

An All-American Battery Materials Supply Chain Solution

ADVANCING AMERICA'S LARGEST GRAPHITE DEPOSIT

(All dollar amounts are in U.S. dollars, unless otherwise indicated)



Forward-Looking Statements

All statements in this presentation, other than statements of historical facts, including those related to the timing and completion of the anticipated Feasibility Study, future production, establishment of a processing plant and a graphite manufacturing plant, establishment of a battery materials recycling facility, and events or developments that the Company intends, expects, plans, or proposes are forward-looking statements. Generally, forward-looking information can be identified by the use of forward-looking terminology such as “proposes”, “expects”, “is expected”, “scheduled”, “estimates”, “projects”, “plans”, “is planning”, “intends”, “assumes”, “believes”, “indicates”, “to be” or variations of such words and phrases that state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. The Company cautions that there is no certainty that tests of the Company’s material will be successful or that such tests will result in the development of successful products. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices, exploitation and exploration successes, continuity of mineralization, uncertainties related to the ability to obtain necessary permits, licenses and title and delays due to third party opposition, changes in government policies regarding mining and natural resource exploration and exploitation, and continued availability of capital and financing, and general economic, market or business conditions. Readers are cautioned not to place undue reliance on this forward-looking information, which is given as of the date of this presentation, and the Company undertakes no obligation to update publicly or revise any forward-looking information, except as required by applicable securities laws. For more information on the Company, investors should review the Company’s continuous disclosure filings that are available at www.sedarplus.com.

Executive Team



Doug Smith P.Eng., ICD.D

EXECUTIVE CHAIR & DIRECTOR

40+ years in international coal industry. Former President & CEO of First Coal (acquired by Xstrata in 2011). Former President & Director of Andalex Resources (acquired in 2006).



Gordon Jang CPA, CMA

Chief Financial Officer

25+ years in senior management with mid-to-large mining companies, including Fortuna Silver Mines, Augusta Resources (acquired by Hudbay in 2014), Lundin Mining, & Pan American Silver.



Andrew Tan M.Sc.E

Vice-President, Advanced Graphite Materials

20+ years in graphite materials industry, including GM of SGL Carbon Group's graphite foil manufacturing plant. Specialized in manufacturing graphite anode materials and other advanced graphite products.



Anthony Huston

FOUNDER, CEO & DIRECTOR

Successful entrepreneur with a background in tech, business development, and finance. Experienced as a Managing Partner for public and private companies, and integral in raising \$150M+ in his career.



Mike Schaffner

Senior VP, Mining Operations

Experienced in mining operations and 3-time winner of the National Mining Association's Sentinels of Safety Award. Holds two patents related to bio-oxidation heap leaching.



Brian Flanigan M.Sc., CPG

Chief Geologist, Graphite One (Alaska) Inc.

25+ years as an exploration and mining geology expert in Alaska and Yukon, Canada. Published in scientific journals and recognized as a pioneer in conceptualizing and defining the Tintina Mineral Belt.

Board of Directors

Scott Packman MBA, LLB

Formerly, General Counsel and Executive VP of Madison Square Garden Entertainment Corp and General Counsel of MGM Holdings Inc. for over 12 years. Mr. Packman is currently the Managing Member of SSP Partners, which identifies, evaluates and advises on strategic transactions.

Bedi A. Singh ACA

A seasoned senior executive with decades of public company experience primarily in the media, entertainment and technology sector. Previously served as Chief Financial Officer of News Corp from 2012 to 2017 and has held senior executive positions at MGM Studios, Gemstar-TV, and Sony Pictures.

Patrick Smith CPG

40+ years in senior management, corporate development, strategic planning and exploration in natural resource industry. Mr. Smith had a 32-year career with Rio Tinto where he was the Director of Exploration for the Australasia Region and has been involved with globally diverse exploration and development projects in gold, copper, molybdenum, iron ore, diamonds, industrial minerals and lithium.

Brian Budd

Extensive management and corporate development background with over 25 years of entrepreneurial and sales leadership experience in the resource and high-tech industries. His business acumen includes the development and execution of comprehensive business and financing plans, corporate communication programs as well as strategic planning for both domestic and international markets.

Advisors

Daniel McGroarty

Principal of Carmot Strategic Group, an issues management firm in Washington, DC

John Robins

Principal of Discovery Group, an alliance of junior exploration companies.

Jerry Birch & Kevin Greenfield

Co-owners of Taiga Mining Corp. – a respected, successful Alaskan placer mining company they founded in 1990, which has since received numerous industry awards.

Clark Penney

Partner with Cypress Wealth Services, a wealth management firm with over \$1 billion in assets under management.

Capital Structure (as of August 7, 2024)

Basic Shares outstanding	138,579,306
Options (AEP ⁽¹⁾ CA\$1.00)	12,230,737
Warrants (AEP ⁽¹⁾ CA\$1.22)	11,955,677
Broker Warrants (AEP ⁽¹⁾ CA\$1.50)	356,022
Performance Share Units	1,984,658
Restricted Share Units	7,357,930
Fully Diluted	172,464,330

(1) AEP –Average exercise price

	TSX-V (CA\$)	OTCQX (US\$)
Share Price	\$0.85	\$0.60
Market Cap (\$M)	\$117.8	\$84.3
Average Daily Volume	48,469	40,261



Graphite is Everywhere

“Our batteries should be called nickel-graphite, because they’re mostly nickel and graphite.”

ELON MUSK Code Conference 2016

America's Graphite Crisis

100%

U.S. import reliance on China as primary graphite import source

U.S. GEOLOGICAL SURVEY

70%

of the world's graphite supply comes from China

REUTERS

95%

of anode materials in lithium-ion batteries is based on graphite

EUROPEAN CARBON & GRAPHITE ASSOCIATION

494%

Expected growth of the graphite market by 2050

WORLD BANK GROUP

2,500%

Expected growth of graphite demand by 2040

JOE BIDEN'S 100-DAY REPORT

15:1

Ratio of graphite to lithium in electric car batteries

LOMIKO METALS⁽¹⁾

Federal Support for the Industry

Infrastructure Bill has over \$10 billion in support for critical minerals

- Battery materials manufacturing grants
- Rare earth elements research funding
- Battery manufacturing and recycling grants
- Advanced energy and recycling grants

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

U.S. DEPARTMENT OF
ENERGY

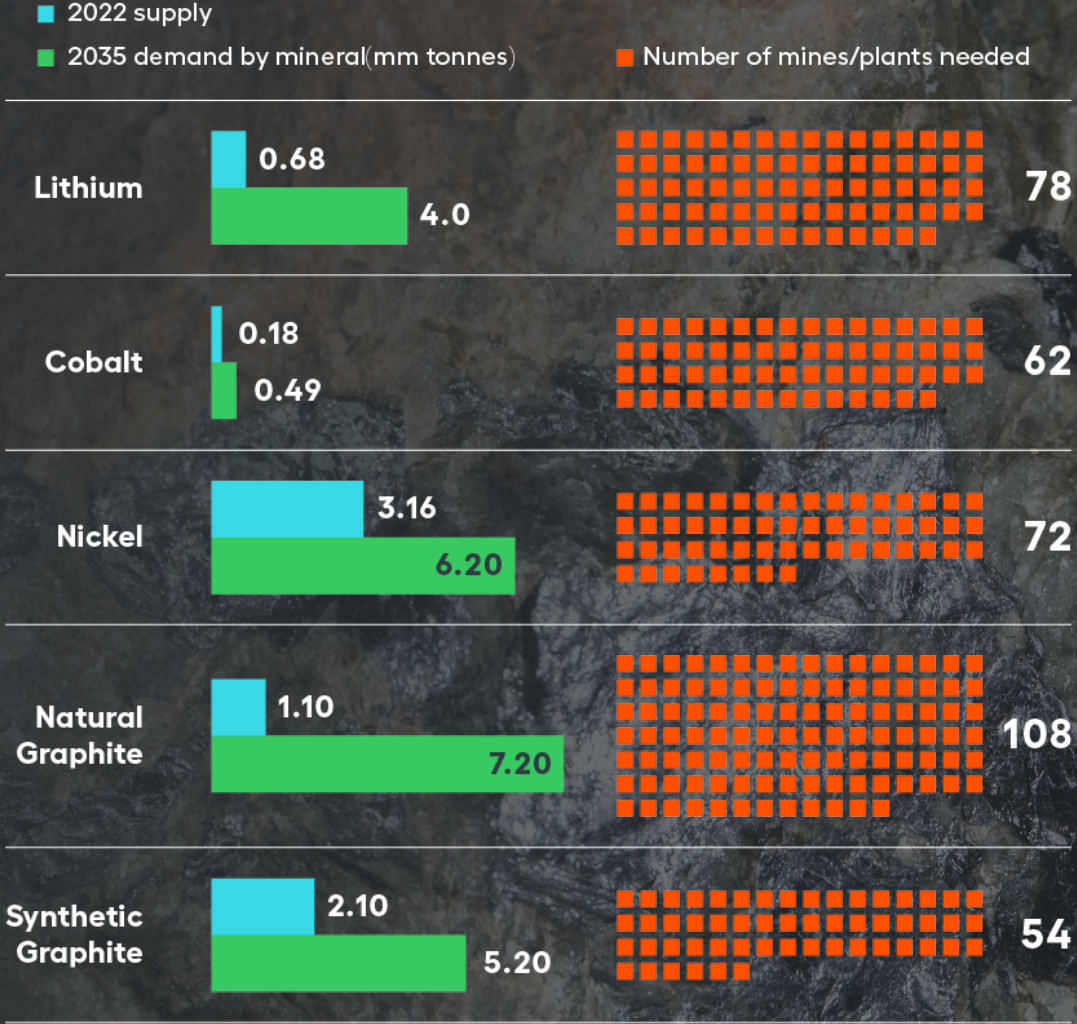
Fossil Energy and
Carbon Management



"If I was going to follow through on my commitment to say we're going to have all of it built in America, we needed a supply chain that was reliable. Critical materials like lithium graphite, rare earth materials... we're in so desperate need of."

JOE BIDEN *Virtual Event on Securing Critical Minerals for a Future Made in America*

Critical Minerals Needed to Meet Global Battery Demand by 2035



Source: Benchmark Mineral Intelligence

Graphite One's Supply Chain Solution

Meet graphite demand to decrease dependency on China



Advance America's largest graphite deposit

- Raw Material
- Graphite Creek is the largest natural flake graphite deposit in the U.S.
- 300+ jobs created in rural Alaska
- Foster partnerships
- Community Engagement



Create America's first advanced anode manufacturing AND battery recycling facilities

- Plan to produce both natural graphite and artificial graphite anode materials
- 400+ est. high-tech jobs created in the U.S.
- Hydro power - Clean and renewable energy
- Technology License Agreement (TLA) – Sunrise
- G1 to own 100% of Infrastructure and Plant
- Facility engineered to accept used EV batteries for feedstock

Graphite One's Supply Chain Solution

Non-Linear Domestic Supply Chain Timeline



Create America's first advanced anode manufacturing AND battery recycling facilities

- **2027 Production**
- **4,500 to 25,000 TPY**
- **Multiple Site Considerations**
- **Clean Energy Sources**



Advance America's largest graphite deposit

- **2029 Production**
- **PEA - 2017 Completion**
- **PFS – 2022 Completion**
- **\$37.5 million DoD Awarded July 2023**

Graphite One Development Plan¹

Artificial Graphite

- Artificial Graphite Finishing Plant
- Artificial Graphite Production Line
- Average annual cost of production ⁽²⁾
Precursor

Purchased Unfinished AG

Phase 1: Purchased AG Precursor

Phase 2: Internally Produced AG

Natural Graphite

- Coated Spherical Production Line

Alaska Graphite Concentrate

(1) Subject to funding and site selection



Graphite Creek Asset

AMERICA'S LARGEST GRAPHITE DEPOSIT

Kigluaik Mountains, 37 miles north of Nome, Alaska

Awarded \$37.5 Million DPA Title III Grant



- Awarded a Department of Defense Technology Investment Agreement grant of \$37.5 million Grant under Title III of Defense Production Act, funded through IRA
- Grant to fund accelerated Feasibility Study to modernize and expand domestic production capacity for supply of battery anodes for EVs and alternative energy batteries
- Target Feasibility Study completion date – Q4 2024
- Grant covers 50% of the estimated total cost of the Feasibility Study
- Funding from Grant expected to be received monthly in accordance with the monthly expenditures
- Regional and local support

Awarded \$4.7 Million from DoD's Defense Logistics Agency to Develop Graphite-Based Foam Fire Suppressant

U.S. Congress passed National Defense Authorization Act to phase out the use of AFFF, subject to limited exceptions, at all military sites by October 1, 2024

PFAS-based fire suppressant materials are known to be linked to cancer in firefighters and has a toxic impact to the environment

- Graphite One receives \$4.7 million contract from Department of Defense's Department Logistics Agency ("**DLA**") to develop a graphite and graphene-based foam fire suppressant as an alternative to chemical-based (PFAS) fire suppressant materials
- Teaming Agreement with Vorbeck Materials Corp. of Maryland to develop new and safer alternatives for existing PFAS fire-suppressants for the DLA



Strategic Investment from Bering Straits Native Corporation

- Initial Investment of **\$2 million** and a one-year option to invest an additional **\$8.4 million**, including exercise of warrants
- Graphite One and Bering Straits to partner on continued regional and community development
- Bering Straits, one of the top Alaskan native regional corporations and largest employer in Nome



DAN GRAHAM

Interim President & CEO

"This is not just an investment in Graphite One, it is a long-term investment in our region. We at BSNC have watched for years as Graphite One has worked to advance the Graphite Creek project and become a friendly neighbor in the region."

Graphite One has told us of its intent to develop an environmentally responsible project and provide an exciting economic opportunity for the region that hopefully will play a crucial role in the nation's transition to a clean energy future. This is at the heart of our Board's unanimous support of the project."

2023 Alaska Opinion Survey

Conducted by Dittman Research

“Should new mining projects be approved in Alaska to help meet the increased demand for critical minerals?”



70% strongly or somewhat in favor of new mining project

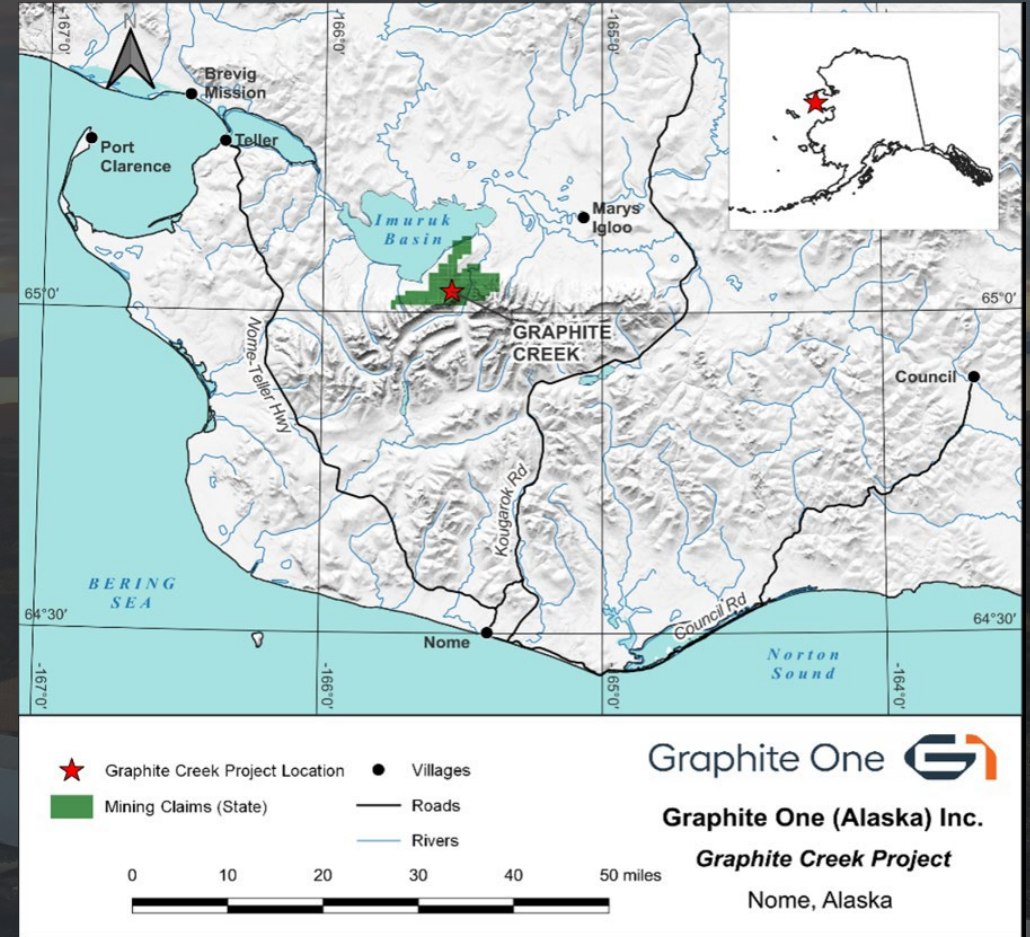
Conducted: April 7 – 14

| Statewide Survey

| Margin of Error +/- 3.98%

Project Catalysts

- ✓ Supported by the US Government
- ✓ Asset is located on 100% state-owned land and supported by the Alaska state government
- ✓ Resource is cited as the “largest known graphite deposit in the U.S.” by the USGS. Deposit remains open to West, East and down dip.
- ✓ PFS was based on a proven and probable reserve that utilized 7% of anomaly’s strike length
- ✓ Adding 300+ jobs
- ✓ Fostering cooperative engagement with local and regional communities



2022 Drill Program Increased Resource by 15.5%

		2023 Resource		
	Cg% Cutoff	Million Tonnes	Cg%	Million Tonnes Cg
Measured	2%	5.63	5.75%	0.32
Indicated	2%	31.96	5.03%	1.61
Inferred	2%	243.70	5.07%	12.34
Measured & Indicated	2%	37.59	5.14%	1.93

Updated resource does not include Hole 22GC079, drilled 2.1 km west of the current block model, which encountered 58 meters of 4.18% graphite, due to distance constraints used in the block model. The planned 2023 drilling program will target doubling the measured and indicated resources and increasing the inferred resource by infill drilling along trend to Hole 22GC079.

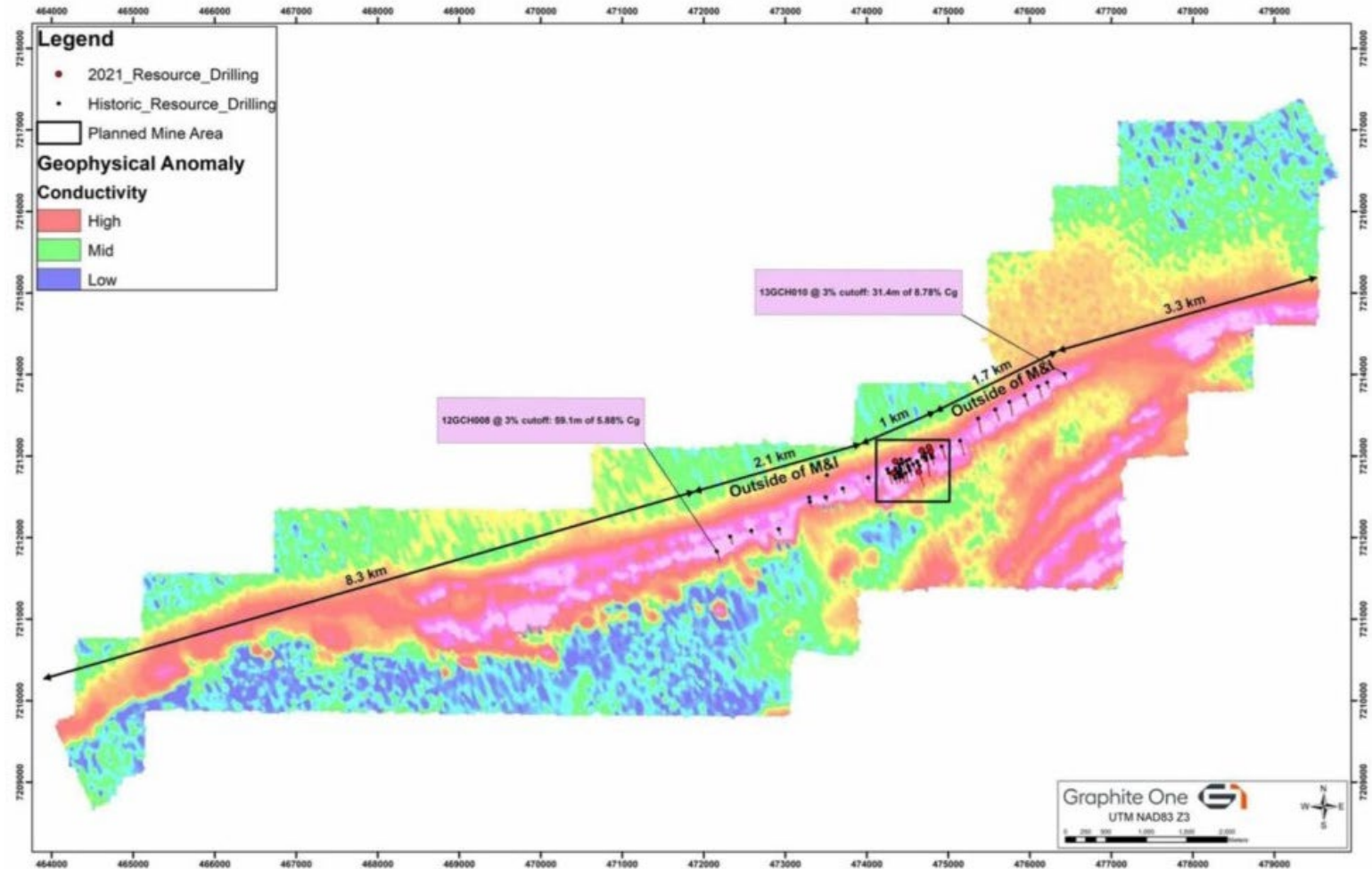


"The largest known graphite deposit in the United States is the Graphite Creek deposit in Alaska where recent industry exploration has identified a measured and indicated resource of more than 10 million metric tons of ore with 7.8 to 8.0 percent graphite."

***USGS UPDATES MINERAL DATABASE WITH GRAPHITE DEPOSITS IN THE UNITED STATES**

Planned Mining Area and Completed Drilling Superimposed on Magnetic Survey Results

PFS Pre-tax NPV of \$1.9 billion is based on 1km² - less than 7% of the total Graphite Creek geologic anomaly



PFS Financials

\$1.9B

NPV pre-tax

- Pre-tax net present value of \$1.93 billion
- Post-tax net present value of \$1.36 billion before accounting for tax credits enacted by the U.S. Inflation Reduction Act of 2022, effective December 31, 2022

26%

IRR pre-tax

- Pre-tax 26% internal rate of return (8% discount rate) with a payback period of 4.6 years
- Post-tax internal rate of return of 22% (8% discount rate) and a payback period of 5.1 years, before accounting for tax credits enacted by the U.S. Inflation Reduction Act of 2022, effective December 31, 2022

26-year

Project Life

- The PFS assumes the STP's operational life is 26 years based on its startup with purchased graphite and continued operation with graphite from the Mine
- The average production over 26 years in the PFS is 75,026 tonnes of advanced graphite products per year
- Project life based on exploration of 1km² area of 16 km deposit

2022 Pre-feasibility Study

- 2,800 tpd Mill
- 9,436 tpd Mine
- 53,000 tpy of graphite concentrate
- 23-year mine life
- STP 26-year annual production 75,026 tpy, including 49,624 tpy anode materials



Feasibility Study - Mine

- 10,000 tpd Mill
- 33,700 tpd Mine
- 183,000 tpy of graphite concentrate
- 22-year mine life

Feasibility Study Targets Improving Economics by

- Significantly lowering the operating cost per tonne of graphite concentrate produced
- Minimally increasing headcount but with up to 4 x increased throughput

Advanced Anode Manufacturing Facility

(To be sited in Ohio State)

Financial Economics

• Annual production	<u>25,000 tpy</u>	<u>100,000 tpy</u>
• Initial capital ⁽¹⁾	\$436 M	\$1,224 M
• Average annual revenue ⁽²⁾	\$236 M	\$ 944 M
• Average annual cost of production	\$124 M	\$ 496 M
• Average annual operating profit	\$112 M	\$ 448 M
• Average annual EBITDA	\$141 M	\$ 530 M

Catalysts

- Negotiations under way with Chinese company for a technology licensing agreement
- Federal government funding available

(1) Includes ~25% contingency

(2) Forecast revenue based on long-term Benchmark Minerals real prices, China DDP, inflated ~10% for US market

Anode Material Manufacturing Plant (AMM)

Mid 2027

- Commissioning of AMM finishing and blending plant

CAPEX⁽¹⁾

\$ 76 M

Mid 2028

- Commissioning of a graphitization plant, production expected at 8,000 tons

\$150 M

End of 2029

- Commissioning of precursor line - 25,000-tonne annual capacity plant

\$210 M

End of 2036

- Targeting 100,000-tonne annual capacity AMM

\$1,224 M

Annual Capacity

25,000 tonnes

\$ 436 M

25,000 additional tonnes

\$ 263 M

50,000 additional tonnes

\$ 525 M

100,000 total tonnes

\$1,224 M

¹ Subject to funding

Commitment to ESG

- Ethically Sourced Materials

E

Environment

- Focused on battery materials to contribute to a cleaner future through the adoption of Electric Vehicles

S

Social

- Continuing partnerships, relationships and conversations with neighboring communities in the region; using local knowledge to protect subsistence and ancestral ties

G

Governance

- Committed to minimizing the environmental effects and continued safety of our operations and workspace for current and future generations

Major Milestones

1

Preliminary economic assessment completed in 2017

2

Preliminary Feasibility Study completed in August 2022

3

Awarded US\$37.5 Million Department of Defense Grant in July 2023

4

Bering Straits Native Corporation to provide up to US\$10.4 Million Equity investment and support for Graphite Creek project

5

Awarded US\$4.7 Million DLA Contract to develop graphite-based foam fire suppressant

6

Accelerated feasibility study planned for Q4 2024 completion

7

Permitting to start following completion of feasibility study

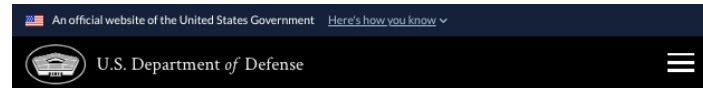
8

Start of construction planned for 2027

Awarded \$37.5 Million Grant from U.S. Department of Defense



U.S. Department of Defense



RELEASE

IMMEDIATE RELEASE

DOD Enters Agreement to Expand Capabilities for Domestic Graphite Mining and Processing for Large-Capacity Batteries

July 17, 2023 | [f](#) [t](#) [r](#)

The Office of the Assistant Secretary of Defense for Industrial Base Policy, through its [Manufacturing Capability Expansion and Investment Prioritization](#) office, entered an agreement with Graphite One (Alaska) to secure a reliable, sustainable supply of graphite materials within the U.S. to be used in the production of large-capacity batteries.

The \$37.5 million agreement, entered into under Defense Production Act (DPA) Title III authorities and using funds appropriated by the Inflation Reduction Act, will aid Graphite One (Alaska) in developing a domestic advanced graphite supply chain solution anchored by the Company's Graphite Creek resource. Graphite One's supply chain strategy includes mining from Graphite Creek and processing the graphite ore through an advanced material and battery anode manufacturing plant expected to be sited in Washington State. Graphite One's strategy also includes plans for a recycling facility to reclaim graphite and other battery materials, to be co-located at the advanced materials manufacturing site; the third link in Graphite One's circular economy strategy. DPA Title III funding will allow Graphite One to fast-track their feasibility study by a full year, informing and expediting decisions to move the project further through their plans for a complete U.S.-based graphite anode supply chain.



[Senator Murkowski on the need for graphite and the Graphite One project in Alaska - YouTube](#)

State & Delegation Support



Hon. Mike Dunleavy GOVERNOR OF ALASKA

"Graphite Creek is the largest deposit of graphite in the Nation, and would be a superior domestic supply of this critical mineral, which is necessary for modern batteries, renewable energy technology, and many other high-tech uses."



Dan Sullivan U.S. SENATOR

*"I want to congratulate Graphite One for the diligent work that went into receiving this award, including **the company's strategy to mine, refine and recycle graphite here in the United States.** This award has the potential to open up significant opportunities for our state in terms of producing our abundant reserves of critical minerals and metals. It's also **significant for our country's national security.**"*



Mary Peltola CONGRESSWOMAN

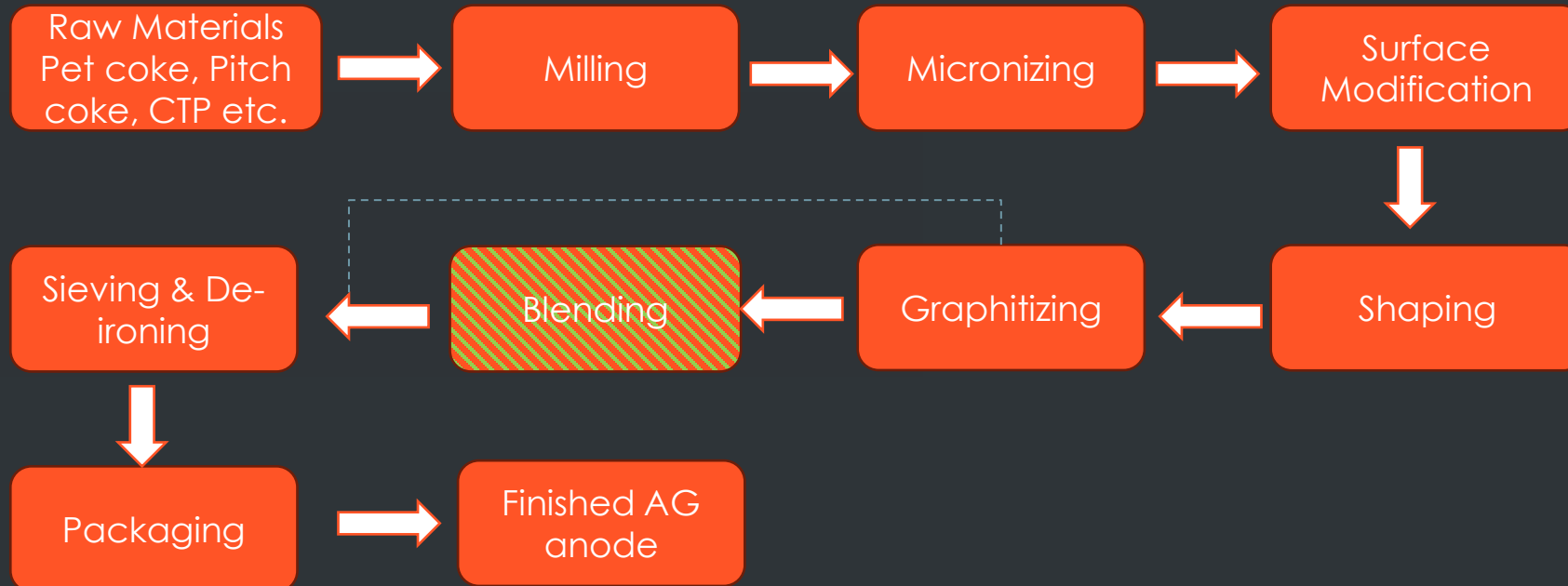
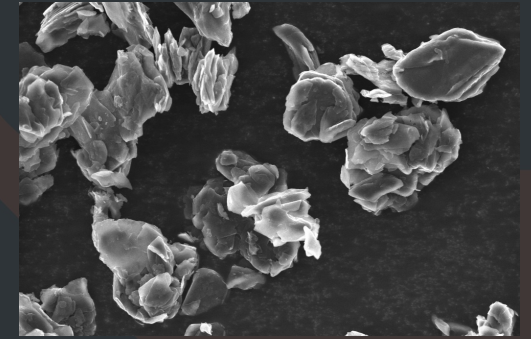
*"Critical minerals like graphite will be key for the inventions of the future, from clean energy to advanced defense technologies, and **with this funding, Alaskans can build a crucial link in our nation's supply chains.** **This project will also bring needed jobs and economic development to a rural area of Alaska,** with opportunities for hundreds of local hires during construction and operation."*



Senator Lisa Murkowski at the Graphite Creek project

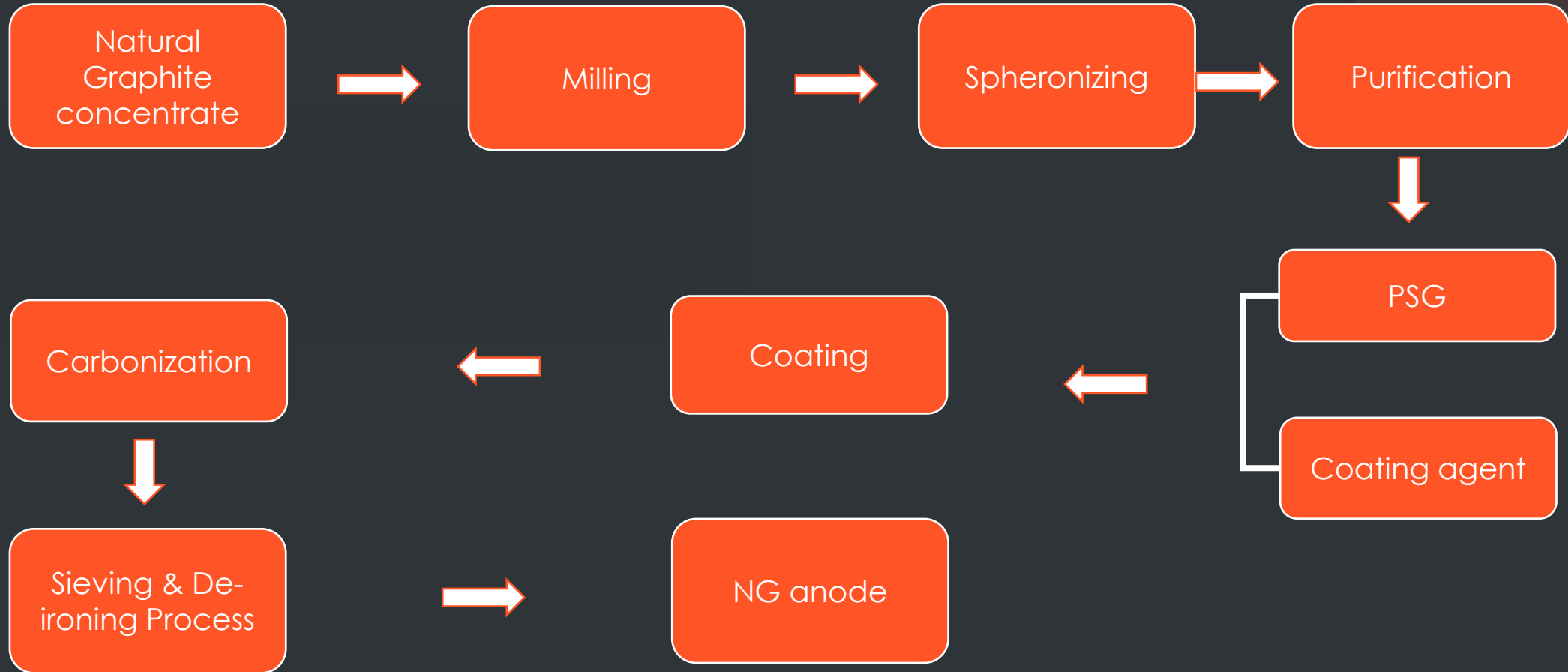
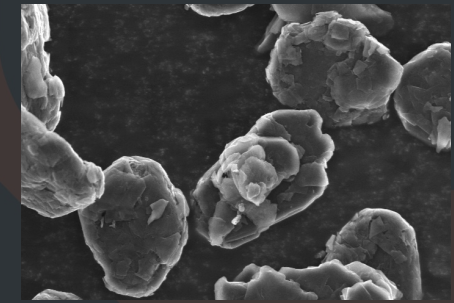
Manufacturing Processes

Artificial Graphite Production Process



Ohio AAM manufacturing plant

Natural Graphite (NG) Production Process



CONTACT

Anthony Huston, President & CEO

AHuston@graphiteoneinc.com

604-889-4251

