Kings Mountain

The Kings Mountain Mine
Project Overview

The Kings Mountain site is one of the few known hard-rock lithium deposits in the U.S. and is expected to play a critical role in growing the U.S. supply chain of lithium.

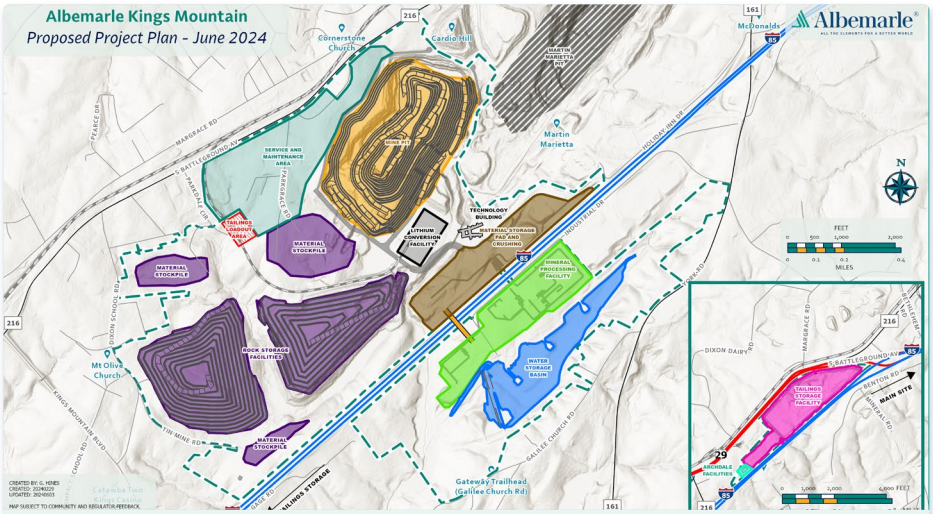
Albemarle's Kings Mountain site not only contains a potential domestic lithium resource, it also includes our existing 5,500-ton conversion facility that produces battery-grade lithium hydroxide for customers around the world.

LITHIUM AS A CRITICAL RESOURCE

Redevelopment of the Kings Mountain Mine is expected to provide a valuable domestic source of lithium and be a crucial building block of advanced battery technology for clean energy and sustainable transportation. Lithium compounds that can be produced from the proposed mine's output can be used to manufacture materials that power everything from consumer electronics to life-saving medical devices.

PROJECT AT A GLANCE

Albemarle is seeking permitting approval to resume open pit mining and expand the mine footprint of the Kings Mountain Mine which was idled in the early 1990s. Albemarle must secure a series of permits or approvals from the City of Kings Mountain, several departments within the State of North Carolina, and the federal government. The permitting approval process is estimated to take approximately two years to receive final approval of the mine permit application after submittal. Albemarle intends to submit a permit initially for 10 years of mine operation.



The Kings Mountain Mine project is approximately 1,200 acres bisected by Interstate 85 (I-85) with the larger parcel on the highway's northern side and a smaller parcel south of the interstate.

After permit approvals are secured, open pit mining is expected to be used to deepen and expand the current mine pit to the southwest. The existing rock and soil will be drilled, blasted and loaded into haul trucks and hauled to various destinations at the mine site. Any rock that does not contain lithium-bearing spodumene ore will be separated and stored at on-site rock storage facilities or repurposed for other uses. A portion of the rock that can be used for construction aggregate production is anticipated to be transported to the Martin Marietta quarry that is immediately adjacent to the mine.

Ore is planned to be conveyed to the on-site mineral processing facility at an average rate of ~3.1 million tons per year (~8,900 tons per day).

The Kings Mountain Mine Project Plan

The plan considers the sequence of events, or mining phases, throughout the entire mining process. Albemarle is submitting a permit initially for 10 years of operation.

PREDEVELOPMENT ACTIVITIES

- Duration of 1.5 years
- Mine pit dewatering
- Re-routing utilities around/into the site
- Site grading

CONSTRUCTION

- Duration of 2.5 years
- Construction of surface mine facilities, material stockpiles, mine services infrastructure, and mineral processing and water treatment plants
- Open pit development mining with only minor mining and stockpiling of ore
- Test ore processing in mineral processing facility

OPERATIONS

- Duration of 9 years
- Open pit mining of ore and rock
- Rock hauling to Martin Marietta quarry
- Mineral processing facility operations
- Transporting spodumene concentrate and tailings offsite via rail or trucks

MINE CLOSURE ACTIVITIES

- Removal or reclamation of all surface mine facilities
- Transporting rock to the pit as backfill
- Activities identified in the mine closure plan

At the mineral processing facility, the valuable lithium-bearing-minerals (spodumene) are separated from the non-valuable minerals to obtain coarse and fine spodumene concentrate. The spodumene concentrate is expected to be transported by truck and/or rail to an offsite conversion plant at a rate of approximately 420,000 tons per year.

RESPONSIBLE MINING

As a leader in sustainable resource extraction, Albemarle is taking steps to redevelop the mine site in an environmentally and socially responsible way. Albemarle intends to align the development of the Kings Mountain Mine with the Initiative of Responsible Mining Assurance's (IRMA) Standard for Responsible Mining. The standard is a comprehensive and rigorous set of expectations that independent auditors can use to benchmark mining operators' practices to reduce adverse environmental and social impacts, create benefits for local communities, engage potentially affected communities and increase project transparency and accountability.

During the mine pre-planning phase, Albemarle is also undertaking an Environmental and Social Impact Assessment (ESIA) process to identify and assess the potential environmental, social, health and safety impacts that could occur because of the development, operation and closure of the mine.

ECONOMIC BENEFITS

Based on the preliminary estimates, the Kings Mountain Mine is expected to provide a considerable positive economic impact to the surrounding community, region and state during the construction and operations phases. The project is anticipated to generate approximately 1,000 jobs during the mine's construction and more than 440 full-time, highly skilled jobs once the mine is operational.

Albemarle is committed to supporting health, social services and educational and cultural initiatives that strengthen Kings Mountain and surrounding communities. Since 2016, Albemarle has provided over $2 million of funding to community initiatives in the region.

Further information is available in Spanish upon request or at albemarlekingsmountain.com

For more information or to provide community feedback on the project:
Email: kmcommunity@albemarle.com | Phone: 704-734-2775 | Website: albemarlekingsmountain.com
Mail or In-person: 129 West Mountain Street, Kings Mountain, NC 28086

Albemarle leads the world in transforming essential resources into critical ingredients for mobility, energy, connectivity and health. We partner to pioneer new ways to move, power, connect and protect with people and planet in mind, enabling a more resilient world. Our global headquarters is approximately 35 miles from Kings Mountain in Charlotte, NC.

Albemarle®

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