



121 Frankfurt Conference

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## **Rapidly Developing the Goulamina Lithium Project in Mali**

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*Managing Director*

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## ORE RESERVES AND MINERAL RESOURCES REPORTING AND EXPLORATION RESULTS

The information in this presentation that relates to production targets, Mineral Resources and Ore Reserves is extracted from the Company's replacement prospectus dated 6 May 2022 (Prospectus) which is available at [leolithium.com](http://leolithium.com). Information relating to exploration results is extracted from the Company's ASX announcement on 3 November 2022 (Drilling Announcement). The Company confirms that all material assumptions underpinning the production targets, Mineral Resources and Ore Reserve estimates in the Prospectus continue to apply and have not materially changed and it is not aware of any new information or data that materially affects the information included in the Prospectus or Drilling Announcement.

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These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information. Past performance should not be relied upon as being indicative of future performance. The Company disclaims any intent or obligations to revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law. Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements in relation to future matters that can be only made where the Company has a reasonable basis for making those statements. Competent Person Statements regarding plans with respect to the Company's mineral properties are forward looking statements. There can be no assurance that the Company's plans for development of its mineral properties will proceed as expected. There can be no assurance that the Company will be able to confirm the presence of mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties.

# GOULAMINA HIGHLIGHTS

Next lithium project of significant scale to enter production with outstanding economics



01

## Amongst the world's largest spodumene projects

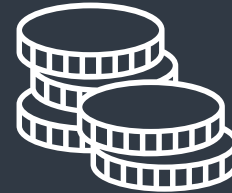
- Annual production of 506ktpa spodumene concentrate, increasing up to 831ktpa<sup>1</sup> Stage 2
- Large scale, high grade orebody with exploration upside
- Current Mineral Resource 108 Mt at 1.45% Li<sub>2</sub>O and Ore Reserve of 52Mt at 1.51% Li<sub>2</sub>O



02

## Excellent financial metrics with NPV of US\$2.9 billion<sup>1</sup>

- Stage 1 capital cost of just US\$255m
- Cash cost of production US\$312/dmt of spodumene (FOB, LOM, Stage 2)



03

## World class partner Ganfeng; project substantially funded to production

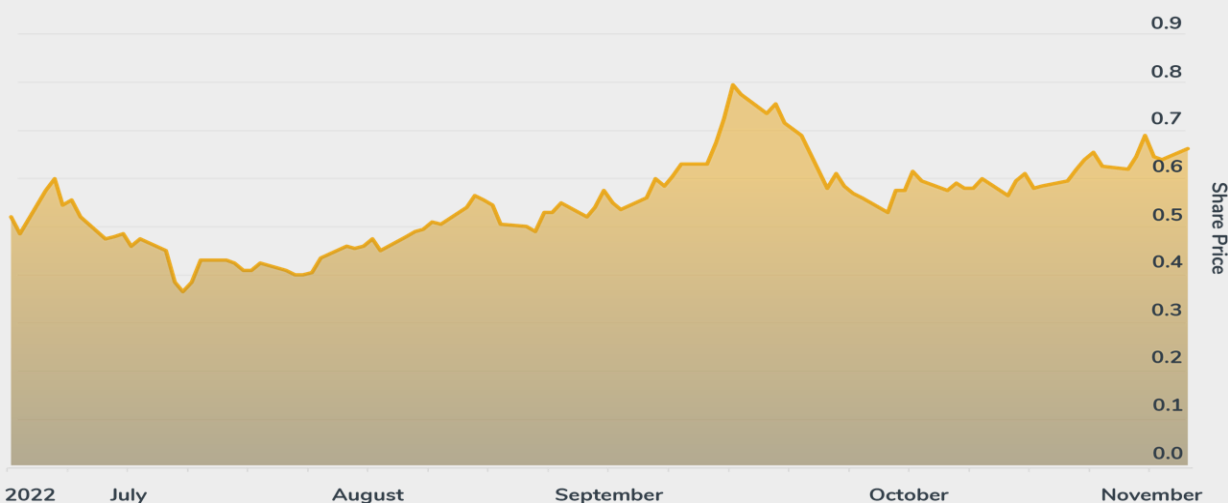
- Ganfeng is China's largest lithium chemical producer
- US\$170 million in funding provider
- Offtake secured for Stage 1

1. NPV8% real post tax, for Stage 2, using a conservative spodumene price of US\$1,250/tonne for the first 5 years and US\$900/tonne thereafter

# CORPORATE PROFILE

- Leo Lithium is a pure-play lithium developer listed on ASX
- Major shareholder Firefinch 17.6%, escrowed until June 2024<sup>1</sup>
- JV partnership with Ganfeng Lithium, at asset level
- Leo has A\$71.5m in cash plus ~US\$125m in cash in the JV vehicle<sup>2</sup>

## LLL TRADING HISTORY SINCE LISTING



## CAPITAL STRUCTURE

 1,197.6 million

SHARES ON ISSUE

 A\$71.5 million

CASH (at 30-Sep-22)  
Excludes cash held in the JV

## MARKET DATA (ASX: LLL)

 A\$0.59

SHARE PRICE  
(as at 11 Nov 2022)

 A\$707 million

MARKET CAPITALISATION  
(as at 11 Nov 2022)

 A\$0.662 - A\$0.51

1 MONTH HIGH/LOW  
IN SHARE PRICE<sup>2</sup>

 118M shares traded

AVERAGE DAILY VOLUME  
OVER LAST MONTH<sup>3</sup>

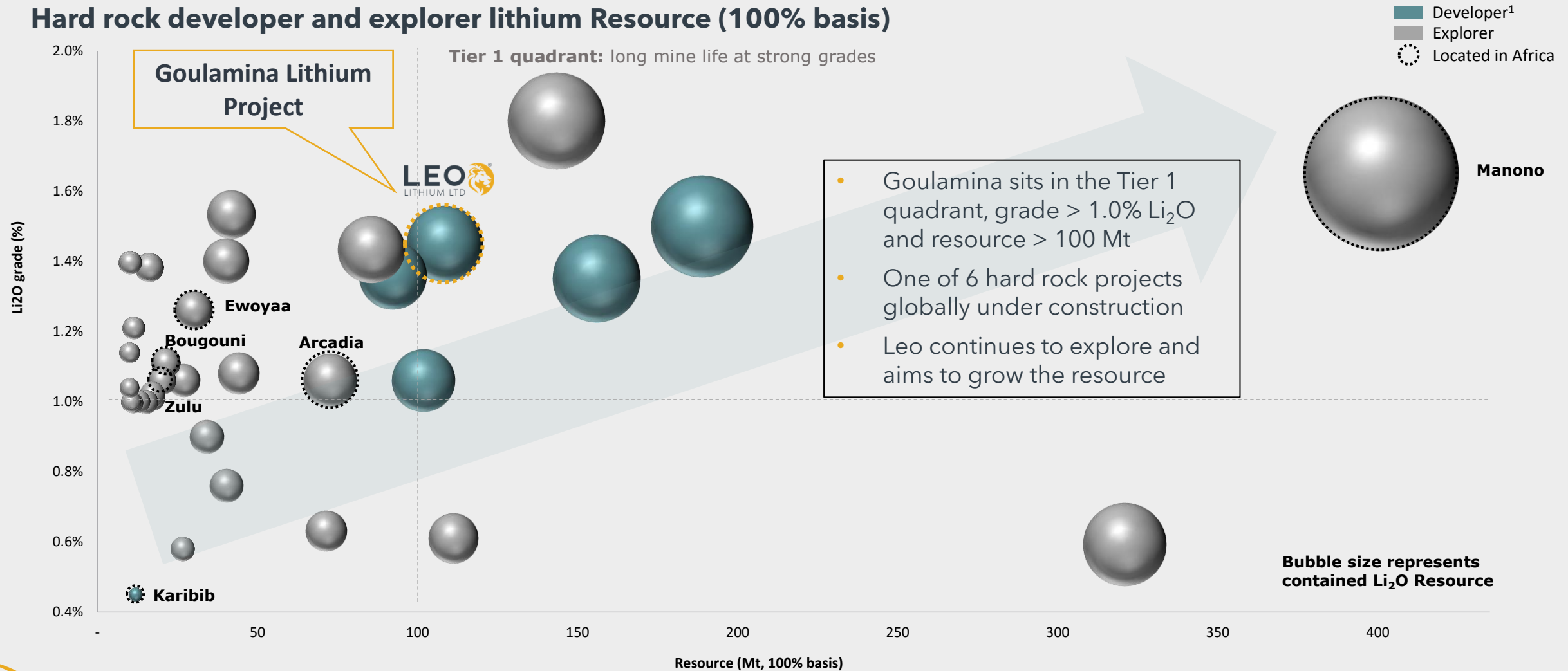
1. See ASX announcement 22 Aug 2022: Escrow Shares - Waiver Request and Decision. 2.

2. As at 30 Sept 2022 \$0.6625 high on 27 Oct 2022; \$0.51 low on 3 Oct 2022. Average daily volume 5,891K - October 2022.

# LARGE-SCALE, HIGH-GRADE RESOURCE

High grade, high tonnage Mineral Resource of 109Mt at 1.45% Li<sub>2</sub>O

## Hard rock developer and explorer lithium Resource (100% basis)





# GROWING THE GOULAMINA OREBODY

Resource drilling to increase confidence in the deposit and grow the Resource

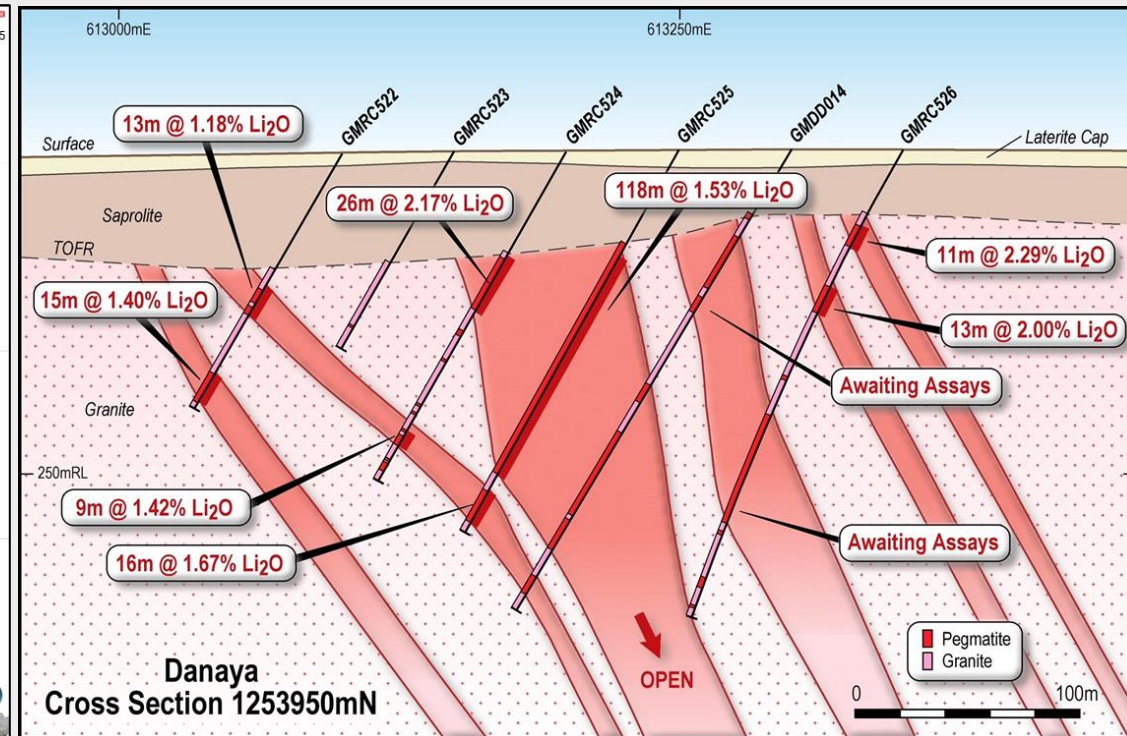
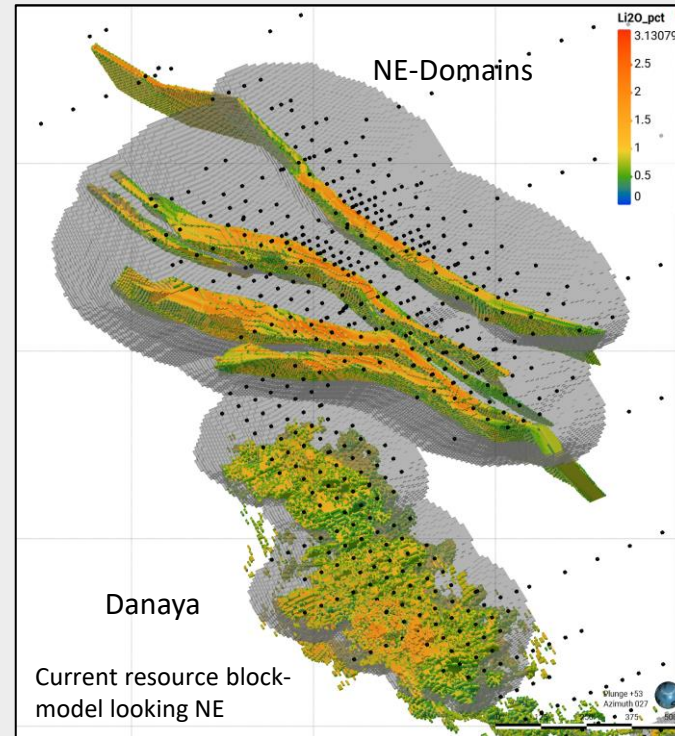
## Danaya Domain:

- Drilling completed, final assays pending
- Numerous thick, high grade pegmatite intercepts
- Remains open at depth and along strike
- Spodumene the only recognised Lithium mineral

**Updated Mineral Resource Estimate for Danaya anticipated for end of Q4 2022; Global Mineral Resources and Reserves update in Q2 2023**

## North Eastern Domains:

- Initial mining zone
- Drilling ~ 80% complete
- Some deeper holes than previous campaigns
- Also open at depth
- Hits along strike to be followed up in 2023



# DEVELOPMENT ON PLAN

Construction is underway, engineering & procurement advancing on plan

## Engineering and design

- Engineering and drafting ~40% complete

## Procurement

- Manufacturing of apron feeder, ball mill, crushers, WHIM/LIMS, thickeners
- Bulk earthworks, concrete, structural steel supply awarded
- 60% of EPCM procurement packages are awarded or out for tender

## Major works have kicked off in Q4 with ramp-up in 2023

- Pioneer camp and services being sequentially commissioned
- Mobilisation of supervisors, site engineers, HSE, water bore contractor
- Bulk earthworks package underway on site



Goulamina camp



The teeth cutting stage for pinion finished



# MAJOR SITE WORKS ACCELERATING

With earthworks contractor mobilising to site



Leo Perth team visiting the Malian team and office in Bamako



Machinery deployed to site



Earthworks crew mobilised to site



Goulamina core sample



Malian Minister of Mines Lamine Traore and Leo Lithium MD Simon Hay during site visit to Lithium Operation in WA, August 2022



# WORLD CLASS PARTNER: GANFENG

One of the world's largest lithium chemical producers

## JV with Ganfeng Lithium Group

- US\$130m in equity funding; US\$40m debt facility
- Leo is the developer and operator
- Project is substantially funded to production

## Ganfeng add value in many areas:

- Expedited procurement in China
- Flowsheet development, processing expertise
- Offtake, market intelligence

## Ganfeng are building a dedicated converter for Goulamina concentrate

- Lithium hydroxide capacity 50,000 t LCE, in Jiangxi Province
- Construction commenced June 2022; targeted completion early 2024



Ganfeng Lithium has begun construction of a solid-state battery production facility, which the company says will be the largest of its kind in China to date.

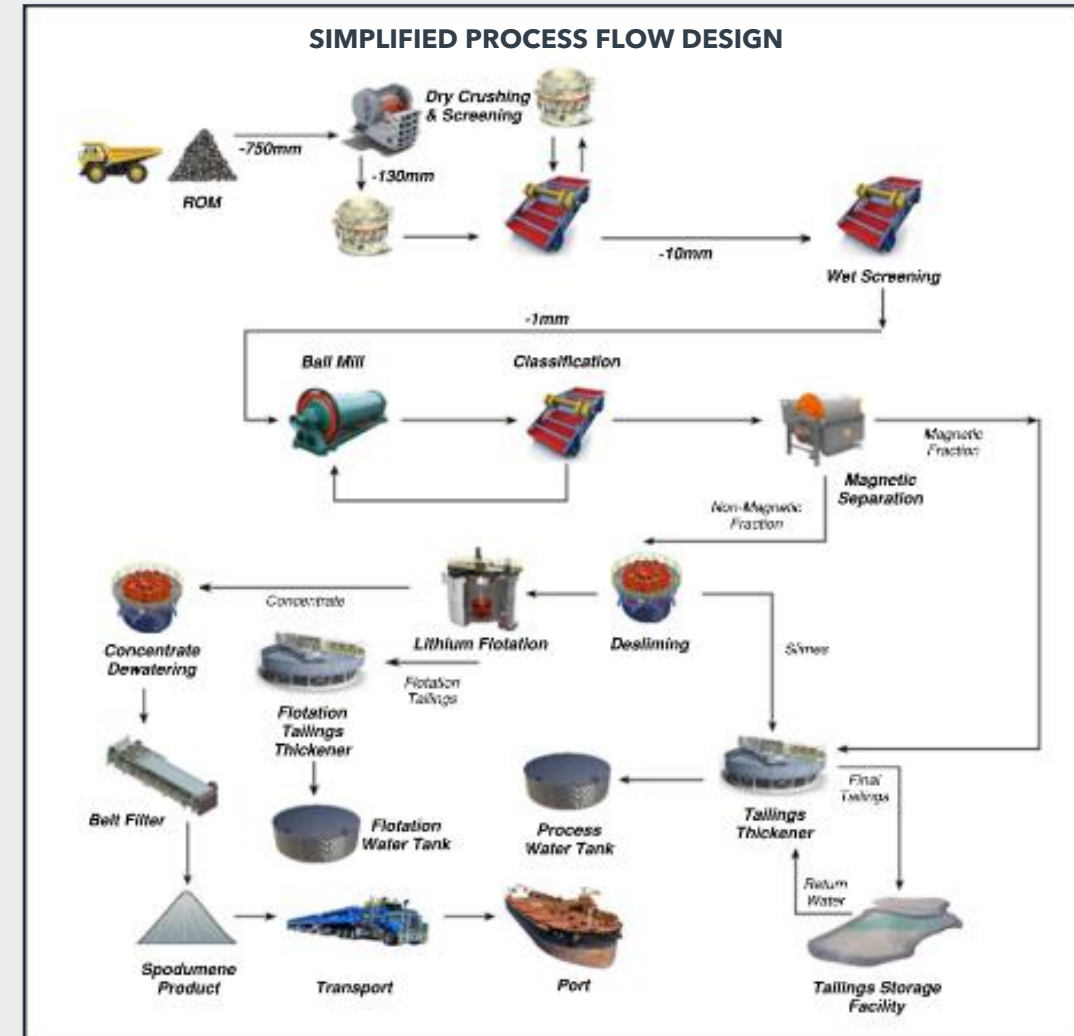
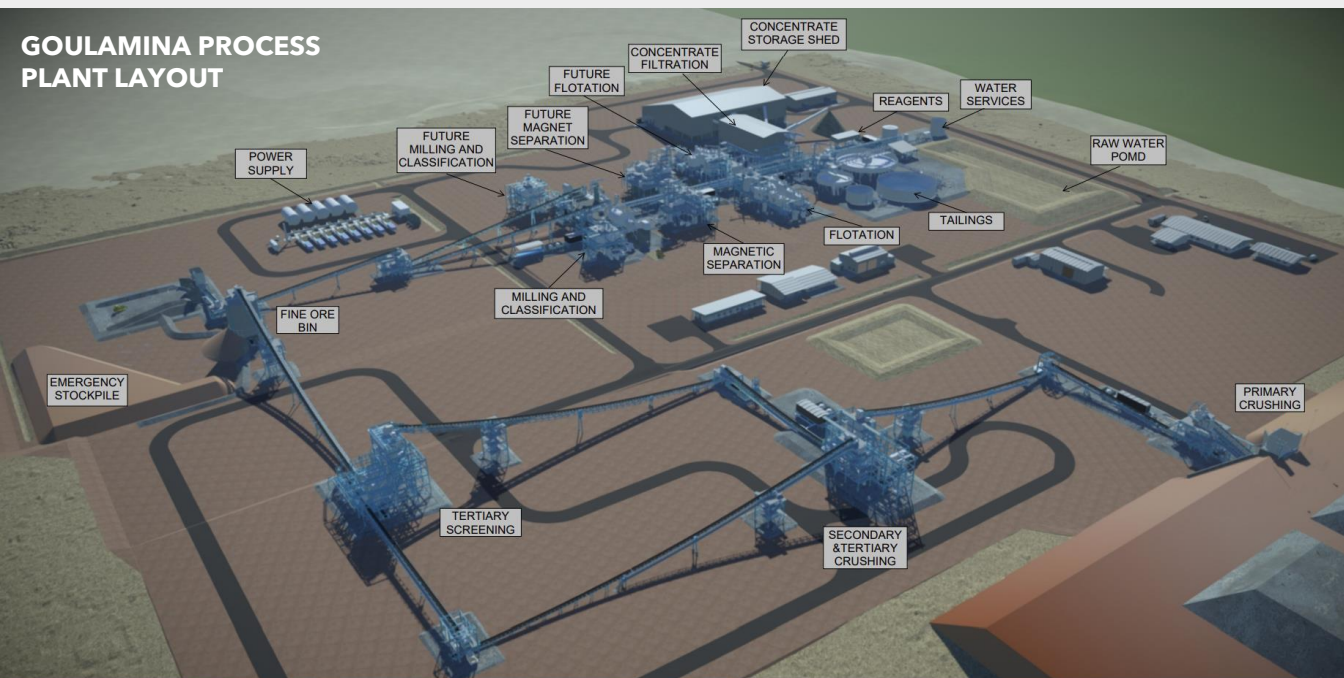


# PROCESS FLOWSHEET

Spodumene successfully converted into battery grade lithium hydroxide (min 99.5%  $\text{Li}_2\text{O}$ )

## Flowsheet utilises mature technologies throughout

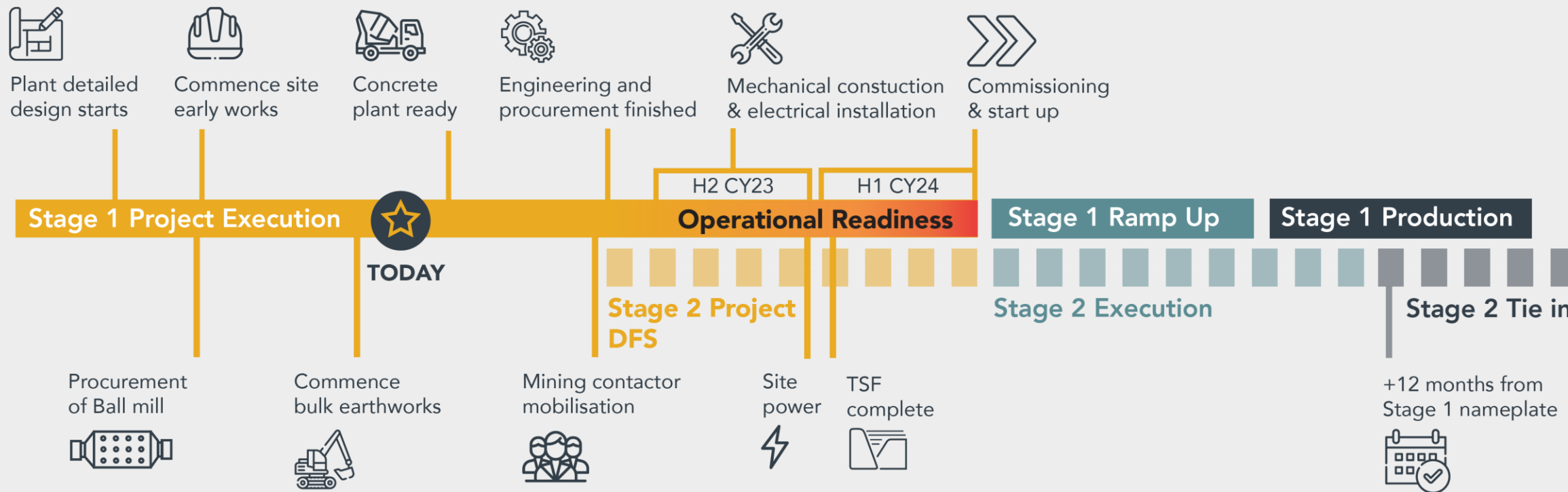
- Conventional crushing and milling circuits
- Conventional flotation circuit & no DMS: simple processing
- Allowance made in places for Stage 2 capacity upgrade





# PATHWAY TO PRODUCTION

## Stage 1 & 2 Development on Schedule and Budget



### Project being developed in two stages

	Stage 1	Stage 2
Ore throughput	2.3 Mtpa	4.0 Mtpa
Spodumene concentrate product <sup>1</sup>	506 ktpa	831 ktpa
Capital cost (DFS Update estimate <sup>2</sup> )	US\$255 million	US\$70 million

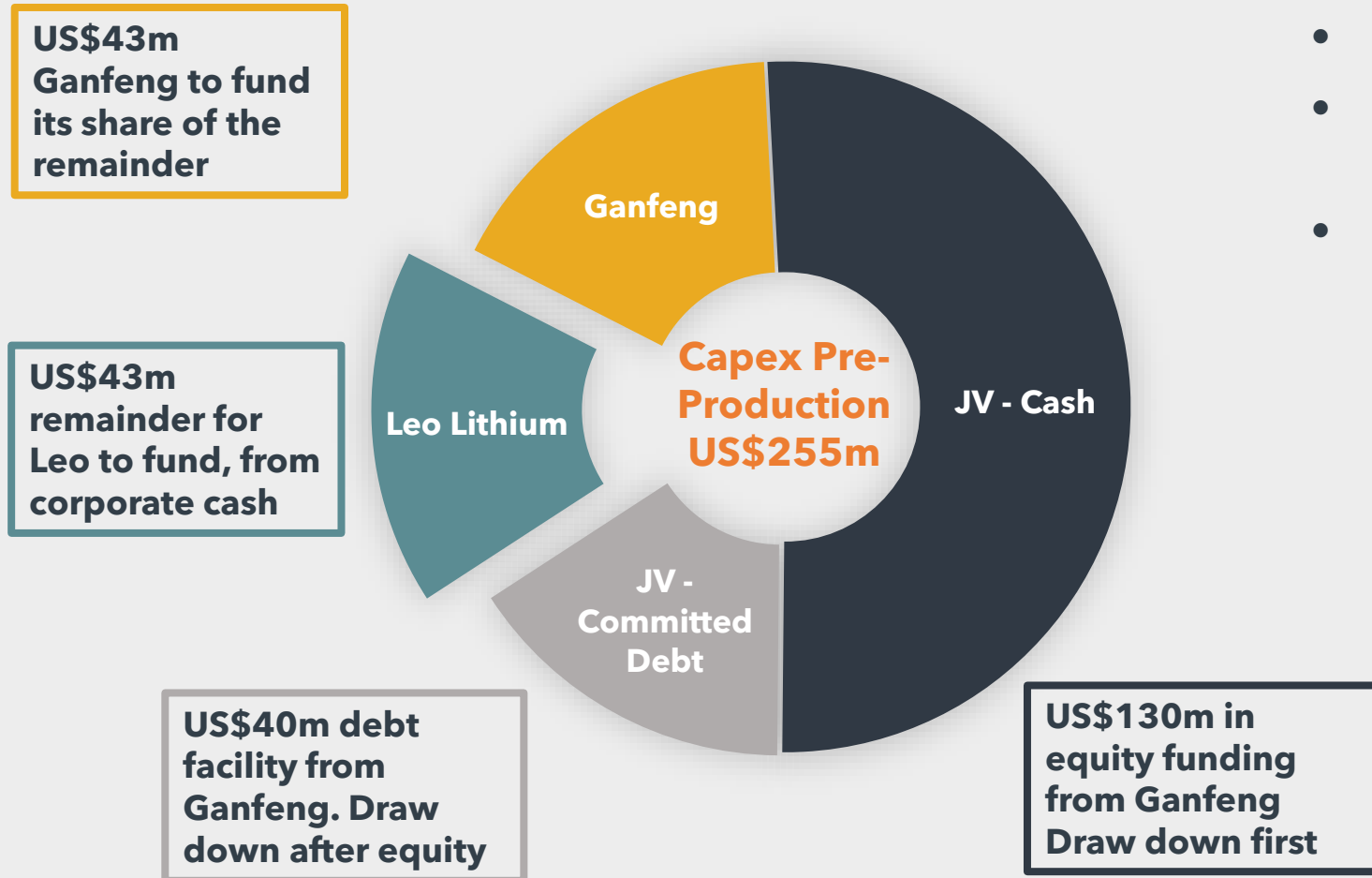
1. Based on first 5 years of steady state Stage 2 production. 2. DFS Update released by Firefinch in Dec 2021.



# PROJECT FUNDING SOURCES

## Sources of Capital

### Goulamina JV Funding - Sources



- Leo Lithium is in a financially strong position
- Funding sufficient to meet current estimate for Stage 1 construction
- Should additional funds be required, JV partners have a number of internal options:
  - Expand the debt facility
  - DSO to bring forward revenue
  - Pre-payment for first product shipments

# EARLY REVENUE OPPORTUNITY

## Direct Shipped Ore (DSO)

### Opportunity

- Export spodumene ore before plant completed
- Requires mining, crushing and logistics in place
- JV partner Ganfeng supportive

### Benefits

- Early commissioning of mining operations
- Commissioning of logistics channel on ore
- Early revenue during solid pricing environment
- Creates financial buffer near end of construction

### DSO Strategy

- Targeting minimum two shipments x 30,000 mt
- Ore grade 1.2-1.5% Li<sub>2</sub>O likely
- Timing: early Q4 2023 preliminary estimate ~6-9 months in advance of full operations
- Mining contract award Q1 2023, on site Q2
- Utilise mobile crushing unit
- DSO has no impact on Project schedule

### Next Steps

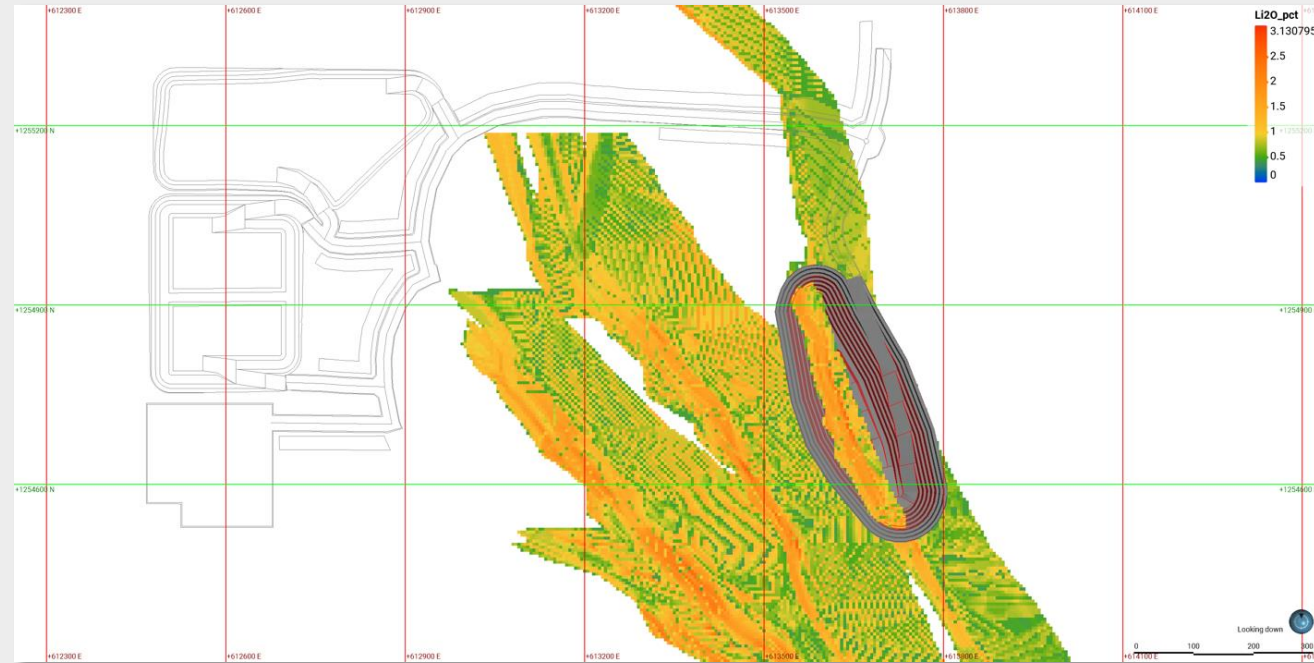
- Confirm operations & logistics plans end Q2 2023
- DSO sales dependent on pricing at the time

# DSO PRE-PLANNING

## Activities Underway

### Current activities

- Initial starter pit confirmed as suitable for DSO
  - Desktop geologic assessment & mining schedule completed
  - Low strip ratio and suitable mineral characteristics
- Indicative costs ~US\$50/t lower than DFSU costs US\$312/t concentrate (SC6)
- Lower processing costs partially offset by contract crushing services
- Tenders out for various project works (mining services; drill and blast; fuel, water and power)
- Examining mobile crushing plant requirements



**Out cropping starter pit, initial ore domain and mine plan for DSO**



# TRANSPORT & LOGISTICS

## Outline plan for product transport

### Background

- Goulamina site approximately 1000 km to nearest ports
- Mali (landlocked) is supplied mainly from Dakar and Abidjan ports
- Many large-scale logistics contractors offer mine gate-to-port services

### Goulamina product transport plans

- Truck product to port using logistics contractors – minimal capex for Leo
- Maintain two export channels for risk mitigation reasons
- Firstly, secure port access in Abidjan, then trucking sized to suit
- Examine alternative ports at Dakar, Senegal & San-Pedro, Cote d'Ivoire



**West African transport routes from Goulamina site**



1 & 2. Management visit to construction site for a truck depot in Cote d'Ivoire; 3. Abidjan Port bulk export loading facility and secured warehouse

# TRANSPORT & LOGISTICS

## First logistics contract signed – product storage and ship loading at Abidjan

### Abidjan Port

- Abidjan is a major West African deep water port
- Has significant bulk mineral handling capability
- Berth accepts handymax sized ships (up to 55 kt)

### Major contract terms

- 10 year contract for concentrate storage & ship loading
- 9,000 m<sup>2</sup> warehouse on berth – no double handling
- Minimum annual throughput of 250 kt
  - Studies show export capacity of ~ 350 ktpy
- Operational costs are in line with DFS estimates
- SEA Invest will provide any necessary capital
- Commences 1 July 2023 in time for DSO in Q4 2023

### SEA-invest

- A privately-owned international port operator
- Operate 24 sites in 8 countries with 5,500 employees
- Own the concession for the bulk carrier terminal in Abidjan
- 4 berth terminal with quay-side storage



Warehouse is located at Berth 14  
shown in red outline



# GOULAMINA: SOCIAL LICENCE TO OPERATE

## West Africa's first lithium operation

- Clear pathway for Mali to host the first spodumene concentrate project in West Africa
- Secure tenure, major permits in place

## Championing local Malian workforce

- A presence in Mali for >5 years; strong networks in country
- Large local employer with predominantly Malian workforce
- Tendering to include local companies wherever possible

## Solid support from Government partner

- Excellent working relationship with Govt. and mines dept.
- Mali is Africa's third largest gold producer - actively seeking to diversify the mineral sector
- Mature mining industry with well established Mining Code
- Mali Govt. can move to 10% free carry stake: yet to occur



Launching ceremony with Malian Minister of Mines, His Excellency, Mr Lamine Seydou Traore

1

Clear pathway for Mali to host the **first spodumene concentrate project in West Africa**



**Large local employer** with predominantly Malian workforce



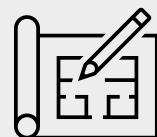
**Strong West African partnerships** and networks in-country



**ESG and community engagement program** under development with much to progress in 2023



# FOCUS FOR 2023



## CONSTRUCTION ON PLAN

- 27-mth schedule with earthworks underway
- 2023 critical path activities: concreting, installation of the ball mill, supply and install of plant buildings and electrical services



## PATHWAY TO PRODUCTION

- First product anticipated end of Q2 2024
- Potential schedule compression to be notified Q3 2023
- Planning for early commissioning on DSO pathway



## GROWTH

- Organic growth through exploration drilling at Danaya & North Eastern domains
- Stage 2 to take production to 806 ktpa
- Examining downstream conversion opportunities



## STAKEHOLDER OBJECTIVES

- Strong financial position with funding options
- ESG framework delivery and implementation
- Continued local community engagement



## CATALYSTS

- Goulamina Project development on plan
- DSO physicals, logistics & pricing confirmed
- Stage 2 timing and technical details
- Downstream options outlined and progressed

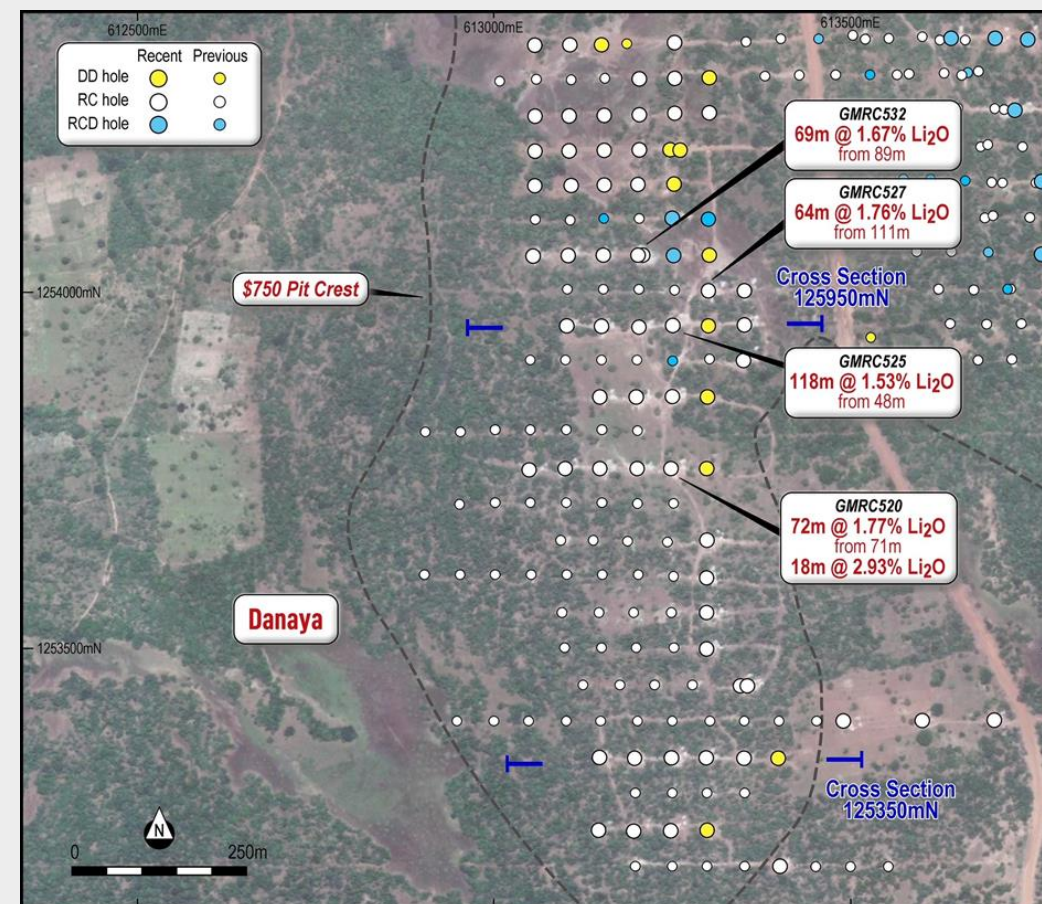
# APPENDIX 1: LARGE, HIGH GRADE OREBODY

With exploration upside

## Resource Drilling results at Danaya reveal thick zones of high-grade mineralization

- 72 m at 1.77%  $\text{Li}_2\text{O}$ , from 71 m, including 18 m at 2.93%  $\text{Li}_2\text{O}$  (GMRC520)
  - 118 m at 1.53%  $\text{Li}_2\text{O}$ , from 48 m (GMRC525)
  - 69 m at 1.67%  $\text{Li}_2\text{O}$ , from 89 m (GMR532)
  - 64 m at 1.76%  $\text{Li}_2\text{O}$ , from 111 m (GMRC527)
- 
- Average assay results are higher than the current Resource grade
  - Mineralisation remains open at depth and along strike

Updated Mineral Resource Estimate for Danaya anticipated for end of Q4 2022; Global Mineral Resources and Reserves update in Q2 2023





# APPENDIX 2: GOULAMINA RESOURCE & RESERVE

Mineral Resource of 108Mt at 1.45% Li<sub>2</sub>O and Ore Reserve of 52Mt at 1.51% Li<sub>2</sub>O

## Goulamina Mineral Resource Estimate

Classification	Tonnes (m)	Grade Li <sub>2</sub> O (%)	Contained Tonnes Li <sub>2</sub> O
Measured	8.4	1.57	133,000
Indicated	56.2	1.48	832,000
Inferred	43.9	1.38	606,000
<b>Total</b>	<b>108.5</b>	<b>1.45</b>	<b>1,570,000</b>

## Goulamina Open Pit Ore Reserve Estimate

Proven	8.1	1.55	125,000
Probable	44.0	1.50	660,000
<b>Total</b>	<b>52.0</b>	<b>1.51</b>	<b>785,000</b>



Pegmatite outcrops at Goulamina



# APPENDIX 3: PEER COMPARISON

## Company references

Rank	Company	Project name	Stage	Announcement title	Announcement date	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Total (Mt)	Resource grade (% Li <sub>2</sub> O)	Contained Li <sub>2</sub> O (Mt)
1	AVZ	Manono	DFS	Updated Mineral Resource Estimate	24-May-21	100	174	128	401	1.65%	6.62
2	SQM / Wesfarmers	Mt Holland	Development	Kidman Resources Scheme Booklet	01-Aug-19	66	106	17	189	1.50%	2.84
3	Rio Tinto	Jadar	Scoping	Update to Ore Reserves and Mineral Resources at Jadar	23-Feb-22	-	85	58	144	1.80%	2.58
4	Liontown	Kathleen Valley	Development	Kathleen Valley Lithium Project - DFS Update 2	08-Apr-21	20	109	27	156	1.35%	2.11
5	American Lithium	Falchani	PEA	Mineral Resource Estimates for the Falchani Lithium Project in the Puno District of Peru	18-Apr-19	-	61	260	321	0.59%	1.90
6	Leo Lithium	Goulamina	Development	Goulamina Lithium Project Definitive Feasibility Study	20-Oct-20	8	56	44	109	1.45%	1.57
7	Livent / Investissement	Whabouchi	Development	NI 43-101 Report on the Estimate to Complete for the Whabouchi Lithium Mine	31-May-19	37	38	17	92	1.36%	1.26
8	Sigma	Grota do Cirilo	Development	Sigma Lithium Corporate Presentation October 2022	03-Oct-22	37	37	12	86	1.43%	1.22
9	Sayona	North American Lithium	Development	Annual Report to shareholders	13-Oct-22	1	72	28	102	1.06%	1.08
10	Prospect	Arcadia	DFS	Staged OFS Investor Presentation	11-Oct-21	16	46	11	73	1.06%	0.77
11	Infinity Lithium	San Jose	Scoping	South-West Connect Conference	20-Oct-22	-	59	52	111	0.61%	0.68
12	Frontier	Pakeagama Lake	PFS	NI 43-101 Technical Report PAK Property & TSX Release March, 1 2022	5-Apr-21 & 1-Mar-22	1	20	21	42	1.54%	0.65
13	Allkem	James Bay	FS	Annual Report to shareholders and Appendix 4E	25-Aug-22	-	-	40	40	1.40%	0.56
14	Piedmont	Carolina Lithium	DFS	Piedmont Increases Mineral Resources	22-Oct-21	-	28	16	44	1.08%	0.48
15	AfriTin Mining	Uis	PEA	AfriTin Corporate Presentation	01-Oct-21	-	-	72	72	0.63%	0.45
16	Atlantic Lithium	Ewoyaa	PFS	Robust Ewoyaa Pre-Feasibility Study	22-Sep-22	-	21	10	30	1.26%	0.38
17	Critical Elements	Rose	FS	Rose Lithium-Tantalum project feasibility study	13-Jun-22	-	31	3	34	0.90%	0.31
18	Zinnwald Lithium <sup>1</sup>	Zinnwald	PEA	PEA for the revised Zinnwald Lithium Project	06-Sep-22	19	17	5	40	0.76%	0.31
19	Savannah	Mina Do Barroso	Scoping	Annual Report and Financial Statements	31-Dec-21	7	8	12	27	1.06%	0.29
20	Kodal Minerals	Bougouni	FS	FS demonstrates robust economics for development of the Bougouni Lithium Project	27-Jan-20	-	12	10	21	1.11%	0.24
21	Sayona	Moblan	PFS	Sayona Doubles Quebec Lithium Resource Base	01-Mar-22	5	7	4	16	1.38%	0.22
22	Premier African Minerals	Zulu	DFS	Africa's Next Lithium Developer	20-Jun-21	-	-	20	20	1.06%	0.21
23	Keliber Oy	Keliber	DFS	Mineral Resources from Keliber's New Tuoreetsaaret Lithium Deposit	23-Jun-22	4	9	3	17	1.02%	0.17
24	Sayona	Authier	DFS	Annual Report to shareholders	13-Oct-22	6	8	3	17	1.01%	0.17
25	CAT Strategic Metals	Kamativi	Pre-scoping	NI 43-101 Technical Report on the Kamativi Tailings Lithium Project	07-Nov-18	-	26	0.3	27	0.58%	0.15
26	Red Dirt	Mt Ida	Pre-scoping	Maiden Lithium Mineral Resource Estimate at Mt Ida	19-Oct-22	-	3	9	13	1.20%	0.15
27	Lion Town	Buldanía	Pre-scoping	Annual Report to Shareholders	30-Sep-22	-	9	6	15	1.00%	0.15
28	Rock Tech Lithium	Georgia Lake	PEA	Rock Tech Files Revised Technical Report	21-Apr-22	2	4	7	13	1.08%	0.14
29	Avalon	Separation Rapids	PEA	NI 43-101 Separation Rapids Lithium Deposit	26-Sep-18	3	5	2	10	1.40%	0.14
30	Essential Metals	Dome North	FS	2022 Annual Report	28-Sep-22	-	5	6	11	1.21%	0.14
31	European Lithium	Wolfsberg	FS	EUR Merger with NASDAQ Corp	26-Oct-22	4	5	3	13	1.00%	0.13
32	Global Lithium	Manna	Pre-scoping	GL1 Agrees to Acquire 100% of Manna Project and update	25-Oct-22	-	-	10	10	1.14%	0.11
33	Snow Lake Resources	Thompson Brothers	Pre-scoping	Annual Report to Shareholders	01-Nov-22	-	9	2	11	1.00%	0.11
34	Global Lithium	Marble Bar	Pre-scoping	GL1 Agrees to Acquire 100% of Manna Project and update	25-Oct-22	-	-	11	11	1.00%	0.11
35	Green Technology	Seymour	Pre-scoping	Investor Presentation South - West Connect Conference	20-Oct-22	-	5	5	10	1.04%	0.10
36	Lepidico	Karibib	Development	Annual Report to Shareholders	18-Oct-22	2	7	3	12	0.45%	0.05

Source: Company filings at November 2022.

Notes: Ranked by contained Li<sub>2</sub>O. Figures are rounded. 1. Lithium grade is reported on a Li basis. Grade converted to Li<sub>2</sub>O using a factor of 2.153.



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