



## Goulamina Lithium Project Mali

## Project on track, planning for DSO in H2

Euroz Hartleys Institutional Conference

Simon Hay Managing Director 7 March 2023

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#### **ORE RESERVES AND MINERAL RESOURCES REPORTING**

The information in this presentation that relates to production targets and Ore Reserves is extracted from the Company's replacement prospectus dated 6 May 2022 (Prospectus) which is available at leolithium.com. The information in relation to Mineral Resources is extracted from the ASX announcement dated 17 January 2023 (Announcement). The Company confirms that all material assumptions and technical parameters underpinning the production targets, Mineral Resources and Ore Reserve estimates in the Prospectus and Announcement continue to apply and have not materially changed.

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## **LEO LITHIUM - A COMPELLING INVESTMENT**

Goulamina Project in Mali - a looming large scale producer

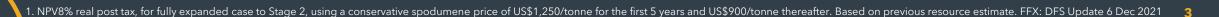


Amongst the world's largest spodumene projects with a 142 Mt resource





Excellent financial metrics with NPV of US\$2.9 billion<sup>1</sup> Well funded equity & debt from Ganfeng, construction underway



## **GOULAMINA LITHIUM PROJECT**

#### Leo Lithium (ASX:LLL)

- Pure play Li, listed June 2022, market cap A\$650 m<sup>1</sup> •
- Major shareholder Firefinch (17.6%), no other substantial ٠

#### **Goulamina Project overview**

**Globally significant project** 

- Top 10 global hard rock lithium resource ٠
- Located in Mali, West Africa large gold mining industry •
- JV with Ganfeng Lithium Group, 50% interest at asset level •
- China's largest lithium chemicals producer by capacity ٠
- Leo is the developer and operator of Goulamina ٠
- Stage 1: 506 ktpa spodumene production capacity ٠
- Capital cost of US\$255 million ٠
- One of the lowest capital intensity projects globally ٠
- Construction on plan; first spodumene product Q2 2024



#### **Growth opportunities for Leo Lithium**

- DSO being progressed to bring forward revenue
- Resource and reserve growth though drilling
- Goulamina expansion with Stage 2



## **LEO LITHIUM LEADERSHIP**

#### **Project development, African and lithium expertise**



#### Leo Lithium Management



Simon Hay Managing Director



Ron Chamberlain Chief Financial Officer & Joint Co-Sec



Megan Schmiede Executive Manager Human Resources



Tom Blackwell Project Director



Rathy Brandes de Roos GM Technical Advisor



Seydou Semega Genera Manager West Africa



Sebastian Kneer GM Geology and Exploration



**Tim Richards** 

**COO** 

Bolaji Okubajo Project Manager

#### Leo Lithium Board



Simon Hay Managing Director



Rod Baxter Non-Executive Director



Amber Banfield Non-Executive Director



Rick Crabb Non-Executive Chairman



Brendan Borg Non-Executive Director

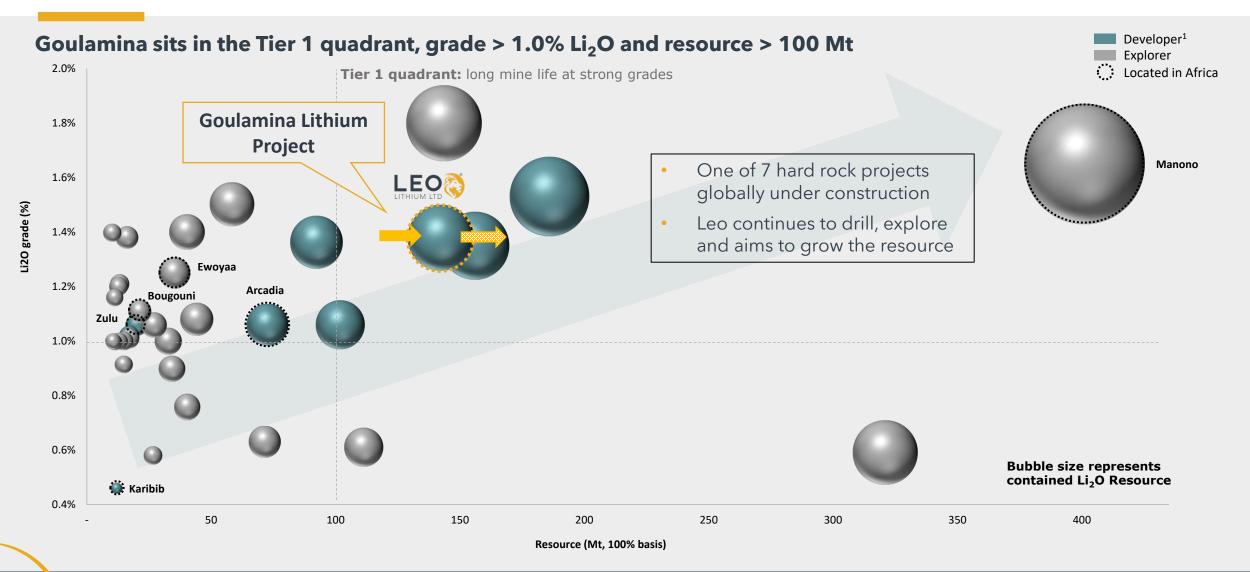


Alan Rule Non-Executive Director



## LARGE-SCALE, HIGH-GRADE RESOURCE

**Global top 7 Mineral Resource of 142Mt at 1.38% Li<sub>2</sub>O** 



Source: Public ASX Announcements (refer to Appendix for further information). Includes developers and explorers only (i.e. excludes producers). 1. Final Investment Decision announced.



## **Drilling to increase the Mineral Resource of 143Mt**



Top 7 Global Mineral Resource of 142.3Mt @ 1.38% Li<sub>2</sub>O

#### Drilling continues on site with diamond and RC rigs:

- Resource extension drilling ongoing at Goulamina.
- Targeting open mineralisation along strike and downdip
- Long laboratory turnaround times for samples
- Geotechnical & hydrogeological drilling also underway

#### 2023 Plans:

- Release further drill results: timing dependent on assay
- Full Mineral Resources update end of H1 2023
- Reserve upgrade mid-Q3 2023
- Pending the scale of upgrade, re-examine Stage 2 capacity
  - Could make sense to expand capacity



**Recent pegmatite core samples** 

## **GOULAMINA RESOURCE & RESERVE**



#### Mineral Resource of 143Mt at 1.38% 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 Mt Li <sub>2</sub> O					
Measured	8.4	1.57	0.13					
Indicated	72.8	1.44	1.05					
Inferred	61.1	1.29	0.79					
Total	142.3	1.38	1.97					
Goulamina Open Pit Ore Reserve Estimate								
Proven	8.1	1.55	0.13					
Probable	44.0	1.50	0.66					
Total	52.0	1.51	0.79					



## **EARLY REVENUE OPPORTUNITY**



### **Direct Shipped Ore (DSO)**

#### Opportunity

- Export ore in 2023
- 6-9 months in advance of spodumene production

#### Wide-ranging benefits

- Early commissioning of mining operations
- Commissioning of logistics channel on ore
- Early revenue during solid pricing environment
- Creates balance sheet flexibility
- Ganfeng need lithium units

#### DSO strategy - base case

- Targeting 60,000 tonnes in Q4, 2 x 30 kt
- Opex approximately US\$300/t FOB (unoptimized)
  - Minimal additional costs, simply brought forward
- Sales discussions with Ganfeng advancing
  - Timing, terms, funding, discharge port, all TBA

#### **DSO options under assessment:**

- Bring forward first shipment into Q3
- Increase volume to 90,000 tonnes
- Further shipments in 2024 pending initial success

## **DSO PRE-PLANNING**



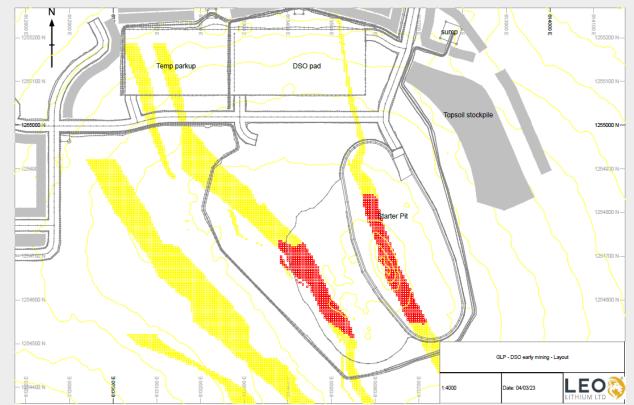
## Plans rapidly developing

#### **Operational activities**

- Mine plan and layout design refined
- Closely-spaced grade control drilling underway
- Mining schedule prepared, key milestones are:
  - Pre-strip in April/May; fresh ore & waste in June

#### Next steps - prior to launch

- Appoint multiple ops contractors in next few weeks
- Contractors to commit to mobilisation schedules
- Obtain routine operational permits



Out cropping starter pit, DSO pad, roads and infrastructure

# **PROJECT ON SCHEDULE**

## Construction is underway, engineering & procurement advancing on plan

#### Project status update

- With ~half packages awarded / funds committed, the project remains on budget
- Moderate inflation experienced at package level
- Once all major packages awarded, team to review cost-to-complete estimate

#### **Upcoming construction activities Q2**

March: commence TSF wall construction, pour further foundations

ball mill, crushers, magnets, accommodation units arrive in Abidjan, continue earthworks & concreting

May-June: finish fencing, start air-strip, wet season preparation, commence diversion road around starter pit

#### **Major project milestones**

April:

Q3 2023: EPCM eng. & procurement completeQ1 2024:Structural completion & commissioningQ4 2023: Permanent accommodation camp readyQ2 2024:Electrical commissioning, mineral commissioning





# **PROCUREMENT ON TRACK**

First equipment packages completed

#### Major equipment packages

- Ganfeng assisting with procurement in China
- Significant cost and schedule benefits realised
  - e.g. ball mill completed in ~ 9 months
- Factory inspections in China completed in February
- First shipment to leave China early April

#### Outlook

- Award final equipment & construction contracts by June
- Award structural and mechanical construction contract
- Equipment to arrive on site starting in Q2



# Ball mill shellCone crushersFactory inspections Feb 2023, Leo, Ganfeng, QC eng. reps



Nordberg

**Earthworks and concreting advancing solidly** 







Crushing conveyor footings being poured First concrete pour on 14 Feb

Primary crusher foundations (now poured) & steel installation on the wing walls



#### **Earthworks progress**



Process plant site: clay removal and backfill Next: prepare foundations of mag circuit and thickeners

Earthworks in mill area construction offices in background



**Concreting progressing to plan** 

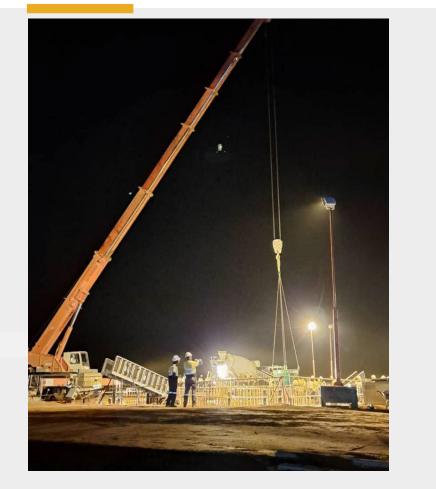


**Ball mill raft slab preparations** 

Pouring the ball mill raft slab on day shift



**Concreting progressing to plan** 





Concrete pour of the ball mill raft slab. Largest single pour of the project, 480 m<sup>3</sup>, 20 hours Team now focused on the primary crusher work fronts. Concrete package runs until Q4

# **PRODUCT TRANSPORT & LOGISTICS**

## Seeking flexibility with multiple port options

#### **Progress on product storage and port logistics**

- First port agreement secured at Abidjan, Côte d'Ivoire
- 10 year agreement for min. 250,000 tpa concentrate storage & export
- Assessing alternative ports as means of risk mitigation
- San Pedro port 2<sup>nd</sup> inspection in late Feb; well suited to DSO

West African transport routes from Goulamina

Abidjan Port bulk export loading facility and secured warehouse









# **PRODUCT TRANSPORT & LOGISTICS**

#### Early engagement with trucking contractors

#### **Progress on road routes and trucking**

- Logistics consultant engaged to assemble the road transport operation
- DSO presents opportunity to trial trucking contractors before spodumene
- Spodumene transport options being progressed in parallel
- Studies show 50 t payloads possible, 32% higher than DFS
- Border crossings and processes being assessed
- Consultant / ops mgmt. to drive / survey all road routes in Q2





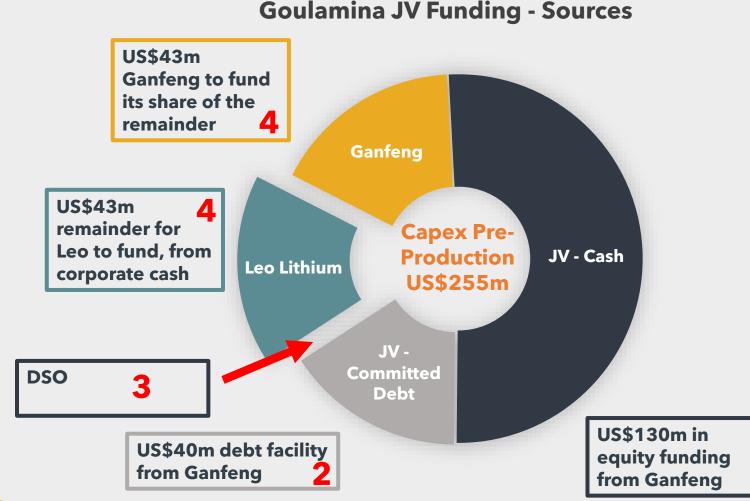


<sup>4-</sup>axle, 50 t payload trailers being assessed

## **PROJECT FUNDING SECURED**

#### Ganfeng equity, debt and Leo Lithium corporate funds





#### Funding draw down order

- 1. Ganfeng equity: sitting in JV account
  - US\$108.5 million<sup>1</sup>
- 2. Ganfeng debt (expandable)
  - US\$40 million in place, undrawn
- 3. DSO provides another funding source
- 4. Finally Leo corporate cash
  - Cash balance A\$70.8 million<sup>1</sup>

## **GOULAMINA** Strong Govt. & Community Support



#### Mali in general

- Govt. continues to work towards elections in 2023-24
- No border sanctions: equipment & people moving freely in the region
- Goulamina region remains calm and stable
- Minister of Mines, Energy and Water remains supportive of the project
- Govt. has <u>not</u> exercised its right to a 10% free carry stake as yet

#### Community

- Regular engagement with community leaders
- Employment growing: over 400 on site, mostly Malians
- JV has committed to fund local water and road projects in 2023
- Local community projects to accelerate from Q2
- ESG consultant appointed to prepare Sustainability program
- Priorities: Materiality assessment, ESG framework selection, community projects

Goulamina JV community team members on recent visit to the Goulamina village



## **LEO LITHIUM A COMPELLING** INVESTMENT

- ✓ Large scale, high grade
- ✓ Critical mineral
- Outstanding financials
- Funding secured
- Ganfeng Lithium JV partner

- Mali Govt. support
- **Construction underway On budget & schedule**
- Near term revenue

## **Corporate Strategy 5 year plan** Near term catalysts



**Timeframe** 

Ś	EXECUTE STAGE 1	<ul><li>First spodumene product mid-2024</li><li>Early revenue from DSO in 2023</li></ul>	2023-24	
	DEVELOP STAGE 2	<ul> <li>Upgrade resource &amp; reserve</li> <li>Re-examine Stage 2 capacity</li> <li>Stage 2 scoping study →FFED phase</li> </ul>	2023-25	
0.→0	DOWNSTREAM	<ul> <li>TREAM</li> <li>Consider Downstream options</li> <li>Early-stage discussions underway</li> </ul>		
	GROWTH	<ul> <li>Exploration with a lithium focus</li> <li>Greenfields, farm-ins, M&amp;A</li> <li>Africa, Australia, The Americas</li> </ul>	2023+	

# LITHIUM LTD

#### For more information

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leolithium.com

## **APPENDIX: 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			Development	Goulamina Resource increased by 33.8Mt to 142.3Mt	17-Jan-23					1.38%	1.97
6	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
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	Frontier	Pakeagama Lake	PFS	Frontier Announces Expansion of Spark Deposit	28-Feb-23	1	25	32	58	1.50%	0.88
11	Prospect	Arcadia	DFS	Staged OFS Investor Presentation	11-Oct-21	16	46	11	73	1.06%	0.77
12	Infinity Lithium	San Jose	Scoping	South-West Connect Conference	20-Oct-22	-	59	52	111	0.61%	0.68
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	1-Feb-23	4	25	7	35	1.25%	0.44
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	Buldania	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	Helikon 4 & Rubicon Stockpiles Upgrade to Mineral Resources	30-Jan-23	2	8	1	12	0.46%	0.05