

Lumina Sustainable Materials

An aerial night photograph of an industrial facility, likely a quarry or processing plant. The scene is dominated by a large, dark, textured pile of material, possibly crushed stone or ore, in the foreground. Several large, rectangular industrial buildings are scattered across the site, some of which are brightly lit from within, creating a stark contrast with the dark surroundings. A winding road or path is visible on the left side of the image. In the background, a body of water is visible, and a large barge or ship is docked at a pier on the right. The overall atmosphere is industrial and somewhat somber due to the low light.

**Corporate Overview
2025**

Lumina's Purpose

Lumina is an innovative material science company tackling today's most pressing manufacturing challenges with industry-leading **sustainability**. We develop high-impact products that extend beyond industrial minerals through **custom chemistry** and **processing solutions**.

Our distinct mineralogy and chemistry lead to:

- Reduced **CO₂** and volatile organic compound (**VOC**) emissions
- Reduced **energy** consumption
- Reduced **material usage**
- Improved end-product **performance** across key parameters

Lumina's Value Creation

Mining & Manufacturing

- Lumina has expertise in **Greenlandic/Arctic** exploration and mining
- Lumina is **vertically integrated** with advanced multi-material processes close to customers to enable **differentiated market intimacy**

R&D / Technology

- Lumina develops custom market-driven **sustainable solutions** for mass-market applications
- Diverse technology portfolio includes **low-carbon ceramics, low-energy aluminum**, additives for **sustainable plastics**, and **material handling** innovation
- Full **material science lab** and production in **Jeffersonville, Indiana**

Sustainability Commitment

Our commitment to **sustainability** begins at the surface of Greenland and goes all the way to our customers' doors:

- **Local commitment** is essential to our identity. We are proud to be a part of the local community, and we put an effort into hiring, training and educating local workforce and using local subcontractors
- **Surface mining** of exposed minerals with virtually no overburden or stripping
- Ore is extracted only a few km from the processing plant and deepwater fjord shipping dock
- **Efficient ocean freight** delivers the ore as close to our customers as possible to minimize over-the-road freight
- Our anorthosite delivers outstanding efficiency in use with virtually **no LOI or moisture losses**.
- Novel **clean technologies** include low-carbon cement, kiln-free ceramics, 90% CO2 reduction in mineral processing, friendly flame retardants, lightweighting hollow spheres, and more

Lumina's Management Team

Lumina is a majority privately owned company. Its largest shareholders are Cordiant Capital, and Apex Investments. The management team has extensive global experience across a range of mining sectors.

Brian Hanrahan, CEO

- Joined Lumina in 2021 after extensive career with global industrial minerals leader IMERYS
- B.S. Chemical Engineering, MBA
- Started material science technology company in 2019

Bent Olsvig Jensen, Managing Director

- Based in Greenland, Bent joined Lumina in 2020 after previously managing Greenland's Ruby mine during the exploration, application, permitting and construction phases
- Led Exploration company in Greenland to develop the mining sector

Peter Madsen, Director of Operations

- Based in Greenland, Peter joined Lumina in 2025 to continue his career in Greenlandic mining.
- Extensive experience in operating mines like Nalunaq and Greenland Ruby in Greenland.

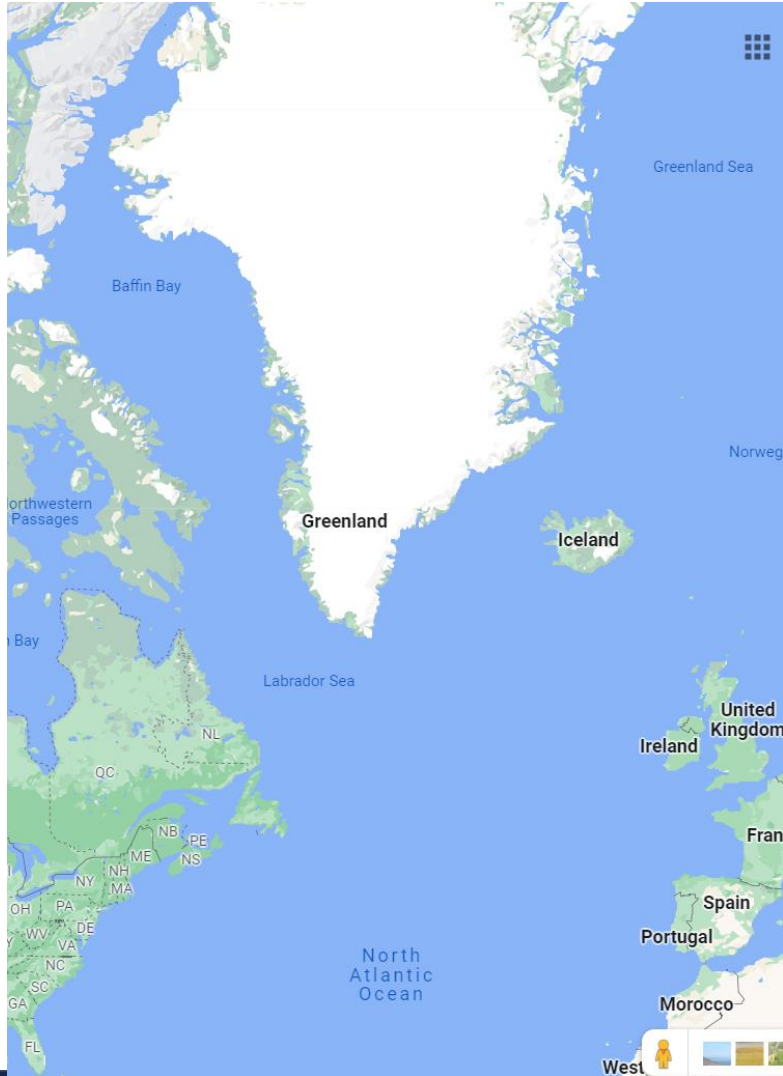
Mining in Greenland

Operating in Greenland since 2011

- Located on a deepwater fjord on the west coast of **Greenland**, 80 km west of Kangerlussuaq
- Company established to exploit unique high-purity **anorthosite** for global industrial applications



Greenland Perspective



Mining in Greenland



Mining in Greenland



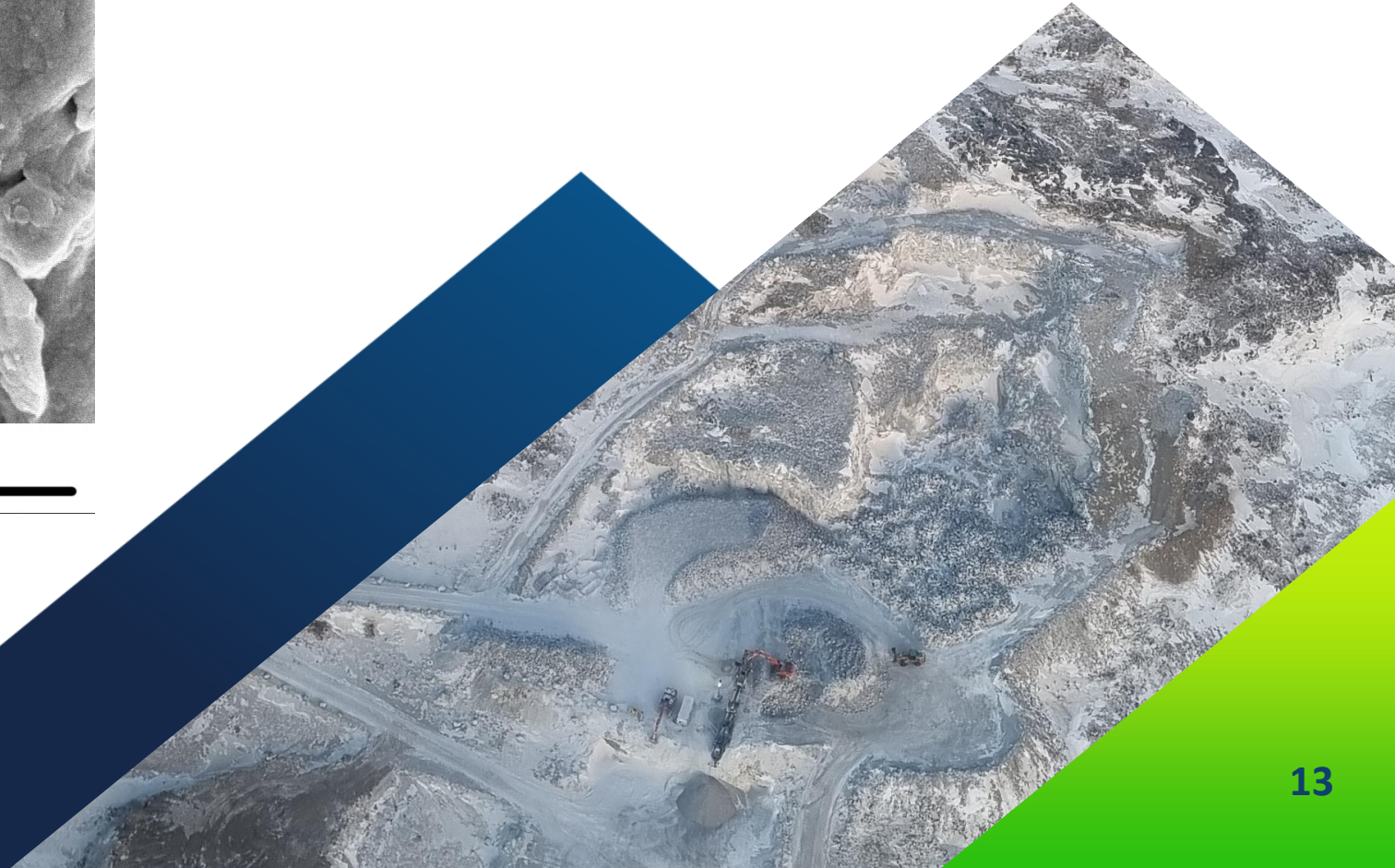
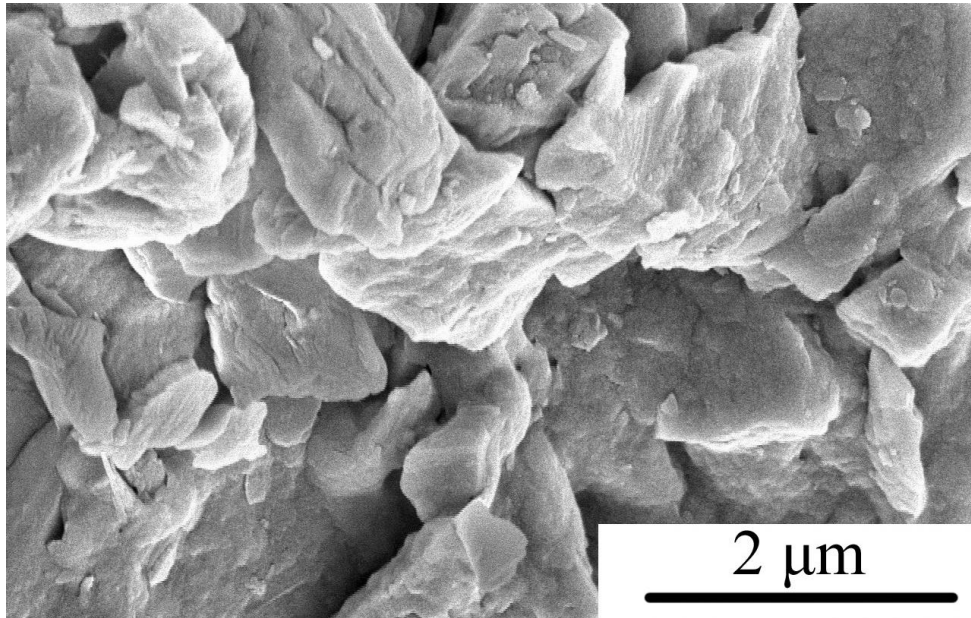
Mining in Greenland



Mining in Greenland

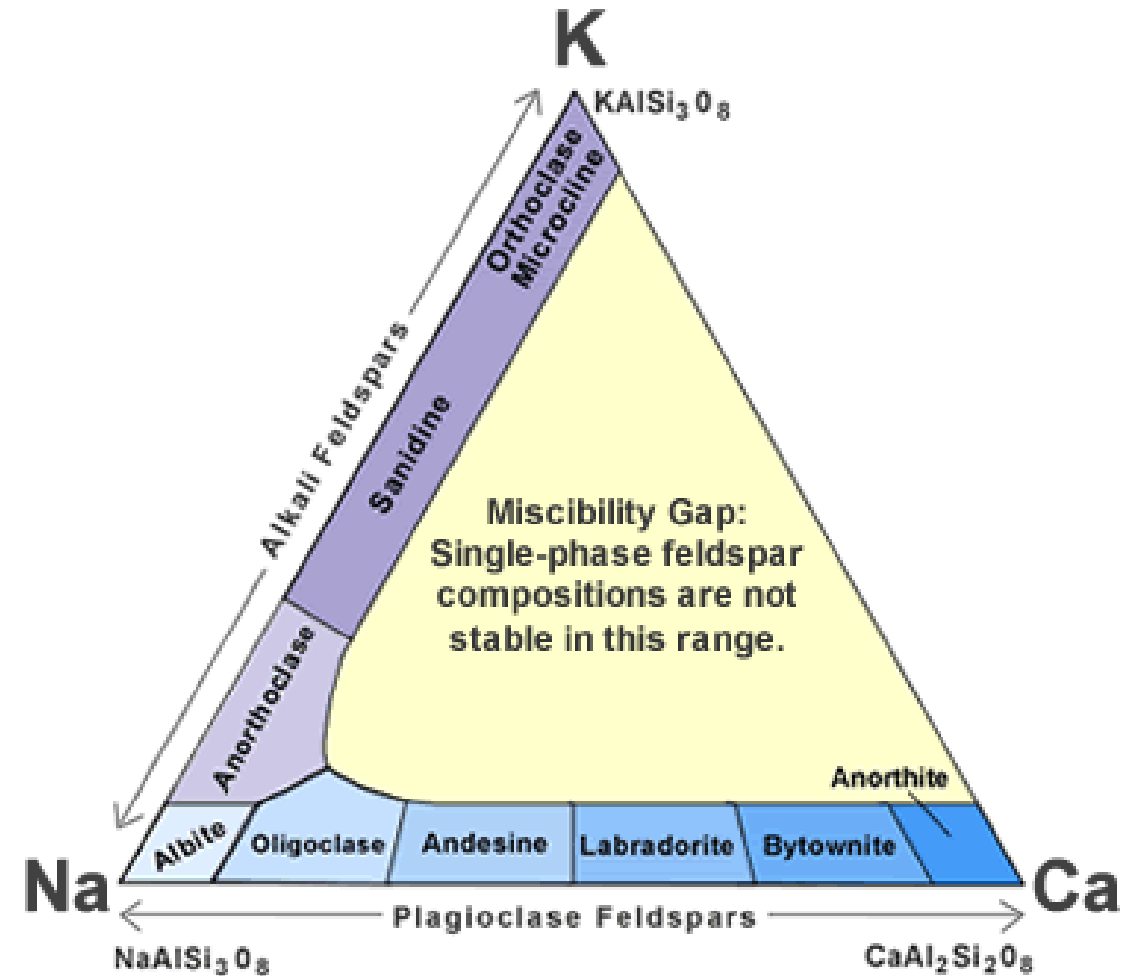


What is Anorthosite



Anorthite Mineral

- Feldspar family represents 50% of the Earth's crust
- Most feldspars are alkali
- Greenland (and Finland) have the only known high-purity calcium feldspars on earth
 - Mineral very common on lunar highlands
- Pure anorthite is $\text{CaAl}_2\text{Si}_2\text{O}_8$



Anorthosite Properties

- Specific Gravity
 - **2.6**
- Hardness
 - **6 – 6.5**
- Bulk Density @ 3 micron
 - **50 lb / cubic ft.**
- Refractive Index
 - **1.52**
- Brightness
 - **92**
- Surface Area
 - **2 - 4 m² / gram**
- Particle size controllable by milling and classification
- pH
 - **8.2**
- Oil Absorption
 - **20**
- Impurities
 - **Iron < 0.5%**
 - **No heavy metals**
 - **Free silica <3%**

An aerial night photograph of an industrial facility, likely a power plant or refinery, situated on a rugged, rocky coastline. The facility consists of several large, interconnected buildings and structures, some of which are illuminated from within, casting a warm glow. A large ship is docked at a pier on the right side of the image. The surrounding landscape is dark and rocky, with a body of water visible in the background under a dark sky.

Thank you