

# SUPERBIRD LITHIUM BRINE SMACKOVER PROJECT LEASED ACRES INCREASES BY 11%, TO 13,457 ACRES

## HIGHLIGHTS

- **Continued growth in the Superbird leased acreage position firmly secures Pantera as one of the most significant players in the Southwest Arkansas Smackover Brine play.**
- **Supported by the exclusive abstract agreement covering 50,000 acres, the Superbird Lithium Brine Project's land position has grown an additional 11% (since last specific acreage update on 10/01/24) and now totals 13,457 acres, adjacent and on trend from Exxon Mobil's Lithium Brine project.**
- **With a further 8,600 acres under negotiation,<sup>1</sup> the Superbird Lithium Brine Project now has a clear path to 20,000 leased acres.**
- **Pantera has entered into a Binding Implementation Agreement to acquire 100% of the issued share capital in Daytona Lithium (holder of the Superbird Project),<sup>2</sup> voting to date indicating strong shareholder support towards the transaction.**
- **Multiple re-entry wells identified within project footprint and negotiations with various well owners commenced, potentially allowing for a well re-entry & sampling program to commence Q2 2024.**
- **Immediately to the east and abutting the Superbird Project, Exxon Mobil recently drilled multiple lithium brine wells on their leased acres and intend to build a large lithium brine processing facility to bring their project into production.<sup>3</sup>**
- **Further east in Southwest Arkansas, Standard Lithium has recently completed a PFS and have been running a pilot plant for over 12 months to validate the play and now have construction scheduled for 2025 and production expected in 2027.<sup>4</sup>**

### Commenting on the additional leased acres, CEO Matt Hansen:

*"The leasing strategy implemented for the Superbird Project continues to deliver, surpassing an impressive 13,400 acres through the strategic utilisation of the Exclusive 50,000-acre Abstract Agreement.*

<sup>1</sup> Formal mineral lease offers have been sent to landholders or have signed commitments by landowners to deliver owned acres.

<sup>2</sup> ASX PFE Announcement: 'Pantera Enters Fast Emerging US Lithium Brine Play', 24 August 2023.

<sup>3</sup> Exxon Mobil 'Our First Lithium Well - But Not Our First Rodeo', 18 January 2024.

<sup>4</sup> Standard Lithium 'Standard Lithium Files Technical Report For the South West Arkansas Project', 18 September 2023.

The recently announced independently estimated Exploration Target of 436,000 to 2,966,000 tonnes of Lithium Carbonate Equivalent (LCE) for the 50,000 acre exclusive abstract area encompassing the Superbird Lithium Brine Project underscores the potential of the Superbird Project to become a project of significance in the United States lithium sector.

Notably, the Smackover is gaining recognition as the prime location in North America for developing Direct Lithium Extraction projects. Renowned lithium expert Mr Joe Lowry is quoted as saying 'the Smackover is where the US will have brine and DLE success,' highlighting the region's strategic significance in the lithium industry."

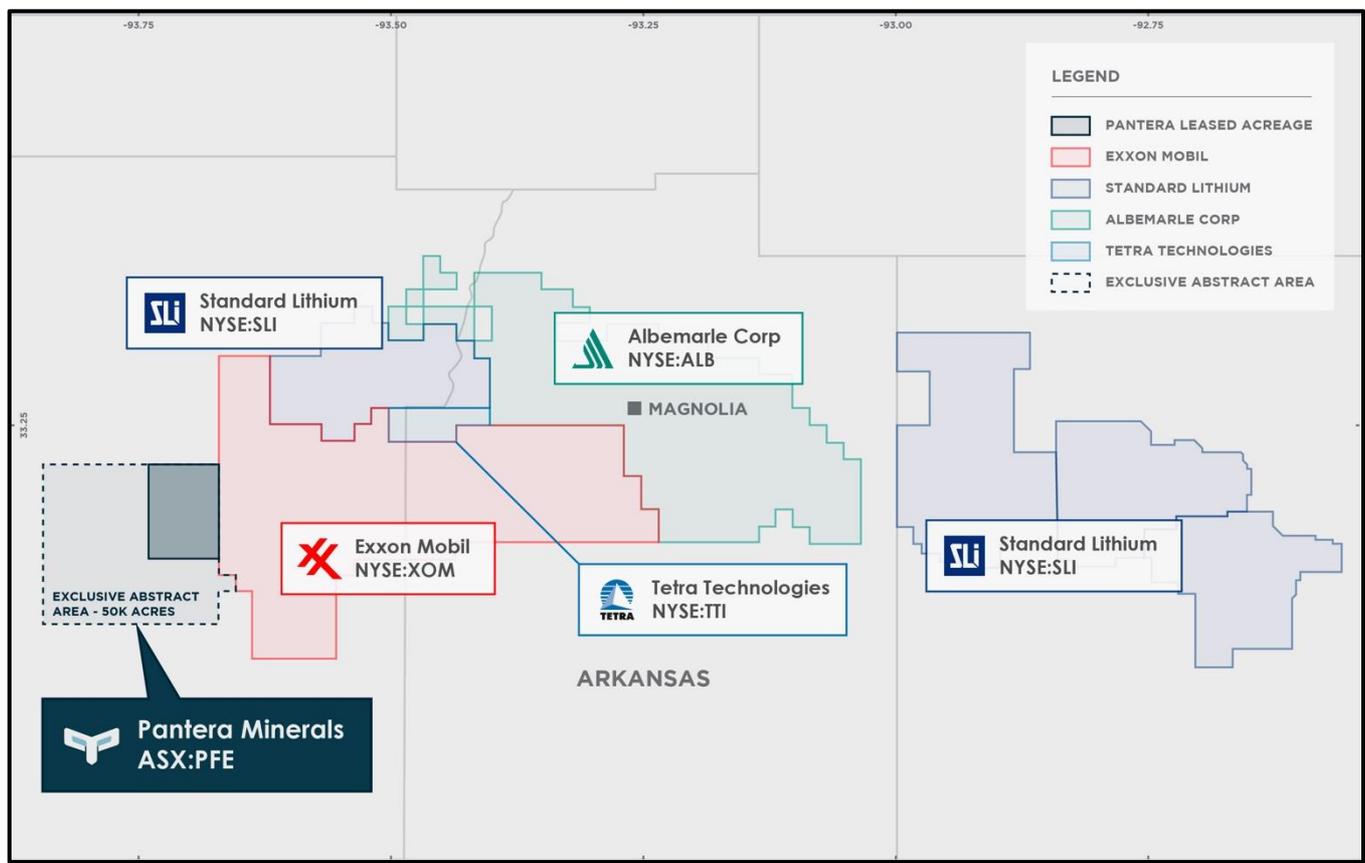


Figure 1- Superbird Lithium Project location showing proximity to adjacent lithium brine projects

### Next Steps and News Flow

- **Transaction completion, Pantera shareholder approval at General Meeting, 15 February 2024.**
- **Re-entry of an identified well, located within the Superbird Project’s area of interest, to test brine grade, permeability, and porosity from the Smackover Formation.**
- **DLE (Direct Lithium Extraction) test of re-entry well sample by two highly regarded DLE technology providers.**

- **Acquisition of existing 2D Seismic data, to facilitate subsurface modelling of the Superbird Project's area of interest. This modelling will provide Pantera with clear drilling locations for the first resource definition wells.**
- **Continued acquisition of additional project acreage.**

For further information please contact:

**Matt Hansen**

Chief Executive Officer

E: matthansen@panteraminerals.com

P: +61 (0) 401 499 379

**Barnaby Egerton-Warburton**

Chairman

E: bew@panteraminerals.com

P: +61 (0) 437 291 155

---

Pantera Minerals Limited (ASX: PFE) ("**Pantera**" or the "**Company**") is pleased to announce that the acquisition of additional acreage has increased the Superbird Lithium Brine Project to 13,457 acres, with a further 8,600 acres under negotiation.<sup>5</sup>

Pantera has formally entered into a Binding Implementation Agreement with Daytona Lithium Pty Ltd ("**Daytona Lithium**") to acquire 100% of the issued share capital in Daytona Lithium, the holder of the Superbird Lithium Brine Project.<sup>6</sup> The Company currently holds the right to acquire up to a 35% interest in the issued share capital of Daytona Lithium, through a \$2 million Convertible Note Facility.<sup>7</sup>

Daytona Lithium has established a conceptual Exploration Target<sup>8</sup> ranging from 436,000 to 2,966,000 tonnes of contained Lithium Carbonate Equivalent ("**LCE**") within the project's 50,000 acre Exclusive Abstract Area,<sup>9</sup> which houses the Superbird Project. The estimate is based on lithium concentrations ranging between 225 mg/L and 450 mg/L with a median value of 338mg/L, showcasing the potential world-class scale of the project.

The Exploration Target's potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate a JORC compliant Mineral Resource, and it is uncertain if further exploration will result in the estimation of a such a resource.

Since Pantera's initial investment, the Superbird Lithium Project has increased materially from 5,325 to now cover a land position of 13,457 leased acres, an increase of 152%.

## About The Superbird Lithium Brine Project

The Superbird Lithium Project now covers a land position of 13,457 leased acres of lithium brine prospective ground in the Smackover Formation, a known high lithium grade brine formation. Since Pantera's initial investment in Daytona Lithium, the project's land position has increased by 152%

<sup>5</sup> Formal mineral lease offers have been sent to landholders or have signed commitments by landowners to deliver owned acres.

<sup>6</sup> PFE Announcement: 'Pantera Acquires 100% Of Daytona Lithium In Arkansas' Smackover Lithium Field, 11 December 2023.

<sup>7</sup> PFE Announcement: 'Pantera Enters Fast Emerging US Lithium Brine Play', 24 August 2023.

<sup>8</sup> PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project', 29 January 2024.

<sup>9</sup> The Exclusive Abstract Area covers 50,000 acres with the Exploration Target being calculated as being contained within this area.

from 5,325 to 13,456 acres. With a further 8,600 acres under negotiation,<sup>10</sup> the Superbird Project now has a clear path to 20,000 leased acres.

### *Exploration Target*

Daytona has established a conceptual Exploration Target<sup>11</sup> ranging from 436,000 to 2,966,000 tonnes of contained LCE within the project's 50,000 acre Exclusive Abstract Area,<sup>12</sup> which houses the Superbird Project. The estimate is based on lithium concentrations ranging between 225 mg/L and 450 mg/L with a median value of 338mg/L, showcasing the potential world-class scale of the project.

The Exploration Target's potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate a JORC compliant Mineral Resource, and it is uncertain if further exploration will result in the estimation of a such a resource.

### *Exclusive Abstract Agreement*

The Superbird Lithium Project is supported by a 50,000-acre Exclusive Abstract Agreement, entered into with a commercial abstract company - the sole commercial provider of mineral ownership abstract information for the project area. Understanding mineral ownership is crucial for securing lithium brines leases, offering a significant commercial advantage to the Superbird Lithium Project.

This Exclusive Abstract Agreement ensures access to mineral ownership records, confirming owners and ensuring that leases are executed with the correct mineral rights holders. In the USA, mineral rights can be separated from surface rights, and examining records dating back to the 1800s is essential for accurate ownership confirmation.

The Exclusive Abstract Agreement grants a key advantage, allowing the Superbird Lithium Project to swiftly acquire accurate mineral ownership information for the project area compared to competitors. While this information is obtainable from public records, the process is both time-consuming and labour-intensive.

Covering an area of 50,000 acres, the Exploration Target identified pertains to these 50,000 acres.

### *Strategically Positioned*

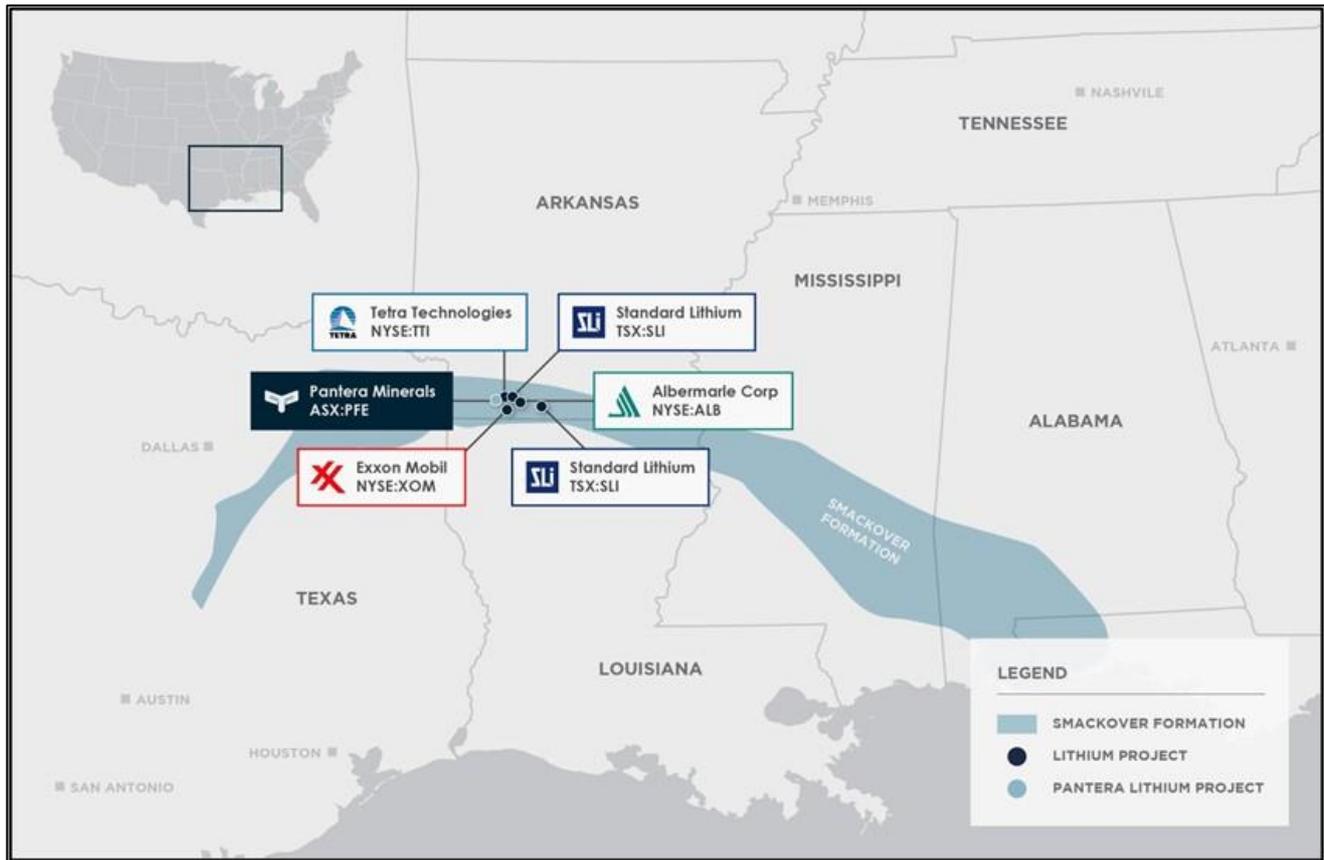
The strategically positioned Superbird Project is situated in the Smackover Formation in South-West Arkansas, a renowned high-grade brine formation. This area is home to various lithium brine explores

<sup>10</sup> Formal mineral lease offers have been sent to landholders or have signed commitments by landowners to deliver owned acres.

<sup>11</sup> PFE Announcement: 'Material LCE Exploration Target For The Superbird Lithium Brine Smackover Project', 29 January 2024.

<sup>12</sup> The Exclusive Abstract Area covers 50,000 acres with the Exploration Target being calculated as being contained within this area.

and producers, including industry leaders such as Exxon Mobil (NYSE: XOM), Standard Lithium (NYSE: SLI), Tetra Technologies' (NYSE: TTI) and Albemarle Corporation (NYSE: ALB).



**Figure 2 - Superbird Lithium Project location within the Smackover Formation**

The Smackover Formation is host to several lithium brine explorers and producers, with the Superbird Project in proximity to the following lithium projects:

#### *EXXON LITHIUM BRINE PROJECT (NYSE: XOM)*

- Project (120k acres) acquired in May 2023 reportedly for >US\$100m<sup>13</sup>
- Targeting Production of 75,000 -100,000 tonnes per annum (“tpa”) of LCE<sup>14</sup> by 2027<sup>15</sup>

#### *STANDARD LITHIUM (NYSE: SLI)*

- Lanxess (Southern Arkansas) Project - 150k acres across southern Arkansas. A recently released Definitive Feasibility Study<sup>16</sup> has first production expected in 2026 with an initial average annual

<sup>13</sup> Source: Wall Street Journal ‘Exxon Joins Hunt for Lithium in Bet on EV Boom’ 21 May 2023.

<sup>14</sup> Source: Wall Street Journal ‘This Arkansas Town Could Become the Epicentre of a U.S. Lithium Boom’, 20 July 2023.

<sup>15</sup> Source: Exxon Mobil Drilling First Lithium Well in Arkansas, Aims to be a Leasing Supplier for Electric Vehicles by 2030, November 2023.

<sup>16</sup> Source: Standard Lithium Files Definitive Study for its First Commercial Lithium Extraction Plant - Phase 1A, 18 October 2023.

production of 5,700 tonnes, and an average annual production of 5,400 tonnes over a 25-year minimum operating life

- Lanxess has proven and probable Reserves of 208 Kt LCE at an average concentration of 217 mg/L support up to 40 years of operations
- Strong project economics. After-tax NPV US\$550 million and IRR of 24% assuming discount rate of 8% and a long-term price of US\$30,000/t for battery-quality Li<sub>2</sub>CO<sub>3</sub>
- Operating costs reflect first step to commercial production. Average annual operating costs of US\$6,810/t over the 25-year operating life, with a CAPEX of US\$365 million including a 15% contingency
- SLI also has its South-West Arkansas Project, 36k acres across southern Arkansas
- Exercised Option Agreement for lithium rights over 27,000 net acres of brin leases with Tetra Technologies<sup>17</sup>

#### *TETRA TECHNOLOGIES' (NYSE: TTI)*

- 5,100 acres
- Option Agreement (now exercised) with SLI for lithium rights within Standard Lithium's South-West Arkansas Project

#### *ALBERMARLE CORPORATION (NYSE: ALB)*

- Magnolia Project, US\$540m investment to build a DLE test facility in Magnolia, Arkansas<sup>18</sup>
- Produces Bromine currently from Smackover brines at its Magnolia Arkansas Bromine facility

**- END -**

This release is authorised by the Board of Directors of Pantera Minerals Limited.

<sup>17</sup> Source: Standard Lithium Exercises Option Agreement on South West Arkansas Project, Solidifying Path Forward Following Positive Feasibility Study and Rising Regional Interest, 31 October 2023.

<sup>18</sup> Source: Reuters 'Albemarle jumps into global race reinvent lithium products', 3 August 2023.