoid requires a minimum of 4 samples from each of 2 drill holes.<br><br>In the Danaya domain<br><br>• A single domain of crisscrossed pegmatite sills and dykes is recognised in the Danaya area. It has not been possible to develop a set of 3D wireframes that represent the pegmatites. A probabilistic approach has been taken to modelling the pegmatites.<br>  ○ Based on the sectional interpretation of pegmatites and mineralisation and the orientations of contacts suggested by acoustic imaging of various RC holes, a trend surface was developed to describe in 3 dimensions the generalised orientations of the pegmatites, and to provide a variable search ellipsoid orientation.<br>  ○ The distribution of pegmatite at Danaya is modelled using ordinary kriging based on |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | logged pegmatite percentage of each sample (Usually 0 or 100%) Variable search ellipsoid directions are controlled by the trend surface.<br>○ $Li_2O$ and $Fe_2O_3$ are modelled using ordinary Kriging throughout the Danaya deposit area using a similar approach.<br>○ Where a block has a probability of being pegmatite less than 0.5, the $Li_2O$ and $Fe_2O_3$ grades are reset to zero.<br>• The method was checked using swath plots to confirm that the grade of the resulting model is similar the grade of the input data. Although the geological interpretation is uncertain, Indicated Mineral Resources are defined where sufficient drilling has provided a good correlation between the boundaries of known and modelled pegmatites.<br>• Computer software used for all aspects of the resource estimate is Micromine 2020.<br>• No by-product recoveries were considered. $Fe_2O_3$ which is deleterious to the beneficiation process was estimated using ordinary kriging and the same parameters as $Li_2O$<br>• The parent block sized used in the north eastern model was 5mN x 5mE x 5mRL,<br>• The parent block size used at Danaya was 5m X, 10m Y and 5m Z.<br>• Sub-blocking is allowed, to better follow the domain boundaries which are often oblique to the model orientation<br>• No assumptions about selective mining units were made.<br>• In the north eastern part of the resource, wireframed mineralised domains acted as hard boundaries within which to estimate resources.<br>• Model validation was carried out by:<br>○ Visually comparing block grades with surrounding drill hole grades<br>○ Utilizing swath plots to compare sectional |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | drill hole and block grades as well as grades from previous models<br>○ Volume comparisons between domain wireframes and contained blocks.<br>○ Global comparison between input grades and block grades<br>• No mining has taken place and so no reconciliation data is available |
| ***Moisture*** | • *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | • Tonnages are based on a dry basis |
| ***Cut-off parameters*** | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | • No cut off is applied to reporting. The pegmatites generally have mineralisation from footwall to hanging wall and will be mined in their entirety using visual geological control to avoid dilution at the contacts of the pegmatite. |
| ***Mining factors or assumptions*** | • *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.* | • Open cut mining using contract mining fleet and conventional drill and blast mining methods are envisaged in the DFS completed in 2020.<br>• A scoping level optimised pit shell (at US$650) was developed to determine the extent of resources that have reasonable prospects of eventual economic extraction. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Metallurgical factors or assumptions*** | • *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.* | • The MRE is supported by metallurgical test work undertaken between 2017 and 2020, by ALS, Nagrom and others, reported to the ASX on 27th November 2019 (Goulamina Metallurgy Test work Surpasses Expectations); 17th September 2019 (Excellent Metallurgical Test work) and 4th July 2018 (Goulamina Updated PFS Delivers Strong Project Outcomes). The test work programs included comminution test work, mineralogy using QEMSCAN, reflux classification, heavy liquid separation and DMS test work, Flotation and Magnetic Separation test work. A process flowsheet was developed based on the metallurgical test work programs. These resulted in achieving an average of 86.1% $Li_2O$ recovery in flotation, and overall average recovery of 78.2% $Li_2O$, producing a high-quality chemical grade spodumene concentrate at >6% $Li_2O$. The results of the test work programs support the DFS which will be completed in due course. |
| ***Environmental factors or assumptions*** | • *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been* | • Environmental factors and assumptions have been studied as part of the Preliminary Feasibility Study completed in 2019 and are reported there. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *considered this should be reported with an explanation of the environmental assumptions made.* | |
| ***Bulk density*** | • *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*<br>• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | • Bulk Density determination for un-weathered material is derived from an analysis of dry density measurements of drill core from 14 diamond drill holes.<br>• Whole core was used, but neither coated nor waxed. The rock material is not generally porous and does not have visible voids. The application of wax or other coating would not have a significant impact on the estimated density of the mineral resource.<br>• Weathered material is not considered as part of this resource estimate. Bulk density is assumed based on data from other equivalent granite hosted deposits<br>• Density is assigned in the model according to weathering horizons and rock types |
| ***Classification*** | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*<br>• *Whether the result appropriately reflects the Competent Person's view of the* | • Blocks have been classified as Measured, Indicated or Inferred based on visual inspection of a combination of parameters such as mineralised width, data spacing, interpolation meta-data e.g. number of samples used; kriging efficiency; slope of regression; and geological understanding. Classification wireframes have been smoothed so that they do not appear as "pods" around drill holes.<br>• Measured resources are defined where drill hole spacing is nominally 25m x 25m: Indicated resources where drill hole spacing is nominally 50m x 50m, or up to 100m x 100 m where the domain is wide: Inferred resource have limited or sporadic drilling and are generally |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *deposit.* | extrapolated from Indicated resources.<br>• At Danaya, Indicated Mineral resources are defined where the density of drilling is sufficient that the probabilistic method of predicting the presence of pegmatite or granite is visually consistent with the presence of actual pegmatite and granites intersected in drill holes.<br>• The Competent Person, Mr. Simon McCracken, has prepared this resource estimate and statement and it reflects his view of the deposit. |
| ***Audits or reviews*** | • *The results of any audits or reviews of Mineral Resource estimates.* | • Two third party reviews have been undertaken by Mr Roland Bartsch, who is independent from Mali Lithium.<br>• As a result of those reviews<br>  ○ The resource model was rebuilt from the ground up to eliminate some issues with search ellipsoids<br>  ○ The resource classification wireframes have been reduced in size and made smoother (less jagged in long section)<br>• A separate review of the Danaya Mineral Resource Estimate was completed by Mr Bill Oliver, who is independent from Mali Lithium.<br>• As a result of this review<br>  ○ The resource classification wireframes were made to project a consistent distance on section from the drilling. Generally, this is 25m from drilling for Indicated Material, and 50m from drilling for Inferred material. |
| ***Discussion of relative accuracy/ confidence*** | • *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to* | • The relative accuracy of this Mineral Resource Estimate is reflected in the reporting of the estimate as Measured, Indicated, and Inferred Mineral Resources in accordance with the guidelines of the 2012 JORC Code.<br>• The statement relates to a local estimate of tonnes and grade but does not reflect a particularly sized SMU. The model should not be used as a grade control model without addition |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*<br>• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | of pit floor mapping to assist with determining actual pegmatite contacts as opposed to interpreted ones. |

## Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral Resource estimate for conversion to Ore Reserves*** | • *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*<br>• *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore reserves.* | • The resource models used as the basis for this Ore Reserves update was compiled by Mali Lithium's Geology Manager, Mr. Simon McCracken, based on the latest available drilling information. Models for each domain were created from the common base model using the domain wireframes. The lithium and iron oxide grades were estimated into the block models for each of the domains using ordinary kriging. Estimation of the resource model is discussed in detail in Section 3 of this Table. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | • The Mineral Resources reported are inclusive of the Ore Reserves reported here. |
| ***Site visits*** | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits undertaken indicate why this is the case.* | • The Competent Person has not attended a site visit and has relied on the reporting from Matt Bampton, Principal Consultant, Cube Consulting, who attended a site visit in May 2016 as competent person for the now superceded resource estimation undertaken at that time. |
| ***Study status*** | • *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*<br>• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | • This Reserve estimate is based on a Definitive Feasibility Study (DFS). The DFS demonstrated that the Project is economically viable, considering all relevant modifying factors. |
| ***Cut-off parameters*** | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | • Central to the estimation of these Ore Reserves is that a "whole-of-ore" mining assumption has been made, which means mining at a zero cut-off grade within the pegmatite ore zones, thereby reducing the reliance on selective mining practices within the ore zones and visually controlled mining at the edges. |
| ***Mining factors or assumptions*** | • *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).*<br>• *The choice, nature and appropriateness of the selected mining method (s) and other mining parameters including associated design issues such as pre-strip,* | Mining factors and assumptions are based on the DFS and are summarised as follows:<br>• An open pit optimisation was completed. Slope design criteria, processing recoveries were applied in the pit optimisation process, together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules.<br>• Mining is to take place using conventional open pit mining methods of truck and excavator in back-hoe configuration.<br>• A small-scale mining fleet, utilising 120t – 150t excavators matched with 90t rear dump trucks, |

| Criteria | JORC Code explanation | Commentary |
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| | *access, etc.*<br>• *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.*<br>• *The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate).*<br>• *The mining dilution factors used.*<br>• *The mining recovery factors used.*<br>• *Any minimum mining widths used.*<br>• *The manner in which Inferred Mineral Resources are utilized in mining studies and the sensitivity of the outcome to their inclusion.*<br>• *The infrastructure requirements of the selected mining methods.* | was selected using contract mining services.<br>• Open pit wall slope angles were based on a geotechnical assessment. A ramp width of 25m based on the selected truck size. The resulting overall slope angles on the final pit approximate 46° in fresh rock and 36° in weathered material, depending on ramp location.<br>• The shell selection for pit design from the open pit optimisation was based on key assumptions including; 77% recovery of $Li_2O$ as a 6% spodumene concentrate; An average spodumene concentrate selling price of $650/t concentrate, with a planned feed throughput of 2.3 Mtpa.<br>• Mine design criteria, used for detailed pit design, include:<br>○ 5m blast bench height mined in 2 x 2.5m flitches;<br>○ Pit stages are large enough to negate any minimum mining width issues;<br>○ ramp width of 25m and 10% gradient.<br>○ Mining infrastructure was limited to ROM pad, haul roads, workshops, and other buildings for a contract mining operation.<br>• The original resource block model was re-blocked into regular block sizes which adequately account for the practicalities of mining dilution and ore losses within the operations.<br>• Due to the inherent mining dilution in the re-blocking, no further dilution and ore loss assumptions or factors have been applied for mine planning purposes. |
| ***Metallurgical factors or assumptions*** | • *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*<br>• *Whether the metallurgical process is well-tested technology or novel in nature.*<br>• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding* | • The metallurgical process selected for Goulamina is a proven contemporary process for the beneficiation of spodumene-containing ores to saleable spodumene concentrates.<br>• The process is standard practice and involves crushing, grinding, desliming, magnetic separation, multi-stage flotation, concentrate filtration and bulk transport to consumer.<br>• Metallurgical testwork was undertaken on composite samples from 33 HQ drill holes. The composites were developed to represent the potential spatial variability of the ore across the three known ore zones (Main, West and Sangar) and biased toward the first three years of |

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| | *metallurgical recovery factors applied.*<br>• *Any assumptions or allowances made for deleterious elements.* | anticipated ore supply. These composites were used for characterisation, comminution, heavy liquid separation and variability testwork. A Master Composite, representing the first 3 years of anticipated ore supply from the Main and West orebodies, was used for High Pressure Grinding Rolls, and the main body of Flotation testwork. The technology used in the metallurgical testwork is well tested and established. Parameters were customised to optimise the processes, specifically to suit the characteristics of Goulamina ore and to produce the desired results. Reagents used in the testwork are commercially available and commonly used in the flotation of spodumene. |
| | • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*<br>• *For minerals that are defined by specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | • Bulk flotation tests were completed on HQ core samples. Pilot testwork will be undertaken in future during a trial mining campaign.<br>• The metallurgical testwork conducted to date has indicated that the Goulamina Ore Reserve may be processed, using froth flotation after comminution, to produce a spodumene concentrate of saleable grade. Testwork conducted on the samples described above demonstrated that a spodumene concentrate with average $Li_2O$ grade of >6% and average $Fe_2O_3$ grade of 0.56% may be produced. The average flotation recovery of $Li_2O$ in the testwork was 86.1% and average overall recovery of $Li_2O$ achieved in all Flotation testwork was 78.2%. |
| ***Environmental*** | • *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.* | • Environmental consultant Digby Wells were engaged to undertake a formal Environmental and Social Impact Statement (ESIA) of the Project.<br>• Digby Wells completed biodiversity, wetlands, soils and heritage field work in early June 2017. Digby Wells advised the Company that they found no areas of significant concern.<br>• Formal public consultation meetings for the ESIA were completed successfully.<br>• The ESIA was submitted as part of the application for an Exploitation Permit. The Exploitation or Mining Permit was granted on 23rd August 2019 for the Torakoro tenement for a period of 30 years. |
| ***Infrastructure*** | • *The existence of appropriate infrastructure: availability of* | • No appropriate infrastructure is available at the Project site, but there is sufficient available land to |

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| | *land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.* | develop such required infrastructure on the permit held by Timbuktu Resources SARL. An existing major highway within 20 km of the identified Ore Reserve is suitable for the transport needs of the Project. The establishment costs of all other infrastructure required for the Project (including an access road to the highway described above) have been included in the capital cost estimate and no material obstructions to their development have been identified. |
| ***Costs*** | • *The derivation of, or assumptions made, regarding projected capital costs in the study.*<br>• *The methodology used to estimate operating costs.*<br>• *Allowances made for the content of deleterious elements*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.*<br>• *The source of exchange rates used in the study* | • Capital cost estimates for the DFS have been developed by Lycopodium based on supplier quotations for major equipment items and factored estimates using in-house databases.<br>• Operating costs have been estimated by Lycopodium based on;<br>○ supplier quotes for reagents and consumables<br>○ derived local rates for labour costs and their on-costs<br>○ a derived power cost based on a firm proposal from an Independent Power Producer (IPP) and equipment supplier quoted consumption rates<br>○ a proposal from an internationally recognised freight logistics management company for concentrate transport and logistics<br>○ a tender was issued for contract mining services and costs were derived from tender submissions<br>○ LOM C1 cash operating cost for the mine is US$281/t of concentrate, including transport to port and loading to ship.<br>• No allowances have been made for deleterious elements as indicated above.<br>• Long term pricing for 6% spodumene concentrate (FOB Abidjan) was based on the pricing outlook by peer hard rock lithium operating and development companies.<br>• Exchange rates used for estimation purposes in the study are based on; |

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| | | ○ US\$1.00 = A\$1.45 (Australian Dollar).<br>○ US\$1.00 = 591 XOF (CFA Franc).<br>○ US\$1.00 = 14.45 ZAR (South African Rand).<br>○ US\$1.00 = 0.90 € (Euro). |
| | • *Derivation of transportation charges.*<br>• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*<br>• *The allowances made for royalties payable, both Government and private.* | • Transportation charges are based on a proposal from an internationally recognised transport and logistics management service provider.<br>• No penalties have been assumed for failure to meet product specification.<br>• Allowances made for royalties payable to the Government of Mali are based on an independent legal review of the statutory and regulatory environment in Mali. |
| ***Revenue factors*** | • *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | • A planned average head grade of 1.51 % $Li_2O$ with quarterly fluctuations ranging from 1.30 % to 1.69 % $Li_2O$<br>• An average concentrate price of $666/t (FOB Abidjan)<br>• Concentrate transport costs of $98 per tonne of concentrate, inclusive of port charges<br>• Royalties of 4.3% of gross revenue, or 6% of royalty price base. |
| ***Market assessment*** | • *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* | • The demand, supply, and stock situation for spodumene concentrate consumption trends and factors likely to affect supply and demand into the future were assessed based upon:<br>○ The current and near to mid-term primary lithium supply/demand dynamics available in the market<br>○ Pricing outlook by peer lithium operational and development companies. |

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| | • *A customer and competitor analysis along with the identification of likely market windows for the product.*<br>• *Price and volume forecasts and the basis for these forecasts.*<br>• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | • A customer and competitor analysis was not formally undertaken, however the identification of likely market windows for spodumene concentrate was undertaken based upon demand and pricing outlooks by peer lithium operational and development companies.<br>• Price forecasts were developed as described above and volume forecasts were developed based upon the forecast monthly ore treatment rate, lithia grade and derived metallurgical recovery.<br>• The assumed customer specification assumed for spodumene concentrate is 6% $Li_2O$ |
| ***Economic*** | • *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*<br>• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.* | • Results of the DFS were analysed by an independent financial modeler, taking into account relevant inflation and discount rates.<br>• The financial analysis returned a robust result on all key valuation metrics.<br>• Sensitivity analyses were carried out within this financial model across seven key categories in 10% increments, with concentrate price proving to be the most sensitive, but still returning a positive NPV at a 40% decrease of the base price. |
| ***Social*** | • *The status of agreements with key stakeholders and matters leading to social license to operate.* | • A Mining Permit was issued in August 2019 by the Government of Mali |
| ***Other*** | • *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*<br>• *Any identified material* | • None identified to date.<br>• None identified to date. |

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| | *naturally occurring risks.*<br>• *The status of material legal agreements and marketing arrangements.*<br>• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.* | • No marketing agreements have yet been established for the project.<br>• All necessary permits have been received |
| ***Classification*** | • *The basis for the classification of the Ore Reserves into varying confidence categories.*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.*<br>• *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).* | • Proved and Probable Ore Reserves were determined from Measured and Indicated Resources as per the guidelines.<br>• These results reflect the Competent Person's view of the deposit.<br>• Less than 1% |
| ***Audits or reviews*** | • *The results of any audits or reviews of Ore Reserve estimates.* | • No third-party reviews or audits have as yet been completed on the Ore Reserve estimate. |
| ***Discussion of relative accuracy/confidence*** | *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the* | • The Ore Reserve estimate is the outcome of an updated Mineral Resource estimate (July 2020) and subsequent DFS which has considered detailed geological, metallurgical, geotechnical, process engineering and mining engineering studies<br>• The Project has a robust NPV which remains positive up to 40% sensitivity for concentrate |

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| | *application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*<br>• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*<br>• *It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | selling price, being the most sensitive high-level item.<br>• The study was undertaken in USD with exchange rates applied as discussed above where applicable.<br>• There are no known undisclosed areas of uncertainty.<br>• There has been no production to date, so no comparison or reconciliation of data can be made. Standard industry practices have been used in the estimation process<br>• In the opinion of the Competent Person, the material costs and modifying factors used in the generation of the Ore Reserves are reasonable. |