

Thunderbird

Mineral Sands



Project Update 4 : April 2017

BFS Released to Market

Sheffield Resources Limited has reported the results of the Bankable Feasibility Study (BFS) on its 100% owned world-class Thunderbird Mineral Sands Project.

Bankable Feasibility Study Findings

The Thunderbird BFS is underpinned by one of the worlds' largest, high-grade zircon and ilmenite rich mineral sands Ore Reserves.

- The BFS has demonstrated a financially robust and technically sound project over a 42-year mine life.
- The zircon rich Ore Reserve provides the foundation for a large-scale and long-life operation.
- Thunderbird's location in northern Western Australia is ideal to supply exports to major markets in South-East Asia, China and India, with relatively easy connection to European markets.
- Thunderbird has proximity to Derby and Broome ports, which can meet the shipping requirements of customers.
- The cost to design, procure, construct and commission Thunderbird stage 1, inclusive of costs of process plant, supporting infrastructure, owners team, operational readiness, pre-production and contingency is estimated at AU\$348M at March 2017.
- The mining lease and miscellaneous licence applications have been recommended for grant by the Department of Mines and Petroleum subject to successful conclusion of relevant Native Title processes, targeted for mid 2017.
- State and Federal Government environmental approvals are progressing and expected to be issued in Q3 2017.
- There is strong support for the development of Thunderbird due to its ability to contribute to employment and economic sustainability, as a catalyst to attract further regional investment and contingent on beneficial flow-on effects.
- Sheffield will encourage local content during construction, noting the degree of which will depend on the relationship between local business and the major contractors.
- When operational, Sheffield will assume responsibility for the Thunderbird site and for all direct employees, anticipated at approximately 140 locally sourced drive-in, drive-out recruits.
- Sheffield will develop an Aboriginal Employment Strategy with community oversight to support their commitment and obligations to the Aboriginal community.



What are Mineral Sands Used For?

Thunderbird will produce zircon and titanium mineral products, which are non-reactive and non-toxic with everyday domestic and industrial applications. Titanium minerals are used in paints, plastics, food products, welding rods, golf clubs, toothpaste, sunblock, medical joints; and, zircon is used in ceramic tiles, porcelain, tableware and refractory linings.

What is a BFS

The purpose of a Bankable Feasibility Study (BFS) is to present the findings of the study to validate the technical and commercial viability of Thunderbird. The content of the report is of interest to investors and shareholders, and required to secure financing, customers and offtake opportunities. Pending completion of permitting activities, funding and offtake, Sheffield would be able to proceed to Project execution, construction and ultimately to the operation of Thunderbird.

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The Thunderbird Project

The Thunderbird Mineral Sands Project is located on the Dampier Peninsula about 70km west of Derby and 30km north of the Great Northern Highway connecting Derby with Broome.

Thunderbird is the first significant mineral sands deposit to be discovered in the Phanerozoic Canning Basin, and one of the largest and highest grade mineral sands deposits globally, including those in production.

Construction of Thunderbird is targeted for 2017, with a view to first production and global exports in 2019 through the ports of Derby and Broome.

Want to Know More?

- The Thunderbird BFS can be downloaded from www.sheffieldresources.com.au.
- Sheffield Resources Limited is focused on developing its 100% owned, world class Thunderbird Mineral Sands Project, located in northern Western Australia.
- The Thunderbird deposit is rich in zircon, which sets it apart from many of the world's operating and undeveloped mineral sands projects which are dominated by lower value ilmenite.
- The BFS report demonstrates Thunderbird to be a world class project.
- Sheffield is targeting project construction commencing in 2017 with initial production in 2019. The initial planned production profile is aligned with expected emerging supply gaps in global mineral sands markets.

ASX Code: SFX

Market Capitalisation: A\$106M

Issued shares: 181.0M Cash (unaudited, 29 Feb 2017): A\$117M



Permitting Update

The Environmental Protection Authority (EPA) received 52 submissions, primarily in support of the development of Thunderbird, during the public environmental review process. Sheffield prepared responses to matters raised in the submissions, and has submitted these to the EPA. The EPA is reviewing the information prior to releasing their report and recommendations to the Minister for Environment.

The Section 35 Future Act Determination process, under the Commonwealth Native Title Act, and associated with the granting of a mining lease for the Project, is continuing.

The Thunderbird development timeline remains on track.

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