ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE
April 3, 2024
3:32 p.m.

MEMBERS PRESENT

Senator Click Bishop, Co-Chair
Senator Cathy Giessel, Co-Chair
Senator Bill Wielechowski, Vice Chair
Senator Scott Kawasaki
Senator James Kaufman
Senator Forrest Dunbar
Senator Matt Claman

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

CONFIRMATION HEARING(S):

Department Of Environment Conservation
Emma Pokon - Anchorage

- CONFIRMATION ADVANCED

PRESENTATION: GRAPHITE CREEK PROJECT

- HEARD

PRESENTATION: DONLIN PROJECT

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

EMMA POKON, Commissioner-Designee
Department of Environmental Conservation
Anchorage, Alaska

POSITION STATEMENT: Testified as the governor's commissioner designee to the Department of Environmental Conservation.

ILIODOR PHILEMONOF, Government Relations Administrator
Calista Corporation
Anchorage, Alaska
POSITION STATEMENT: Testified in support of the appointment of Commissioner-Designee Pokon.

KEVIN TORPY, Vice President of Mining
Graphite One
Anchorage, Alaska
POSITION STATEMENT: Presented an overview of the Graphite Creek Project.

KRISTINA WOOLSTON, External Affairs Manager
Donlin Gold
Anchorage, Alaska
POSITION STATEMENT: Presented an update on the Donlin Project.

ACTION NARRATIVE

3:32:22 PM
CO-CHAIR CLICK BISHOP called the Senate Resources Standing Committee meeting to order at 3:32 p.m. Present at the call to order were Senators Wielechowski, Kawasaki, Kaufman, Dunbar, Claman, Co-Chair Bishop, and Co-Chair Giessel.

CONFIRMATION HEARING(S): COMMISSIONER, DEPARTMENT OF ENVIRONMENTAL CONSERVATION

3:32:58 PM
CO-CHAIR BISHOP announced the consideration of the confirmation hearing for Emma Pokon as the commissioner of the Department of Environmental Conservation.

3:33:39 PM
EMMA POKON, Commissioner-Designee, Department of Environmental Conservation, Anchorage, Alaska, provided a brief work and education history. She expressed eagerness to continue her career in public service in this role. She has served as the Deputy Commissioner for over four years and has over 11 years of State service. Prior to DEC, she worked at the Department of Law (DOL) and had the opportunity to work in Fairbanks, the North Slope Borough, and the State Superior Court. She stated that her experience in environmental law, backed by her master's degree in the field, equips her to support the agency and make informed

decisions. She stated that she feels well-grounded after her time at the department and is confident in her ability to contribute to the agency's success.

3:35:29 PM
SENATOR KAWASAKI noted that, as previously discussed, approximately 99 percent of environmental scientists believe that climate change has a man-made cause. He requested her perspective on this fact.

3:35:52 PM
COMMISSIONER-DESIGNEE POKON agreed that the weight of the science indicates that climate change is happening and is anthropogenically caused. She noted that in Alaska, particularly, the effects are evident. During her time on the North Slope, community members shared their observations, which would concur with this understanding.

3:36:22 PM
SENATOR KAWASAKI noted that a lot of the work requires attention to detail, specifically in research and dispatching permits for air quality. He inquired whether she feels her department is adequately staffed to take on these responsibilities. He observed that a dozen years ago, permits were relatively quick to obtain, which was favorable for the industry, but now it seems to be lagging. He asked how the state could address this issue.

3:37:06 PM
COMMISSIONER-DESIGNEE POKON expressed gratitude for the positions and resources provided by the legislature in recent years. She noted that resources discussed during the last legislative session for the Division of Air Quality are being allocated to ensure permitting can proceed more smoothly. The department has received resources for the Division of Water, specifically for the Alaska Pollutant Discharge Elimination System (APDES) program and related work. She mentioned that new positions have been added in the Division of Spill Prevention and Response. Recognizing past feedback, she acknowledged the need for more efficient permitting processes and stated that these additional resources will be helpful.

3:38:10 PM
SENATOR DUNBAR said he sees the role of the Department of Conservation as working hand in glove with the Department of Health, noting that one of its primary roles is to protect the health and well-being of Alaskans, particularly in urban areas.

He inquired about the efforts her department might be undertaking to resolve the health challenges resulting from unlined landfills in rural Alaska. He also asked what she sees as the largest threats to water quality for the public in the state and what she might propose to do about it.

3:39:16 PM
COMMISSIONER-DESIGNEE POKON recognized that unlined landfills are a concern, as there may be leaching or other sources of impact from those sites. She acknowledged the challenges rural communities face regarding the logistics and costs of installing liners for established landfills. The department's mission is to protect human health and the environment while also considering the economic and social well-being of Alaskans. As they address issues like unlined landfills, it is important to evaluate the feasibility for communities, considering costs and the relative risks of specific solutions. She agreed that unlined landfills are not ideal, but she did not have specific steps in mind regarding actions with particular communities. She noted that the EPA concurs with assessing practices based on the totality of circumstances. The department aims to monitor how unlined landfills impact water quality, particularly drinking water sources, and respond where necessary. Regarding water quality challenges around the state, she mentioned that the Division of Water prepares a periodic list identifying water bodies that do not meet state water quality standards. This list is a useful resource for understanding where water quality is being affected. Factors contributing to water quality impairment can include proximity to roads and runoff. For regulated facilities, the department conducts a robust permitting process to ensure any discharges to water bodies are protective of those environments, including human and fish consumption. For permitted discharges, there is confidence that human health is being safeguarded. However, risks arise from unplanned discharges or releases, which can occur. The department aims to ensure an appropriate response to clean up where necessary or to address any negligence leading to such releases.

3:43:09 PM
SENATOR CLAMAN noted that there have been numerous discussions about SPAR funding and expressed concern that the challenges regarding the lack of funding for the SPAR division haven't changed significantly. He mentioned that accounting changes related to the fiscal year make it seem as though the SPAR budget is in better condition than it actually is. He asked for her perspective on this issue, stating that he continues to worry about the lack of funding for the SPAR budget, even as

budget presentations suggest that the problem has been resolved. He inquired about the metrics and overall perspective on the funding situation.

3:43:54 PM
COMMISSIONER-DESIGNEE POKON expressed her understanding that the phenomenon observed in the budget presentations, where there appeared to be a double deposit in one year, resulted from legislative direction to place money into a fund. This fund was established to ensure continuous funding for operations amid budgetary concerns and sweep issues. She clarified that this was not an accounting trick to create a more favorable picture; rather, it was a legislative decision to deposit funds into the account before the end of the fiscal year, preventing the money from disappearing during the sweep. She acknowledged that the current balance in the account is approximately $18 million, with projections indicating a decline to around $14 million in 10 years. While this represents a manageable decline rather than a fiscal cliff scenario, she noted that this forecast does not account for investment earnings. She highlighted that investment earnings for the current year are around $2.3 million, while last year's earnings were approximately $2 million. Although these earnings are uncertain and not included in the forecast, they represent potential inflow. Cost recovery is coming in, and there are significant settlements potentially on the horizon. She expressed confidence in the division's current status but acknowledged the responsibility to ensure that the division has the necessary funding to continue its work should circumstances change.

3:46:25 PM
CO-CHAIR BISHOP expressed appreciation to the committee members for spending the day at Usibelli Coal Mine. He noted the value of learning about the industry from the ground up and thanked everyone for taking the time to deepen their understanding of the coal mining process.

3:46:53 PM
CO-CHAIR BISHOP opened public testimony on the appointment of Commissioner-Designee Pokon.

3:47:16 PM
ILIODOR PHILEMONOF, Government Relations Administrator, Calista Corporation, Anchorage, Alaska, testified in support of the confirmation of Ms. Pokon. He said he believes the candidate is outstanding and will serve admirably as DEC Commissioner. She has been a great advocate and communicator for many communities.

3:47:46 PM
CO-CHAIR BISHOP closed public testimony on the appointment of Ms. Pokon.

3:47:15 PM
CO-CHAIR BISHOP solicited a motion.

3:47:53 PM
CO-CHAIR GIESSEL moved Emma Pokon, Commissioner-Designee to the Department of Conservation, be forwarded to a Joint Session of the legislature for consideration.

Signing the report(s) regarding appointments to boards and commissions in no way reflects individual members' approval or disapproval of the appointees; the nominations are merely forwarded to the full legislature for confirmation or rejection.

3:48:17 PM
CO-CHAIR BISHOP found no objection; he stated that, in accordance with AS 39.05.080, the Senate Resources Standing Committee reviewed the following and recommends the appointment be forwarded to a joint session for consideration:

Commissioner - Department of Conservation
Emma Pokon - Anchorage

3:48:28 PM
At ease

PRESENTATION: GRAPHITE CREEK PROJECT

3:50:25 PM
CO-CHAIR BISHOP reconvened the meeting and announced the consideration of a presentation on the Graphite Creek Project.

3:51:06 PM
KEVIN TORPY, Vice President of Mining, Graphite One, Anchorage, Alaska, presented an overview of the Graphite Creek Project. He shared his background as a mining engineer with approximately 28 years of experience in late-stage exploration and the construction of mining operations, primarily in northern regions. His Alaska experience includes work at the Kensington and Pogo mines, as well as the Ambler Metals project. He noted that Graphite One Alaska owns the Graphite Creek project and is a wholly owned subsidiary of Graphite One Inc., a Canadian company based in Vancouver, British Columbia.

3:51:51 PM
MR. TORPY moved to slide 2 and previewed a disclosure statement.

3:52:00 PM
MR. TORPY moved to slide 3 and described the graphite crisis in America:

[Original punctuation provided.]

America's Graphite Crisis

100 percent
U.S. import reliance on China as primary graphite import source
U.S. GEOLOGICAL SURVEY

70 percent
of the world's graphite supply comes from China
REUTERS

95 percent
of anode materials in lithium-ion batteries is based on graphite
EUROPEAN CARBON & GRAPHITE ASSOCIATION

494 percent
Expected growth of the graphitemarketby2050
WORLD BANK GROUP

2,500 percent
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
The Need for Graphite - Lomiko Metals Inc.

MR. TORPY acknowledged that this committee was briefed by the Alaska Miners Association (AMA) a few weeks ago on critical minerals, including some information on graphite. He indicated that he would not belabor the point by going through the numbers in great detail but emphasized that, like many critical minerals, the United States has fallen far behind in both the mining of these ores and the raw production material.

3:52:47 PM
CO-CHAIR GIESSEL inquired about the second point regarding the graphite supply, noting that 70 percent of the world's graphite supply comes from China. She asked whether the graphite actually comes from China or if it is refined and then exported from China, questioning if the real source of the critical mineral is another country.

3:53:05 PM
MR. TORPY replied that, regarding raw natural graphite material, much of it is mined in China as well as in other countries such as Europe and Mozambique. He noted that, for the most part, all refining—until very recently—has occurred in China to provide an anode product. He observed that the U.S. has seen minimal production come online in the past year, along with a small amount from Canada, but emphasized that the U.S. is decades behind China's efforts in this area.

3:53:51 PM
MR. TORPY moved to slide 4 and explained the supply chain solution:

[Original punctuation provided.]

Graphite One's Supply Chain Solution

Meet demand graphite to decrease dependency on China

Graphite One (Alaska) Inc.

- Advance America's largest graphite deposit
- Raw material
- Graphite Creek is the largest natural flake graphite deposit in the US
- 300+ jobs created in rural Alaska
- Foster partnerships
- Community engagement
- BSNC investment support

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 US
- Clean and renewable energy
- Technology License Agreement (TLA)

- G1 to own 100 percent of the Infrastructure and Plant
- Facility engineering to accept used EV batteries for feedstock

MR. TORPY said that, unlike metal mining in Alaska, which typically involves creating a doré or concentrate for sale to smelters, Graphite One's vision is to establish a fully U.S. domestic supply chain rather than selling natural graphite concentrate to China or other countries for further refinement. He explained that the goal is to develop the Graphite Creek project in Alaska to supply natural flake graphite, which will then be sent to a secondary treatment facility in the lower 48 states. There, it will be purified and combined with artificial graphite products to produce anode batteries for the electric vehicle market. However, the challenge lies in the secondary treatment and the lack of processing technology that has developed in the United States over the last several decades.

3:55:09 PM
SENATOR CLAMAN asked why the manufacturing of the raw material, as described in the model, is planned to take place in the lower 48 states instead of in Alaska.

3:55:23 PM
MR. TORPY said he would address the topic later in the presentation.

3:55:41 PM
MR. TORPY moved to slide 5 and spoke to the project location:

[Original punctuation provided.]

Project Location

- 38 miles north of Nome
- Between the Imuruk Basin and the Kigluaik Mountains
- 176 State Mining Claims

MR. TORPY said the projects are located on the Seward Peninsula, about 38 miles north of Nome, just north of the Inward Basin. The property is fully located on state mining claims. Operations are conducted seasonally in three areas at the Graphite Creek project, marked by a yellow star. There is a camp at the project site and a small camp on the outskirts of Nome. Staging areas on

Cougar Rock Road, permitted by the state, are used to stage freight and fuel. Supplies are transported by road to these areas before being flown by helicopter to the project.

3:56:33 PM
MR. TORPY moved to slide 6 and detailed the Graphite Creek Camp:

[Original punctuation provided.]

Graphite Creek Camp

- 60-person capacity, supporting
- Drilling
- Helicopter support
- Environmental baseline monitoring

MR. TORPY stated that the 60-person camp at the project site operates seasonally from June to early October. Activities at the site include drilling the deposit and providing helicopter support for both drilling operations and baseline environmental monitoring, which is also conducted seasonally. He expressed hope to discuss the environmental monitoring further.

3:57:05 PM
MR. TORPY moved to slide 7 and summarized the Nome camp:

[Original punctuation provided.]

Nome Camp

- 24-person capacity, supporting
- Core logging
- Core cutting
- Sample preparation
- Expediting
- Transitional housing

MR. TORPY explained that the small camp on the northern outskirts of Nome, near the satellite fields, serves as the site where all drill core is flown in. At this facility, geologists log and prepare the core for assaying before it is shipped off-site. The facility is also used to stage all freight for the project.

3:57:38 PM
MR. TORPY moved to slide 8 and spoke to exploration history:

[Original punctuation provided.]

Exploration History

- Early 1900's - Minor mining production in two campaigns
- 1943 - Sampling & mapping by the USGS
- 1981 - Sampling by Anaconda Company

MR. TORPY noted that that attempts at commercial development date back to the early 1900s, although native peoples in the region had long been aware of the graphite deposits. Since 2011, when Graphite One became involved, several years of drilling and studies have been conducted. Last year marked the largest program to date, with over 8,700 meters (about 28,000 feet) of core drilled.

3:58:26 PM
MR. TORPY moved to slide 9 and spoke to the prefeasibility study from 2022:

[Original punctuation provided.]

2022 Prefeasibility Study Results

- Open pit mining operation with conventional crushing, grinding, and flotation circuit2,800 tonnes per day mill throughout
- 2.2:1 stripping ratio

- Co-disposal of waste rock with dry stack tailings
- ~18-mile access road
- 22-year mine life
- Concentrate barged from Nome to Lower 48 seasonally
- Secondary Treatment Plant (STP) and anode Manufacturing Facility

"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 resources of more than 10 million metric tonnes of ore with 7.8 to 8.0 percent graphite"

MR. TORPY said the exploration history dates back to the early 1900s, with a few attempts to establish commercial operations in the area. Predating these efforts, the native peoples were already aware of the graphite deposits. Since 2011, when Graphite One became involved with the project, several years of drilling and studies have taken place. This culminated in last year's largest program to date, where over 8,700 meters, approximately 28,000 feet, of core were drilled.

4:00:09 PM
CO-CHAIR BISHOP inquired about the quality of the core box on the photo on the far-right side of slide 9.

4:00:22 PM
MR. TORPY replied yes, that is the case.

4:00:38 PM
MR. TORPY moved to slide 10 and spoke to the steps forward:

[Original punctuation provided.]

Where to next?
2022 Prefeasibility Study

- 2,800 tpd mill
- 9,436 tpd mine (ore + waste)
- 53,000 tpy graphite concentrate
- STP 26-year annual production 75,026 tpy including 49,624 tpy anode materials

Feasibility Study Target

- 10,000 tpd mill
- ~33,700 tpd mine
- 175,000 tpy 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 3.6 x increased throughput

MR. TORPY mentioned that the current production rate of 2,800 tons per day is low and carries high costs, especially given the

size of the deposit and the changing market dynamics. He noted that recent forecasts on the electric vehicle market and feedback from car manufacturers indicate a demand for much more than the current production capacity. In response, a drilling program was initiated to increase production capacity to 10,000 tons per day, which would align with the scale of operations at Red Dog. Due to the extensive trend, approximately 20,000 feet were drilled last year. The team believes they will be well positioned with the feeder zone they are currently working on, aiming to maintain a mine life of over 20 years at a rate of 3.6 times throughput. The study is expected to be completed by the end of the year.

4:02:06 PM
SENATOR DUNBAR asked how much annual revenue is anticipated.

4:02:25 PM
MR. TORPY replied that he could not provide an answer until after study is completed.

4:02:47 PM
SENATOR DUNBAR asked if the company is publicly traded. He noted that the committee chair and others are interested in this information. In the pre-feasibility study, there must have been discussions about financials, which he believes represent a significant portion of the overall financial picture. He requested a rough estimate of the revenue scale and asked whether it involves hundreds of thousands, millions, or tens of millions of dollars.

4:03:15 PM
MR. TORPY replied that Graphite One is publicly traded on the Vancouver Stock Exchange He said he does not have the data in hand but would report back to the committee.

4:03:45 PM
MR. TORPY moved to slide 11 and explained environmental baseline monitoring:

[Original punctuation provided.]

Environmental Baseline Monitoring

- Various levels of environmental baseline monitoring since 2014 to support eventual NEPA permitting process
- Cultural

- Surface & ground water
- Raptor surveys
- Aquatic species
- Imuruk Basin bathymetry
- Geochemical
- Hydrogeologic
- Meteorological
- Wetlands mapping

MR. TORPY stated that in preparation for informing the upcoming feasibility study and likely entering the permitting phase next year, extensive environmental baseline studies are being conducted. He emphasized that this year's focus will be on permafrost and geotechnical studies.

4:04:22 PM
MR. TORPY moved to slide 12 and spoke to community outreach:

[Original punctuation provided.]

Community Outreach

- Community meetings since 2014 with emphasis on Brevig Mission, Teller, and Nome.
- Subsistence Advisory Council established in 2018
- Initially Brevig Mission, Teller, and Mary's Igloo.
- Expanded to include BSNC, Nome Eskimo Community, and King Island Tribal Council in 2023
- Increasing local hiring
- Working with local resources on long term workforce development needs
- 2023 Investment Agreement with BSNC sets up scholarships and community project funding

MR. TORPY said Graphite One has been making significant efforts since 2014 to engage with local communities, particularly the villages of the Brevig, Mission, Teller and the city of Nome. In 2018, a supervisory committee was formed to incorporate feedback from tribal organizations to minimize impacts on subsistence activities in the area. This council was originally established with input from the Brevig Mission and Mary's Igloo. Last year, the committee was expanded to include the Bering Strait City, the Kotzebue Eskimo community, and the Kigigak Island Tribal Council. He initiated a major push to prioritize direct hiring instead of relying on contractors, who had not been effectively

engaging in local hiring. This focus has been a priority over the past year and will continue moving forward. He added that they are grateful to have Bering Straits Native Corporation invest in the company last year, which also resulted in the company establishing scholarship funding and community project funding for all three of the communities involved.

4:05:50 PM
MR. TORPY moved to slide 13 and spoke to economic impacts:

[Original punctuation provided.]

Economic Impacts

- 6 fulltime Alaska residents
- 1 Fulltime & 22 seasonal regional residents
- 2023 Payroll Impacts$1.9M to Alaska Residents
- $582K to regional residents
- Similar numbers expected for 2024
- $31.2M in goods & services to Alaska businesses since 2021, including $5.5M to Seward Peninsula based businesses

MR. TORPY said there are currently six full-time Alaska residents working on the project, while the majority of the staff is seasonal to support the summer program. There is one full-time employee in Nome, and last summer, the project employed 22 seasonal regional residents across both the company and its contractors. He noted that the payroll impact appears modest, totaling $1.9 million to Alaska residents and about $500,000 to regional residents, primarily over a four-month period. Despite this, these figures are meaningful to the communities involved. The project has had a significant impact on Alaska businesses, contributing approximately $31.2 million to businesses statewide, with $5.5 million benefiting businesses on the Seward Peninsula.

4:07:05 PM
SENATOR CLAMAN asked for the current estimate of the earliest point in time when production from the mine is expected to commence.

4:07:14 PM
MR. TORPY replied that he has a slide coming up that will outline the project's timeline for the next several years.

4:07:31 PM
MR. TORPY moved to slide 14 and spoke to the secondary treatment plan:

[Original punctuation provided.]

Secondary Treatment Plant

- Graphite Creek concentrate to be shipped to Lower 48 – recently announced Ohio location
- Alternative power to be used to mill, shape, and purify / graphitize input materials into the following products
- Natural and artificial graphite products produced

Anode Materials

- Li-ion Batteries
- 4 anode products

Purified Graphite Products

- 99 percent Cg
- Conventional, non-lithium-ion battery anode industry

Unpurified Graphite Products

- 95 percent Cg
- Traditional graphite markets such as refractory materials, lubricants, etc.

MR. TORPY said that the secondary treatment process involves purifying both the natural graphite produced at Graphite Creek and artificial graphite products, which are essential for battery construction. The graphite produced will meet various grades, with the quality and properties of each split determining its end-use. Higher purity products will be used for anode materials in lithium-ion batteries, representing the premium segment of the output. Lesser pure products will be directed to conventional non-lithium-ion batteries. The lower-grade, less purified graphite will be utilized in traditional markets, such as lubricants and refractory materials.

4:08:54 PM
MR. TORPY moved to slide 15 and explained secondary treatment:

[Original punctuation provided.]

Why Not Secondary Treatment in Alaska?

- Lower cost and more abundant power in Lower 48PFS Phase I - 85.9 MW Connected / 54.3 MW Peak
- PFS Phase II – 110 MW Connected / 66.5 MW Peak
- Lower carbon footprint more attractive to investors interested in the graphite / BEV sector
- Access to ports for incoming concentrate and other precursor materials
- Access to transportation systems for delivery of battery anodes in the USA and to Europe

MR. TORPY explained why secondary treatment is not feasible in Alaska, citing two main reasons: limited available power and restricted access to transportation and supply chains. Referring to data from a previous building study, he described how treating concentrates from a 2,800-ton-per-day mining operation is highly energy-intensive. The graphite must be heated to thousands of degrees for purification, requiring 86 megawatts of connected power in phase one, with 119 megawatts in the longer-term phase. The plan is to increase natural graphite output by 3.6 times, which would demand even more power. He emphasized the importance of affordable and low-carbon energy and noted that investors in the graphite electric vehicle sector prioritize a minimal carbon footprint.

4:10:33 PM
SENATOR WIELECHOWSKI asked how many megawatts are required for the mining operation and inquired about the plan to provide the necessary power.

4:10:41 PM
MR. TORPY replied that the plan is to sync it with a feasibility study at ten thousand tons per day and approximately 30 megawatts of power will be needed. Currently, without other solutions, the operation would rely on diesel, which is the basis of the study. He expressed hope that mini nuclear power could gain traction in the future. Additionally, discussions with Kawerak are underway regarding the potential of their Tolovana Hot Springs to provide geothermal energy to the project, though it is in the early stages and not expected to serve as a base case in the study.

4:11:28 PM
SENATOR WIELECHOWSKI inquired about the planned route for transporting the product to the Lower 48 by March.

4:11:38 PM
MR. TORPY replied that Graphite One anticipates barging the product from Nome to either Seattle or Prince Rupert Port, after which it would be transported by rail to Ohio.

4:12:01 PM
SENATOR DUNBAR asked about the low-carbon power source in Ohio that investors are seeking, noting that Ohio is not typically associated with large-scale hydroelectric power like Hoover Dam. He inquired if there is a significant hydro power plant there and sought clarification on the power generation in Ohio that is currently competitive.

4:12:30 PM
MR. TORPY stated that Graphite One has been in communication with nuclear power providers.

4:12:48 PM
MR. TORPY explained that beyond the need for power, access to the supply chain is crucial for obtaining the precursors required for the artificial side of the process. Additionally, proximity to the supply chain allows for efficient delivery of the finished product to car manufacturers.

4:13:14 PM
MR. TORPY moved to slide 16 and spoke to the Department of Defense Technology Investment Agreement:

[Original punctuation provided.]

> **Department of Defense Technology Investment Agreement**
> July 17, 2023, Graphite One (Alaska) Inc. was awarded a $37.5M Department of Defense (DoD) Technology Investment Agreement (TIA) under Title III of the Defense Production Act (DPA) funded through the Inflation Reduction Act.
>
> The goal of the TIA is to perform an accelerated Feasibility Study to modernize and expand domestic production capacity and supply for graphite battery anodes necessary for electronic vehicles and alternative energy batteries, as an essential national defense technology item.

MR. TORPY noted that DoD will fund 50 percent of the project's costs, up to $37.5 million, to support efforts toward completing the feasibility study. He emphasized the critical importance of

graphite to U.S. security and noted that China currently dominates the graphite market. He added that without this assistance, it would be unlikely that the project could advance independently.

4:14:12 PM
MR. TORPY moved to slide 17 and spoke to state and delegation support, showcasing quotes from public officials. He expressed gratitude for the bipartisan support from the local delegation, including Governor Dunleavy, Senator Sullivan, and Congresswoman Peltola. He specifically highlighted Senator Murkowski's instrumental role in supporting the project, noting that within two days of visiting the site last year, she was on the Senate floor advocating for the project.

4:14:54 PM
MR. TORPY moved to slide 18 and detailed the project timeline:

[Original punctuation provided.]

Project Timeline

2024:
Complete Feasibility Study

2025 - 2027:
Permitting, Detailed Engineering

2027 - 2029:
Construction

2029+:
Operations

MR. TORPY mentioned that Graphite One is on track to complete drilling this year, which will provide the final information needed for the feasibility study expected to be published by the end of the year. He indicated a desire to enter the permitting process afterward, estimating that it may take about two years, followed by an optimistic two years for construction. Operations and production of concentrates are anticipated to begin in 2030.

4:15:37 PM
SENATOR KAUFMAN inquired about the project's global standing, asking how it compares in terms of global competition for graphite material.

4:15:56 PM
MR. TORPY replied that he does not have a specific ranking for the project's global standing, noting that obtaining reliable information, particularly from China, about tonnage and deposit breadth is very challenging. The project's deposits are likely substantial on a global scale. However, he pointed out that other regions, such as Mozambique, have deposits with much higher grades than theirs. While the project's size is competitive, its grade is likely in the middle of the pack. He noted that the project is running at a graphite grade of five to six percent, while one of the projects in Mozambique exceeds 20 percent.

4:16:54 PM
SENATOR KAUFMAN noted recent news indicating that China is shutting down operations and requiring permits for the export of graphite materials. He emphasized that this development is significant; not only the presence of graphite but also China's control over the market and the increasing restrictions.

4:17:17 PM
MR. TORPY agreed, stating that China's ability to manipulate the graphite markets has been evident, particularly this summer. He cited an example involving a project in Louisiana that is undertaking the secondary treatment of graphite mined in Mozambique. As this project was coming online, China made it difficult for them to sell their product at competitive prices, thereby complicating their market entry.

4:17:57 PM
MR. TORPY moved to slide 19 and summarized the project:

[Original punctuation provided.]

Summary

- Graphite is a mineral critical to the nation's security, but we are fully reliant on foreign sources
- Bipartisan support for domestic supply chain for graphite battery anodes for which we are currently fully reliant on China
- The Graphite Creek Project is the nation’s largest natural graphite deposit
- With the addition of artificial graphite production completes the full US domestic supply chain

- The Project shows a long-projected mine life and is positioned on a trend that should provide multi-generational jobs in Western Alaska and ongoing security to our critical mineral supply chain.

MR. TORPY summarized that the project is well-positioned to supply a portion of the country's graphite needs and, for the first time in decades, contribute to a domestic supply chain. He expressed gratitude for the ongoing bipartisan support for the project and looked forward to advancing it to create multi-generational jobs for western Alaska.

4:18:35 PM
CO-CHAIR BISHOP said he is looking forward to the first construction.

PRESENTATION: DONLIN PROJECT

4:18:53 PM
CO-CHAIR BISHOP announced the consideration of a presentation overview of the Donlin Project.

4:19:33 PM
At ease

4:20:17 PM
CO-CHAIR BISHOP reconvened the meeting.

4:20:25 PM
KRISTINA WOOLSTON, External Affairs Manager, Donlin Gold, Anchorage, Alaska, presented an update on the Donlin Project. She noted that, similar to the Graphite One presentation, she would be making forward-looking statements and advised the audience to use the information accordingly. She emphasized that the information provided is based on their best expectations and proposals.

4:21:31 PM
MS. WOOLSTON moved to slide 2 and detailed landowners and surface rights:

[Original punctuation provided.]

Land Owners

- Calista board selected the land for resource development through ANCSA in early 1970s
- Generate employment opportunities and economic benefits for Calista Shareholders
- Invited Donlin Gold to develop property for benefit of shareholders
- Exploration and mining lease
- Hiring preference: shareholders, spouses, and descendants
- Bidder's preference for subsidiaries
- Contributions to scholarship program
- Surface Use Agreement
- Contributions to KEF scholarship
- Hiring preference: shareholders, spouses, and descendants
- Bidder's preference for subsidiaries
- Agreement on construction and operation of Angyaruaq port
- Oversite during mine closure and reclamation

MS. WOOLSTON stated that the gold at Donlin is owned by the Calista Corporation, which selected the land specifically after the Alaska Native Settlement Act (ANCSA) to develop resources for the benefit of its shareholders. She noted that Calista owns both surface rights and some subsurface rights, while The Kuskokwim Corporation (TKC) is the surface landowner. Exploration and mining agreements are made with Calista and TKC, encompassing various aspects, including significant community activities, support partnerships, local programs, hiring preferences for shareholders, their descendants, and preferences for their subsidiary companies. She highlighted the incredible opportunity to collaborate with Calista to develop new business lines now and in the future, reflecting the intent of ANCSA to empower local ownership of land. Calista thoughtfully delayed the development of Donlin until the National Environmental Policy Act (NEPA) law was passed, ensuring confidence in the safety measures for their prized resources, including land, water, and fish.

4:23:08 PM
CO-CHAIR GIESSEL noted her previous experience as a citizen attending hearings and emphasized the importance of clarity for the audience. She referred to Slide 2, mentioning TKC and highlighted that providing context on TKC and the NEPA is essential for listeners to follow along.

4:23:31 PM
MS. WOOLSTON explained that TKC is a cooperative of 10 communities that have come together as individual village corporations. The Calista Corporation represents 56 villages and tribes in the region, and their stakeholder engagement includes a total of 62 communities. She mentioned that the national gas pipeline, which is permitted, starts on Calista land and eventually reaches Anchorage. While Donlin Gold considers the three regional corporations and 62 communities as their stakeholders, all Alaskans are part of this effort since the gold resources are located on Alaska Native Corporation land. As such, they are subject to the 7(j)-royalty sharing law. This law reflects the sharing culture prevalent in rural communities, where 70 percent of the profits earned from Donlin Gold will be shared among the native corporations. The seven regional corporations receive these profits, and 50 percent is further distributed to the village corporations, creating an effective model for sharing wealth among native people.

4:25:05 PM
SENATOR CLAMAN inquired whether Calista owns the subsurface rights in the same manner as the surface rights, given that the land was selected through the ANCSA processes.

4:25:13 PM
MS. WOOLSTON confirmed that Calista is listed as the subsurface landowner. While they own some surface land, they specifically own the gold, and Donlin Gold is operating at Calista's invitation, as they selected the company as their development partner.

4:25:29 PM
SENATOR CLAMAN asked whether the state has any economic interest in the resource development, noting that the subsurface resources are owned by Calista.

4:25:44 PM
MS. WOOLSTON stated that the land is owned by a Native corporation and is subject to safety regulations. Similar to the economic information shared earlier by Graphite One, she expects the economic impact to be significant across the state. Currently, the estimated cost for construction, operation, and ongoing improvements and maintenance is a little over $8 billion, pending an updated feasibility study.

[4:25:44]

CO-CHAIR BISHOP asked her to repeat her response.

[4:25:44]
MS. WOOLSTON repeated her response and added that this undertaking requires considerable financial resources, engineering, planning, logistics preparation, and human capital.

4:26:59 PM
MS. WOOLSTON moved to slide 3 and explained the goals of the Donlin Project:

[Original punctuation provided.]

Our Goals

- Develop a safe and environmentally sound mine
- Provide economic opportunities and jobs to Y-K region, neighboring communities, and Alaska
- Respect and co-existence of subsistence activities with employment
- Protect Crooked Creek and Kuskokwim River

MS. WOOLSTON emphasized that the project is deeply important to the management and community relations team, all of whom are Alaska Native from rural communities. They feel privileged to be invited by Calista and the Kuskokwim Corporation as their development partner. The project includes roughly 34 million ounces of gold, which is classified as refractory due to microscopic particles held within arsenopyrite, necessitating an energy-intensive extraction process. The project will process approximately 59,000 tons per day, requiring substantial power. Donlin Gold is currently working with the State of Alaska's dam safety permit office. The approval process is expected to take around two years to design and secure the necessary permits for the lined tailings storage facility (TSF). The design will incorporate a material that effectively creates a liner throughout the facility. Regarding the infrastructure, a fiber optic network is planned along the natural gas pipeline corridor. While there is considerable activity and development of fiber infrastructure, this may change as future construction progresses, potentially increasing on-site and global infrastructure options.

4:27:24 PM
MS. WOOLSTON moved to slide 4 and provided an overview of the Donlin Project:

[Original punctuation provided.]

Project Overview

- Reserves: 33.9 M oz of gold
- Mine Life: ~27+ years
- Production: ~ 1.1 M oz/year
- Operation: Open-pit
- Milling: 59,000 tons/day
- Strip ratio: ~5.5:1 = ~3B tons waste rock
- Tailings: Fully lined storage facility
- Infrastructure: fiber optic network, runway, 600 person camp, 30- mile road, 2 ports
- Equipment: 69 haul trucks (400 ton/ea), electric shovels
- Power: ~220MW power plant, 314-mile natural-gas pipeline from Cook Inlet

MS. WOOLSTON noted that the project involves roughly 34 million ounces of gold, characterized as refractory due to microscopic particles held within arsenopyrite. This requires an energy-intensive process, as the project will mill approximately 59,000 tons per day, necessitating substantial power. She noted the ongoing collaboration with the State of Alaska's dam safety permit office, which entails a two-year iterative process for designing and securing necessary permits for the TSF. This facility will utilize a material welded together to create a continuous liner. A fiber optic network will be installed along the 314-mile natural gas pipeline corridor. There is significant planning and development for fiber infrastructure, which may evolve as construction progresses, potentially leading to additional on-site and local infrastructure options.

4:29:31 PM
SENATOR DUNBAR observed the project's potential economic impact, noting that with an estimated recovery of 1.21 million ounces of gold per year for over 27 years, totaling approximately 30 million recoverable ounces, the revenue could reach around $60 billion based on current gold prices of $2,200 to $2,300 per ounce. He suggested rounding this figure down to $2,000 for simplicity, highlighting the significant economic activity generated $60 billion. While Alaska has no personal income tax, many workers will benefit financially from this project. With an anticipated $8 billion spent within the state, he emphasized the importance of considering the broader economic implications,

including value-added processing that would occur outside the state.

4:30:33 PM
MS. WOOLSTON explained that the processing facility at Donlin will produce gold doré bars, which will be shipped out after initial processing is completed on-site in Alaska. She noted that developing the project has taken time due to the significant energy and infrastructure required for processing. She mentioned that costs have risen roughly 40 percent over the past few years, suggesting that the previously provided figures are conservative since construction decisions are yet to be made. A permitted port will be established just south of Crooked Creek, the village nearest to the project site, with plans to construct four purpose-built barges for navigating the Kuskokwim River. These barges will feature a double-hulled modular design to adapt to the river's bends and a shallow draft. The project will also include a 600-person camp and a 30-mile-long road, along with a 5,000-foot one-way access route. Purdue Creek village is approximately 13 miles from the project site, and planning efforts will involve extensive collaboration with them. TKC will serve as the owner and operator of the port project.

4:32:52 PM
CO-CHAIR BISHOP inquired about the asset value of gold doré bars.

4:33:02 PM
MS. WOOLSTON replied that she believes it is 80 percent, but offered to follow up with the committee.

4:33:07 PM
CO-CHAIR BISHOP noted that when he checks the gold price at $2,200 each morning, he must account for smelting losses and purity levels, which impacts the effective value of the gold, suggesting a need to factor in the numeric value.

4:33:31 PM
MS. WOOLSTON said she would follow up with a specific value.

4:33:38 PM
MS. WOOLSTON moved to slide 5 and spoke to the natural gas pipeline:

[Original punctuation provided.]

Natural Gas Pipeline

- Steel pipeline suppling natural gas to onsite power plant
- 30 to 35 mcf/day (approx. 50 percent of pipeline capacity)
- Buried along entire alignment – Above ground at fault crossing
- Single compressor station
- Open access pipeline

MS. WOOLSTON stated that Donlin is permitted to construct a 314-mile natural gas pipeline leading to a 227-megawatt power facility on-site, supplying all operational power. Diesel will also be brought in via barges for construction materials. The natural gas pipeline will connect to existing infrastructure approximately 33 miles west of Anchorage, with a capacity of 73 million standard cubic feet per day. On average, it will consume around 25 million cubic feet per day to generate a base load of approximately 153 megawatts, with a peak load of about 181 megawatts.

4:34:44 PM
SENATOR WIELECHOWSKI asked if there are any firm gas contracts with Cook Inlet producers.

4:34:50 PM
MS. WOOLSTON stated that they are not yet ready to publish any Request for Quotes (RFQs) or Request for Proposals (RFPs) for natural gas and have not entered into contracts with suppliers. The gas line is permitted, but recent developments in Cook Inlet's natural gas supply have prompted them to consider alternative sources. The situation is currently a hot topic in South Central Alaska, as the supply is largely committed. If there is gas available for sale, they may need to explore other suppliers, but as of now, no contracts are in place.

4:35:48 PM
SENATOR WIELECHOWSKI asked if utilizing this would constitute roughly 16 percent of their gas supply, noting their efforts to secure gas from Cook Inlet. He expressed concern about the inability to get producers to supply gas and questioned whether she believes they will be able to incentivize producers to increase production.

4:36:07 PM

MS. WOOLSTON stated that Donlin views itself as a sizable potential customer for natural gas. She mentioned that during their recent meetings with various suppliers, producers, and regulatory agencies, they raised similar questions about the availability of natural gas. While Donlin is interested in the supply, it is not in a position to invest in a natural gas company to support development, which is outside their scope of business. Consequently, it is closely monitoring the situation in Cook Inlet, like others, to see what solutions may arise.

4:36:54 PM
CO-CHAIR BISHOP inquired whether the right-of-way is permitted for the transmission line, asking if it could still be utilized in the event that a gas pipeline was not constructed and an alternative power source was used instead.

4:37:07 PM
MS. WOOLSTON replied that it is only permitted for the natural gas pipeline and for the fiber optic network.

4:37:15 PM
SENATOR WIELECHOWSKI asked about the potential for open access to energy and whether there are plans to provide energy to the regions of Bethel and Dillingham.

4:37:31 PM
MS. WOOLSTON replied that it is Donlin's intention to provide natural gas to the region, which is why the natural gas pipeline was built larger than needed. The pipeline is open access, allowing for potential supply to communities. However, current infrastructure limits connections along the route. There is one compressor station along the way with the ability to offload gas, but many communities still rely on diesel generators and lack infrastructure to tie into the natural gas pipeline. They are investing in large scale studies to explore extending power from the on-site power plant, which won't need its entire load. This presents a real potential for regional energy development.

4:38:58 PM
SENATOR WIELECHOWSKI inquired about Donlin's planned production start date and the estimated duration for building the gas pipeline.

4:39:13 PM
MS. WOOLSTON offered to answer the question by speaking to a future slide. She moved to slide 8, showcasing a timeline of the permitting schedule. The timeline for Donlin's project is

currently driven by permitting and ongoing state and federal litigation. The dam safety permit process is highly iterative, expected to take about two more years, with approximately 12 to 18 months remaining. Several state permits are under appeal by Earthjustice and (Orutsararmiut Native Council) ONC, but the project has been successful at each appeal stage. The federal litigation concerning permits has just begun, with briefs and supporting party interventions due in the next two weeks, likely extending the timeline by another two years. All these permitting challenges must be resolved before a construction go decision can be made.

4:40:43 PM
MS. WOOLSTON moved back to slide 6 and presented an aerial view of the communities in the Chukchi region along the Kuskoquim River, highlighting the project's location in Alaska. The Donlin Gold Board approved a nearly $29 million budget for 2024, which includes funding for additional resource modeling, mine planning work, metallurgical testing, and a pilot plant. The budget also allocates resources for dam safety liner testing and other site work such as hydrology and geoscience studies. For the past 15 years, the project has conducted collaborative aquatic studies, including water quality and fish studies, in partnership with local tribes and the Native Corporation to explore potential fish projects. Additionally, the team is excited about habitat restoration efforts at Snow Gulch, an area historically impacted by mining, which includes reopening a salmon stream that had been closed for years. The project continues to assess the management of salmon fisheries within the Kuskokwim River watersheds and is actively identifying specific project opportunities in that area.

4:42:10 PM
MS. WOOLSTON moved to slide 7, demonstrating a bubble plot highlighting, "opportunities to speak out." She spoke to the importance of transparency and engagement. She noted her involvement with the project over the past 25 years, returning five years ago after pursuing other careers. She highlighted the Environmental Impact Statement (EIS) process, which spanned approximately six and a half years and included around 500 meetings, consultations, community meetings, public hearings, and public comment opportunities in collaboration with federal agencies, Native Corporation landowners, and community partners. The slide featured an open house held at the Alaska Federation of Natives (AFN), showcasing the project's commitment to transparency. The EIS is accessible to the public, with ongoing updates as part of standard procedures. Notably, improvements

have been made, such as removing mercury as a consideration in the EIS. Progress has been made regarding concerns initially raised about the project, with assurances that it will not impact local fish populations. This is particularly significant as the Native Corporation landowners believe that development can coexist with the preservation of fish resources, leading to encouragement regarding the EIS and the continued efforts being made.

4:44:02 PM
MS. WOOLSTON moved to slide 9 and spoke to local hiring commitments. She emphasized the importance of quick local hiring, noting it as a commitment that benefits both the communities and the project. This past year, representatives from 24 communities contributed to the workforce, with peak shareholder hiring reaching as high as 90 percent. The project operates with a rotational workforce model of two weeks on and two weeks off, which was adjusted during the pandemic to accommodate testing times. She expressed satisfaction with the workforce and said that several community members have advanced within the project to roles such as operators and management positions. This progress is achieved through collaboration with the local communities and the Native Corporation.

4:44:52 PM
MS. WOOLSTON briefly moved to slide 10 and presented a list of contract and employment opportunities.

4:45:07 PM
MS. WOOLSTON moved to slide 11 and spoke to the 2023 Kuskokwim River & Yukon River Backhaul:

[Original punctuation provided.]

2023 Kuskokwim River & Yukon River Backhaul

- All 62 YK communities have participated since 2018
- 10 YK villages served in 2023
- Yukon served for the first time!
- 10 Fish Camps
- 449 appliances collected in 2023 (1st time)
- 22 Conex containers filled & shipped for recycling
- 200,000 lbs. collected in 2023 alone
- Since 2018, 620,000 lbs. waste removed from YK region
- 6th year for in-person Bethel collection event

PARTNERS: AVCP, Fox Air, Delta Backhaul, AC Co., Grant Aviation, multiple tribes, Native Village of Napaimute

MS. WOOLSTON addressed a recent inquiry from a Senate committee regarding the backhaul program implemented in the region and referred to Ms. Pokon's discussion on lined landfills in the communities, emphasizing that this initiative is one of the projects they have been actively working on for decades. This initiative, which has been ongoing for the past six years, focuses on keeping communities clean by removing waste, including over 600,000 pounds of household e-waste, appliances, and fuel drums. In partnering with the Napaimute tribe, the program has enabled the purchase of two vessels, enhancing their economic opportunities on the Kuskokwim River and extending efforts to the Yukon River and fish camps. These camps typically bring in various materials, with the only return being garbage and fish. The collected waste is sent to Anchorage or Seattle for proper recycling and disposal, although this is a cost center with no financial gain from recycling efforts. Rural Alaska backhaul is notably expensive but remains a worthy pursuit. Collaborating with various entities, including the ADCP and local tribes across 56 communities in the Calista region and four in the Doyon region, she expressed excitement about the success of this region-wide effort and highlighted a recent meeting with the Denali Commission to share insights on the program.

4:46:40 PM

MS. WOOLSTON moved to slide 12, depicting photographs of community participation to remove backhaul. She discussed the economic opportunities on the Cosmic Wind River and mentioned Donlin's expansion into the Yukon River, where they are now working in fish camps. In these camps, many materials are brought in, but typically, only garbage is taken out along with hopefully some fish. Waste is sent to Anchorage or Seattle for proper recycling and disposal, noting that while this initiative is a cost center, it is a necessary pursuit. Addressing a recent inquiry about potential profits from recycling, she clarified that there is little financial gain to be made in rural Alaska, as backhaul operations are quite expensive. She emphasized the collaboration with various entities in the region, including ABCP and local tribes, covering all 56 communities in the Chugach region and four in the Doyon region. Partnerships with Fox Air, Grand Aviation, and multiple tribes have facilitated the transportation and packaging of materials for shipment. She expressed excitement about their region-wide efforts and noted a

recent meeting with the Denali Commission to share insights on their successful initiatives.

4:47:31 PM
CO-CHAIR BISHOP acknowledged the previous discussions around the E-waste bill, noting its overwhelming nature. He remarked that the information presented seemed directly aligned with the bill's objectives, emphasizing its relevance for the future. He commended Ms. Woolston and her team for successfully managing the removal of 626,000 pounds of waste in real-time.

4:48:02 PM
MS. WOOLSTON expressed that the project has been an incredible opportunity, including the experience of working with the tribes during the summer months in the communities.

4:48:23 PM
SENATOR KAUFMAN asked whether other minerals are being explored in addition to gold.

4:48:32 PM
MS. WOOLSTON clarified that the deposit is currently a pure gold play but the assessment of the deposit is continuing. She noted that while the team continues to look and assess the resource, it is currently focused solely on gold extraction.

4:49:42 PM
There being no further business to come before the committee, Co-Chair Bishop adjourned the Senate Resources Standing Committee meeting at 4:49 p.m.