

# QUARTERLY ACTIVITIES REPORT

- Jindalee management team strengthened with appointment of Ian Rodger as CEO and Wayne Zekulich as Non-Executive Chair
- Shareholders approved the Company being renamed Jindalee Lithium (ASX: JLL)
- Exploration Target (announced November 2023) highlighted further upside at McDermitt
- Exceptional metallurgical testwork results to feed into McDermitt PFS

## US LITHIUM

### McDermitt Lithium Project (Jindalee 100%)

In February 2023, Jindalee Lithium Limited (**Jindalee** or the **Company**) announced an updated Mineral Resource Estimate (**MRE**) at Jindalee's 100% owned McDermitt Lithium Project (USA) (Figure 1)<sup>1</sup>.

The 2023 MRE for McDermitt contains a combined Indicated and Inferred Mineral Resource Inventory of 3.0 Billion tonnes at 1,340 ppm lithium (Li) for a total of 21.5 Million tonnes lithium carbonate equivalent (LCE) at 1,000 ppm cut-off grade. At 21.5 Mt LCE, McDermitt is the largest lithium deposit in the United States (US) by contained lithium in Mineral Resource, and a globally significant resource (Table 1), with the deposit remaining open to the west and south (Figure 1).

Cut-off Grade (ppm Li)	Indicated Resource			Inferred Resource			Indicated and Inferred Resource		
	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)	Tonnage (Mt)	Li Grade (ppm)	LCE (Mt)
<b>1,000</b>	1,470	1,420	11.1	1,540	1,270	10.4	3,000	1340	21.5

Table 1 – Summary of 2023 McDermitt MRE<sup>1</sup> at the reporting cut-off of 1,000 ppm. Note: totals may vary due to rounding.

### Exploration Target

On 21 November 2023 Jindalee announced an independently estimated Exploration Target Range (**ETR**) at McDermitt of **300 – 700 Million tonnes at 1,100 – 1,400 ppm Li** (at 1,000ppm Li cut-off) (Table 2, Figure 1)<sup>2</sup>.

The Exploration Target surrounds and abuts the 2023 MRE and is extrapolated from 62 holes drilled at McDermitt from 2018 to 2022. Material for the MRE extends to a maximum distance of 1,200m from the nearest hole, with the ETR extending to a maximum of 1,500m from the nearest hole (Figure 1).

### Cautionary Statement

*The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for all target areas reported. It is uncertain if further exploration will result in the estimation of a Mineral Resource.*

Cut-off Grade (ppm Li)	Lower Limit (Mt)	Upper Limit (Mt)	Grade Range (ppm Li)	Mid-point Contained LCE (Mt)
1,000	300	700	1100 - 1400	3.3

Table 2 – Summary of Exploration Target Range at cut-off of 1000ppm. LCE calculated using the midpoint of the range.

Furthermore, sampling of weathered sediments exposed in drainages west and south of the Mineral Resource and Exploration Target areas has returned strongly anomalous lithium values, indicating excellent potential to locate additional lithium mineralisation in these areas over and above the Exploration Target (Figure 1).

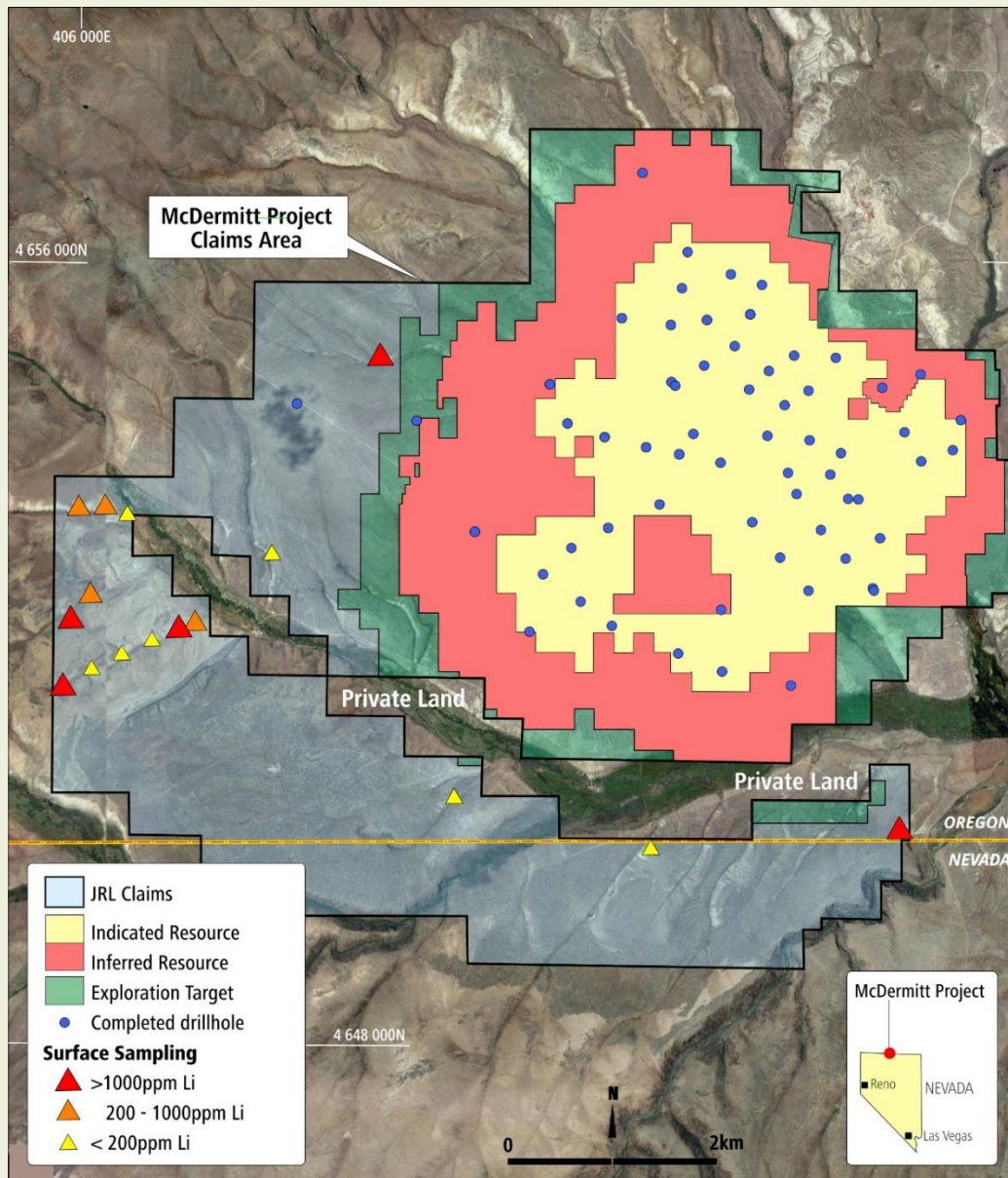


Figure 1 – Plan view of the McDermitt Lithium Project with 2023 Mineral Resource<sup>1</sup> (at 1523mRRL), completed drilling, Exploration Target<sup>2</sup> and Surface Sampling locations outside the Mineral Resource and Exploration Target areas.

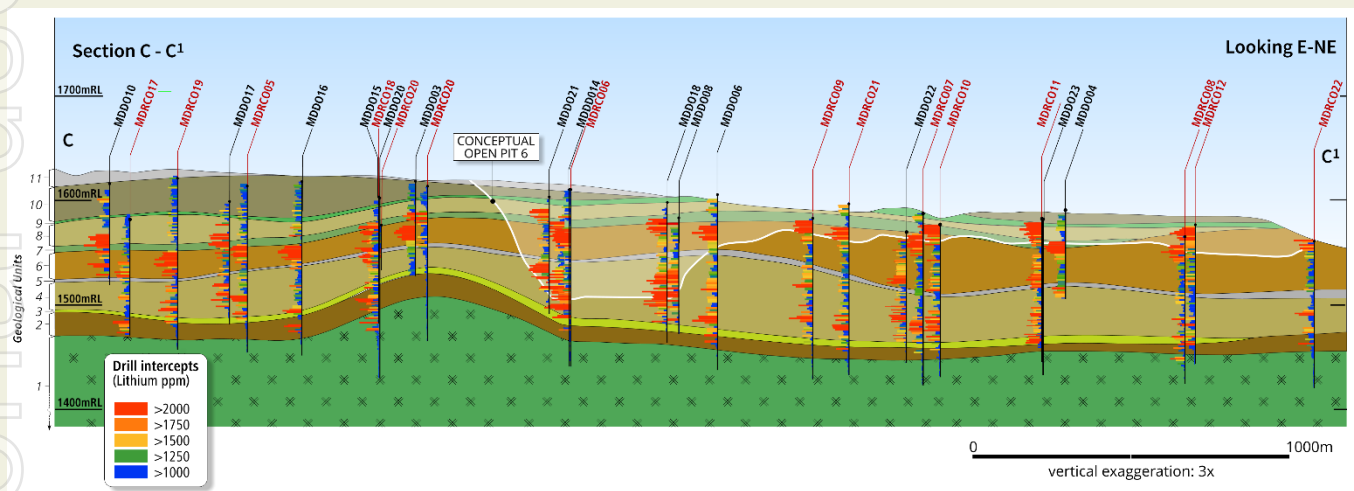
### Metallurgical Testwork

In March 2023 Jindalee announced that global engineering, procurement, construction and maintenance (EPCM) company Fluor Corporation (**Fluor**) had reviewed metallurgical testwork undertaken at McDermitt and had

determined that acid leaching with ore beneficiation (to upgrade the leach head grade) delivered the lowest operating costs and best financial outcome among the alternatives considered<sup>3</sup>.

Fluor also noted that the very large Mineral Resource at McDermitt (21.5 Mt LCE, Table 1)<sup>1</sup> allows flexibility in development, providing the opportunity to optimise mining and ore feed grade early in the mine life and recommended that a comprehensive metallurgical testwork program be undertaken to provide information upon which the preferred flowsheet for the processing of McDermitt ore could be defined.

In June 2023 leading mine engineering group Cube Consulting generated conceptual pit shells using the McDermitt MRE geological model to assist with selection of samples for the metallurgical testwork program, which is being managed by Fluor. Samples from Units 4, 6, 8 and 10 (units recognised by Jindalee geologists as carrying elevated lithium values) within the Indicated portion of Pit Shell 6 (nominal 43 years) (Figure 2) were selected and approximately 700 kg of drill core was despatched to consultant metallurgists Hazen for testing.



**Figure 2 – Schematic Section C-C’ with completed drilling, simplified geology and conceptual Pit Shell 6 (nominal 43 years).**  
(Note: lateral projection onto section plane and 3x vertical exaggeration may cause distortion)

On 23 October 2023, Jindalee announced initial head assay results had been received for Units 4, 6, 8 and 10<sup>4</sup>. These samples averaged 0.179% Li (1,790 ppm), 34% higher than the average grade of the current McDermitt Indicated and Inferred resource grade of 0.134% Li (1,340 ppm)<sup>1</sup>, suggesting excellent potential to selectively mine and process units of higher-grade ore early in the mine life, with positive implications for Project economics.

On 15 November 2023 the Company announced excellent results from beneficiation of the individual unit samples via attrition scrubbing<sup>5</sup>. The calculated recovery for a composite sample (representing a nominal life-of-mine average feed) recovered 92.0% of the lithium to leach feed and rejected 25.3% of the mass at a cut size of 250 microns (Table 3). The average grade to leach was 2,107 ppm Li, 18% higher than the average head grade of the metallurgical samples (1,790 ppm Li)<sup>4</sup> and 57% higher than the average Mineral Resource grade (1,340 ppm Li; refer Table 1).

Cut Size (µm)	Pit Shell	Li Recovery	Mass Rejection	Li to Leach
250	6	92.0%	25.3%	2,107 ppm

**Table 3 – Summary of Lithium Recoveries via Attrition Scrubbing at 250 micron cut size (Pit Shell 6).**

Subsequent to the end of the quarter, initial acid leaching results from the metallurgical testwork were announced on 18 January 2024<sup>6</sup>. Leaching was conducted on leach feed with a beneficiation cut size of 250 micron ( $\mu\text{m}$ ). This feed was leached without further grinding (250  $\mu\text{m}$  leach feed) and with further grinding to achieve 100% passing 75  $\mu\text{m}$  (75  $\mu\text{m}$  leach feed) using 500 kg acid per tonne of leach feed and returned very high lithium extraction rates. The 250  $\mu\text{m}$  leach feed was also leached with a higher strength acid (850 kg/t) recording extremely high extraction rates (>98%) for all units (Table 4). The leach testwork extended for up to four hours with most of the Li extraction occurring in the first hour.

Unit	Cut Size ( $\mu\text{m}$ )	Leach Feed (100% passing $\mu\text{m}$ )	Li Extraction (500 kg/t)	Li Extraction (850 kg/t)
4	250	250	96.8%	98.7%
		75	99.1%	N/A
6		250	91.9%	99.1%
		75	92.1%	N/A
8		250	91.5%	99.0%
		75	90.7%	N/A
10		250	89.2%	100.0%
		75	88.0%	N/A
Composite		250	92.9%*	N/A
		75	94.0%	N/A

**Table 4 – Maximum Lithium Extraction at variable feed sizes and acid strengths - Units 4, 6, 8 and 10 (\* calculated)**

The calculated Li extraction for a composite sample using 250  $\mu\text{m}$  leach feed was 92.9% which compares favourably with the extraction rate (94.0%) achieved through testwork from the finer (75  $\mu\text{m}$ ) leach feed (Table 4) using 500 kg/t acid.

Leaching of a bulk composite has commenced to provide lithium in solution for downstream testwork. Beneficiated samples (250  $\mu\text{m}$ ) have also recently been shipped to POSCO Holdings (NYSE: PKX) (**POSCO**) for testwork, pursuant to the Memorandum of Understanding signed with POSCO in February 2023<sup>7</sup>.

### Pre-Feasibility Study (PFS)

The McDermitt PFS commenced in June 2023 with Fluor appointed as lead engineer and Michael Elias engaged as the Company's Study Manager. Fluor has extensive experience with sediment hosted lithium deposits in the US and has assembled a team of highly credentialled metallurgists and engineers to work on the study.

In December 2023 Jindalee reported that additional study work was underway with US West Coast based engineering firms for supporting works including pit geotechnical, mine waste and tailings storage management, hydrology and water supply and grid power supply, and that discussions were underway with a mine planning engineering consultancy with contract award targeted for early 2024<sup>8</sup>. The mine planning consultancy was awarded in mid-January 2024 to Cube Consulting. The PFS will also leverage the baseline environmental studies and Native American heritage investigations undertaken for the Exploration Plan of Operations (**EPO**) (refer below).

Work is progressing well with several preliminary deliverables already having been received. The PFS is expected to continue through until mid-2024, subject to the timing of metallurgical test results, site investigations and approvals.

## Permitting

In May 2023 Jindalee announced that the EPO for McDermitt, originally submitted to the US Bureau of Land Management (**BLM**) in August 2022 (with additional information provided early 2023), had been deemed complete<sup>9</sup>.

The public comment period on the EPO closed mid-September 2023 and the environmental review process required by the National Environmental Policy Act (**NEPA**) commenced 10 January 2024. The final decision of the NEPA assessment will be incorporated into the EPO, with this process expected to take up to 12 months.

Commencement of the NEPA review is a significant milestone as once approved, the EPO will allow Jindalee to significantly increase on-site activity, including infill drilling and providing additional, fresh samples for site investigations (e.g. geotechnical, hydrological) and further metallurgical testwork.

The strategic importance of the McDermitt Project to the US was further underlined in December 2023 with enactment of the latest National Defense Authorization Act which bans the US Defense Department from buying batteries produced by China's biggest manufacturers, furthering the need to establish domestic supply chains<sup>10</sup>.

Jindalee continues to engage with US Government agencies (both State and Federal) regarding opportunities to advance the Project, including technical cooperation between agencies and the potential for US Government funding for the Project, with further updates expected the first half of 2024.

## CORPORATE

### Management Changes

In December 2023 Jindalee announced two significant additions to the management team as the Company transitions from explorer to developer.

On 4 December 2023 Jindalee announced the appointment of Ian Rodger as Chief Executive Officer (**CEO**), commencing January 2024<sup>11</sup>. Mr Rodger is a qualified Mining Business Executive with 15 years of experience in various roles including as a Mining Engineer for Rio Tinto across two large greenfield mine developments, before successfully transitioning into mining corporate finance where he held Executive and Director positions at RFC Ambrian overseeing origination and management of numerous mandates across a range of corporate advisory roles.

In his most recent role as Project Director for Oz Minerals (ASX: OZL), Mr Rodger made significant contributions to successfully define the value potential of the West Musgrave Nickel/Copper Province through the delivery of a portfolio of growth studies. Most notably, he led technical, market and partnership development workstreams, successfully confirming value potential for producing an intermediate Nickel product for the battery value chain.

Mr Rodger holds a Bachelor of Mining Engineering from the University of Queensland, a Masters of Mineral Economics from Curtin University and is also a graduate of the Australian Institute of Company Directors and member of the Australasian Institute of Mining and Metallurgy.

On 27 December 2023 the Company announced the appointment of Wayne Zekulich as Non-Executive Chair, effective 1 February 2024, replacing Justin Mannolini who has served as a Jindalee director since September 2013<sup>12</sup>.

Mr Zekulich is an accomplished Company Director and finance professional having held various Non-Executive Director and Chief Financial Officer roles. Mr Zekulich is currently the Chairman of Pantoro (ASX: PRN) and a Board member of Infrastructure WA. He currently consults to a global investment bank. Mr Zekulich holds a Bachelor of Business Degree and is a Fellow of the Institute of Chartered Accountants.

Jindalee also advised that Ms Jessamyn Lyons had resigned from the role of Joint Company Secretary during the period, with Ms Carly Terzanidis remaining in the role of Company Secretary<sup>11</sup>.

Jindalee sincerely thanks both Justin and Jessamyn for their contributions to the Company.

### Capital Raising

On 16 October 2023, Jindalee announced a capital raising comprising the issue of up to 3,930,000 new ordinary shares (**Shares**) at an issue price of \$1.40 per Share to raise up to \$5,500,000 (before costs) pursuant to a Prospectus dated 13 October 2023 (**Capital Raising**)<sup>13,14</sup>. Funds raised are being utilised to advance exploration and development of the McDermitt Lithium Project and to provide general working capital.

Applications were received for in excess of the maximum amount of \$3.5 million (before costs) sought to be raised in the Public Offer. Accordingly, Jindalee resolved to close the Public Offer early<sup>15</sup>. Over 150 new sophisticated, professional and retail investors joined the Company's share register following the Public Offer.

The Capital Raising also included a Priority Offer to eligible Jindalee share and option holders. The Priority Offer closed on 27 October 2023 raising \$0.6 million (before costs)<sup>16</sup>. Jindalee Directors applied for a further 175,000 shares (worth \$245,000), approved by shareholders at the Company's Annual General Meeting (**AGM**) held on 22 November 2023.

### Change of Name

At the AGM shareholders approved changing the Company's name to Jindalee Lithium Limited to reflect the focus on lithium exploration, with the Company's ASX ticker changing to "JLL".

### General

In addition to its US lithium projects, Jindalee provides shareholders with indirect exposure to hard rock lithium, gold, base and strategic metals, iron ore, uranium and magnesite in Australia through holdings in spin-out companies Dynamic Metals Ltd (ASX: DYM) and Energy Metals (ASX: EME).

Jindalee currently has 60.5M shares on issue with cash and listed securities at 31 December 2023 of approximately \$6.56M<sup>17</sup>.

## FINANCIAL COMMENTARY

The Quarterly Cashflow Report (Appendix 5B) for the period ending 31 December 2023 provides an overview of the Company's financial activities.

Exploration expenditure for the reporting period was \$1.105m and was dominated by expenditure on McDermitt. Net corporate expenditure was \$506k. The total amount paid to directors of the entity and their associates in the period (item 6.1 of the Appendix 5B) was \$108k and includes directors' fees, consulting fees and superannuation.

Authorised for release by the Jindalee Board of Directors.

For further information please contact:

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## ADDITIONAL INFORMATION

Additional details including JORC 2012 reporting tables, where applicable, can be found in the ASX announcements referenced in this report and announcements lodged with the ASX during the quarter:

### References

1. Jindalee Lithium ASX announcement 27/02/2023: "Resource at McDermitt increases to 21.5 Mt LCE"
2. Jindalee Lithium ASX announcement 21/11/2023: "Exploration Target Highlights Further Upside at McDermitt"
3. Jindalee Lithium ASX announcement 24/03/2023: "Preferred Lithium Extraction Process for McDermitt Project"
4. Jindalee Lithium ASX Announcement 23/10/2023: "First results from Metallurgical Testwork at McDermitt"
5. Jindalee Lithium ASX Announcement 15/11/2023: "Exceptional Metallurgical Results from McDermitt"
6. Jindalee Lithium ASX Announcement 18/01/2024: "More Exceptional Metallurgical Results from McDermitt"
7. Jindalee Lithium ASX Announcement 13/02/2023: "MOU Executed with POSCO Holdings"
8. Jindalee Lithium ASX Announcement 19/12/2023: "McDermitt Lithium Project Update"
9. Jindalee Lithium ASX Announcement 16/05/2023: "McDermitt Progress Update"
10. Source: <https://www.whitehouse.gov/briefing-room/statements-releases/2023/12/22/>
11. Jindalee Lithium ASX announcement 04/12/2023: "Appointment of Ian Rodger as CEO"
12. Jindalee Lithium ASX announcement 27/12/2023: "Non-Executive Chair Transition"
13. Jindalee Lithium ASX announcement 16/10/2023: "\$5.5M Capital Raising to Advance McDermitt Lithium Project"
14. Jindalee Lithium ASX announcement 13/10/2023: "Prospectus"
15. Jindalee Lithium ASX Announcement 19/10/2023: "Public Offer to Close Early - \$3.5 Million Raised"
16. Jindalee Lithium ASX Announcement 31/10/2023: "Priority Offer Raises \$0.6 Million"
17. Jindalee Lithium ASX announcement 30/01/2024: "Quarterly Cashflow Report"

### Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Lindsay Dudfield and Mr. Brett Marsh. Mr. Dudfield is a director, shareholder and consultant to the Company and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Marsh is an employee of the Company and an American Institute of Professional Geologists (AIPG) Certified Professional Geologist and a Registered Member of the Society for Mining, Metallurgy & Exploration (SME). Both Mr. Dudfield and Mr. Marsh have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration, and to the activity being undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (JORC Code). Mr. Dudfield and Mr. Marsh consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Exploration Target and the Mineral Resource Estimate for the McDermitt deposit is based on information compiled by Mr. Arnold van der Heyden, who is a Member and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy and a Director of H&S Consultants Pty Ltd. Mr. van der Heyden has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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' (JORC Code).

The Company confirms that it is not aware of any further new information or data that materially affects the information included in the original market announcements by JLL listed above, and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. To the extent disclosed above, the Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### Forward-Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include but are not limited to statements concerning Jindalee's current expectations, estimates and projections about the industry in which Jindalee operates, and beliefs and assumptions regarding Jindalee's future performance. When used in this document, the words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Jindalee believes that its expectations reflected in these forward-looking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors,

some of which are beyond the control of Jindalee and no assurance can be given that actual results will be consistent with these forward-looking statements.

Such factors may include, among others, risks related to regulatory approvals of or in connection with the proposed transaction, actual results of current or planned exploration activities, change in market conditions which affect the completion of the transaction, obtaining appropriate approvals to undertake exploration activities in the portfolio of projects, changes in exploration programs and budgets based upon the results of exploration, future prices of minerals resources; grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining government approvals or financing or in the completion of development or construction activities; movements in the share price of investments and the timing and proceeds realised on future disposals of investments, the impact of the COVID 19 pandemic as well as those factors detailed from time to time in the Company's interim and annual financial statements and reports, all over which are available for review on ASX at [asx.com.au](http://asx.com.au) and OTC Markets at [otcmarkets.com](http://otcmarkets.com).

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.



## Tenement Information in accordance with Listing Rule 5.3.3

As at 31 December 2023

Project	Tenement ID	Location	Status	Interest at beginning of Qtr	Interest at end of Qtr
McDermitt*	HTM 16-20, 24-35, 39-55, 59-77, 81-101, 105-125, 130-149, 152-172, 176-195, 199-213, 217-225, 231-235, 238-242, 258-260, 340-342, 348, 349, 355, 356, 362, 363, 369, 376-380, 387-391, 398, 399, 420-445, 448-456, 460-469, 480-493, 496, 497, 500-517, 532-585, 685-687. HTX 1-113, 116-442.  HTM 586-682.	Oregon, USA  Nevada, USA	Granted	100%	100%
Clayton North*	HTC 1-6, 12-18, 25-28.	Nevada, USA	Granted	100%	100%
Sherlock	E47/4345	Western Australia	Granted	20%	20%

\* Tenements held by Jindalee's wholly owned US subsidiary, HiTech Minerals Inc.