

The Element

August 2023



FUTURE FEMALE INNOVATORS ▶

Holly Powell, a Research and Development Chemist, hosted Kings Mountain Middle School's "STEM Girls," a group of female students who excel in the classroom and show interest in Science, Technology, Engineering, and Mathematics.



Q&A WITH GEOLOGISTS ▶

Lead Geologist for Kings Mountain, Kwame Frempong, and Lead Production Geologist, Jennifer Baar, take some time to discuss what makes the Kings Mountain mine special.



COMMUNITY HIGHLIGHTS ▶

This summer has been busy! Albemarle donated and delivered food and books to Cleveland County Families; sponsored the MedAssist Mobile Free pharmacy and supported National Night Out.



Upcoming Events *Calendar* ▶

AUGUST 31—TOWN HALL

Stop by the Albemarle Project Center on August 31 between 4–7 p.m. for a free, family-friendly event to learn about the science behind mining. Our mining experts will be on hand to showcase exhibits on mineralogy, hydrology, mining, geology and more. Guests will be able to participate in a treasure hunt searching for items that contain lithium and find out how this essential element powers our everyday lives. Treasure hunt participants are eligible to enter their name for a chance to win a lithium-themed prize pack! For more information, please contact kmcommunity@albemarle.com.

[Click here to see more upcoming community events.](#) ▶



Visit the *Albemarle Kings Mountain Website* ▶



Scan the QR code to read more news!

Kings Mountain Welcomes *Group of Future Female Innovators*

Holly Powell, a Research and Development Chemist at Kings Mountain, is excited to instill her love of science in the next generation.

Powell, an alumna of Cleveland County Schools, recently hosted Kings Mountain Middle School's "STEM Girls," a group of female students who excel in the classroom and show interest in Science, Technology, Engineering, and Mathematics.

"It was really cool to have that in common with the kids," said Powell. "Some of the students even had the same teacher I did who sparked my interest in science."

The tour brought students to the mine site and research and development lab. After lunch, Powell introduced the STEM Girls to eight female scientists from our Kings Mountain team who discussed their diverse backgrounds, the importance of education, their journeys as women in STEM and why they love what they do.

"The students wanted to hear our personal experiences that led us to pursue careers in STEM," Powell explained. "It was rewarding to see and hear how excited the students were already about their future. I hope having these conversations and supporting this passion early on will drive them to pursue STEM throughout their lives."



Q&A With Geologists

Kwame Frempong & Jennifer Baar



As the Lead Geologist for Kings Mountain, **Kwame Frempong** is focused on long-term strategic planning for geology. “I deal with long-term resource planning collecting and analyzing data to produce the resource models that will help us plan for the life of the mine,” he said. Kwame also works closely with the team to build 3D geology models and conduct resource estimation to determine the location and quality of the lithium deposit.

Jennifer Baar, started her role as the Lead Production Geologist in November, 2022. “My job is to make sure every ton of material goes to the right destination,” she said. “We use a lot of different technologies and reporting methods to do that,” she added. “Ultimately, it’s about managing the integration of the engineers and geologists on site.”

Can you talk a little bit about the geology of the surrounding area? The Carolina Tin-Spodumene Belt and the Inner Piedmont terrane?

J: This all started over 350 million years ago when the Appalachian Mountains were forming. Over time, the Kings Mountain Sheer Zone became reactivated and created the sheering of the metamorphic rocks in the Inner Piedmont Terrane. This created space for the late-stage magmatic introduction from the magma that was already forming the Cherryhill granite. As the magma began to cool, lithium moved into the adjacent rocks. That brings us to where we are now.

K: Carolina’s Tin-Spodumene Belt forms the eastern edge of the Inner Piedmont terrane along the Kings Mountain Sheer Zone. This area hosts most of the spodumene pegmatite. The Kings Mountain Sheer Zone separates two distinct tectonic units – the Inner Piedmont terrane on the west and Kings Mountain terrane on the east.

Why is this site so lithium-rich?

K: It’s all about the geology. When magma cools, a heavy element will cool earlier. So, in the very late stage of the cooling, magma, which was rich with lithium, intruded into the host rock. A heavier element would have cooled and dropped earlier. However, the lithium-rich magma took advantage of the gaps in the host rock.

What makes lithium so important?

K: Lithium is an essential ingredient to powering the clean energy revolution. And, the demand isn’t driven by the EV market alone, though that market is a critical factor. The lithium we produce is needed to power everything from consumer electronics to life-saving medical devices. Our products are also used to strengthen glass on your smartphone screen!

Can you tell us more about the geological data needed to plan the mine?

K: With our baseline geological data collection, we are working to get a detailed understanding of the quantity and quality of the resource. We need detailed numbers to use for planning and projections of the production of mined materials. We need to understand the mineralogy of these rocks because that can impact how much lithium you can recover and how much you cannot recover. Understanding the general mineralogy of the spodumene pegmatite is important.

Is there anything else you would like to add?

J: Albemarle operates with people and planet in mind. We’ve moved our families here so we can work on this project because we believe in our purpose of enabling a more resilient world. If you have a question, please let us know. We strive to operate transparently and want to give our neighbors a chance to learn about this project.

ESIA Process Seeks *Community Feedback*

As a values-driven organization, Albemarle operates with people and planet in mind. We transparently engage with the communities where we live and work and are currently conducting an Environmental and Social Impact Assessment (ESIA) to better understand and manage the environmental, social, health and safety impacts of operating the mine, and the benefits that could occur from its initial development through its closure.

We'd like your feedback. Throughout the process, Albemarle will be hosting public meetings to hear directly from you and invites the community to ask questions and give comments regarding the proposed mine and the ESIA analysis. Questions are also welcome at any time via our website, our email kmcommunity@albemarle.com, project hotline at 704-734-2775, or in person at our project center at 129 West Mountain Street. For more information on the ESIA, please peruse the full ESIA announcement on our [website](#).





Summer Deliveries: *Albemarle Brings Food, Books to 800 Cleveland County Families*

In partnership with Feeding Kids Cleveland County, Albemarle delivered books, food, and community Farmers Market vouchers to 800 families in need throughout Cleveland County.

In June, employee teams and their families delivered books and meals to children who were out of school for the summer. Additionally, Albemarle donated a voucher for each family to use at the newly reopened Foothills Farmers' Market.

In July, a truckload of fresh sweetcorn from Albemarle employee Lisa Smith's farm accompanied the food and book delivery. Employees Margot Plonk and Josh Montenegro delivered the sweetcorn using a Ford Lightening electric truck.



Albemarle Sponsors *MedAssist Mobile Free Pharmacy in Kings Mountain*

On August 4, six Albemarle staff members volunteered at the NC MedAssist Mobile Free Pharmacy event at Mount Zion Baptist Church in Kings Mountain. The organization estimated over 700 people received complimentary over-the-counter medical items.

The Mobile Free Pharmacy provides free, over-the-counter medications to individuals and families that could not otherwise afford basic medications, such as vitamins, allergy medicine and pain relievers. The primary purpose of the mobile event is to identify participants that may qualify for the NC MedAssist Free Prescription Pharmacy Program, a statewide program for uninsured North Carolina residents who fall at or below the Federal Poverty Level. NC MedAssist collaborates with community partners to organize free mobile events throughout the state.

Albemarle Supports *National Night Out in Kings Mountain*

Albemarle was proud to partner with the Kings Mountain Police Department to celebrate National Night Out on August 1 at Patriots Park. Albemarle donated over 1,000 items of school supplies for the backpacks and had a table where community members could examine rocks and learn about geology and the operations in Kings Mountain.

This event gave the community an opportunity to meet local law enforcement and first responders while offering food, music, free bookbags, and a variety of family-friendly activities. Working together to keep Kings Mountain a safe community for all!



**TOWN HALL
LINKS TO VIDEOS ▶**

[2023 February](#)
[2023 May](#)



**Visit the
Albemarle Kings
Mountain Website ▶**



Upcoming Events *Calendar* ▶

**AUGUST 29 AND SEPTEMBER 6, 12, 14 AND 20
KINGS MOUNTAIN MINE TOURS**

The 45-minute tour will include history, geology, and current information on the pre-feasibility studies that have been completed, with plenty of opportunities to ask questions. Tour attendees will meet at the Albemarle Project Center (129 W. Mountain Street), and travel together by van to the mine site. Times vary and registration is required, contact Cindy Estridge cynthia.estridge@albemarle.com.

**SEPTEMBER 11
PATRIOT DAY**

Join the Kings Mountain Fire Department at noon to commemorate and honor those who lost their lives in service on September 11, 2001.

**SEPTEMBER 26
TOWN HALL**

Join us at 6:30pm, Trackview Hall, 205 S Battleground Ave. to hear the latest updates for the proposed Kings Mountain Mine and provide your ideas and feedback on the proposed project.

Tell Us How We're Doing ▶



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