Bringing Natural Resources to Life

2021 ANNUAL REPORT

Our Operations

NACCO Industries, Inc.® brings natural resources to life by delivering aggregates, minerals, reliable fuels and environmental solutions through its robust portfolio of NACCO Natural Resources businesses. The Company operates under three business segments: Coal Mining, North American Mining and Minerals Management. The Coal Mining segment operates surface coal mines for power generation companies and an activated carbon producer. The North American Mining segment is a trusted mining partner for producers of aggregates, lithium and other minerals. The Minerals Management segment, which includes the Catapult Mineral Partners business, acquires and promotes the development of mineral interests. In addition, Mitigation Resources of North America® provides stream and wetland mitigation solutions.

North American COAL

Above left: *We operate in a culture committed to safety excellence. We expect employees to work safely and look out for each other, regardless of business or location.* ***Above right:*** *We invest in our employees by offering a competitive market-based, total-rewards package that includes a combination of salaries and wages and a benefits package that promotes employee physical, mental, and financial well-being.*

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About the Cover

We have a strong legacy of environmental stewardship and a commitment to being a good corporate citizen. The cover of this Annual Report highlights the boat ramp at Red Hills Mine's R1 Lake in Ackerman, Mississippi, which was originally a sedimentation pond when operations began at the mine. The lake is now a managed trophy bass lake open to employees and guests.

At left: *The Tobaksákola mitigation site located in the Upper Big Black Basin in Webster County, Mississippi, includes approximately 45,000 linear feet of stream construction and 57.5 acres of bottomland hardwood enhancement. Restoration of the site took place over a two-year period.*

Selected Financial and Operating Data

NACCO Industries, Inc. and Subsidiaries

	Year Ended December 31				
	2021	2020[1]	2019	2018	2017[1]
	(In thousands, except per share data)				
Operating Statement Data:					
Revenues	**$ 191,846**	$ 128,432	$ 140,990	$ 135,375	$ 104,778
Operating profit	**$ 55,410**	$ 13,448	$ 38,820	$ 43,624	$ 32,814
Income from continuing operations	**$ 48,125**	$ 14,793	$ 39,632	$ 34,785	$ 28,463
Discontinued operations, net-of-tax[2]	**–**	–	–	–	1,874
Net income	**$ 48,125**	$ 14,793	$ 39,632	$ 34,785	$ 30,337
Basic Earnings per Share:					
Income from continuing operations	**$ 6.73**	$ 2.11	$ 5.68	$ 5.02	$ 4.17
Discontinued operations, net-of-tax[2]	**–**	–	–	–	0.27
Basic earnings per share	**$ 6.73**	$ 2.11	$ 5.68	$ 5.02	$ 4.44
Diluted Earnings per Share:					
Income from continuing operations	**$ 6.69**	$ 2.10	$ 5.66	$ 5.00	$ 4.14
Discontinued operations, net-of-tax[2]	**–**	–	–	–	0.27
Diluted earnings per share	**$ 6.69**	$ 2.10	$ 5.66	$ 5.00	$ 4.41
Per Share and Share Data:					
Cash dividends	**$ 0.7850**	$ 0.7675	$ 0.7350	$ 0.6600	$ 0.9775
Market value at December 31[3]	**$ 36.29**	$ 26.30	$ 46.83	$ 33.90	$ 37.65
Stockholders' equity at December 31	**$ 49.02**	$ 42.59	$ 41.54	$ 36.22	$ 32.03
Actual shares outstanding at December 31	**7,183**	7,058	6,966	6,921	6,852
Basic weighted average shares outstanding	**7,146**	7,026	6,974	6,924	6,830
Diluted weighted average shares outstanding	**7,190**	7,057	7,007	6,960	6,873

(1) During 2020 and 2017, the Company recorded non-cash impairment charges of $8.4 million and $1.0 million, respectively.

(2) On September 29, 2017, the Company spun off its housewares business. The results of operations of the housewares business are reflected as discontinued operations in the table above.

(3) The 2017 values reflect the effect of the spin-off of the housewares business as a separate public company.

	Year Ended December 31				
	2021	2020[1]	2019	2018	2017[1]
	(In thousands, except employee data)				
Balance Sheet Data at December 31:					
Cash	**$ 86,005**	$ 88,450	$ 122,892	$ 85,257	$ 101,600
Total assets[3]	**$ 507,220**	$ 476,179	$ 444,773	$ 376,991	$ 389,552
Long-term debt	**$ 18,183**	$ 24,353	$ 17,148	$ 6,367	$ 42,021
Stockholders' equity	**$ 352,116**	$ 300,624	$ 289,392	$ 250,704	$ 219,448
Cash Flow Data:					
Provided by (used for) operating activities[4]	**$ 74,875**	$ (2,486)	$ 52,784	$ 54,622	$ 41,305
Used for investing activities[4]	**$ (44,147)**	$ (45,984)	$ (20,262)	$ (18,387)	$ (15,005)
Consolidated Cash Flow before financing activities[4][5]	**$ 30,728**	$ (48,470)	$ 32,522	$ 36,235	$ 26,300
Provided by (used for) financing activities[4]	**$ (33,173)**	$ 14,028	$ 5,113	$ (52,578)	$ (2,306)
Other Data:					
Total employees at December 31[6]	**1,600**	2,000	2,400	2,400	2,300

(4) Includes both continuing operations and discontinued operations for 2017.

(5) Cash Flow before financing activities is equal to net cash provided by (used for) operating activities less net cash used for investing activities.

(6) Includes employees from the unconsolidated mines for all years presented.

	Year Ended December 31				
	2021	2020[1]	2019	2018	2017[1]
	(In thousands)				
Calculation of Adjusted EBITDA from continuing operations[7]					
Net income	**$ 48,125**	$ 14,793	$ 39,632	$ 34,785	$ 30,337
Discontinued operations, net of tax	**–**	–	–	–	(1,874)
Long-lived asset impairment charges[1]	**–**	8,359	–	–	982
Contract termination settlement	**(10,333)**	–	–	–	–
Income tax provision (benefit)	**8,725**	(535)	3,767	7,378	639
Interest expense	**1,719**	1,354	872	1,998	3,440
Interest income	**(449)**	(1,200)	(3,616)	(865)	(222)
Depreciation, depletion and amortization expense	**23,085**	18,114	16,240	14,683	12,767
Adjusted EBITDA from continuing operations[7]	**$ 70,872**	$ 40,885	$ 56,895	$ 57,979	$ 46,069

(7) Adjusted EBITDA from continuing operations is provided solely as a supplemental disclosure with respect to operating results. Adjusted EBITDA from continuing operations does not represent net income, as defined by U.S. GAAP and should not be considered as a substitute for net income, or as an indicator of operating performance. NACCO defines Adjusted EBITDA from continuing operations as income from continuing operations before long-lived asset impairment charges, contract termination settlements, and income taxes, plus interest (income) expense and depreciation, depletion and amortization expense. Adjusted EBITDA from continuing operations is not a measurement under U.S. GAAP and is not necessarily comparable with similarly titled measures of other companies.

To Our Stockholders

During 2021, we delivered a number of successes as we executed our plans for growth and diversification while protecting our core coal business. Our businesses delivered strong results in 2021, generating operating profit and net income significantly higher than in 2020. Our coal operations and oil and gas businesses both delivered substantial operating profit. Our aggregates and minerals mining and environmental banking businesses grew with seven new projects across Arkansas, Indiana, Florida, Mississippi, Tennessee and Texas. As a result, we ended 2021 with a significantly expanded geographic footprint and greater diversification across our collection of natural resource businesses.

Our team put in tremendous effort to deliver significant achievements in 2021, most notably the transaction announced between Rainbow Energy and Great River Energy under which Coal Creek Station, one of North Dakota's largest and most efficient power plants, will continue operations. Our Falkirk Mine is the sole supplier of lignite to the Coal Creek Station power plant. The purchase of Coal Creek Station by Rainbow Energy preserves a valuable asset while maintaining hundreds of good-paying jobs that support the state and surrounding communities. The transaction is expected to close in the second quarter of 2022. We look forward to working with Rainbow Energy to provide competitive and reliable power to consumers.

We also had a number of successes with our Grow and Diversify strategy. During 2021, North American Mining expanded its geographic footprint as it entered into three new contract mining services agreements at quarries in Indiana, Texas and Arkansas with two of the larger producers of aggregates in the United States. North American Mining also signed a 15-year dragline services mining contract with a new customer in Florida. We have begun the process to relocate and commission a large dragline that will significantly increase production capacity at this quarry. While this contract contributed only modestly to 2021 results, this project aligns with our long-term focus and is expected to contribute more significantly to North American Mining's results once the larger dragline is commissioned in the second half of 2022.

Our Minerals Management business expanded and diversified in 2021 as our team at Catapult Mineral Partners acquired mineral reserves that added to our growing Permian basin assets and acquired assets in the Eagle Ford shale in Texas. Also, Mitigation Resources of North America launched several new projects, including its first public works contract related to a new reservoir in North Texas.

We launched a major rebranding campaign in 2021 that better fits the changing profile of the Company. NACCO's portfolio of natural-resource related businesses now operates under the umbrella of NACCO Natural Resources. This new branding creates a unified identity and underscores our commitment to all of our businesses, while focusing on the execution of our two key strategies – Protect the Core and Grow and Diversify. The new branding provides each business with its own unique identity that can be linked back to the NACCO legacy brand, and allows us to talk more clearly about our Company and what we do. We have created new websites for each business, new business-specific logos that are shown throughout this Annual Report, and a new tagline, "Bringing Natural Resources to Life," which reflects the growing breadth and diversity of our portfolio of businesses.

The principles our Company was founded on more than 100 years ago are the same ones that lead us today: serve others, develop solutions, always do what's right, and treat everyone with dignity and respect. Our culture defines who we are today and encourages us to strive for more. We have a strong history of embracing new technologies and pursuing new markets, while never losing sight of why we are here.

Our new tagline, "Bringing Natural Resources to Life," reflects the growing breadth and diversity of our portfolio of businesses

Our legacy is rooted in our North American Coal business. ***Below:*** *A Wirtgen 4200 Surface Miner loads a CAT 789 Mining Truck with lignite at the Red Hills Mine in Ackerman, Mississippi.*

We enjoy high retention among our employees, with our most tenured employee celebrating 45 years with the Company in 2021. Whether working with reclamation at Sabine Mine in Hallsville, Texas (top left) or braving the North Dakota weather (top right), our employees benefit from experienced employee mentors and training programs. Here, we also see North American Mining employees in Texas, a Mississippi Lignite Mining Company employee at Red Hills Mine, and a dragline operator at Sabine Mine (bottom three photos).

Our legacy is rooted in our North American Coal business, where we partner with customers as service providers to create integrated, efficient and cost-effective contract coal mining services for mine-mouth power generators. We recognize that the coal mining industry faces increasing political and regulatory challenges, but we believe the use of coal as a fuel source for electricity in the United States will continue for the foreseeable future. Consumers want, and need, dependable power for their homes and businesses. Reliable baseload power from coal, nuclear and natural gas power plants operate on demand, providing grid stability and dependable power for consumers. Wind and solar farms do not provide the same level of dependable generation, or grid stability, that consumers require. In a world with increasing geopolitical tensions, national security and energy security will be increasingly intertwined.

We work diligently to support our customers so they can continue to produce reliable and affordable energy. A key component of our Protect the Core strategy is a relentless focus on managing coal production costs and maximizing efficiencies and operating capacity. These efforts improve the competitiveness of customers with management fee contracts. These activities benefit both customers and us, as fuel cost is a significant driver of power plant dispatch which, in turn, drives demand for coal by our customers.

The structure of our North American Coal contracts eliminates our exposure to spot coal market price fluctuations. However, fluctuations in natural gas prices and the availability of renewable generation, particularly wind, can contribute to changes in power plant dispatch and customer demand for coal. The significant increase in natural gas prices during 2021 contributed to an increase in customer power plant dispatch and coal deliveries and resulted in strong operating results in our Coal Mining segment.

During 2021, our contract mining agreement to operate the Navajo Mine in New Mexico was terminated. The Navajo Transitional Energy

Company ("NTEC") assumed control and responsibility for operation and all reclamation at the Navajo Mine when it purchased our former subsidiary, Bisti Fuels Company. We received a $10.3 million contract termination fee from NTEC as required under the agreement. While we are disappointed to lose an operation, we are proud of the work we accomplished since we took over operation of the mine in 2017, including celebrating over four years without a lost-time accident and making significant progress on mine reclamation. The transition to NTEC went smoothly, and NTEC conveyed its appreciation for our performance as contract miner at the Navajo Mine.

While the development of new mines to supply newly built coal-fired power plants remains unlikely, growth at North American Coal could come through the assumption of operations at existing mines. We will approach any such opportunity cautiously, and we anticipate that we would leverage our low capital/low risk management fee contract structure for any such project.

Our North American Mining business leverages our core mining expertise, which we've developed over the last 100-plus years. Today, we are a trusted and efficient mining partner for producers of aggregates, lithium and other minerals, and we provide a wide range of mining services that extend far beyond our historical dragline-oriented model. North American Mining is well equipped to grow by providing highly customized solutions to meet specific customer needs, including mine development, all aspects of mining operations, and land reclamation and remediation services.

North American Mining continues to work with Lithium Americas to develop the Thacker Pass Project, in northern Nevada, on the largest known lithium resource in the United States, providing mine design and consulting services as this project moves through the permitting process. As construction and operations begin, North American Mining will provide comprehensive mining services, with responsibility for all operational aspects of the lithium mine under a long-term management fee contract.

North American Mining's 2021 financial results did not meet our expectations, in part due to costs related to opportunistically hiring additional experts to bolster its already strong maintenance and operational capabilities. North American Mining is focused on long-term growth by expanding operations with existing customers as well as new customers and has a strong pipeline of potential new projects. We believe that North American Mining can grow to become a substantial contributor to operating profit, delivering unlevered after-tax returns on invested capital in the mid-teens as this business model matures and achieves significant scale.

The Minerals Management business derives income from royalty-based leases under which lessees make payments to us based on their production and sale

With more than 100 years of expertise in all aspects of operating surface coal mines, we are leveraging this experience in our North American Mining and Mitigation Resources of North America businesses. ***Above right:*** *North American Mining employees in Florida.* ***Right****: The Five Forks Mine in Louisiana.* ***Below:*** *A Mitigation Resources of North America employee at a Mississippi mitigation site.*

Above left: *A heavy-equipment operator in Louisiana.* ***Above:*** *The Catapult Mineral Partners team uses a disciplined approach to target a balance of potential acquisitions that will generate stable cash flow.*

of natural gas, oil, natural gas liquids and coal. We are delivering growth and diversification by selectively acquiring additional high-quality mineral and royalty interests. This business will benefit from the continued development of its owned mineral properties without additional capital investment, as development costs are borne entirely by third-party producers who lease the minerals. We believe this business model can deliver higher average operating margins over the life of a reserve than traditional oil and gas companies that bear the cost of exploration, production and/or development.

Catapult Mineral Partners, the Company's business unit focused on managing and expanding our portfolio of oil and gas mineral and royalty interests, has developed a strong network to source and secure new acquisitions. During 2021, Catapult acquired mineral and royalty interests totaling approximately $5 million, building on acquisitions of approximately $14 million in 2020. Total oil and gas mineral and royalty interests include approximately 128,000 gross acres and 60,000 net royalty acres as of December 31, 2021, primarily in the Appalachia, Permian and Eagle Ford basins. Our goal is to construct a diversified portfolio of high-quality oil and natural gas mineral and royalty interests in the United States that deliver near-term cash flow yields and long-term growth.

The Catapult management team uses a disciplined approach to target potential acquisitions that align with our strategy and objectives. Acquisitions may contain active wells, new wells anticipated to come online within one to two years of investment, areas with forecasted future development within five years after acquisition and existing producing wells further along the decline curve that will generate stable cash flow. In addition, our acquisitions target an extended geographic footprint to diversify across multiple basins with a preliminary focus on the more oil-rich Permian basin and a secondary focus on other diversifying basins to increase regional exposure.

Our goal is to construct a diversified portfolio of high-quality U.S. oil and natural gas mineral and royalty interests

Our Minerals Management business has been a strong contributor to operating profit in recent years, as the 2020 and 2021 acquisitions added to our legacy reserves, while increasing natural gas and oil prices helped drive strong financial performance. Future investments are expected to be accretive, but each investment's contribution to near-term earnings is dependent on the characteristics of that investment, including the size and type of interests acquired and the stage and timing of mineral development. Profits could also

At left: *Employees from Sabine Mining Company and Mitigation Resources of North America tour a reclamation area.* ***Above:*** *North American Mining employees at a site in Florida.*

vary due to commodity price changes. Major global shifts in oil and natural gas production, and changes in global natural gas and oil markets, could result in sustained higher prices for natural gas and oil, although the duration and extent of price movements is nearly impossible to predict. Overall, we believe this business can continue to be a strong contributor to operating profit, delivering unlevered after-tax returns on invested capital in the low-to-mid-teens as the portfolio of reserves and mineral interests grows and diversifies.

Mitigation Resources continues to expand its business, which creates and sells stream and wetland mitigation credits and provides services to those engaged in permittee-responsible mitigation. During 2021, the Mitigation Resources team made substantial progress on the development of several projects in Alabama, Mississippi, Texas and Tennessee. In early 2022, Mitigation Resources finalized a project to provide mitigation services for the Lake Ralph Hall project in Northern Texas, and it has established a joint venture with Ecosystems Investment Partners ("EIP") related to this project. We are excited to partner with EIP as they are experts in restoration and mitigation solutions. All of these projects align with our long-term focus and are expected to be accretive to earnings over the next several years.

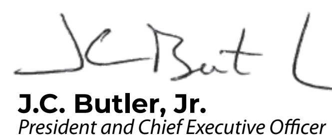
We believe Mitigation Resources offers an opportunity for growth and diversification in an industry where we have substantial knowledge and expertise, and a strong reputation. Our goal is to grow this business into one of the ten largest U.S. providers of mitigation solutions, with an initial focus on stream and wetland restoration in the southeast United States. While this business is in the early stages of development, we believe Mitigation Resources can provide solid rates of return as the business matures.

We remain focused on creating long-term shareholder value

Overall, our businesses delivered very strong financial results in 2021, with reported net income of $48.1 million compared with $14.8 million in 2020. NACCO also generated $30.7 million of cash flow before financing activities in 2021 and ended the year with $86.0 million of cash and $20.7 million of debt. We continue to prioritize the protection of our strong balance sheet and liquidity position, and we were very pleased to complete a refinancing of our revolving credit facility during 2021. We believe that a strong balance sheet, a solid cash position and low levels of debt will allow us to continue to advance our strategic objectives and generate long-term value. We are committed to maintaining a conservative capital structure and avoiding unnecessary risk. While we are proud of the hard work that resulted in the significant improvement in 2021 results, we know we need to remain focused on our strategies to Protect the Core and Grow and Diversify as we maintain our long-term perspective. Strategic growth and diversification will generate cash that can be re-invested to strengthen and expand our businesses.

We take a long-term view of our business, just as we believe in building long-term customer relationships. We also remain focused on creating long-term shareholder value rather than on quarterly earnings or short-term stock price movement. As a result, incentive compensation for our senior business leaders is paid in part with restricted NACCO stock, with three- to ten-year restrictions on sale, because we believe this fosters good, long-term-oriented decision making. Additionally, in all of our business endeavors, our employees maintain the highest levels of customer service and operational excellence, with an unwavering focus on safety, environmental stewardship and people.

I want to thank our employees for their many contributions to our success and for continuing to be trusted partners for our customers and in the communities where we work. I would also like to thank our customers and vendors, as well as NACCO's long-term stockholders, for their continuing support. We are passionately committed to working hard and doing what's right as we bring America's natural resources to life.



J.C. Butler, Jr.
President and Chief Executive Officer

Corporate RESPONSIBILITY

At NACCO, we pride ourselves on a long history of corporate responsibility, which includes responsible environmental stewardship, safe operations, community support and engagement, and a focus on our employees' wellbeing. As we focus on our two key strategies – Protect the Core and Grow and Diversify – our commitment to these principles will guide our efforts.

We maintain sound environmental, social and governance ("ESG") practices while our disclosures related to ESG continue to evolve. We prioritize transparent communication with all of our key stakeholders – employees, customers, vendors, suppliers, communities and investors. Our employee-led ESG Advisory Group helps shape our corporate responsibility and environmental, health and safety initiatives. We've established four ESG pillars: people, environmental stewardship, safety and community. ❖

COVID-19 Throughout the COVID-19 pandemic, the health and safety of our employees has remained a top priority. While the pandemic created challenges for our operations, we addressed those challenges by establishing and maintaining enhanced safety measures. We developed an employee-led cross-functional team to regularly evaluate COVID developments and guidance, share best practices across the Company, and provide communications to all employees. Each company operation developed protocols for executing the enhanced safety measures, including increased sanitation procedures, social distancing and masking, responding quickly to changes in community cases. We implemented work-from-home plans for those employees who could effectively work remotely. Our continued focus has enabled us to preserve our commitment to keeping our employees, customers and communities safe during the pandemic.❖

People

We believe our employees fuel our success. The Company provides employee wages that are competitive and consistent with employee positions, skill levels, experience, knowledge and geographic location. We are committed to providing a fair and living wage to all employees. We continue to evolve our programs to meet employees' physical and mental health and financial and wellness needs.

We believe training is a critical component for employee well-being. Training ranges from equipment-specific task training and enhanced safety procedures to leadership and management training, ethics training and personal financial wellness, to name a few. Employees are encouraged to pursue continued professional development, skills training and other educational opportunities. We offer company-wide training programs across all levels of management including an educational initiative under which identified employees participate in a program focused on management and leadership development, preparing our future leaders for the next steps in their careers. In addition, qualified employees are eligible to participate in a tuition reimbursement program to advance their formal education.

We enjoy high retention among our employees, with our most tenured employee celebrating 45 years with the Company in 2021. We have 220 employees, or 14 percent, who have at least 20 years of service, and our average tenure is 11 years of service. Our newer employees benefit from experienced employee mentors and training programs designed to equip them with long-lasting skills. ❖

Environmental **STEWARDSHIP**

We are committed to being good stewards of the environment. All aspects of our work must be accomplished in an environmentally responsible manner. Our ESG Advisory Group and our many environmental professionals monitor environmental trends to address stakeholder priorities and identify best practices. Our Environmental Policy, which can be found on our website, emphasizes our strong legacy of environmental stewardship and our commitment to being a good corporate citizen.

Complying with environmental regulations is our minimum standard, and we maintain a commitment to meet or exceed all applicable environmental laws and regulations. Going beyond the minimum is embedded in our culture and allows us to build trust with our stakeholders. As a result of our commitment, we have received more than 95 awards for successful and innovative reclamation projects over the last 30 years.

We know water is integral to our operations, and we recognize our responsibility to effectively manage our water resources through conservation, reuse and recycling. We do not engage in coal washing activities. Rather, we extract lignite from the ground and deliver it directly to our customers, which minimizes the impact on water resources. We are also focused on minimizing the consumption of fresh water. The water that we use comes from a variety of sources, including recycled water from adjacent power plants, stormwater, and groundwater for dust suppression and vehicle maintenance. Some of our operations rely on potable water purchased from public water systems. When stormwater cannot be reused, we collect and treat it to meet applicable standards before it is released. Water use varies by location; therefore, each mine aligns its water management strategy with the specific challenges found at its location. As of December 31, 2021, we have no operations that are within regions with "high or extremely high baseline water stress."

We are committed to being good stewards of the environment

We do not maintain any coal waste impoundments. Our operations employ waste management practices that minimize overall waste products and maximize recycling and reuse opportunities before proper disposal. We monitor materials, packaging and waste to identify hazardous materials and conduct periodic audits of the vendors involved in removing waste from our mine sites. Each of our mining operations is classified as a very small quantity generator of hazardous waste.

Regulators perform monthly environmental inspections at our coal mining operations. During 2021, five of our operations celebrated over five years with no mining permit violations, and three of those have not had a violation in more than ten years.

We strive to minimize surface disturbance, and we practice contemporaneous reclamation at our coal mining operations. We develop effective reclamation plans that achieve the designated post-mining use of the land. In addition, our overall approach to environmental stewardship seeks to minimize and mitigate impacts to biodiversity. Prior to initiating mining activities, we conduct exhaustive biological surveys to determine if protected species and/or sensitive habitats are present and to understand potential impacts to local ecosystems. Where impacts are unavoidable, we develop enhanced mitigation and/or reclamation strategies that meet regulatory agency approval.

Our native grass programs at our North Dakota, Texas, and Mississippi operations exemplify our commitment to going above and beyond. At each location, hundreds of acres of native grasses have been successfully planted, resulting in healthy native bird populations in the reclaimed areas. In North Dakota, a sharp-tailed grouse habitat has been successfully established, while in Texas and Mississippi, bobwhite quail are frequently observed

in mine reclamation areas. A variety of species voluntarily return to the reclaimed environment, including bald eagles, deer, turkeys and moose.

During 2021, Mississippi Lignite Mining Company received bond release for 1,355 acres of reclaimed land. This land will be used for recreational, industrial, aquatic and forestry endeavors, including a trophy fishery. This beautiful area includes the natural stream that flows through the heart of the property, which won a Reclamation of Excellence award in 2014 from the Office of Surface Mining Reclamation and Enforcement. The Arbor Day Grove that sits on reclaimed land hosts a variety of trees planted by local elementary students as part of Arbor Day celebrations over the past ten years.

Our commitment to the environment extends beyond compliance, and led us to create our Mitigation Resources of North America business, which is dedicated to developing and protecting streams and wetlands. This business builds on our skills, the experience of our people and our reputation as thoughtful stewards for the environment, while allowing us to deliver tangible environmental benefits for others. To date, Mitigation Resources has restored and/or enhanced over 131 acres of wetlands and over six miles of streams. Permanent deed restrictions are placed on these improved streams and wetlands by Mitigation Resources to prevent other disturbances or development on these protected areas. ❖

Safety

We operate in a culture committed to safety excellence. We expect employees to work safely and look out for each other. As described in our Health and Safety Principles, which can be found on our website, we commit to every employee that we will provide a safe working environment, and in return we ask every employee to commit to working in a safe manner so that all of our employees go home safely at the end of each day. We actively engage with all employees in pursuing the objective of zero incidents and injuries. Our operations have on-site safety personnel that are responsible for training employees in safe work practices, reviewing safety-related incidents and recommending improvements when appropriate. We continue to prioritize investigations of near-miss events to identify opportunities to improve employee awareness and incorporate policy or procedural changes or training, as appropriate.

Based on Mine Safety and Health Administration ("MSHA") data, the National Mining Association ranks us as an industry leader in safety, and our MSHA lost-time incident rate is consistently below the national average for comparable mines. Our safety performance reflects our belief that workplace incidents and injuries can be prevented through a focus on continuous improvement and personal responsibility.

We improve our skills as safe miners through training, which includes practice drills. Certain operations maintain rescue teams that may be called upon if an emergency happens. These teams practice their skills regularly and participate in events that assess the ability of teams to work together in high-pressure scenarios. During 2021, rescue teams from Coteau and Falkirk participated in the Rocky Mountain Mining Institute mine rescue team evaluation.

We have established a Safe Work Area Task Force ("SWAT") Team. The SWAT team is comprised of safety employees from across the Company who travel to different locations to provide a "fresh eye" regarding safety practices. The SWAT group works to share findings and solutions and provides an opportunity to exchange best practices and ideas across the Company.

More than 100 safety awards have been earned at the state and national levels

We are proud that we have earned more than 100 safety awards at the state and national levels. During 2021, the Coyote Creek Mine received a special recognition award from the Lignite Energy Council for achieving the lowest overall accident incident rate in the North Dakota lignite industry in 2020. Additionally, the Coteau and Falkirk mines were recognized with Distinguished Safety Awards from the Lignite Energy Council for having an accident incident rate lower than the national average. ❖

Community

We believe in making long-term investments in the areas where we operate. We support numerous charitable efforts in communities where our employees live and work, including literacy programs as well as local educational and arts organizations. We believe contributing both time and resources strengthens our community bond.

We contributed over $425,000 during 2021 to organizations that serve the communities where we operate. One such organization is the Dolly Parton Imagination Library, which promotes literacy by providing free, age-appropriate books to children from birth to age 5. We understand the value of education, and we are proud to contribute funding and time in support of this very worthwhile program. We also support employee cash donations to qualified organizations through our matching gift program whereby NACCO will match eligible employee donations up to $5,000 per year, per employee.

In 2021, the Office of Surface Mining Reclamation and Enforcement awarded Mississippi Lignite Mining Company ("MLMC") the Excellence in Surface Coal Mining Reclamation Good Neighbor Award. This national award recognizes successful relationships between mine operators and surrounding landowners and communities. The 2021 award recognized MLMC for its Arbor Day program for local fourth grade students that it hosts in partnership with the Natural Resources Conservation Service. Students visit the mine and plant trees to celebrate the importance of forestry and receive a hardwood tree sapling to plant in their community. The students also participate in contests encouraging them to learn about environmental topics such as watersheds, soils, trees, and pollinators. Also, MLMC often donates bales of Bermuda grass hay produced on reclaimed prime farmland soils to local charitable organizations such as the Palmer Home for Children and the Mississippi State University Therapeutic Riding Program.

We regularly host students, teachers and community groups on mine tours and other educational programs. As an example, the Sabine Mine partnered with the Texas Mining and Reclamation Association to offer a free five-day summer workshop to educators. The workshop provided science-based information to help educate participants about the availability, importance, development and use of our natural resources while protecting our environment. Attendees toured the mine, visited reclamation areas, heard from industry experts and participated in hands-on labs. The workshop demonstrated a variety of interactive exercises that teachers can take back to their classrooms, such as assessing the physical properties of soil and rock, how to ensure water quality meets regulatory standards and how lignite is used to make electricity. ❖

Contributing both time and resources strengthens our community bond

Corporate Governance

NACCO Industries is governed at the highest level by a 12-member Board of Directors, which has long maintained strong governance practices designed to ensure accountability, fiscal responsibility and the highest levels of ethical conduct. Each independent board member serves on one or more of three standing committees: Audit Review; Compensation and Human Capital; and Nominating and Corporate Governance. Each committee has a formal charter that describes its purpose, composition, duties and responsibilities, including its role in the Company's ESG strategy. Independence is an important component of our Board's oversight, and each of the chairs of the standing committees is independent. The board conducts annual self-evaluations to determine whether it and its committees are functioning effectively. We believe that good corporate governance and long-term success are inextricably linked.

Our Code of Conduct, Corporate Governance Guidelines, Insider Trading Policy and Anti-Corruption Policy require employees to comply with applicable laws and regulations, maintain high ethical standards and report situations of actual or potential noncompliance. Ethics are deeply embedded in our values and business processes. We also maintain an ethics-related hotline, managed by a third party, through which individuals can anonymously raise concerns or ask questions about business behavior.

In recent years, data privacy and cybersecurity have become key governance priorities for companies. We continue to strengthen our capabilities in this area through several measures including the establishment of an internal cybersecurity task force, ongoing investment in software and other security tools, and the use of third-party cybersecurity experts performing a variety of activities including but not limited to continuous system monitoring and penetration testing. We are continually focused on improving employees' cybersecurity awareness through training on topics such as password best practices and phishing identification.

LOOKING AHEAD, we expect to build on our commitments to environmental stewardship, to the safety and well-being of our employees, and to the improvement of the communities where they live and work. Our key strategies – Protect the Core and Grow and Diversify – guide us as we invest in our businesses and deliver value for shareholders.

Our Company was founded in 1913, and descendants of Frank Taplin, our founder, continue to own a substantial portion of our stock today. Five generations of stock ownership provide a long-term perspective that few companies enjoy. A clear, well-thought-out approach to corporate governance allows our management team to focus on running the Company and doing what is right, with a long-term perspective. We believe that short-term perspectives fall short when thinking about transformational business strategies that can take years to develop and implement. Our Board of Directors, management team and employees are aligned in expectations that everyone has responsibility for operating ethically, responsibly and safely at every level of our business. It is always the right thing to do. ❖

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

(Mark One)

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2021

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File No. 1-9172

NACCO INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware	**34-1505819**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5875 Landerbrook Drive, Suite 220 **Cleveland, Ohio**	**44124-4069**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(440) 229-5151**

Securities registered pursuant to Section 12(b) of the Act

Title of each class	Trading Symbol	Name of each exchange on which registered
Class A Common Stock, $1 par value per share	NC	New York Stock Exchange

Class B Common Stock is not publicly listed for trade on any exchange or market system; however, Class B Common Stock is convertible into Class A Common Stock on a share-for-share basis.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes ☐ **No** ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes ☐ **No** ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	**Accelerated filer**	☑	Non-accelerated filer	☐	**Smaller reporting company**	☑	Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act)
Yes ☐ **No** ☑

Aggregate market value of Class A Common Stock and Class B Common Stock held by non-affiliates as of June 30, 2021 (the last business day of the registrant's most recently completed second fiscal quarter): $109,032,630

Number of shares of Class A Common Stock outstanding at February 18, 2022: 5,616,768
Number of shares of Class B Common Stock outstanding at February 18, 2022: 1,566,413

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement for its 2022 annual meeting of stockholders are incorporated herein by reference in Part III of this Form 10-K.

NACCO INDUSTRIES, INC.
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PART I

Item 1. BUSINESS

General

NACCO Industries, Inc.® ("NACCO" or the "Company") brings natural resources to life by delivering aggregates, minerals, reliable fuels and environmental solutions through its robust portfolio of NACCO Natural Resources businesses. The Company operates under three business segments: Coal Mining, North American Mining ("NAMining") and Minerals Management. The Coal Mining segment operates surface coal mines for power generation companies and an activated carbon producer. The NAMining segment is a trusted mining partner for producers of aggregates, lithium and other minerals. The Minerals Management segment, which includes the Catapult Mineral Partners ("Catapult") business, acquires and promotes the development of mineral interests. In addition, Mitigation Resources of North America® ("Mitigation Resources") provides stream and wetland mitigation solutions.

The Company has items not directly attributable to a reportable segment that are not included as part of the measurement of segment operating profit, which primarily includes administrative costs related to public company reporting requirements at the parent company and the financial results of Mitigation Resources and Bellaire Corporation ("Bellaire"). Bellaire manages the Company's long-term liabilities related to former Eastern U.S. underground mining activities.

NACCO was incorporated as a Delaware corporation in 1986 in connection with the formation of a holding company structure for a predecessor corporation organized in 1913.

Business Strategy

During 2021, the Company launched a new branding campaign. The new branding creates a unified identity and underscores NACCO's commitment to all of its businesses, while focusing on the execution of its two key strategies – Protect the Core and Grow and Diversify. NACCO's portfolio of businesses now operates under the umbrella of NACCO Natural Resources. The new branding provides each business with its own unique identity that can easily be linked back to the NACCO legacy brand and includes new websites for each business, including NACCO Natural Resources, new business-specific logos and a new tagline "Bringing Natural Resources to Life".

The Company is pursuing growth and diversification by strategically leveraging its core mining and natural resources management skills to build a strong portfolio of affiliated businesses. Management continues to be optimistic about the long-term outlook for growth in the NAMining and Minerals Management segments and in the Company's Mitigation Resources business. Each of these businesses continues to expand its pipeline of potential new projects with opportunities for growth and diversification.

NAMining is pursuing growth and diversification by expanding the scope of its business development activities to include potential customers who require a broad range of minerals and materials and by leveraging the Company's core mining skills to expand the range of contract mining services it provides. The goal is to build NAMining into a leading provider of contract mining services for customers who produce a wide variety of minerals and materials. The Company believes NAMining can grow to be a substantial contributor to operating profit, delivering unlevered after-tax returns on invested capital in the mid-teens as this business model matures and achieves significant scale, but the pace of achieving these objectives will be dependent on the mix and scale of new projects.

The Minerals Management segment continues to grow and diversify by selectively acquiring mineral and royalty interests in the United States, in a market and price environment that the Company believes remains well-aligned with its strategy and objectives. The Minerals Management segment will benefit from the continued development of its mineral properties without additional capital investment, as all further development costs are borne entirely by third-party producers who lease the minerals. The Company believes this business model can deliver substantial operating margins over the life of a reserve without the costs and risk that traditional oil and gas companies bear for the cost of exploration, production and/or development. Catapult, the Company's business unit focused on managing and expanding the Company's portfolio of oil and gas mineral and royalty interests, has developed a strong network to source and secure new acquisitions, and has several potential acquisitions under review. The goal is to construct a diversified portfolio of high-quality oil and gas mineral and royalty interests in the United States that deliver near-term cash flow yields and long-term projected growth. The Company believes this business will provide unlevered after-tax returns on invested capital in the low-to-mid-teens as the portfolio of reserves and mineral interests grows and this business model matures.

Mitigation Resources continues to expand its business, which creates and sells stream and wetland mitigation credits and provides services to those engaged in permittee-responsible mitigation. This business offers an opportunity for growth and diversification in an industry where the Company has substantial knowledge and expertise and a strong reputation. The Mitigation Resources business has achieved several early successes and is positioned for additional growth. The Company's

goal is to grow Mitigation Resources into one of the ten largest U.S. providers of mitigation solutions, largely focused on streams and wetlands, initially in the southeast United States. While this business is in the early stages of development, the Company believes that Mitigation Resources can provide solid rates of return as this business matures.

The Company also continues to pursue activities which can strengthen the resiliency of its existing coal mining operations. The Company remains focused on managing coal production costs and maximizing efficiencies and operating capacity at mine locations to help customers with management fee contracts be more competitive. These activities benefit both customers and the Company's Coal Mining segment, as fuel cost is a significant driver for power plant dispatch. Increased power plant dispatch results in increased demand for coal by the Coal Mining segment's customers. Fluctuating natural gas prices and availability of renewable energy sources, such as wind and solar, affect the amount of electricity dispatched from coal-fired power plants. Coal and natural gas traditionally have been the two largest sources of electricity generation in the United States. In many areas of the country, these two fuels compete to supply electricity based on their relative costs. U.S. natural gas prices have been more volatile than coal prices, so the cost of natural gas often determines the relative share of generation provided by natural gas and coal. Between 2015 and 2020, the cost of natural gas delivered to electric generators remained relatively low and stable. During 2021, however, natural gas prices were much higher than in recent years, generally resulting in increased dispatch of coal-fired power plants.

The Company continues to look for opportunities to expand its coal mining business where it can apply its management fee business model to assume operation of existing surface coal mining operations in the United States. However, opportunities are very limited in the current environment. In addition, the political and regulatory environment is not receptive to development of new coal-fired power generation projects which would create opportunities to build and operate new coal mines.

The Company is committed to maintaining a conservative capital structure as it continues to grow and diversify, while avoiding unnecessary risk. Strategic diversification will generate cash that can be re-invested to strengthen and expand the businesses. In all of its business endeavors, the Company continues to maintain the highest levels of customer service and operational excellence, with an unwavering focus on safety, environmental stewardship and people. The Company is passionately committed to working hard, doing what's right, and bringing America's natural resources to life.

Business Developments

Coal Mining Segment

Effective September 30, 2021, the contract mining agreement between Bisti Fuels Company, LLC ("Bisti") and its customer, Navajo Transitional Energy Company ("NTEC") was terminated. As required under the agreement, NTEC paid the Company a termination fee of $10.3 million. As of October 1, 2021, NTEC assumed control and responsibility for operation and all reclamation of the Navajo Mine.

The Coteau Properties Company ("Coteau") operates the Freedom Mine in North Dakota. All coal production from the Freedom Mine is delivered to Basin Electric Power Cooperative ("Basin Electric"). Basin Electric utilizes the coal at the Great Plains Synfuels Plant (the "Synfuels Plant"), Antelope Valley Station and Leland Olds Station. The Synfuels Plant is a coal gasification plant, owned by Dakota Gasification Company ("Dakota Gas'), a subsidiary of Basin Electric, that manufactures synthetic natural gas and produces fertilizers, solvents, phenol, carbon dioxide, and other chemical products for sale. During 2020, Basin Electric informed Coteau that it is considering changes that may result in modifications to its Synfuels Plant that could potentially reduce or eliminate coal requirements at the Synfuels Plant. During August 2021, Bakken Energy ("Bakken") and Basin Electric signed a non-binding term sheet to transfer ownership of the assets of Dakota Gas to Bakken. Bakken stated the closing date is expected to be April 1, 2023. As part of the term sheet between Basin Electric and Bakken, Basin Electric indicated that the Synfuels Plant will continue existing operations through 2025. The closing is subject to the satisfaction of specified conditions. Basin Electric is also considering other options for the Synfuels Plant if the transaction with Bakken does not close. Basin Electric indicated that if it decides to proceed with any changes that could reduce or eliminate the use of coal, the feedstock change is not expected to occur before 2026.

The Falkirk Mining Company ("Falkirk") operates the Falkirk Mine in North Dakota. Falkirk is the sole supplier of lignite coal to the Coal Creek Station power plant pursuant to a contract under which Falkirk also supplies approximately 0.3 million tons of lignite coal per year to Spiritwood Station power plant. Coal Creek Station and Spiritwood Station are owned by Great River Energy ("GRE"). In May 2020, GRE announced its intent to sell or retire Coal Creek Station and modify Spiritwood Station to be fueled by natural gas.

During June 2021, GRE entered into an agreement to sell Coal Creek Station and the adjacent high-voltage direct current transmission line to Bismarck, North Dakota-based Rainbow Energy Center, LLC ("Rainbow Energy") and its affiliates. The

closing of this sale is subject to the satisfaction of certain conditions and presently, the transaction is expected to close in the second quarter of 2022.

Upon completion of the sale of Coal Creek Station, the existing Coal Sales Agreement, the existing Mortgage and Security Agreement and the existing Option Agreement between GRE and Falkirk will terminate. Falkirk and GRE have entered into a termination and release of claims agreement. Upon completion of the sale of Coal Creek Station, GRE will pay Falkirk $14.0 million in cash, as well as transfer ownership of an office building located in Bismarck, North Dakota, and convey membership units in Midwest AgEnergy to The North American Coal Corporation® ("NACoal"), a wholly-owned subsidiary of NACCO. NACCO currently holds a $5.0 million investment in Midwest AgEnergy, which operates two ethanol facilities in North Dakota.

If GRE's efforts to sell the power plant are successful, a new Coal Sales Agreement ("CSA") between Falkirk and Rainbow Energy will become effective and Falkirk will supply all coal requirements of Coal Creek Station concurrent with Rainbow Energy's acquisition of the power plant. Falkirk will no longer make any coal deliveries to GRE's Spiritwood Station. Falkirk will be paid a management fee and Rainbow Energy will be responsible for funding all mine operating costs and directly or indirectly providing all of the capital required to operate the mine. The CSA specifies that Falkirk will perform final mine reclamation, which will be funded in its entirety by Rainbow Energy. The initial production period is expected to run ten years from the effective date of the CSA, but the CSA may be extended or terminated early under certain circumstances. If Rainbow Energy terminates the CSA and closes Coal Creek Station before 2027, Falkirk will be entitled to an additional payment from GRE under the terms of the termination and release of claims agreement. The additional payment amount ranges from $8 million if the closure occurs before 2024 to $2 million if the closure occurs in 2026. To support the transfer to new ownership, Falkirk has agreed to a reduction in the current per ton management fee from the effective date of the new CSA through May 31, 2024. After May 31, 2024, the per ton management fee increases to a higher base in line with current fee levels, and thereafter adjusts annually according to an index which tracks broad measures of U.S. inflation.

If GRE's efforts to sell the power plant are not successful and GRE elects to prematurely close Coal Creek Station, the early termination of the CSA would have a material adverse effect on the Company's business, financial condition and results of operations.

The Sabine Mining Company ("Sabine") operates the Sabine Mine in Texas. All production from Sabine is delivered to Southwestern Electric Power Company's ("SWEPCO") Henry W. Pirkey Plant (the "Pirkey Plant"). SWEPCO is an American Electric Power ("AEP") company. During 2020, AEP announced its intent to retire the Pirkey Plant in 2023. SWEPCO expects deliveries from Sabine to continue until the first quarter of 2023 at which time Sabine expects to begin final reclamation. Funding for mine reclamation is the responsibility of SWEPCO.

During 2020, Caddo Creek Resources Company, LLC ("Caddo Creek") ceased all mining and delivery of lignite and commenced mine reclamation. Funding for mine reclamation is the responsibility of a subsidiary of Advanced Emissions Solutions ("AES"). Caddo Creek entered into a contract with a subsidiary of AES to perform the required mine reclamation. The reclamation at Caddo Creek is expected to be substantially complete during the first half of 2022.

During 2020, the contract mining agreement between Camino Real Fuels, LLC ("Camino Real") and its customer, Dos Republicas Coal Partnership ("DRCP"), terminated and resulted in mine closure. Funding for mine reclamation is the responsibility of DRCP.

NAMining Segment
In the third quarter of 2021, NAMining entered into contracts with a new customer to perform all mining operations at two sand and gravel quarries located in Texas and Arkansas. The initial term of each contract is two years, and one of the contracts automatically extends an additional two years provided NAMining is not in default under that contract. In the second quarter of 2021, NAMining entered into a one-year mining services contract with an existing customer for a sand and gravel quarry in Indiana. In the first quarter of 2021, NAMining entered into a 15-year mining services contract with a new customer at a limestone quarry in Central Florida. NAMining will operate two smaller draglines at this quarry while it relocates and commissions a larger dragline that will increase production capacity. The relocated dragline is anticipated to be commissioned in the second half of 2022. During 2021, NAMining also amended a contract with a current customer to provide additional services at a limestone quarry in Florida.

In addition, NAMining will serve as exclusive contract miner for the Thacker Pass lithium project in northern Nevada. Thacker Pass is owned by Lithium Nevada Corp., a subsidiary of Lithium Americas Corp. (TSX: LAC) (NYSE: LAC). Lithium Americas Corp. owns the lithium reserves at Thacker Pass and will be responsible for the processing and sale of the lithium

produced. At maturity, the Thacker Pass management fee contract is expected to deliver fee income similar to a mid-sized management fee coal mine.

Minerals Management Segment
During 2021 and 2020, the Minerals Management segment acquired additional mineral interests, primarily in the Eagle Ford and Permian Basins in Texas. During the second quarter of 2021, the Minerals Management segment, through its Catapult business, acquired a combination of mineral and overriding royalty interests in the Eagle Ford Basin, which includes approximately 14.1 thousand gross acres and 1.7 thousand net royalty acres, for an initial payment of $4.7 million. Under the terms of the transaction, Catapult could make additional payments for each additional well developed on the acquired assets during 2022 of up to a maximum of $0.6 million. Catapult also completed a small acquisition of royalty interests in the Delaware Basin during 2021 for a purchase price of $0.3 million. Minerals Management intends to continue to make future acquisitions of mineral and royalty interests that meet the Company's acquisition criteria as part of its growth strategy.

Operations

Coal Mining Segment
The Coal Mining segment, NACoal, operates surface coal mines under long-term contracts with power generation companies and an activated carbon producer pursuant to a service-based business model. Coal is surface mined in North Dakota, Texas, Mississippi and Louisiana. Through September 30, 2021, the Company provided contract mining services on the Navajo Nation in New Mexico. Each mine is fully integrated with its customer's operations.

During 2021, the Company's operating coal mines were: Bisti, Coteau, Coyote Creek Mining Company, LLC ("Coyote Creek"), Demery Resources Company, LLC ("Demery"), Falkirk, Mississippi Lignite Mining Company ("MLMC") and Sabine.

Coteau, Coyote, Falkirk, MLMC and Sabine supply lignite coal for power generation. Demery supplies lignite coal for the production of activated carbon products. Each mine is the exclusive supplier of coal to its customers' facilities. Each of these mines delivers its coal production to adjacent or nearby power plants, synfuels plants or an activated carbon processing facility under long-term supply contracts. MLMC's lignite sales agreement contains a minimum annual take provision; all other coal supply contracts are requirements contracts under which earnings can fluctuate based on customer requirements. Certain coal supply contracts can be terminated early, which would result in a reduction to future earnings.

At all operating coal mines other than MLMC, the Company is paid a management fee per ton of coal or heating unit (MMBtu) delivered. Each contract specifies the indices and mechanics by which fees change over time, generally in line with broad measures of U.S. inflation. The customers are responsible for funding all mine operating costs, including final mine reclamation, and directly or indirectly provide all of the capital required to build and operate the mine. This contract structure eliminates the Company's exposure to spot coal market price fluctuations while providing income and cash flow with minimal capital investment. Other than at Coyote Creek, debt financing provided by or supported by the customers is without recourse to NACCO and NACoal. See Note 17 to the Consolidated Financial Statements in this Form 10-K for further discussion of Coyote Creek's guarantees.

All operating coal mines other than MLMC meet the definition of a variable interest entity ("VIE"). In each case, NACCO is not the primary beneficiary of the VIE as it does not exercise financial control; therefore, NACCO does not consolidate the results of these operations within its financial statements. Instead, these contracts are accounted for as equity method investments. The income before income taxes associated with these VIEs is reported as Earnings of unconsolidated operations on the Consolidated Statements of Operations, and the Company's investment is reported on the line Investments in unconsolidated subsidiaries in the Consolidated Balance Sheets. The mines that meet the definition of a VIE are referred to collectively as the "Unconsolidated Subsidiaries." For tax purposes, the Unconsolidated Subsidiaries are included within the NACCO consolidated U.S. tax return; therefore, the income tax expense line on the Consolidated Statements of Operations includes income taxes related to these entities. See Note 17 to the Consolidated Financial Statements in this Form 10-K for further information on the Unconsolidated Subsidiaries.

The Company performs contemporaneous reclamation activities at each mine in the normal course of operations. Under all of the Unconsolidated Subsidiaries' contracts, the customer has the obligation to fund final mine reclamation activities. Under certain contracts, the Unconsolidated Subsidiary holds the mine permit and is therefore responsible for final mine reclamation activities. To the extent the Unconsolidated Subsidiary performs such final reclamation, it is compensated for providing those services in addition to receiving reimbursement from customers for costs incurred.

Caddo Creek met the definition of a VIE prior to the cessation of mining on September 30, 2020. The terms of the contract to perform mine reclamation contain a fixed-price component and therefore, Caddo Creek has been consolidated within the Company's financial statements since October 1, 2020.

The MLMC contract is the only operating coal contract in which the Company is responsible for all operating costs, capital requirements and final mine reclamation; therefore, MLMC is consolidated within NACCO's financial statements. MLMC sells coal to its customer at a contractually agreed-upon price which adjusts monthly, primarily based on changes in the level of established indices which reflect general U.S. inflation rates. Profitability at MLMC is affected by customer demand for coal and changes in the indices that determine sales price and actual costs incurred. As diesel fuel is heavily weighted among the indices used to determine the coal sales price, fluctuations in diesel fuel prices can result in significant fluctuations in earnings at MLMC.

MLMC delivers coal to the Red Hills Power Plant in Ackerman, Mississippi. The Red Hills Power Plant supplies electricity to the Tennessee Valley Authority ("TVA") under a long-term Power Purchase Agreement ("PPA"). MLMC's contract with its customer runs through 2032. TVA's power portfolio includes coal, nuclear, hydroelectric, natural gas and renewables. The decision of which power plants to dispatch is determined by TVA. Reduction in dispatch of the Red Hills Power Plant will result in reduced coal deliveries and earnings at MLMC.

See "Item 2. Properties" on page 31 in this Form 10-K for discussion of the Company's mineral resources and mineral reserves.

NAMining Segment

The NAMining segment provides value-added contract mining and other services for producers of aggregates, lithium and other minerals. The segment is a primary platform for the Company's growth and diversification of mining activities outside of the coal industry. NAMining provides contract mining services for independently owned mines and quarries, creating value for its customers by performing the mining aspects of its customers' operations. This allows customers to focus on their areas of expertise: materials handling and processing, product sales and distribution. NAMining historically operated primarily at limestone quarries in Florida, but is focused on expanding outside of Florida, mining materials other than limestone and expanding the scope of mining operations provided to its customers. As of December 31, 2021, NAMining operates mines in Florida, Texas, Arkansas and Indiana and will serve as exclusive contract miner for the Thacker Pass lithium project in northern Nevada.

NAMining utilizes both fixed price and management fee contract structures. Certain of the entities within the NAMining segment are VIEs and are accounted for under the equity method as Unconsolidated Subsidiaries. See Note 17 to the Consolidated Financial Statements in this Form 10-K for further information on the Unconsolidated Subsidiaries.

Minerals Management Segment

The Minerals Management segment derives income primarily by leasing its royalty and mineral interests to third-party exploration and production companies, and, to a lesser extent, other mining companies, granting them the rights to explore, develop, mine, produce, market and sell gas, oil, and coal in exchange for royalty payments based on the lessees' sales of those minerals.

The acquisition criteria for building a blended portfolio of mineral and royalty interests includes (i) new wells anticipated to come online within one to two years of investment, (ii) areas with forecasted future development within five years after acquisition, or (iii) existing producing wells further along the decline curve that will generate stable cash flow. In addition, acquisitions should extend the geographic footprint to diversify across multiple basins with a preliminary focus on the more oil-rich Permian basin and a secondary focus on other diversifying basins to increase regional exposure. While the current focus is on the acquisition of mineral and royalty interests, the Company would also consider investments in overriding royalty interests, non-participating royalty interests or non-operated working interests under certain circumstances. The current acquisition strategy does not contemplate any near-term working interest investments in which the Company would act as the operator.

Total consideration for the 2021 and 2020 acquisitions of mineral and royalty interests was \$5.3 million and \$14.2 million, respectively. The 2021 acquisitions include 20.6 thousand gross acres and 1.8 thousand net royalty acres. The 2020 acquisitions include 65.5 thousand gross acres and 1.2 thousand net royalty acres. Total mineral and royalty interests include approximately 127.8 thousand gross acres and 59.9 thousand net royalty acres at December 31, 2021.

The Company's legacy royalty and mineral interests are located in Ohio (Utica and Marcellus shale natural gas), Louisiana (Haynesville shale and Cotton Valley formation natural gas), Texas (Cotton Valley and Austin Chalk formation natural gas),

Mississippi (coal), Pennsylvania (coal, coalbed methane and Marcellus shale natural gas), Alabama (coal, coalbed methane and natural gas) and North Dakota (coal, oil and natural gas). The majority of the Company's legacy reserves were acquired as part of its historical coal mining operations.

The Minerals Management segment owns royalty interests, mineral interests, nonparticipating royalty interests, and overriding royalty interests.

- Royalty Interest. Royalty interests generally result when the owner of a mineral interest leases the underlying minerals to an exploration and production company pursuant to an oil and gas lease. Typically, the resulting royalty interest is a cost-free percentage of production revenues for minerals extracted from the acreage. A holder of royalty interests is generally not responsible for capital expenditures or lease operating expenses, but may be responsible for certain post-production expenses, and typically have no environmental liability. Royalty interests expire upon the expiration of the oil and gas lease.

- Mineral Interest. Mineral interests are perpetual rights of the owner to explore, develop, exploit, mine, and/or produce any or all of the minerals lying below the surface of the property. The holder of a mineral interest has the right to lease the minerals to an exploration and production company. Upon the execution of an oil and gas lease, the lessee (the exploration and production company) becomes the working interest owner and the lessor (the mineral interest owner) has a royalty interest.

- Non-Participating Royalty Interest ("NPRIs"). NPRI is an interest in oil and gas production which is created from the mineral estate. The NPRI is expense-free, bearing no operational costs of production. The term "non-participating" indicates that the interest owner does not share in the bonus, rentals from a lease, nor the right to participate in the execution of oil and gas leases.

- Overriding Royalty Interest ("ORRIs"). ORRIs are created by carving out the right to receive royalties from a working interest. Like royalty interests, ORRIs do not confer an obligation to make capital expenditures or pay for lease operating expenses and have limited environmental liability, however ORRIs may be calculated net of post-production expenses, depending on how the ORRI is structured. ORRIs that are carved out of working interests are linked to the same underlying oil and gas lease that created the working interest, and therefore, such ORRIs are typically subject to expiration upon the expiration or termination of the oil and gas lease.

The Company may own more than one type of mineral and royalty interest in the same tract of land. For example, where the Company owns an ORRI in a lease on the same tract of land in which it owns a mineral interest, the ORRI in that tract will relate to the same gross acres as the mineral interest in that tract.

The Minerals Management segment will benefit from the continued development of its mineral properties without the need for investment of additional capital once mineral and royalty interests have been acquired. The Minerals Management segment does not have any investments under which it would be required to bear the cost of exploration, production or development.

See "Item 2. Properties" on page 31 in this Form 10-K for discussion of the Company's proved reserves.

Customers

The principal customers of the Coal Mining segment are electric utilities, an independent power provider and a producer of activated carbon.

The principal customers of the NAMining segment are limestone producers and to a lesser extent, sand and gravel producers. In addition, NAMining will serve as exclusive contract miner for the Thacker Pass lithium project in northern Nevada.

The Minerals Management segment generates income primarily from royalty-based lease payments from oil, gas and to a lesser extent, coal producers. The pricing of oil, gas and coal sales is primarily determined by supply and demand in the marketplace and can fluctuate considerably. As a royalty owner and non-operator, the Company has limited access to timely information, involvement, and operational control over the volumes of oil, gas and coal produced and sold and the terms and conditions on which such volumes are marketed and sold.

In 2021 and 2020, two customers individually accounted for more than 10% of consolidated revenues. The following represents the revenue attributable to each of these entities as a percentage of consolidated revenues for those years:

Segment	Revenues	
	2021	2020
Coal Mining customer	43 %	55 %
NAMining customer	19 %	19 %

The loss of either of these customers could have a material adverse effect on the results of operations attributable to the applicable segment and on the Company's consolidated results of operations.

In addition to the customers listed above, the Company has certain subsidiaries that meet the definition of a VIE; therefore, NACCO does not consolidate the results of these operations within its financial statements. Instead, these contracts are accounted for as equity method investments. For the year ended December 31, 2021, the Coal Mining segment derived approximately 68% of the Earnings of Unconsolidated Operations from two customers, Basin Electric and GRE. The loss of either of these contracts could have a material adverse effect on the Earnings of Unconsolidated Operations of the Coal Mining segment and a material adverse effect on the Company's Consolidated Statements of Operations.

Competition

The Company's coal mines are directly adjacent to the customer's property, with economical delivery methods that include conveyor belt delivery systems linked to the customer's facilities or short-haul rail systems. All of the mines in the Coal Mining segment are the most economical suppliers to each of their respective customers as a result of transportation advantages over competitors. In addition, the customers' facilities were specifically designed to use the coal being mined.

The coal industry competes with other sources of energy, particularly oil, gas, hydro-electric power and nuclear power. In addition, it competes with subsidized sources of energy, primarily wind and solar. Among the factors that affect competition are the price and availability of oil and natural gas, environmental and related political considerations, the time and expenditures required to develop new energy sources, the cost of transportation, the cost of compliance with governmental regulations, the impact of federal and state energy policies, the impact of subsidies on renewable pricing and the Company's customers' dispatch decisions, which may also take into account carbon dioxide emissions. The ability of the Coal Mining segment to maintain comparable levels of coal production at existing facilities and to market and develop its reserves will depend upon the interaction of these factors.

Electricity generating units are chosen to run primarily based on operating costs, of which fuel costs account for the largest share. Natural gas-fired power plants have the most potential to continue to displace coal-fired electric baseload power generation in the near term. There also continues to be an increase in the amount of electricity generated by wind and solar. Fluctuations in natural gas prices and the availability of renewable generation, particularly wind, can contribute to changes in power plant dispatch and customer demand for coal. The significant increase in natural gas prices in 2021 compared to natural gas prices in 2020 contributed to an increase in customer power plant dispatch and coal deliveries in 2021. Sustained higher natural gas prices could lead to increased demand for coal and positively affect Coal Mining segment results. Over the longer term, the Company continues to believe that customer demand will remain pressured by continuing increases in subsidized renewable generation sources, particularly wind. Federal and state mandates for increased use of electricity derived from renewable energy sources have also negatively affected demand for coal. Such mandates, combined with other incentives to use renewable energy sources, such as tax credits, make alternative fuel sources competitive with coal. The Taxpayer Certainty and Disaster Tax Relief Act of 2020 extended the production tax credit ("PTC") under Section 45 of the Internal Revenue Code and the investment tax credit ("ITC") under Section 48 of the Code. The PTC for wind was extended at the current phase-out level (60% of the otherwise allowable credits) for facilities where construction began in 2021. The ITC for solar was extended at 26% for energy property where construction begins in 2021-2022 and at 22% where construction begins in 2023-2025. Solar energy property placed in service after December 31, 2025 will receive a 10% ITC. Environmental, social and governance considerations can also have an impact on power plant dispatch and demand for coal.

Based on industry information, the Company believes it was one of the ten largest coal producers in the U.S. in 2021 based on total coal tons produced.

NAMining faces competition from producers of aggregates, lithium or other minerals that choose to self-perform mining operations and from other mining companies.

In the Minerals Management segment, the oil and gas industry is intensely competitive; the Company primarily competes with companies and investors for the acquisition of oil and gas properties, some of which have greater resources and may be able to pay more for productive oil and natural gas properties or to define, evaluate, bid for and purchase a greater number of properties than the Company's financial resources permit. Additionally, many of the Minerals Management segment's competitors are, or are affiliated with, operators that engage in the exploration and production of their oil and gas properties, which allows them to acquire larger assets that include operated properties. Larger or more integrated competitors may be able to absorb the burden of existing, and any changes to, federal, state and local laws and regulations more easily than the Company can, which would adversely affect its competitive position. The integrated competitors may also have a better understanding of when minerals they acquire will be developed, as they are often the developer. The Minerals Management segment's ability to acquire additional properties in the future will be dependent upon its ability to evaluate and select suitable properties and to consummate transactions in a highly competitive environment. In addition, because the Company has fewer financial resources than many companies in the oil and gas industry, the Company may be at a disadvantage in bidding for oil and natural gas properties.

Seasonality
The Company has experienced limited variability in its results due to the effect of seasonality; however, variations in coal demand can occur as a result of the timing and duration of planned or unplanned outages at customers' facilities. Variations in coal demand can also occur as a result of changes in market prices of competing fuels such as natural gas, wind and solar power and demand for electricity, which can fluctuate based on changes in weather patterns.

The NAMining segment extracts a significant amount of the annual limestone produced in Florida. The Florida construction industry can be affected by the cyclicality of the economy, seasonal weather conditions and pandemics, all of which can result in variations in demand for aggregates.

In the Minerals Management segment, oil and natural gas wells have high initial production rates and follow a natural decline before settling into relatively stable, long-term production. Decline rates can vary due to factors like well depth, well length, geology, formation pressure, and facility design. In addition to the natural production decline curve, royalty income can fluctuate favorably or unfavorably in response to a number of factors outside of the Company's control, including the number of wells being operated by third parties, fluctuations in commodity prices (primarily oil and natural gas), fluctuations in production rates associated with operator decisions, regulatory risks, the Company's lessees' willingness and ability to incur well-development and other operating costs, and changes in the availability and continuing development of infrastructure.

Human Capital
As of December 31, 2021, the Company and its subsidiaries had approximately 1,600 employees, including approximately 1,100 employees at the Company's unconsolidated mining operations, none of which are represented by a collective bargaining agreement. NACCO believes it has good relations with its employees.

Market-Based Compensation: NACCO believes its employees are critical to its success and invests in its employees by offering a market-based competitive total rewards package that includes a combination of salaries and wages and a benefits package that promotes employee well-being across all aspects of their lives. The Company provides employee wages that are competitive and consistent with employee positions, skill levels, experience, knowledge and geographic location. Benefits offered to employees include:

- Medical, dental and vision benefits for employee, spouse and dependents;
- Flexible spending accounts for both healthcare and dependent care;
- Health savings accounts and health reimbursement accounts, both of which receive a company contribution;
- Paid vacation and holidays;
- Parental leave;
- Short-term and long-term disability benefits;
- Wellness incentives for employees;
- Life and AD&D insurance benefits;
- Charitable donation matches; and
- Employee assistance program.

Employee Development: The Company recognizes that its culture and success is strengthened when employees are respected, motivated and engaged. The Company works to match employees with assignments that capitalize on the skills, talents and potential of each employee. The Company believes in hiring, engaging, developing and promoting people who are fully able to meet the demands of each position, regardless of race, color, religion, gender, sexual orientation, gender identity, national origin, age, veteran status or disability.

Safety: Employee safety in the workplace is one of the Company's core values. The Company is committed to strict compliance with applicable laws and regulations regarding workplace safety and provides on-going safety training, education and communication. Hazards in the workplace are actively identified and management tracks incidents so remedial actions can be taken to improve workplace safety. The Company believes communication related to "near misses," safety incidents and protocols is essential to continuously developing and maintaining best-practices related to safety and enables identification and correction of operational practices that might impair employee safety or health.

Company Ethics: The Company has processes in place for compliance with its Code of Corporate Conduct, Insider Trading Policy and Anti-Corruption Policy. All of the Company's Directors and employees annually complete certifications with respect to compliance with the Company's Code of Corporate Conduct. In addition, all employees of the Company are required to complete annual Code of Corporate Conduct training. Ethics are deeply embedded in the Company's values and business processes. The Company also maintains an ethics related hotline, managed by a third party, through which individuals can anonymously raise concerns or ask questions about business behavior.

Community Engagement: The Company supports its local communities and is committed to helping them remain safe, healthy and resilient. The Company's past activities include corporate donations, volunteerism and education. Community engagement is encouraged and supported through the Company's matching gift program. The Company will match employee contributions up to $5,000 per employee if program criteria are met.

Available Information

The Company makes its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports available, free of charge, through its website, www.nacco.com, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). The content of the Company's website is not incorporated by reference into this Form 10-K or in any other report or document filed with the SEC, and any reference to the Company's website is intended to be an inactive textual reference only.

Under Rule 12b-2 of the Exchange Act, the Company qualifies as a "smaller reporting company" because its public float as of the last business day of the Company's most recently completed second quarter was less than $250 million. For as long as the Company remains a "smaller reporting company," it may take advantage of certain exemptions from the SEC's reporting requirements that are otherwise applicable to public companies that are not smaller reporting companies.

Government Regulation

The Company's operations are subject to various federal, state and local laws and regulations on matters such as employee health and safety, and certain environmental laws and regulations relating to, among other matters, the reclamation and restoration of coal mining properties, air pollution, water pollution, the disposal of wastes and effects on groundwater. In addition, the electric power generation industry is subject to extensive regulation regarding the environmental impact of its power generation activities that could affect demand for coal from the Company's Coal Mining segment. Many aspects of the production, pricing and marketing of oil and natural gas are regulated by federal and state agencies. Legislation affecting the oil and natural gas industry is under constant review for amendment or expansion, which frequently increases the regulatory burden on affected members of the industry and could affect the results of the Company's Minerals Management segment.

Numerous governmental permits and approvals are required for coal mining operations. The Company's subsidiaries hold or will hold the necessary permits at all of its coal mining operations except Demery and Caddo Creek, where the customers hold the respective permits. The Company believes, based upon present information provided to it by these third-party mine permit holders, that these third parties have all permits necessary for the Company to operate or reclaim Caddo Creek and Demery; however, the Company cannot be certain that these third parties will be able to maintain all such permits in the future.

At the coal mining operations where the Company's subsidiaries hold the permits, the Company is required to prepare and present to federal, state or local governmental authorities data pertaining to the effect or impact that any proposed exploration for or production of coal may have upon the environment and public and employee health and safety.

Some laws, as discussed below, place many requirements on the coal mining operations and the limestone quarries where the Company provides services. Federal and state regulations require regular monitoring of the Company's operations to ensure compliance.

Mine Health and Safety Laws

The Federal Mine Safety and Health Act of 1977 imposes safety and health standards on all mining operations. Regulations are comprehensive and affect numerous aspects of mining operations, including training of mine personnel, mining procedures, blasting, the equipment used in mining operations and other matters. The Federal Mine Safety and Health Administration enforces compliance with these federal laws and regulations.

Environmental Laws

The Company's coal mining operations are subject to various federal environmental laws, as amended, including:

- the Surface Mining Control and Reclamation Act of 1977 (“SMCRA”);
- the Clean Air Act, including amendments to that act in 1990 (“CAA”);
- the Clean Water Act of 1972 (“CWA”);
- the Resource Conservation and Recovery Act ("RCRA");
- the National Environmental Policy Act of 1970 (“NEPA”); and
- the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA").

In addition to these federal environmental laws, various states have enacted environmental laws that provide for higher levels of environmental compliance than similar federal laws. These state environmental laws require reporting, permitting and/or approval of many aspects of coal mining operations. Both federal and state inspectors regularly visit mines to enforce compliance. The Company has ongoing training, compliance and permitting programs to ensure compliance with such environmental laws. Changes in environmental laws and regulations occur frequently, and any changes that result in more stringent and costly pollution control or waste handling, storage, transport, disposal or cleanup requirements could materially adversely affect the Coal Mining segment.

Surface Mining Control and Reclamation Act

SMCRA establishes mining, environmental protection and reclamation standards for all aspects of surface coal mining operations. Where state regulatory agencies have adopted federal mining programs under SMCRA, the state becomes the primary regulatory authority.

Coal mine operators must obtain SMCRA permits and permit renewals for coal mining operations from the applicable regulatory agency. These SMCRA permit provisions include requirements for coal prospecting, mine plan development, topsoil removal, storage and replacement, selective handling of overburden materials, mine pit backfilling and grading, protection of the hydrologic balance, surface drainage control, mine drainage and mine discharge control and treatment, and revegetation.

Although mining permits have stated expiration dates, SMCRA provides for a right of successive renewal. The cost of obtaining surface mining permits can vary widely depending on the quantity and type of information that must be provided to obtain the permits; however, the cost of obtaining a permit is usually between $1,000,000 and $5,000,000, and the cost of obtaining a permit renewal is usually between $15,000 and $100,000.

The Abandoned Mine Land Fund, which is provided for by SMCRA, imposes a fee on certain coal mining operations. The proceeds are intended to be used principally to reclaim mine lands closed prior to 1977. In addition, the Abandoned Mine Land Fund also makes transfers annually to the United Mine Workers of America Combined Benefit Fund (the “Fund”), which provides health care benefits to retired coal miners who are beneficiaries of the Fund. The 2021 Infrastructure Investment and Jobs Act reauthorized the Abandoned Mine Land fee at a reduced rate. The fee for lignite coal was reduced from $0.08 per ton to $0.064 per ton and for other surface-mined coal from $0.28 per ton to $0.224 per ton. These fees have been reauthorized until the end of fiscal year 2035.

SMCRA establishes operational, reclamation and closure standards for surface coal mines. The Company accrues for the costs of current mine disturbance and final mine closure, including the cost of treating mine water discharges, at mines where the Company's subsidiaries hold the mining permit. These obligations are largely unfunded, with the exception of the final mine closure costs for the Coyote Creek Mine, which are being funded throughout the production stage.

SMCRA stipulates compliance with many other major environmental programs, including the CAA and CWA. The U.S. Army Corps of Engineers regulates activities affecting navigable waters, and the U.S. Bureau of Alcohol, Tobacco and Firearms regulates the use of explosives for blasting. In addition, the U.S. Environmental Protection Agency (the “EPA”), the U.S. Army Corps of Engineers and the OSMRE have engaged in a series of rulemakings and other administrative actions under the CWA and other statutes that are directed at reducing the impact of coal mining operations on water bodies.

The Company does not believe there is any significant risk to the Company's subsidiaries ability to maintain its existing mining permits or its ability to acquire future mining permits for its mines.

Clean Air Act and Affordable Clean Energy Rule ("ACE")

The process of burning coal can cause many compounds and impurities in the coal to be released into the air, including sulfur dioxide, nitrogen oxides, mercury, particulates and other matter. The CAA and the corresponding state laws that extensively regulate the emissions of materials into the air affect coal mining operations both directly and indirectly. Direct impacts on coal mining operations occur through CAA permitting requirements and/or emission control requirements relating to air contaminants, especially particulate matter. Indirect impacts on coal mining operations occur through regulation of the air emissions of sulfur dioxide, nitrogen oxides, mercury, particulate matter and other compounds emitted by coal-fired power plants. The EPA has promulgated or proposed regulations that impose tighter emission restrictions in a number of areas, some of which are currently subject to litigation. The general effect of tighter restrictions is to reduce demand for coal. Ongoing reduction in coal's share of the capacity for power generation could have a material adverse effect on the Company's business, financial condition and results of operations.

States are required to submit to the EPA revisions to their state implementation plans ("SIPs") that demonstrate the manner in which the states will attain national ambient air quality standards ("NAAQS") every time a NAAQS is issued or revised by the EPA. The EPA has adopted NAAQS for several pollutants, which continue to be reviewed periodically for revisions. When the EPA adopts new, more stringent NAAQS for a pollutant, some states have to change their existing SIPs. If a state fails to revise its SIP and obtain EPA approval, the EPA may adopt regulations to effect the revision. Coal mining operations and coal-fired power plants that emit particulate matter or other specified material are, therefore, affected by changes in the SIPs. Through this process over the last few years, the EPA has reduced the NAAQS for particulate matter, ozone, and nitrogen oxides. The Company's coal mining operations and power generation customers may be directly affected when the revisions to the SIPs are made and incorporate new NAAQS for sulfur dioxide, nitrogen oxides, ozone and particulate matter. In March 2019, the EPA published a final rule that retains the current primary (health-based) NAAQS for sulfur oxides (SOx) without revision. The current primary standard is set at a level of 75 parts per billion, as the 99th percentile of daily maximum 1-hour SO2 concentrations, averaged over 3 years. In mid-2011, the EPA finalized the Cross-State Air Pollution Rule ("CSAPR") to address interstate transport of pollutants. This affects states in the eastern half of the U.S. and Texas. This rule imposes additional emission restrictions on coal-fired power plants to attain ozone and fine particulate NAAQS. The EPA began implementation of the rule in 2015, when Phase I emission reductions in sulfur dioxide and nitrogen dioxide became effective. Phase II reductions became effective in 2017. In 2016, the EPA mandated additional reductions in nitrogen oxide emissions. The U.S. Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") remanded the CSAPR Update to the EPA to address the court's holding that the rule unlawfully allows significant contribution to continue beyond downwind attainment deadlines. In 2018, the EPA finalized all remaining ozone designations to comply with the 2015 ozone air quality standards. The U.S. Court of Appeals for the D.C. Circuit issued a per curium opinion rejecting various industry challenges to the EPA's 2015 revisions to the ozone NAAQS, including that the EPA was required to consider certain adverse effects and background ozone when setting the standards. None of the power plants supplied by the Company are within non-attainment areas for ozone. In March 2021, EPA finalized the "Revised Cross-State Air Pollution Rule" to address the remand of the CSAPR update. The final rule requires no further obligations in states where the Company's customers operate a power plant.

The CAA Acid Rain Control Provisions were promulgated as part of the CAA Amendments of 1990 in Title IV of the CAA ("Acid Rain Program"). The Acid Rain Program required reductions of sulfur dioxide emissions from coal-fired power plants. The Acid Rain Program is now a mature program, and the Company believes that any market impacts of the required controls have likely been factored into the coal market.

The EPA promulgated a regional haze program designed to protect and to improve visibility at and around Class I Areas, which are generally National Parks, National Wilderness Areas and International Parks. This program may restrict the construction of new coal-fired power plants, the operation of which may impair visibility at and around the Class I Areas. Additionally, the program requires certain existing coal-fired power plants to install additional control measures designed to limit haze-causing emissions, such as sulfur dioxide, nitrogen oxide and particulate matter. States were required to submit Regional Haze SIPs to the EPA in 2007; however, many states did not meet that deadline. In 2016, the EPA finalized revisions to the Regional Haze Rule which addresses requirements for the second planning period. In September 2019, the EPA issued final regional haze guidance that indicates that a re-evaluation of sources already subject to best available retrofit technologies ("BART") is likely unnecessary. The guidance also encourages states to balance visibility benefits against other factors in selecting the measures necessary to make "reasonable progress" toward natural visibility conditions. Finally, when comparing various control options to determine which ones may be "cost-effective," the final guidance recommends comparing cost to visibility benefits. In July of 2021, the EPA released a memorandum to clarify the guidance issued in 2019. While this clarification memorandum attempted to reverse some of the core conclusions made in the 2019 guidance, it was released after the air analyses to develop individual SIPs had been completed and just prior to the SIP submittal deadline to the EPA, which was July 31, 2021. Many SIP submittals were delayed due to emissions modeling and continue to be developed and scrutinized. SIPs will be sent to the EPA for approval following both review by federal land managers of the National Park Service, the United States Fish and

Wildlife Service and the United States Forest Service and all corresponding public comment periods. See "Item 1A - "Risk Factors" on page 20 for further discussion of the regional haze program.

Under the CAA, new and modified sources of air pollution must meet certain new source standards (the "New Source Review Program"). In the late 1990s, the EPA filed lawsuits against owners of many coal-fired power plants in the eastern U.S. alleging that the owners performed non-routine maintenance, causing increased emissions that should have triggered the application of these new source standards. Some of these lawsuits have been settled with the owners agreeing to install additional emission control devices in their coal-fired power plants. The EPA has clarified the process for evaluating whether the New Source Review ("NSR") permitting program would apply to proposed projects at existing air pollution sources. Under the NSR program, before constructing a new stationary emission source or a modification of an existing major source, the source owner or operator must determine whether the new source will emit or the modification will increase air emissions above certain thresholds. The rule makes it clear that both emissions increases and decreases from a major modification at an existing source are to be considered during Step 1 of the two-step NSR applicability test which is designed to determine if there is a "significant emission increase". In October 2021, the EPA denied a petition for reconsideration and administrative stay of the final rule; however, the remaining litigation and the uncertainty around the NSR program rules could adversely impact demand for coal. Any additional new controls may have an adverse impact on the demand for coal, which may have a material adverse effect on the Company's business, financial condition or results of operations.

Under the CAA, the EPA also adopts national emission standards for hazardous air pollutants. In December 2011, the EPA adopted a final rule called the Mercury and Air Toxics Standard ("MATS"), which applies to new and existing coal-fired and oil-fired units. This rule requires mercury emission reductions in fine particulates, which are being regulated as a surrogate for certain metals.

The Company's power generation customers must incur substantial costs to control emissions to meet all of the CAA requirements, including the requirements under MATS and the EPA's regional haze program. These costs raise the price of coal-generated electricity, making coal-fired power less competitive with other sources of electricity, thereby reducing demand for coal. If the Company's customers cannot offset the cost to control certain regulated pollutant emissions by lowering costs or if the Company's customers elect to close coal-fired units, the Company's business, financial condition and results of operations could be materially adversely affected.

Global climate change continues to attract considerable attention in the United States. The U.S. Congress has considered climate change legislation aimed at reducing greenhouse gas ("GHG") emissions, particularly from coal combustion by power plants. Enactment of laws and passage of regulations regarding GHG emissions by the U.S. or additional states, or other actions to limit carbon dioxide emissions, such as opposition by environmental groups to expansion or modification of coal-fired power plants, could result in electric generators switching from coal to other fuel sources.

The U.S. Congress continues to consider a variety of proposals to reduce GHG emissions from the combustion of coal and other fuels. These proposals include emission taxes, emission reductions, including carbon tax and "cap-and-trade" programs, and mandates or incentives to generate electricity by using renewable resources, such as wind or solar power. Some states have established programs to reduce GHG emissions. Further, governmental agencies have been providing grants or other financial incentives to entities developing or selling alternative energy sources with lower levels of GHG emissions, which may lead to more competition from those entities.

The EPA introduced a GHG regulation program under the CAA by issuing a finding that the emission of six GHGs, including carbon dioxide and methane, may reasonably be anticipated to endanger public health and welfare. Based on that finding, the EPA published a New Source Performance Standard for greenhouse gases, applicable to certain new power plants. In 2019, the EPA issued the Affordable Clean Energy ("ACE") Rule to reduce GHG emissions from existing electric generating units ("EGUs"). In contrast to the Clean Power Plan, the ACE rule limited "best system of emission reduction" ("BSER") to only "inside the fenceline" heat rate improvement technologies or systems that can be applied at an affected coal-fired EGU. The ACE rule was challenged by a suite of petitioners before the U.S. Circuit Court of Appeals, District of Columbia Circuit ("DC Circuit") which subsequently ruled that the EPA erred when it rescinded the Clean Power Plan and they vacated the ACE rule. In early 2021, the EPA issued an endangerment/significant contribution finding for carbon dioxide emissions from coal-fired power plants. In addition, the DC Circuit court ruling was challenged by several parties, including the Company, and the Supreme Court of the United States recently granted certiorari. The Supreme Court of the United States will hear the case in February 2022. Depending on the outcome of the Supreme Court ruling, the EPA may draft a new rule to regulate carbon dioxide emissions which, depending on the scope and applicability of the rule, may have a material adverse effect on the Company's business, financial condition or results of operations.

The U.S. has not implemented the 1992 Framework Convention on Global Climate Change ("Kyoto Protocol"), which became effective for many countries on February 16, 2005. The Kyoto Protocol was intended to limit or reduce emissions of GHGs. The U.S. has not ratified the emission targets of the Kyoto Protocol or any other GHG agreement. Though the U.S. has not accepted these international GHG limiting treaties, numerous lawsuits and regulatory actions have been undertaken by states and environmental groups to try to force controls on the emission of carbon dioxide; or to prevent the construction of new coal-fired power plants.

As a successor to the Kyoto Protocol, in 2015, international negotiators finalized the Paris Agreement under the United Nations Framework Convention on Climate Change ("Paris Agreement"). Unlike the Kyoto Protocol, the Paris Agreement has no binding GHG reduction mandates on signatories. Participating countries only submit a description of their intended GHG reductions, and provide periodic progress updates, with no penalties for not meeting their self-imposed targets. The Paris Agreement also includes language stating that developed countries will provide financial assistance to help developing countries meet their GHG targets and adapt to climate change, but there are no mandated contributions. In November 2020, the United States formally withdrew from the Paris Agreement; however, the United States rejoined in February 2021. The renegotiation and implementation of the Paris Agreement, or other international agreements, the regulations promulgated to date by the EPA with respect to GHG emissions or the adoption of new legislation or regulations to control GHG emissions, could have a materially adverse effect on the Company's business, financial condition and results of operations.

Significant public opposition has also been raised with respect to the proposed construction of certain new coal-fired EGUs due to the potential for increased air emissions. Such opposition, as well as any corporate or investor policies against coal-fired EGUs or requiring disclosures related to global climate change, could also reduce the demand for the Company's coal or marketability of NACCO stock. Further, policies limiting available financing for the development of new coal-fueled EGUs or coal mines or the retrofitting of existing EGUs could adversely impact the global demand for coal in the future. The potential impact on the Company of future laws, regulations or other policies or circumstances will depend upon the degree to which any such laws, regulations or other policies or circumstances force electricity generators to diminish their reliance on coal as a fuel source. In view of the significant uncertainty surrounding each of these factors, it is not possible for the Company to predict reasonably the impact that any such laws, regulations or other policies may have on the Company's business, financial condition and results of operations. However, such impacts could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company believes it has obtained all necessary permits under the CAA at all of its coal mining operations where it is responsible for permitting and is in compliance with such permits.

<u>Clean Water Act</u>
The Clean Water Act ("CWA") affects coal mining operations by establishing in-stream water quality standards and treatment standards for waste water discharge. Permits requiring regular monitoring, reporting and performance standards govern the discharge of pollutants into water. Waters discharged from coal mines are required to meet these standards. These federal and state requirements could require more costly water treatment and could materially adversely affect the Company's business, financial condition and results of operations.

The Company believes it has obtained all permits required under the CWA and corresponding state laws and is in compliance with such permits. In many instances, mining operations require securing CWA authorization or a permit from the U.S. Army Corps of Engineers for operations in waters of the United States. The U.S. Army Corps of Engineers and EPA jointly revised the definition of a water of the United States ("WOTUS") in the June 2020 Navigable Water Protection Rule ("NWPR"). The new definition was challenged in court and two court cases resulted in vacatur of the NWPR. In December 2021, the EPA and COE released a draft "Step One" rule to redefine WOTUS by formally rescinding the NWPR and replacing it with a new definition. If the new definition is promulgated as drafted, some of the Company's operations could incur additional costs to mitigate streams and wetlands.

Bellaire is treating mine water drainage from coal refuse piles associated with two former underground coal mines in Ohio and one former underground coal mine in Pennsylvania, and is treating mine water from a former underground coal mine in Pennsylvania. Bellaire anticipates that it will need to continue these activities indefinitely. See Note 7 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's asset retirement obligations.

Bellaire was notified by the Pennsylvania Department of Environmental Protection ("DEP") during 2004 that in order to obtain renewal of a permit, Bellaire would be required to establish a mine water treatment trust (the "Trust"). See Note 7 and Note 9 to the Consolidated Financial Statements in this Form 10-K for further information on the Trust.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act ("RCRA") affects coal mining operations by establishing requirements for the treatment, storage and disposal of wastes, including hazardous wastes. Coal mine wastes, such as overburden and coal cleaning wastes, currently are exempted from hazardous waste management. In December 2014, the EPA finalized a rule specifying management standards for coal combustion residuals or coal ash ("CCRs") as a non-hazardous waste. In 2018, the EPA finalized revisions to the 2014 regulations in response to litigation of the 2014 rule. One revision allows a state director (in a state with an approved CCR permit program) or the EPA (where EPA is the permitting authority) to suspend groundwater monitoring requirements if there is evidence that there is no potential for migration of hazardous constituents to the uppermost aquifer during the active life of the unit and post closure care. The second revision allows issuance of technical certifications in lieu of a professional engineer. In addition, the EPA revised the groundwater protection standards and extended the deadline for some facilities that must close CCR units. In 2020, the EPA finalized additional changes to the CCR rule that classified all clay-lined surface impoundments that receive CCR as unlined, which triggered a pond closure date of April 2021 for impoundments that failed the aquifer location restriction. The EPA also established alternative deadlines to cease receipt of waste to include new site-specific alternatives due to lack of capacity with a deadline to initiate closure no later than October 15, 2023 and a new site-specific alternative due to permanent cessation of coal-fired boilers with two deadlines to complete closure: (a) no later than October 17, 2023 for surface impoundments 40 acres or smaller; and (b) October 17, 2028 for surface impoundments larger than 40 acres. This new rule may raise the cost for CCR disposal at coal-fired power plants, making them less competitive, and/or result in early closure which could have an adverse impact on demand for coal.

The EPA rule exempts CCRs beneficially used at mine sites and reserves any regulation thereof to the OSMRE. The OSMRE suspended all rulemaking actions on CCRs, but could re-initiate them in the future. The outcome of these rulemakings, and any subsequent actions by EPA and OSMRE, could impact those Company operations that beneficially use CCRs. If the Company were unable to beneficially use CCRs, its revenues for handling CCRs from its customers may decrease and its costs may increase due to the purchase of alternative materials for beneficial uses.

National Environmental Policy Act

NEPA requires federal agencies to review the environmental impacts of their decisions and issue either an environmental assessment or an environmental impact statement. There are certain actions associated with surface coal mining that may trigger these types of assessments by federal agencies. When a NEPA action is required, the Company provides the required information to the appropriate federal agency so that they may complete the environmental assessment. Historically, this process has been lengthy and may take several years to complete. In July 2020, the White House Council on Environmental Quality ("CEQ") issued a final rule updating the original NEPA regulations; however, it was immediately challenged by states and non-governmental organizations. In October 2021, the CEQ issued a new draft rule rescinding many of the revisions from 2020 update. If finalized as drafted, the revised NEPA regulations could adversely affect the Company's ability to secure necessary permits.

Regulation of the Oil and Natural Gas Industry

The oil and natural gas industry is extensively regulated by numerous federal, state and local authorities. Legislation affecting the oil and natural gas industry is under constant review for amendment or expansion, frequently increasing the regulatory burden. Also, numerous departments and agencies, both federal and state, are authorized by statute to issue rules and regulations that are binding on the oil and natural gas industry and its individual members, some of which carry substantial penalties for failure to comply. Although the regulatory burden on the oil and natural gas industry increases the cost of doing business, these burdens generally do not affect the Company any differently or to any greater or lesser extent than they affect other companies in the industry with similar types, quantities and locations of production.

The availability, terms and cost of transportation significantly affect sales of oil and natural gas. The interstate transportation of oil and natural gas and the sale for resale of natural gas is subject to federal regulation, including regulation of the terms, conditions and rates for interstate transportation, storage and various other matters, primarily by the Federal Energy Regulatory Commission ("FERC"). Federal and state regulations govern the price and terms for access to oil and natural gas pipeline transportation. FERC's regulations for interstate oil and natural gas transmission in some circumstances may also affect the intrastate transportation of oil and natural gas.

Although oil and natural gas prices are currently unregulated, Congress historically has been active in the area of oil and natural gas regulation. The Company cannot predict whether new legislation to regulate oil and natural gas might be proposed, what proposals, if any, might be enacted by Congress or the various state legislatures, and what effect, if any, the proposals might have on the Minerals Management segment. Sales of crude oil, condensate and natural gas liquids ("NGLs") are not currently regulated and are made at market prices.

Environmental Matters

Oil and natural gas exploration, development and production operations are subject to stringent laws and regulations governing the discharge of materials into the environment or otherwise relating to protection of the environment or occupational health and safety. These laws and regulations have the potential to impact production on the Company's mineral interests, which could materially adversely affect the Minerals Management segment. Numerous federal, state and local governmental agencies, such as the EPA, issue regulations that often require difficult and costly compliance measures that carry substantial administrative, civil and criminal penalties and may result in injunctive obligations for non-compliance. These laws and regulations may require the acquisition of a permit before drilling commences, restrict the types, quantities and concentrations of various substances that can be released into the environment in connection with drilling and production activities, limit or prohibit construction or drilling activities on certain lands lying within wilderness, wetlands, ecologically sensitive and other protected areas, require action to prevent or remediate pollution from current or former operations, such as plugging abandoned wells or closing earthen pits, result in the suspension or revocation of necessary permits, licenses and authorizations, require that additional pollution controls be installed and impose substantial liabilities for pollution resulting from operations. The strict, joint and several liability nature of such laws and regulations could impose liability upon the operators on the Company's mineral interests, regardless of fault. Moreover, it is not uncommon for neighboring landowners and other third parties to file claims for personal injury and property damage allegedly caused by the release of hazardous substances, hydrocarbons or other waste products into the environment. Changes in environmental laws and regulations occur frequently, and any changes that result in more stringent and costly pollution control or waste handling, storage, transport, disposal or cleanup requirements could materially adversely affect the Minerals Management segment.

Drilling and Production

The operations of the Company's third-party lessees are subject to various types of regulation at the federal, state and local level. These types of regulation include requiring permits for the drilling of wells, drilling bonds and reports concerning operations. The states, and some counties and municipalities, in which the Company has mineral interests also regulate one or more of the following:

- the location of wells;
- the method of drilling and casing wells;
- the timing of construction or drilling activities, including seasonal wildlife closures;
- the rates of production or "allowables";
- the surface use and restoration of properties upon which wells are drilled;
- the plugging and abandoning of wells; and
- notice to, and consultation with, surface owners and other third parties.

State laws regulate the size and shape of drilling and spacing units or proration units governing the pooling of oil and natural gas properties. Some states allow forced pooling or integration of tracts to facilitate exploration while other states rely on voluntary pooling of lands and leases. In some instances, forced pooling or unitization may be implemented by third parties and may reduce the Company's interest in the unitized properties. In addition, state conservation laws establish maximum rates of production from oil and natural gas wells, generally prohibit the venting or flaring of natural gas and impose requirements regarding the ratability of production. These laws and regulations may limit the amount of oil and natural gas that the lessees of the Company's mineral interests can produce from existing wells or limit the number of wells or the locations at which operators can drill. Moreover, each state generally imposes a production or severance tax with respect to the production and sale of oil, natural gas and NGLs within its jurisdiction. States do not regulate wellhead prices or engage in other similar direct regulation, but the effect of any future regulations could have a material effect on the Minerals Management segment. The effect of such future regulations may be to limit the amounts of oil and natural gas that may be produced from the Company's mineral interests, negatively affect the economics of production from these wells or to limit the number of locations operators can drill.

Federal, state and local regulations provide detailed requirements for the abandonment of wells, closure or decommissioning of production facilities and pipelines and for site restoration in areas where the operators of the acreage underlying the Company's mineral and royalty interests operate. The U.S. Army Corps of Engineers and many other state and local authorities also have regulations for plugging and abandonment, decommissioning and site restoration. Although the U.S. Army Corps of Engineers does not require bonds or other financial assurances, some state agencies and municipalities do have such requirements.

Regulation of Hydraulic Fracturing

Hydraulic fracturing is an important common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations, including shales. The process involves the injection of water, sand and chemicals under pressure into formations to fracture the surrounding rock and stimulate production. The CWA regulates the underground injection of substances through the Underground Injection Control ("UIC") program. Hydraulic fracturing generally is exempt from regulation under the UIC program, and the hydraulic fracturing process is typically regulated by state oil and gas commissions.

However, in recent years efforts have been made to regulate hydraulic fracturing at the federal level. In addition, the Biden administration has signaled the intent to stop hydraulic fracturing on federal land.

In addition, several states, including Texas, have adopted, or are considering adopting, regulations that could restrict or prohibit hydraulic fracturing in certain circumstances and/or require the disclosure of the composition of hydraulic fracturing fluids. The Texas Legislature previously adopted legislation requiring oil and gas operators to publicly disclose the chemicals used in the hydraulic fracturing process, effective as of September 1, 2011. The Texas Railroad Commission subsequently adopted rules and regulations implementing this legislation that apply to all wells for which the Railroad Commission issues an initial drilling permit. This law requires that the well operator disclose the list of chemical ingredients subject to the requirements of the Occupational Safety and Health Act for disclosure on an internet website and also file the list of chemicals with the Texas Railroad Commission with the well completion report. The total volume of water used to hydraulically fracture a well must also be disclosed to the public and filed with the Texas Railroad Commission. Further, in May 2013, the Texas Railroad Commission issued a “well integrity rule,” which updates the requirements for drilling, putting pipe down, and cementing wells. The rule also includes new testing and reporting requirements, such as: (i) the requirement to submit cementing reports after well completion or after cessation of drilling, whichever is later; and (ii) the imposition of additional testing on wells less than 1,000 feet below usable groundwater. The well integrity rule took effect in January 2014. Local governments also may seek to adopt ordinances within their jurisdictions regulating the time, place and manner of drilling activities in general or hydraulic fracturing activities in particular or prohibit the performance of well drilling in general or hydraulic fracturing in particular.

There has been increasing public controversy regarding hydraulic fracturing with regard to the use of fracturing fluids, impacts on drinking water supplies, use of water and the potential for impacts to surface water, groundwater and the environment generally. A number of lawsuits and enforcement actions have been initiated across the country implicating hydraulic fracturing practices. If new laws or regulations that significantly restrict hydraulic fracturing are adopted, such laws could make it more difficult or costly to perform fracturing to stimulate production from tight formations as well as make it easier for third parties opposing the hydraulic fracturing process to initiate legal proceedings based on allegations that specific chemicals used in the fracturing process could adversely affect groundwater. In addition, if hydraulic fracturing is further regulated at the federal or state level, fracturing activities could become subject to additional permitting and financial assurance requirements, more stringent construction specifications, increased monitoring, reporting and recordkeeping obligations, plugging and abandonment requirements and also to attendant permitting delays and potential increases in costs. Such legislative or regulatory changes could cause operators of the operation on the acreage underlying the Company’s mineral interests to incur substantial compliance costs, and compliance or the consequences of any failure to comply by operators could have a material adverse effect on the Minerals Management segment.

In addition, hydraulic fracturing operations require the use of a significant amount of water, and the inability of the operators of the acreage underlying the Company’s mineral interests to locate sufficient amounts of water or dispose of or recycle water used in their drilling and production operations, could adversely impact their operations. Moreover, new environmental initiatives and regulations could include restrictions on the ability to conduct certain operations such as hydraulic fracturing or disposal of waste, including, but not limited to, produced water, drilling fluids and other wastes associated with the development or production of natural gas.

In some instances, the operation of underground injection wells has been alleged to cause earthquakes. Such issues have sometimes led to orders prohibiting continued injection or the suspension of drilling in certain wells identified as possible sources of seismic activity. Such concerns also have resulted in stricter regulatory requirements in some jurisdictions relating to the location and operation of underground injection wells. Future orders or regulations addressing concerns about seismic activity from well injection could affect operations on the acreage underlying the Company’s mineral interests.

Endangered Species Act
The Endangered Species Act (“ESA”) and analogous state laws restrict activities that may affect endangered or threatened species or their habitats. Pursuant to a settlement with environmental groups, the U.S. Fish and Wildlife Service (“USFWS”) was required to determine whether over 250 species required listing as threatened or endangered under the ESA. USFWS has not yet completed its review, but the potential remains for new species to be listed under the ESA. Some of the Company’s properties or mineral interests may be located in areas that are or may be designated as habitats for endangered or threatened species, and previously unprotected species may later be designated as threatened or endangered in areas where the Company holds interests. For example, recently, there have been renewed calls to review protections currently in place for the Dunes Sagebrush Lizard, whose habitat includes portions of the Permian Basin, and to reconsider listing the species under the ESA. Likewise, there have been calls to review protections in place for the Greater Sage Grouse, which can be found across a large swath of the northwestern United States in oil and gas producing states. The listing of either of these species, or any others, in areas where the Company holds minerals interests could cause lessees to incur increased costs arising from species protection

measures, delay the completion of exploration and production activities, and/or result in limitations on operating activities that could have an adverse impact the Minerals Management segment.

Natural Gas Sales and Transportation
Historically, federal legislation and regulatory controls have affected the price and marketing of natural gas. FERC has jurisdiction over the transportation and sale for resale of natural gas in interstate commerce by natural gas companies under the Natural Gas Act of 1938 ("NGA") and the Natural Gas Policy Act of 1978. Since 1978, various federal laws have been enacted which have resulted in the complete removal of all price and non-price controls for sales of domestic natural gas sold in "first sales." Under the Energy Policy Act of 2005, FERC has substantial enforcement authority to prohibit the manipulation of natural gas markets and enforce its rules and orders, including the ability to assess substantial civil penalties.

FERC also regulates interstate natural gas transportation rates and service conditions and establishes the terms under which operators may use interstate natural gas pipeline capacity, which affects the marketing of natural gas that operators produce, as well as the revenues operators receive for sales of natural gas and release of natural gas pipeline capacity. Commencing in 1985, FERC promulgated a series of orders, regulations and rule makings that significantly fostered competition in the business of transporting and marketing gas. Today, interstate pipeline companies are required to provide nondiscriminatory transportation services to producers, marketers and other shippers, regardless of whether such shippers are affiliated with an interstate pipeline company. FERC's initiatives have led to the development of a competitive, open access market for natural gas purchases and sales that permits all purchasers of natural gas to buy gas directly from third-party sellers other than pipelines. However, the natural gas industry historically has been very heavily regulated; therefore, the Company cannot guarantee that the less stringent regulatory approach currently pursued by FERC and Congress will continue indefinitely into the future nor can the Company determine what effect, if any, future regulatory changes might have on natural gas-related activities.

Under FERC's current regulatory regime, transmission services must be provided on an open-access, nondiscriminatory basis at cost-based rates or at market-based rates if the transportation market at issue is sufficiently competitive. Gathering service, which occurs upstream of jurisdictional transmission services, is regulated by the states onshore and in-state waters. Section 1(b) of the NGA exempts natural gas gathering facilities from regulation by FERC as a natural gas company under the NGA. Although its policy is still in flux, FERC has in the past reclassified certain jurisdictional transmission facilities as non-jurisdictional gathering facilities, which has the tendency to increase operators' costs of transporting gas to point-of-sale locations.

Oil Sales and Transportation
Sales of crude oil, condensate and natural gas liquids are not currently regulated and are made at negotiated prices. Nevertheless, Congress could reenact price controls in the future.

Crude oil sales are affected by the availability, terms and cost of transportation. The transportation of oil in common carrier pipelines is also subject to rate regulation. FERC regulates interstate oil pipeline transportation rates under the Interstate Commerce Act and intrastate oil pipeline transportation rates are subject to regulation by state regulatory commissions. The basis for intrastate oil pipeline regulation, and the degree of regulatory oversight and scrutiny given to intrastate oil pipeline rates, varies from state to state. Insofar as effective interstate and intrastate rates are equally applicable to all comparable shippers, the Company believes that the regulation of oil transportation rates will not affect its operations in any materially different way than such regulation will affect the operations of competitors.

Further, interstate and intrastate common carrier oil pipelines must provide service on a non-discriminatory basis. Under this open access standard, common carriers must offer service to all shippers requesting service on the same terms and under the same rates. When oil pipelines operate at full capacity, access is governed by portioning provisions set forth in the pipelines' published tariffs. Accordingly, the Company believes that access to oil pipeline transportation services generally will be available to its operators to the same extent as to the Company or its competitors.

State Regulation
Texas regulates the drilling for, and the production, gathering and sale of, oil and natural gas, including imposing severance taxes and requirements for obtaining drilling permits. Texas currently imposes a 4.6% severance tax on the market value of oil production and a 7.5% severance tax on the market value of natural gas production. States also regulate the method of developing new fields, the spacing and operation of wells and the prevention of waste of oil and natural gas resources. States may regulate rates of production and may establish maximum daily production allowable from oil and natural gas wells based on market demand or resource conservation, or both. States do not regulate wellhead prices or engage in other similar direct economic regulation, but the Company cannot be certain that they will not do so in the future. The effect of these regulations may be to limit the amount of oil and natural gas that may be produced from wells drilled by third-party lessee's and to limit the number of wells or locations the Company's third-party lessee operators can drill.

The petroleum industry is also subject to compliance with various other federal, state and local regulations and laws. Some of those laws relate to resource conservation and equal employment opportunity. The Company does not believe that compliance with these laws will have a material adverse effect on its results of operations or financial condition.

Comprehensive Environmental Response, Compensation and Liability Act
The Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and similar state laws create liabilities for the investigation and remediation of releases of hazardous substances into the environment and for damages to natural resources. The Company must also comply with reporting requirements under the Emergency Planning and Community Right-to-Know Act and the Toxic Substances Control Act.

From time to time, the Company has been the subject of administrative proceedings, litigation and investigations relating to environmental matters.

The extent of the liability and the cost of complying with environmental laws cannot be predicted with certainty due to many factors, including the lack of specific information available with respect to many sites, the potential for new or changed laws and regulations, the development of new remediation technologies and the uncertainty regarding the timing of work with respect to particular sites. As a result, the Company may incur material liabilities or costs related to environmental matters in the future, and such environmental liabilities or costs could materially and adversely affect the Company’s results of operations and financial condition. In addition, there can be no assurance that changes in laws or regulations would not affect the manner in which the Company is required to conduct its operations.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following tables set forth as of March 1, 2022 the name, age, current position and principal occupation and employment during the past five years of the Company’s executive officers. There exists no arrangement or understanding between any executive officer and any other person pursuant to which such executive officer was selected.

EXECUTIVE OFFICERS OF THE COMPANY

Name	Age	Current Position	Other Positions
J.C. Butler, Jr.	61	President and Chief Executive Officer of NACCO (from September 2017) and President and Chief Executive Officer of NACoal (from prior to 2017)	From prior to 2017 to September 2017, Senior Vice President - Finance, Treasurer and Chief Administrative Officer of NACCO. From prior to 2017 to September 2017, Assistant Secretary of Hamilton Beach Brands ("HBB") and Kitchen Collection ("KC").
Matthew J. Dilluvio	32	Associate Counsel and Assistant Secretary of NACCO and NACoal (from June 2019)	From prior to 2017 to May 2019, Associate, Sidley Austin LLP (law firm).
Elizabeth I. Loveman	52	Vice President and Controller and Principal Financial Officer (from prior to 2017)	
John D. Neumann	46	Vice President, General Counsel and Secretary of NACCO, Vice President, General Counsel and Secretary of NACoal (from prior to 2017)	From prior to 2017 to September 2017, Assistant Secretary of HBB and KC.
Miles B. Haberer	55	Associate General Counsel of NACCO (from prior to 2017), Associate General Counsel, Assistant Secretary of NACoal (from prior to 2017) and President, North American Coal Royalty Company (an NACoal subsidiary) (from prior to 2017)	
Sarah E. Fry	46	Associate General Counsel and Assistant Secretary of NACCO (from May 2017), Associate General Counsel and Assistant Secretary of NACoal (from May 2017)	From prior to 2017 to April 2017, Senior Counsel, Locke Lord (law firm).
Thomas A. Maxwell	44	Vice President - Financial Planning and Analysis and Treasurer (from September 2017)	From prior to 2017 to September 2017, Director of Financial Planning and Analysis and Assistant Treasurer.

PRINCIPAL OFFICERS OF THE COMPANY'S SUBSIDIARIES

Name	Age	Current Position	Other Positions
Eric S. Anderson	46	President - Mitigation Resources (from March 2017)	From prior to 2017 to February 2017, Environmental Manager, The Sabine Mining Company (an NACoal subsidiary).
Philip N. Berry	54	President - NAMining (from prior to 2017)	
Eric A. Dale	47	Treasurer and Senior Director, Financial Planning and Analysis, of NACoal (from January 2017)	
Carroll L. Dewing	65	Vice President - Operations of NACoal (from January 2017)	
Andrew B. Hart	43	Controller of NACoal (from September 2019)	From November 2017 to August 2019, Assistant Controller of NACoal. From prior to 2017 to October 2017, Assistant Controller at Rowan Companies, plc.
Brian M. Larson	38	President - Catapult Mineral Partners, LLC (from May 2019) and Director - Oil and Gas Development (from April 2019)	From prior to 2017 to March 2019, Engineer at Pioneer Natural Resources.
J. Patrick Sullivan, Jr.	63	Vice President and Chief Financial Officer of NACoal (from prior to 2017)	

Item 1A. RISK FACTORS

The Company operates in a rapidly changing environment that involves a number of risks. The following discussion highlights some of these risks and others are discussed elsewhere in this report. These and other risks could materially and adversely affect the Company's business, financial condition, operating results or cash flows. The following risk factors are not an exhaustive list of the risks associated with the Company's business. New factors may emerge or changes to these risks could occur that could materially affect the Company's business.

Risks related to the Coal Mining segment

Termination of or default under long-term mining contracts could adversely affect the Company's business, financial condition, results of operation and cash flows.

Substantially all of the Coal Mining segment's profits are derived from long-term mining contracts. Although the Company has long-term contracts, numerous regulatory authorities, along with well-funded political and environmental activist groups, are devoting substantial resources to anti-coal activities to minimize or eliminate the use of coal as a source of electricity generation. Any customer's premature facility closure, including as discussed in "Item 1. Business — Business Developments" on page 2 or a result of GRE's failure to complete the sale of Coal Creek Station and the adjacent high-voltage direct current transmission line to Rainbow Energy and its affiliates currently anticipated to close in the second quarter of 2022, could have a material adverse effect on the Company's business, financial condition and results of operations.

State implementation of the EPA's Regional Haze Rule ("RHR") could require Coyote Creek's customers to incur significant new costs at the Coyote Station power plant, which could, dependent on determinations by state regulatory commissions regarding approval to recover such costs from the customers of Coyote Creek's customer, negatively impact Coyote Creek's customers' net income, financial position and cash flows. The Company understands that the North Dakota Department of Environmental Quality ("NDDEQ") could require sources subject to RHR Round 2 reasonable progress determinations, including Coyote Station, to undertake emissions control measures. The emissions modeling conducted for the combined western state agencies affected by the RHR was delayed and has subsequently delayed the NDDEQ state implementation plan process. Therefore, the NDDEQ's state implementation plan, which was due to the EPA by July 2021, is anticipated to be submitted to EPA early in 2022. If NDDEQ requires significant emissions controls at Coyote Station power plant by December 31, 2028, it may not be economically feasible for Coyote Creek's customers to invest in such equipment and an early retirement of Coyote Station and the Coyote Creek mine could be necessary.

The Company could be negatively impacted by the decisions of Coyote Creek's customers. In September 2021, one of Coyote Creek's customers, Otter Tail Power Company, filed its 2022 Integrated Resource Plan in Minnesota and North Dakota which included its intent to start the process of withdrawal from its 35 percent ownership interest in Coyote Station power plant with an anticipated exit from the plant by December 31, 2028.

Under certain circumstances of default or termination of Coyote Creek's Lignite Sales Agreement ("LSA"), the Company would be obligated for payment of a "make-whole" amount to Coyote Creek's third-party lenders. The "make-whole" amount is based on the excess, if any, of the discounted value of the remaining scheduled debt payments over the principal amount. In addition, in the event Coyote Creek's LSA is terminated on or after January 1, 2024 by Coyote Creek's customers, the Company is obligated to purchase Coyote Creek's dragline and rolling stock for the then net book value of those assets. Any decision by Coyote Creek's customers to reduce operations or prematurely close the Coyote Creek mine would have a material adverse effect on the Company's results of operations, financial position and cash flows.

The loss of, or significant reduction in, purchases by NACCO's coal customers could adversely affect the Company's business, financial condition, results of operation and cash flows.

For the year ended December 31, 2021, the Coal Mining segment derived approximately 68% of earnings of unconsolidated operations from two customers, Basin Electric and GRE. There are inherent risks whenever a significant percentage of total earnings are concentrated with a limited number of customers. Earnings from the Coal Mining segment's customers may fluctuate from time to time based on numerous factors, including market conditions and the realignment of customers' power generation portfolios that reduce the electric power generated from coal, which may be outside of the Company's control. If any of the Coal Mining segment's customers experience declining demand due to market, economic, regulatory or competitive conditions, it could have an adverse effect on the Company's profitability, cash flows and financial position. In addition, if any customers were to significantly reduce or eliminate their purchases of coal from us or if the Company is unable to renew expiring long-term sales agreements with existing customers or enter into new supply agreements, the Company's business, financial condition, results of operations and cash flows could be adversely affected. See "Item 1. Business — Business

Developments" on page 2 in this Form 10-K for further discussion.

MLMC is subject to risks associated with its capital investment, operating and equipment costs, growing use of alternative generation that competes with coal fired generation, changes in customer demand and inflationary adjustments.

The profitability of MLMC is subject to the risk of loss of investment in this operation, increases in the cost of mining, changes in customer demand, growing competition from alternative power generation that competes with coal-fired generation and the emergence of adverse mining conditions. At MLMC, the costs of mining operations are not reimbursed by MLMC's customer. As such, increased costs at MLMC or decreased revenues could materially reduce the Company's profitability. Any reduction in customer demand at MLMC, including reductions related to reduced mechanical availability of the customer’s power plant, would adversely affect the Company's operating results and could result in significant impairments. MLMC has approximately $136 million of long-lived assets, including property, plant and equipment and a coal supply agreement intangible asset, which are subject to periodic impairment analysis and review. Identifying and assessing whether impairment indicators exist, or if events or changes in circumstances have occurred, including assumptions about future power plant dispatch levels, changes in operating costs and other factors that impact anticipated revenue and customer demand, requires significant judgment. Actual future operating results could differ significantly from these estimates, which may result in an impairment charge in a future period, which could have a substantial impact on the Company’s results of operations.

MLMC sells lignite at contractually agreed upon prices which are subject to changes in the level of established indices over time. As diesel fuel is heavily weighted among the indices used to determine the coal sales price, fluctuations in diesel fuel prices can result in significant fluctuations in earnings at MLMC.

MLMC delivers coal to the Red Hills Power Plant in Ackerman, Mississippi. The Red Hills Power Plant supplies electricity to TVA under a long-term PPA. MLMC’s contract with its customer runs through 2032. TVA’s power portfolio includes coal, nuclear, hydroelectric, natural gas and renewables. In 2019, TVA published its updated Integrated Resource Plan, which indicates plans to increase its reliance on solar power. A decrease in the number of days TVA dispatches the Red Hills Power Plant would reduce MLMC's customer's demand for coal. The decision of which power plants to dispatch is determined by TVA.

Choctaw Generation Limited Partnership ("CGLP") leases the Red Hills Power Plant from a Southern Company subsidiary pursuant to a leveraged lease arrangement. CGLP's ability to make required payments to the Southern Company subsidiary is dependent on the operational performance of the Red Hills Power Plant. During 2020, Southern Company revised the estimated cash flows to be received under the leveraged lease which resulted in a full impairment of the lease investment. If any future lease payment is not paid in full, the Southern Company subsidiary may be unable to make its corresponding payment to the holders of the underlying non-recourse debt related to the Red Hills Power Plant. Failure to make the required payment to the debtholders could represent an event of default that would give the debtholders the right to foreclose on, and take ownership of, the Red Hills Power Plant from the Southern Company subsidiary. A foreclosure of the Red Hills Power Plant could have a material adverse effect on MLMC's financial condition, results of operations and cash flows. Southern Company publicly disclosed that all required lease payments have been paid in full through December 31, 2021

Similar to the Company's unconsolidated mines, all production costs at MLMC are capitalized into inventory and recognized in cost of sales as tons are delivered. In periods of limited or no deliveries, MLMC may be required to reduce its inventory carrying value using the lower of cost and net realizable value approach, which could adversely affect MLMC’s results of operations.

Changes in customer demand for any reason, including, but not limited to, reduced mechanical availability of the customer’s power plant, dispatch of power generated by other energy sources ahead of coal, fluctuations in demand due to unanticipated weather conditions, regulations or comparable policies which may promote planned and unplanned outages at the Red Hills Power Plant, economic conditions, including an economic slowdown and a corresponding decline in the use of electricity, governmental regulations and inflationary adjustments could have a material adverse effect on MLMC's financial condition, results of operations and cash flows.

The Coal Mining segment's Unconsolidated Subsidiaries are subject to risks created by changes in customer demand and inflationary adjustments.

The contracts with the Unconsolidated Subsidiaries' customers are primarily based on a "management fee" approach, whereby compensation includes reimbursement of all operating costs, plus a fee based on the amount of coal delivered. The fees earned adjust over time in line with various indices which reflect general U.S. inflation rates. During the production stage, the

Unconsolidated Subsidiaries' customers pay the Company its agreed upon fee only for the coal delivered to them for consumption or use. As a result, reduced coal usage by customers for any reason, including, but not limited to, fluctuations in demand due to unanticipated weather conditions, scheduled and unscheduled outages at the Coal Mining segment's customers' facilities, unplanned equipment failures, economic conditions or governmental regulations or comparable policies which may promote dispatch of power generated by renewables, such as wind or solar, and the realignment of customers' power generation portfolios that reduce the electric power generated from coal could have a material adverse effect on the Company's results of operations. Because of the contractual price formulas for the management fees at these Unconsolidated Subsidiaries, the profitability of these operations is also subject to fluctuations in inflationary adjustments (or lack thereof) that can impact the agreed upon management fees. These factors could materially reduce the Company's profitability.

Changes in coal consumption patterns of U.S. electric power generators could adversely affect the Company's profitability.

The amount of coal consumed by the electric power generation industry is affected by general economic conditions; overall demand for electricity; availability of transmission; competition from alternative fuel sources for power generation, such as natural gas, nuclear, hydroelectric, wind and solar power, and the location, availability, quality and price of those alternative fuel sources; environmental and other governmental regulations, including those impacting coal-fired power plants; and energy conservation efforts and related governmental policies.

Changes in the utility industry that affect NACCO's customers could also adversely affect the Company. The increased availability of renewable energy sources has contributed to a reduction in demand for coal-fired electric power generation. Competition from natural gas-fired plants that are relatively more efficient, less expensive to construct and less difficult to permit than coal-fired plants has the most potential to continue to displace a significant amount of coal-fired electric power generation in the near term. Federal and state mandates for increased use of electricity derived from renewable energy sources have also adversely affected demand for coal-fired electric power generation. Such mandates make alternative fuel sources more competitive with coal-fired electric power generation.

Changes in federal and state mandates that would include an acceleration in the use of electricity derived from renewable energy sources could result in a decrease in coal consumption by the electric power generation industry and the Company’s customers.

Certain of the Coal Mining segment’s customers, including MLMC's customer, benefit or have benefited from a tax credit under Section 45 of the Internal Revenue Code. The benefit results in a reduction to the cost of coal-fired electric power generation. The elimination or expiration of the Section 45 tax credit would increase the cost of the coal-fired electric power generation from these facilities and could result in the power these facilities produce being less economical than other sources of power generation, which could reduce demand and result in a decrease in coal consumption.

Any of these risks could result in a decrease in coal consumption by the Company’s customers and could have a material adverse effect on the Company’s business, financial condition and results of operations.

Government regulations could impose costly requirements on the Company and its customers.

The coal mining industry and the electric generation industry are subject to extensive regulation by federal, state and local authorities on matters concerning the health and safety of employees, land use, stream and wetland protection, permit and licensing requirements, air and water quality standards, plant and wildlife protection, reclamation and restoration of mining properties after mining, the discharge of GHGs and other materials into the environment, surface subsidence from underground mining and the effects that mining has on groundwater quality and availability. Legislation mandating certain benefits for current and retired coal miners also affects the industry. Mining operations require numerous governmental and regulatory permits and approvals. The Company is required to prepare and present to federal, state or local authorities data pertaining to the impact the production and combustion of coal may have upon the environment. The public, including non-governmental organizations, opposition groups and individuals, have statutory rights to comment upon and submit objections to requested permits and approvals and to legally challenge certain permits subsequent to their issuance. Compliance with these requirements is costly and time-consuming and may delay commencement or continuation of development or production. New legislation and/or regulations and orders may materially adversely affect the Company's mining operations or its cost structure, or its customers. All of these factors could significantly reduce the Company's profitability. See “Item 1. Business — Government Regulation" on page 9 in this Form 10-K for further discussion.

The Company is subject to burdensome federal and state mining regulations and the assumptions underlying the Company's reclamation and mine closure obligations could be materially inaccurate.

Federal and state statutes require the Company to restore mine property in accordance with specified standards and an approved reclamation plan, and require that the Company obtain and periodically renew permits for mining operations. Regulations require the Company to incur the cost of reclaiming current mine disturbance at operations where the Company holds the mining permit. Estimates of the Company's total reclamation and mine closing liabilities are based upon permit requirements and the Company's engineering expertise related to these requirements. While management regularly reviews the estimated reclamation liabilities and believes that appropriate accruals have been recorded for all expected reclamation and other costs associated with closed mines, the estimate can change significantly if actual costs vary from assumptions or if governmental regulations change significantly. Such changes could have a material adverse effect on the Company's business and could significantly reduce its profitability.

The Clean Air Act ("CAA") could reduce the demand for coal.

The process of burning coal can cause many compounds and impurities in the coal to be released into the air, including carbon dioxide, sulfur dioxide, nitrogen oxides, mercury, particulates and other matter. The CAA and the corresponding state laws that extensively regulate the emissions of materials into the air affect coal mining operations both directly and indirectly. Direct impacts on coal mining operations occur through CAA permitting requirements and/or emission control requirements relating to air contaminants, especially particulate matter. Indirect impacts on coal mining operations occur through regulation of the air emissions of carbon dioxide, sulfur dioxide, nitrogen oxides, mercury, particulate matter and other compounds emitted by coal-fired power plants. The EPA has discussed issuing or issued regulations that impose tighter emission restrictions on a number of these compounds, some of which are currently subject to litigation. The general effect of tighter restrictions is to reduce demand for coal. A reduction in coal's share of the capacity for power generation could have a material adverse effect on the Company's business, financial condition and results of operations. See "Item 1. Business — Government Regulation" on page 9 in this Form 10-K for further discussion.

The Coal Mining segment's customers' operations require significant capital expenditures.

Maintaining and installing environmental controls on power plants requires significant capital expenditures. Any delay or reduction in making capital expenditures to maintain or upgrade coal-fired power plants by the Coal Segment's customers, principally electric utilities, could result in an increase in outage days and a corresponding decrease in coal consumption. A decrease in coal consumption could have a material adverse effect on the Coal Mining segment's financial condition, results of operations and cash flows.

Mining operations are vulnerable to weather and other conditions that are beyond the Company's control.

Many conditions beyond the Company's control can decrease the delivery, and therefore the use, of coal to the Company's customers. These conditions include weather, pandemics, adverse mining conditions, unexpected maintenance problems and shortages of replacement parts, any of which could significantly reduce the Company's profitability.

The Company faces numerous uncertainties in estimating economically recoverable reserves and resources, and inaccuracies in estimates could result in lower than expected revenues, higher than expected costs and decreased profitability.

Information concerning the Company's mining operations in "Item 2 - Properties on page 31" has been prepared in accordance with the requirements of subpart 1300 of Regulation S-K, which first became applicable to us for the fiscal year ended December 31, 2021. A mineral is economically recoverable when the price at which it can be sold exceeds the costs and expenses of mining, processing and selling the mineral. Forecasts of NACCO's future performance are based on, among other things, estimates of mineral reserves and resources. Mineral reserve and resource estimates of the remaining tons of coal in the Company's operational mines and other mining properties are based on many factors, including engineering, economic and geological data assembled and analyzed by internal staff and third parties, which includes various engineers and geologists, the area and volume covered by mining rights, assumptions regarding extraction rates and duration of mining operations, and the quality of in-place reserves and resources. The reserve and resource estimates as to both quantity and quality are updated from time to time to reflect, among other matters, production of minerals from the Company's mining properties and new mining or other data received.

There are numerous uncertainties inherent in estimating quantities and qualities of minerals and costs to mine recoverable reserves and resources, including many factors beyond the Company's control. Estimates of mineral reserves and resources necessarily depend upon a number of variable factors and assumptions, any one of which may, if incorrect, result in an estimate that varies considerably from actual results. These factors and assumptions include:

- Geologic and mining conditions, including the Company's ability to access certain mineral deposits as a result of the nature of the geologic formations of coal deposits or other factors, which may not be fully identified by available exploration data and may differ from past experience;
- Demand for the Company's minerals;
- Contractual arrangements, operating costs and capital expenditures;
- Development and reclamation costs;
- Mining technology and processing improvements;
- The effects of regulation by governmental agencies;
- The ability to obtain, maintain and renew all required permits;
- Employee health and safety; and
- NACCO's ability to convert all or any part of mineral resources to economically extractable mineral reserves.

As a result, actual tonnage recovered from identified mining properties and estimated revenues, expenditures and cash flows with respect to reserves and resources may vary materially from estimates. Thus, these estimates may not accurately reflect the Company’s actual reserves and resources. Any material inaccuracy in estimates related to the Company's reserves or resources could result in lower than expected revenues, higher than expected costs or decreased profitability and changes in future cash flow, which could materially and adversely affect the Company business, results of operations, financial position and cash flows. Additionally, reserve and resource estimates may be adversely affected in the future by interpretations of, or changes to, the SEC’s property disclosure requirements for mining companies.

A defect in title or the loss of a leasehold interest in certain property could limit the Company's ability to mine coal reserves or result in significant unanticipated costs.

The Company conducts a significant part of its coal mining operations on leased properties. A title defect or the loss of a lease could adversely affect the ability to mine the associated coal reserves. The Company may not verify title to leased properties or associated coal reserves until the Company has committed to developing those properties or coal reserves. The Company may not commit to develop property or coal reserves until the Company has obtained necessary permits and completed exploration. As such, the title to property that the Company intends to lease or mine may contain defects prohibiting the ability to conduct mining operations. Similarly, leasehold interests may be subject to superior property rights of third parties. In order to conduct mining operations on properties where these defects exist, the Company may incur unanticipated costs. In addition, some leases require the Company to produce a minimum quantity of coal and/or pay minimum production royalties. The Company's inability to satisfy those requirements may cause the leasehold interest to terminate.

Risks related to the NAMining segment

The Company has experienced growth in its NAMining business in recent periods and it may not be able to sustain growth or manage future growth effectively.

The Company has expanded its overall NAMining business, operations and headcount in recent periods. NAMining’s operating expenses may continue to increase as the Company scales the NAMining business, including growth outside of Florida, and provides general and administrative resources to support NAMining’s growth. As NACCO continues to grow the NAMining business, the Company must effectively integrate, develop and motivate new employees, as well as existing employees who are promoted or moved into new roles, while maintaining the effectiveness of its business execution. In part, NAMining’s success depends on its ability to integrate new customers in an efficient and effective manner. The Company anticipates that it will continue to incur costs and capital expenditures associated with future growth prior to realizing the full measure of anticipated long-term benefits, and the return on these investments may be lower, may develop more slowly than expected or may never be realized. If the Company is unable to manage this growth and the associated expenses effectively, the Company may not be able to take advantage of market opportunities or remain competitive. The Company may also fail to execute on its business plan or respond to competitive pressures, any of which could adversely affect the NAMining business, operating results and financial condition.

NAMining faces competition from aggregates producers that choose to self-perform mining operations and from other mining companies.

NAMining faces competition from existing and prospective customers that are capable of performing, or engaging other companies to perform the services NAMining provides. NAMining cannot be certain that its existing customers will continue to outsource these services to NAMining in the future, which could adversely affect the NAMining business, operating results and financial condition.

The Company is subject to risks involved in the development of new mining projects.

From time to time, the Company seeks to develop new mining projects, including the Thacker Pass project. The risks associated with such projects can be substantial. New mining projects can take up to several years to complete, are complex and require significant capital expenditures. These projects are subject to significant risks, including delays, extreme weather events, unexpected increases in the cost of required materials, and disputes with third party providers of materials, equipment or services, and a completed project may not yield the anticipated operational or financial benefit, any of which could have a material adverse effect on the Company’s business, financial condition and results of operations.

NAMining operations are currently geographically concentrated and therefore subject to regional economic risk, regulatory conditions, natural disasters, severe weather events or other circumstances affecting Florida.

As of December 31, 2021, over 80% of the quarries NAMining operates are located in Florida. A prolonged economic downturn or adverse change in regulatory conditions in the Florida mining or construction industry could result in a significant reduction in demand for NAMining’s services. The occurrence of one or more natural disasters, severe weather events, terrorist attacks, or disruptive political events in Florida could adversely affect the NAMining business.

Risks related to the Minerals Management segment

The Company has no control over the timing of the development and operation of its natural gas, oil and coal reserves extracted by third parties.

The Company owns mineral and royalty interests in the continental United States. The Company does not develop oil and gas reserves and is not a natural gas and oil producer. The Company derives income from royalty-based leases under which lessees make payments to the Company based on their sale of natural gas, oil and coal. As discussed in “Item 1. Business — Business Developments" on page 2, the Company acquired additional mineral and royalty interests during 2021 and 2020 and plans to continue to pursue acquisitions of additional mineral and royalty interests. Future royalty-based income is dependent on the number of oil and gas wells being developed and operated on the Company’s mineral acreage. The decision to pursue development and operation of oil and gas wells is made by third-party operators, not by the Company, and depends on a number of factors outside of the Company's control, including fluctuations in commodity prices (primarily natural gas), regulatory risk, the Company's lessees' willingness and ability to incur well-development and other operating costs, the rate of production of the reserves and changes in the availability and continuing development of infrastructure. Lower commodity prices may reduce the amount of oil and natural gas that third-party operators can produce economically. In the event that new federal or state restrictions related to the hydraulic fracturing process are adopted in areas where the Company owns mineral and royalty interests, the Company’s lessees may incur additional costs or permitting requirements to comply with such requirements that may be significant and could result in added restrictions, delays or curtailments in the pursuit of exploration, development, or production activities. In addition, if a lessee were to experience financial difficulty, the lessee might not be able to pay its royalty payments or continue operations. A failure on the part of the lessee to make royalty payments gives the Company the right to terminate the lease, repossess the property and enforce payment obligations under the lease. If the Company repossessed any of its properties, it would seek a replacement lessee. However, the Company may not be able to find a replacement lessee and, if it did, the Company might not be able to enter into a new lease on favorable terms within a reasonable period of time. In addition, if the Company is able to enter into a new lease with a new lessee, the replacement lessee may not achieve the same levels of production or sales prices as the lessee it replaced. Any of these risks could materially reduce the Company’s expected royalty income and the Company’s profitability.

Minerals are a depleting asset. Unless the Company replaces existing mineral and royalty interests with new mineral and royalty interests and third-party lessees develop those mineral and royalty interests, the Company’s reserves and royalty income will decline.

Producing oil and natural gas reservoirs are generally characterized by declining production rates that vary depending upon reservoir characteristics and other factors. Unless the Company’s third-party lessees conduct successful ongoing well development activities or the Company continually acquires mineral and royalty interests, production and income related to the Company’s mineral and royalty interests will decline as those reserves are depleted. The future cash flow and results of operations of the Minerals Management segment are highly dependent on third-party operators’ success in developing the

Company’s current and future mineral and royalty interests. These operators may not have access to the capital needed to develop the Company's mineral interests. The Company may not be able to acquire or find sufficient additional mineral and royalty interests to replace third-party operators' current and future production. Further, the decline curve the Company uses to project future royalty income is subject to numerous assumptions and limitations. Natural gas wells have high initial production rates and follow a natural decline before settling into relatively stable, long-term production. Decline rates can vary due to factors like well depth, well length, formation pressure, and facility design. Any of these risks could materially reduce the Company’s expected royalty income and the Company’s profitability.

Substantially all of the Minerals Management segment’s revenues are derived from royalty payments that are based on the price at which oil and natural gas produced from the acreage underlying the Company’s interests are sold. Prices of oil and natural gas are volatile due to factors beyond the Company’s control. A substantial or extended decline in commodity prices may adversely affect the Minerals Management segment’s financial condition or results of operations.

The Minerals Management segment’s revenues and operating results depend significantly upon the prevailing prices for oil and natural gas. Historically, oil and natural gas prices have been volatile and are subject to fluctuations in response to changes in supply and demand, market uncertainty and a variety of additional factors that are beyond the Company's control; market expectations about future prices of oil and natural gas; the level of global oil and natural gas exploration and production; the cost of exploring for, developing, producing and delivering oil and natural gas; the price and quantity of foreign imports and U.S. exports of oil and natural gas; the level of U.S. domestic production; political and economic conditions in oil producing regions; the ability of members of the Organization of Petroleum Exporting Countries to agree to and maintain oil price and production controls; trading in oil and natural gas derivative contracts; the level of consumer product demand; weather conditions and natural disasters; technological advances affecting energy consumption, energy storage and energy supply; domestic and foreign governmental regulations and taxes; the continued threat of terrorism and the impact of military and other action, including U.S. military operations in the Middle East and economic sanctions such as those imposed by the U.S. on oil and gas exports from Iran; the proximity, cost, availability and capacity of oil and natural gas pipelines and other transportation facilities; the price and availability of alternative fuels; and overall domestic and global economic conditions. A substantial or extended decline in commodity prices may adversely affect the Minerals Management segment’s financial condition or results of operations.

Risks related to corporate structure

The Company’s stock repurchase program could affect the price of NACCO’s common stock and increase volatility and may not enhance long-term shareholder value.

The Company’s Board of Directors has authorized a stock repurchase program. The timing and amount of any repurchases under the stock repurchase program are determined at the discretion of the Company's management based on a number of factors, including the availability of capital, other capital allocation alternatives, market conditions for the Company's Class A common stock and other legal and contractual restrictions. The stock repurchase program does not require the Company to acquire any specific number of shares and may be modified, suspended, extended or terminated without prior notice and may be executed through open market purchases, privately negotiated transactions or otherwise.

Repurchases under the stock repurchase program could affect the price of the Company's Class A common stock. The existence of a stock repurchase program could cause the price of the Company's Class A common stock to be higher than it would be in the absence of such a program and could potentially reduce the market liquidity for the Company’s Class A common stock. There can be no assurance that any stock repurchases will enhance shareholder value because the market price of the Company’s Class A common stock may decline below the levels at which the Company repurchased the shares. Although the stock repurchase program is intended to enhance long-term shareholder value, there is no assurance that it will do so and short-term price fluctuations in the Class A common stock could reduce the program’s effectiveness. Furthermore, the stock repurchase program does not obligate the Company to repurchase any dollar amount or number of shares of the Company's Class A common stock, and it may be suspended or discontinued at any time and any suspension or discontinuation could cause the market price of the Company's Class A common stock to decline.

The price of NACCO's securities may be volatile.

The price of the Company's common stock may fluctuate due to a variety of market and industry factors that may materially reduce the market price of NACCO's common stock regardless of operating performance, including, among others: (i) actual or anticipated fluctuations in the Company's quarterly and annual results and those of other public companies in the industry; (ii) industry cycles and trends; (iii) changes in government regulation; (iv) potential or actual military conflicts or acts of terrorism;

(v) announcements concerning NACCO, its customers or its competitors; (vi) lack of trading liquidity as a result of low trading volumes could make it difficult for investors to sell shares; and (vii) the general state of the securities market. In addition, the stock market in general has experienced significant volatility that often has been unrelated to the operating performance of companies whose shares are traded. These market fluctuations could adversely affect the trading price of the Company's common stock, regardless of NACCO's actual operating performance. As a result of all of these factors, investors in the Company's common stock may not be able to resell their stock at or above the price they paid or at all. Further, NACCO could be the subject of securities class action litigation due to any such stock price volatility, which could divert management's attention and have a material adverse effect on the Company's operating results.

The amount and frequency of dividend payments made on NACCO's common stock could change.

The Board of Directors has the power to determine the amount and frequency of the payment of dividends. Decisions regarding whether or not to pay dividends and the amount of any dividends are based on earnings, capital and future expense requirements, financial conditions and other factors the Board of Directors may consider. Accordingly, holders of NACCO's common stock should not rely on past payments of dividends in a particular amount as an indication of the amount of dividends that will be paid in the future.

NACCO's certificate of incorporation and by-laws include provisions that may discourage a takeover attempt.

Provisions contained in the Company's certificate of incorporation and by-laws and Delaware law could make it more difficult for a third-party to acquire the Company, even if doing so might be beneficial to NACCO's stockholders. Provisions of the Company's by-laws and certificate of incorporation impose various procedural and other requirements that could make it more difficult for stockholders to affect certain corporate actions. These provisions could limit the price that certain investors might be willing to pay in the future for shares of NACCO's common stock and may have the effect of delaying or preventing a change in control.

NACCO is a smaller reporting company and cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make the Company's common stock less attractive to investors.

The Company is currently a "smaller reporting company" as defined in the Securities Exchange Act of 1934, and thus allowed to provide simplified executive compensation disclosures and other decreased disclosure in SEC filings. The reduced disclosures may make it more difficult to compare the Company's performance with other public companies.

NACCO cannot predict whether investors will find the Company's common stock less attractive because of these exemptions. If some investors find NACCO's common stock less attractive as a result, there may be a less active trading market for the Company's common stock and the stock price may be more volatile.

Certain members of the Company's extended founding family own a substantial amount of its Class A and Class B common stock and, if they were to act in concert, could control the outcome of director elections and other stockholder votes on significant corporate actions.

The Company has two classes of common stock: Class A common stock and Class B common stock. Holders of Class A common stock are entitled to cast one vote per share and, as of December 31, 2021, accounted for approximately 26 percent of the voting power of the Company. Holders of Class B common stock are entitled to cast ten votes per share and, as of December 31, 2021, accounted for the remaining voting power of the Company. As of December 31, 2021, certain members of the Company's extended founding family held approximately 34 percent of the Company's outstanding Class A common stock and approximately 98 percent of the Company's outstanding Class B common stock. On the basis of this common stock ownership, certain members of the Company's extended founding family could have exercised approximately 81 percent of the Company's total voting power. Although there is no voting agreement among such extended family members, in writing or otherwise, if they were to act in concert, they could control the outcome of director elections and other stockholder votes on significant corporate actions, such as certain amendments to the Company's certificate of incorporation and sales of the Company or substantially all of its assets. Because certain members of the Company's extended founding family could prevent other stockholders from exercising significant influence over significant corporate actions, the Company may be a less attractive takeover target, which could adversely affect the market price of its common stock.

General Risk Factors

The Company's effective income tax rate could be volatile and materially change as a result of changes in tax laws, mix of earnings and other factors.

The Company is subject to income taxes in the United States and the effective income tax rate is impacted by certain U.S. federal income tax benefits currently available to coal mining and oil and gas exploration and development companies. Future results of operations could be affected by changes in the Company’s effective income tax rate as a result of an increase in the statutory tax rate or the reduction or elimination of percentage depletion as well as changes in the mix of earnings between entities that benefit from percentage depletion and those that do not.

Current and future capital and credit market conditions could adversely affect the Company’s ability to obtain bank financing on reasonable terms. Certain financial institutions have acted to limit available financing for companies in the fossil fuel industry, including coal mining, which could result in increases in costs of borrowing or in the Company’s ability to maintain financing at current levels.

The Company may be unable to obtain financing on reasonable terms. Historically, the Company has addressed its liquidity needs (including funds required to pay dividends and fund working capital and planned capital expenditures) with operating cash flow and borrowings under credit facilities. The Company’s wholly-owned subsidiary, NACoal, has a revolving line of credit of up to $150.0 million that expires in November 2025 (the "NACoal Facility"). The Company’s ability to access the capital markets and the costs and terms of available financing depends on many factors, including perceived credit risks of companies with coal and/or oil and gas exposure as a result of current market sentiment for fossil fuels. Certain financial institutions have taken actions to limit available financing to entities that produce or use fossil fuels. The volatility in the energy industry combined with recent bankruptcies and additional perceived credit risks of companies with coal and/or oil and gas exposure has resulted in traditional bank lenders seeking to reduce or eliminate their lending exposure to these companies. An inability to obtain bank financing, or obtaining a refinancing with terms that are not as favorable as the existing terms of such indebtedness, could have a material adverse effect on the Company's operating results and financial condition.

Failure to obtain financial assurance to secure reclamation and other long-term obligations, including surety bonds and letters of credit on acceptable terms, could affect NACCO's ability to mine.

Federal and state laws require the Company to provide financial assurance or financial security to secure performance or payment of certain long-term obligations, such as mine closure or reclamation costs, federal and state workers’ compensation and black lung benefits costs, leases and other obligations. Future federal and state laws and regulations may require higher amounts of financial security, including as a result of changes to certain factors used to calculate the bonding or security amounts. Bond issuers may demand higher fees or additional collateral, including cash or letters of credit or other terms less favorable upon renewals. As the Company is required by state and federal law to have bonds or other acceptable security in place before mining can commence or continue, the failure to maintain surety bonds, letters of credit or other guarantees or security arrangements would materially and adversely affect NACCO's ability to mine. That failure could result from a variety of factors, including lack of availability, higher expense or unfavorable market terms, the exercise by third-party surety bond issuers of their right to refuse to renew the surety and restrictions on availability of collateral for current and future third-party surety bond issuers under the terms of the Company's financing arrangements. In addition, as a result of increasing credit pressures on the coal industry, it is possible that surety bond providers could demand cash collateral as a condition to providing or maintaining surety bonds. Any such demands, could have a material adverse impact on the Company’s liquidity and financial position. If the Company is unable to meet collateral requirements and cannot otherwise obtain or retain required surety bonds, it may be unable to satisfy legal requirements necessary to conduct mining operations. Difficulty in acquiring surety bonds, or additional collateral requirements, would increase the Company’s costs and likely require greater use of alternative sources of funding for this purpose, which would reduce the Company’s liquidity.

Insurance coverage is increasingly expensive, contains more stringent terms and may be difficult to obtain in the future. A number of global insurance companies have taken steps to limit coverage for companies in the fossil fuel industry, including coal mining, which could result in significant increases in costs of insurance or in the Company’s ability to maintain insurance coverage at current levels.

The Company holds a number of insurance policies, including director and officers’ liability and property and casualty insurance coverages. Because the Company is involved in coal mining, costs of insurance may increase substantially or insurance carriers may limit or decide not to insure the Company in the future. In addition, if the Company makes significant insurance claims under the Company’s insurance policies, such claims may have a material adverse effect on its ability to obtain future insurance coverage at commercially reasonable rates. Limited, or an inability to obtain, insurance coverage, significant increases in the premiums or deductibles of insurance, or losses in excess of its liability insurance coverage limits, could have a material adverse effect on the Company's operating results and financial condition.

Increasing emphasis and changing expectations with respect to environmental, social and governance matters may impose additional costs on the Company or expose the Company to new or additional risks.

Expectations relating to environmental, social and governance ("ESG") matters have been rapidly evolving and increasing. Government organizations are enhancing or advancing legal and regulatory requirements specific to ESG matters. The heightened focus on ESG issues requires the continuous monitoring of various and evolving laws, regulations, standards and expectations and the associated reporting requirements. Investor advocacy groups, certain institutional investors, investment funds and other influential investors are also increasingly focused on ESG practices. The Company could face pressures from investors, who are increasingly focused on climate change, to prioritize sustainable energy practices, reduce the Company's carbon footprint and promote sustainability. Investors may request the Company implement ESG procedures or standards as a condition to maintain their investment or to make further investments. Lenders and insurers may also limit lending to and insuring of companies that do not meet certain ESG measures endorsed by them. Additionally, the Company may face reputational challenges in the event its ESG practices are inconsistent with the third party views of acceptable ESG practices. Companies which do not adapt to or comply with regulatory, investor or stakeholder expectations and standards, which are evolving, or which are perceived to have not responded appropriately, may suffer from reputational damage and the business, financial condition, and/or stock price of such a company could be materially and adversely affected.

The Company may be subject to litigation seeking to hold energy companies accountable for the effects of climate change.

Increasing attention to climate change risk has also resulted in a recent trend of governmental investigations and private litigation by local and state governmental agencies as well as private plaintiffs in an effort to hold energy companies accountable for the effects of climate change. Other public nuisance lawsuits have been brought in the past against power, coal, oil and gas companies alleging that their operations are contributing to climate change. The plaintiffs in these suits sought various remedies, including punitive and compensatory damages and injunctive relief. While the U.S. Supreme Court held that any federal common law had been displaced by the CAA and thus dismissed the public nuisance claims against the defendants in those cases, tort-type liabilities remain a possibility and a source of concern. We could incur substantial legal costs associated with defending such lawsuits in the future. Government entities in certain states have brought similar claims seeking to hold a wide variety of companies that produce fossil fuels liable for the alleged impacts of the GHG emissions attributable to those fuels or for other grounds related to climate change, such as improper disclosure of climate change risks. Those lawsuits allege damages as a result of climate change and the plaintiffs are seeking unspecified damages and abatement under various tort theories. We have not been made a party to these suits, but it is possible that we could be included in similar future lawsuits initiated by state and local governments as well as private claimants.

The Company's business could suffer if NACCO's information technology systems are disrupted, cease to operate effectively or if the Company experiences a security breach, a cyber incident or cyber attack.

Like many other companies, the Company is the target of malicious cyber attack attempts in the normal course of business. Cybersecurity incidents involving businesses and other institutions are on the rise. Cyber threats are rapidly evolving and those threats and the means for obtaining access to information in digital and other storage media are becoming increasingly sophisticated. Cyber threats and cyber attackers can be sponsored by nation states or sophisticated criminal organizations or be the work of independent hackers.

As cyber threats evolve and become more difficult to detect and successfully defend against, one or more cyber attacks might defeat the Company's or a third-party service provider's security measures in the future. Employee error or other irregularities may also result in a failure of security measures and a breach of information systems. Moreover, hardware, software or applications the Company may use have inherent defects of design, manufacture or operations or could be inadvertently or intentionally implemented or used in a manner that could compromise information security.

A security breach and loss of information may not be discovered for a significant period of time after it occurs. Any compromise of data security could result in a violation of applicable privacy and other laws or standards, the loss of valuable business data, or a disruption of the Company's business. A security breach involving the misappropriation, loss or other unauthorized disclosure of sensitive or confidential information could give rise to unwanted media attention, materially damage customer relationships and the Company's reputation, and result in fines, fees, or liabilities, which may not be covered by insurance policies.

The Company relies on information technology systems to operate its business and to record and process transactions; respond to customer inquiries; purchase supplies; provide services; deliver inventory on a timely basis; and maintain cost-efficient

operations. Despite the Company's efforts, the Company's information technology systems may be vulnerable, from time to time, to damage or interruption from user error, computer viruses, power outages, third-party intrusions and other technical malfunctions.

Through the Company's business operations, the Company collects and stores confidential information from its customers and vendors and personal information and other confidential information from its employees. Although the Company has taken steps designed to safeguard such information, there can be no assurance that such information will be protected against unauthorized access, use or disclosure. Unauthorized parties may penetrate the Company's or its vendors' network security and, if successful, misappropriate such information. Additionally, methods to obtain unauthorized access to confidential information change frequently and may be difficult to detect, which can impact the Company's ability to respond appropriately.

The Company could be subject to liability for failure to comply with privacy and information security laws, for failing to protect personal information or for failing to respond appropriately. Loss, unauthorized access to, or misuse of confidential or personal information could disrupt the Company's operations, damage the Company's reputation, and expose the Company to claims from customers, financial institutions, regulators, employees and other persons, any of which could have an adverse effect on the Company's business, financial condition and results of operations.

Security breaches, cyber incidents or cyber attacks could include, among other things, computer viruses, malicious or destructive code, ransomware, social engineering attacks (including phishing and impersonation), hacking, denial of service attacks and other attacks. Cybersecurity threats to, and incidents involving, vendors and other third-parties who support the Company's activities could impact us. For example, although the Company has not experienced any material impacts from the SolarWinds Orion cybersecurity breach that was widely publicized in December 2020, similar future events could have a material impact on the Company. The Company is continuously installing new and upgrading existing information technology systems. The Company uses employee awareness training around phishing, malware, and other cyber risks. The Company believes these incidents are likely to continue and is unable to predict the direct or indirect impact of future attacks or breaches to business operations.

The Company's results of operations, financial condition, cash flows and stock price could be adversely affected by pandemics, epidemics or other public health emergencies, such as the global outbreak of COVID-19.

The Company's results of operations, financial condition, cash flows and stock price could be adversely affected by pandemics, epidemics or other public health emergencies, such as the global outbreak of COVID-19. The COVID-19 pandemic resulted in governments around the world implementing stringent measures to help control the spread of the virus. Although the Company has continued to operate facilities consistent with federal guidelines and state and local orders, the ongoing COVID-19 pandemic and the preventive or protective actions taken by governmental authorities may have a material adverse effect on the Company's operations, work force, supply chain or customers, including business shutdowns or disruptions. The extent to which COVID-19 may adversely impact the Company's businesses depends on future developments, which are highly uncertain and unpredictable, including the extent of new outbreaks, the extent to which additional actions to mitigate the COVID-19 pandemic may be needed, the nature of government public health guidelines and the public's adherence to those guidelines. Any resulting financial impact cannot reasonably be estimated at this time, but could have a material adverse effect on the Company's financial condition, cash flows and results of operations.

Even after the COVID-19 pandemic has subsided, the Company may experience material adverse effects due to a decline in economic activity.

The Company's operations could be disrupted by natural or human causes beyond its control.

The Company's operations are subject to disruption from natural or human causes beyond its control, including physical risks from hurricanes, severe storms, floods and other forms of severe weather, accidents, fires, earthquakes, terrorist acts and epidemic or pandemic diseases such as the coronavirus, any of which could result in suspension of operations or harm to people or the environment. While all of the Company's operations are located in the United States, the Company participates in a global supply chain, and if a disease spreads sufficiently to cause a pandemic (or to cause the fear of a pandemic to rise) or governments regulate or restrict the flow of labor or products or impede the travel of Company personnel, the Company's ability to conduct normal business operations could be impacted which could adversely affect the Company's results of operations and liquidity.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Coal Mining Segment - Operations

NACCO-owned Resources and Reserves

1.0 INTRODUCTION

Information concerning the Company's mining properties in this Form 10-K have been prepared in accordance with the requirements of subpart 1300 of Regulation S-K, which first became applicable to the Company for the year ended December 31, 2021. These requirements differ significantly from the previously applicable disclosure requirements of SEC Industry Guide 7. Among other differences, subpart 1300 of Regulation S-K requires the Company to disclose its mineral resources, in addition to its mineral reserves, both in the aggregate and for each of the Company's individually material mining properties.

As used in this Report on Form 10-K, the terms "mineral resource," "measured mineral resource," "indicated mineral resource," "inferred mineral resource," "mineral reserve," "proven mineral reserve" and "probable mineral reserve" are defined and used in accordance with subpart 1300 of Regulation S-K. Under subpart 1300 of Regulation S-K, mineral resources may not be classified as "mineral reserves" unless the determination has been made by a qualified person that the mineral resources can be the basis of an economically viable project. Readers are specifically cautioned not to assume that any part or all of the mineral deposits (including any mineral resources) in these categories will ever be converted into mineral reserves, as defined by the SEC.

Readers are cautioned that, except for that portion of mineral resources classified as mineral reserves, mineral resources do not have demonstrated economic value. Inferred mineral resources are estimates based on limited geological evidence and sampling and have a too high of a degree of uncertainty as to their existence to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Estimates of inferred mineral resources may not be converted to a mineral reserve. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. A significant amount of exploration must be completed in order to determine whether an inferred mineral resource may be upgraded to a higher category. Therefore, readers are cautioned not to assume that all or any part of an inferred mineral resource exists, that it can be the basis of an economically viable project, or that it will ever be upgraded to a higher category. Likewise, readers are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted to mineral reserves. See "Item 1A - "Risk Factors" on page 20.

The information that follows is derived, for the most part, from, and in some instances is an extract from, the technical report summaries ("TRS's") prepared in compliance with the Item 601(b)(96) and subpart 1300 of Regulation S-K. Portions of the following information are based on assumptions, qualifications and procedures that are not fully described herein. Reference should be made to the full text of the TRS's, incorporated herein by reference and made a part of this Report on Form 10-K.

TCoteau, Coyote Creek, Falkirk and MLMC, collectively referred to as "Mines subject to SEC Section 1300 reporting", each wholly-owned subsidiaries of NACCO, operate surface coal mines under long-term contracts with power generation companies pursuant to a service-based business model. At each of these mines, the Company owns or controls the mineral resources and reserves.

The Company operates additional surface coal mines where the customer owns or controls the reserves. The Company conducts activities to extract these customer-owned reserves pursuant to long-term contracts.

Locations of the properties subject to SEC Section 1300 reporting are shown in Figure 1.1 Surface Coal Mines Operational During 2021 Subject to SEC Section 1300 reporting.

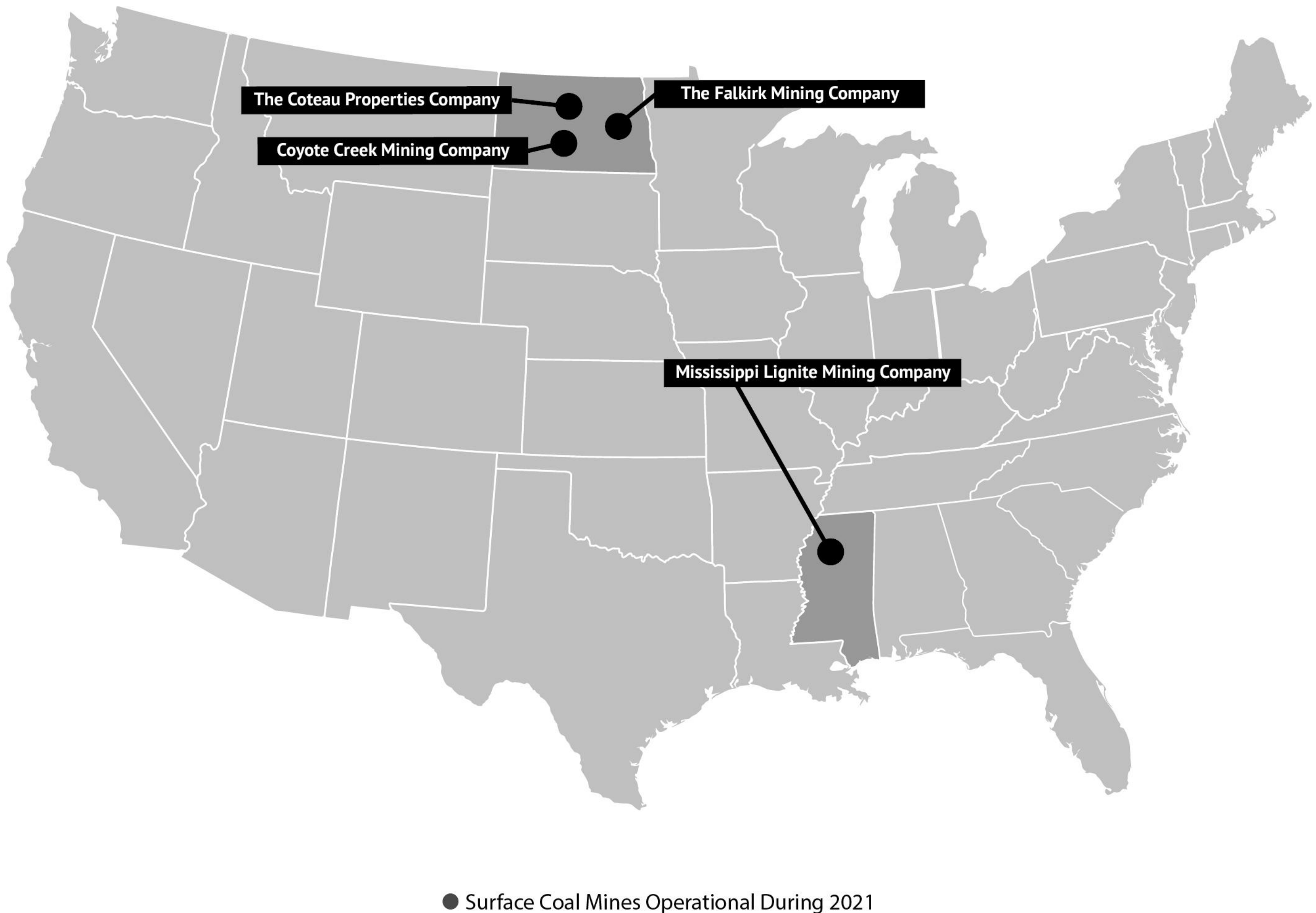

Figure 1.1 Surface Coal Mines Operational During 2021 Subject to SEC Section 1300 Reporting

At all Mines subject to SEC Section 1300 Reporting other than MLMC, the Company is paid a management fee per ton of coal or heating unit (MMBtu) delivered. Each contract specifies the indices and mechanics by which fees change over time, generally in line with broad measures of U.S. inflation. The customers are responsible for funding all mine operating cost, including final mine reclamation, and directly or indirectly providing all of the capital required to build and operate the mine. This contract structure eliminates the Company's exposure to spot coal market price fluctuations.

The MLMC contract is the only operating coal contract in which the Company is responsible for all operating costs, capital requirements and final mine reclamation; therefore, MLMC is consolidated within NACCO's financial statements. MLMC sells coal to its customer at a contractually agreed-upon price which adjusts monthly, primarily based on changes in the level of established indices which reflect general U.S. inflation rates. Profitability at MLMC is affected by customer demand for coal and changes in the indices that determine sales price and actual costs incurred.

A summary of coal production at the Mines subject to SEC Section 1300 Reporting for the past three years has been tabulated and is presented on Table 1.1 Production Summary.

	Tons (in millions)		
	2019	2020	**2021**
The Coteau Properties Company	13.5	12.6	**12.5**
The Falkirk Mining Company	7.4	7.2	**7.9**
Coyote Creek Mining Company	1.7	2	**2**
Mississippi Lignite Mining Company	2.6	2.5	**3**
Totals	25.2	24.3	**25.4**

Table 1.1 Production Summary

2.0 MATERIAL MINING PROPERTIES

2.1 Freedom Mine — The Coteau Properties Company

The Freedom Mine generally produces between 12.5 million and 13.5 million tons of lignite coal annually. The mine started delivering coal in 1983. All production from the mine is delivered to Dakota Coal Company, a wholly owned subsidiary of Basin Electric. Dakota Coal Company then sells the coal to the Synfuels Plant, Antelope Valley Station and Leland Olds Station, all of which are operated by affiliates of Basin Electric. The Synfuels Plant is a coal gasification plant that manufactures synthetic natural gas and produces fertilizers, solvents, phenol, carbon dioxide, and other chemical products for sale.

During 2020, Basin Electric informed Coteau that it is considering changes that may result in modifications to its Synfuels Plant that could potentially reduce or eliminate coal requirements at the Synfuels Plant. Basin Electric indicated that if it decides to proceed with any changes that could reduce or eliminate the use of coal, the feedstock change is not expected to occur before 2026.

During August 2021, Bakken and Basin Electric signed a non-binding term sheet to purchase the assets of the Synfuels Plant. Bakken stated the closing date is expected to be April 1, 2023. As part of the term sheet between Basin Electric and Bakken, Basin Electric indicated that the Synfuels Plant will continue existing operations through 2025. The closing is subject to the satisfaction of specified conditions. Basin Electric is also considering other options for the Synfuels Plant if the transaction with Bakken does not close.

The Freedom Mine, operated by Coteau, is located approximately 90 miles northwest of Bismarck, North Dakota. The main entrance to the Freedom Mine is accessed by means of a paved road and is located on County Road 15. Coteau holds 380 leases granting the right to mine approximately 34,016 acres of coal interests and the right to utilize approximately 23,455 acres of surface interests. In addition, Coteau owns in fee 33,805 acres of surface interests and 4,107 acres of coal interests. Substantially all of the leases held by Coteau were acquired in the early 1970s and have been replaced with new leases or have lease terms for a period sufficient to meet Coteau's contractual production requirements.

The reserves are located in Mercer County, North Dakota, starting approximately two miles north of Beulah, North Dakota. The center of the basin is located near the city of Williston, North Dakota, approximately 100 miles northwest of the Freedom Mine. The economically mineable coal in the reserve occurs in the Sentinel Butte Formation, and is overlain by the Coleharbor Formation. The Coleharbor Formation unconformably overlies the Sentinel Butte Formation. It includes all of the unconsolidated sediments resulting from deposition during glacial and interglacial periods. Lithologic types include gravel, sand, silt, clay and till. The modified glacial channels are in-filled with gravels, sands, silts and clays overlain by till. The coarser gravel and sand beds are generally limited to near the bottom of the channel fill. The general stratigraphic sequence in the upland portions of the reserve area consists of till, silty sands and clayey silts.

Coteau currently has all permits in place for the Freedom Mine to operate through 2031. Permit expansions required to extend the life of the mine through 2045 will be acquired as needed. No mineral processing occurs at the Freedom Mine.

2.2 Falkirk Mine — The Falkirk Mining Company

The Falkirk Mine generally produces between 7 million and 8 million tons of lignite coal annually. The mine started delivering coal in 1978 primarily for the Coal Creek Station, an electric power generating station owned by GRE. In 2014, Falkirk began delivering coal to Spiritwood Station, another electric power generating station owned by GRE.

In May 2020, GRE announced its intent to sell or retire Coal Creek Station and modify Spiritwood Station to be fueled by natural gas. During June 2021, GRE entered into an agreement to sell Coal Creek Station and the adjacent high-voltage direct current transmission line to Bismarck, North Dakota-based Rainbow Energy and its affiliates. The closing of this sale is subject to the satisfaction of certain conditions and presently, the transaction is expected to close in the second quarter of 2022.

The Falkirk Mine, operated by Falkirk, is located approximately 50 miles north of Bismarck, North Dakota on a paved access road off U.S. Highway 83. Falkirk holds 335 leases granting the right to mine approximately 43,486 acres of coal interests and the right to utilize approximately 24,324 acres of surface interests. In addition, Falkirk owns in fee 40,666 acres of surface interests and 1,788 acres of coal interests. Substantially all of the leases held by Falkirk were acquired in the early 1970s with initial terms that have been further extended by the continuation of mining operations.

The reserves are located in McLean County, North Dakota, from approximately nine miles northwest of the town of Washburn, North Dakota to four miles north of the town of Underwood, North Dakota. Structurally, the area is located on an intercratonic basin containing a thick sequence of sedimentary rocks. The economically mineable coals in the reserve occur in the Sentinel Butte Formation and the Bullion Creek Formation and are unconformably overlain by the Coleharbor Formation. The Sentinel Butte Formation conformably overlies the Bullion Creek Formation. The general stratigraphic sequence in the upland portions of the reserve area (Sentinel Butte Formation) consists of till, silty sands and clayey silts, main hagel lignite bed, silty clay, lower lignite of the hagel lignite interval and silty clays. Beneath the Tavis Creek, there is a repeating sequence of silty to sand clays with generally thin lignite beds.

There are no outstanding permits related to the life of mine ("LOM") plan awaiting regulatory approval. The Falkirk Mining Company currently has all permits in place to operate and adhere to the current mine plan. No mineral processing occurs at the Falkirk Mine.

2.3 Coyote Creek Mine - Coyote Creek Mining Company, LLC

The Coyote Creek Mine generally produces between 1.5 million and 2.0 million tons of lignite annually. The mine began delivering coal in 2016 to the Coyote Station owned by Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Company and Northwestern Corporation. In September 2021, Otter Tail Power Company filed its 2022 Integrated Resource Plan in Minnesota and North Dakota which included its intent to start the process of withdrawal from its 35 percent ownership interest in Coyote Station power plant with an anticipated exit from the plant by December 31, 2028.

The Coyote Creek Mine is located approximately 70 miles northwest of Bismarck, North Dakota. The main entrance to the Coyote Creek Mine is accessed by means of a four-mile paved road extending west off of State Highway 49. Coyote Creek holds a sublease to 86 leases granting the right to mine approximately 8,129 acres of coal interests and the right to utilize approximately 15,168 acres of surface interests. In addition, Coyote Creek Mine owns in fee 160 acres of surface interests and has four easements to conduct coal mining operations on approximately 352 acres.

The reserves are located in Mercer County, North Dakota, starting approximately six miles southwest of Beulah, North Dakota. The center of the basin is located near the city of Williston, North Dakota, approximately 110 miles northwest of the Coyote Creek Mine. The economically mineable coal in the reserve occurs in the Sentinel Butte Formation, and is overlain by the Coleharbor Formation. The Coleharbor Formation unconformably overlies the Sentinel Butte Formation. It includes all of the unconsolidated sediments resulting from deposition during glacial and interglacial periods. Lithologic types include gravel, sand silt, clay and till. The modified glacial channels are in-filled with gravels, sands, silts and clays overlain by till. The coarser gravel and sand beds are generally limited to near the bottom of the channel fill. The general stratigraphic sequence in the upland portions of the reserve area consists of till, silty sands and clayey silts.

There are no outstanding permits related to the LOM plan awaiting regulatory approval. Coyote currently has all permits in place for the Coyote Creek Mine to operate and adhere to a mine plan projected through 2040. No mineral processing occurs at the Coyote Creek Mine.

2.4 Red Hills Mine — Mississippi Lignite Mining Company

The Red Hills Mine generally produces between 2 million and 3 million tons of lignite coal annually. The Red Hills Mine started delivering coal in 2000. All production from the mine is delivered to its customer's Red Hills Power Plant.

The Red Hills Mine, operated by MLMC, is located approximately 120 miles northeast of Jackson, Mississippi. The entrance to the mine is by means of a paved road located approximately one mile west of Highway 9. MLMC owns in fee approximately 7,343 acres of surface interest and 4,425 acres of coal interests. MLMC holds leases granting the right to mine approximately 5,794 acres of coal interests and the right to utilize approximately 5,597 acres of surface interests. MLMC holds subleases under which it has the right to mine approximately 1,593 acres of coal interest. The majority of the leases held by MLMC were originally acquired during the mid-1970s to the early 1980s with terms extending 50 years, many of which can be further extended by the continuation of mining operations.The lignite deposits of the Gulf Coast are found primarily in a narrow band of strata that outcrops/subcrops along the margin of the Mississippi Embayment. The potentially exploitable tertiary lignites in Mississippi are found in the Wilcox Group. The outcropping Wilcox is composed predominately of non-marine sediments deposited on a broad flat plain.

MLMC currently has all permits in place for the Red Hills Mine to operate and adhere to a mine plan projected through April 2032. No mineral processing occurs at the Red Hills Mine.

3.0 MINERAL RESOURCES AND RESERVES

Mineral resources and reserves have been summarized from the TRS for each mine subject to SEC Section 1300 reporting and have been included as Table 3.1 and Table 3.2. Qualities are being reported on an as-received moisture basis except for sodium which is from the mineral analysis of ash.

SUMMARY MINERAL RESOURCES AS OF DECEMBER 31, 2021 BASED ON CUT-OFF GRADES OF Coteau - $1.70/mmBTU, Falkirk - $2.60/mmBTU, Coyote - $2.27/mmBTU, and MLMC - $30.00/ton

	Measured mineral resources					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	322,310,200	6,779	37.64	7.27	0.89	5.62
The Falkirk Mining Company	78,420,784	6,534	39.83	6.65	0.57	NA
Coyote Creek Mining Company	31,202,000	6,943	36.63	7.25	0.94	7.78
Mississippi Lignite Mining Company	11,475,500	5,110	44.0	14.1	0.60	NA
Total	443,408,484	6,704	38.12	7.34	0.83	5.81

	Indicated mineral resources					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	8,188,400	6,776	37.92	7.22	0.90	6.36
The Falkirk Mining Company	199,721	6,317	37.10	10.69	0.73	NA
Coyote Creek Mining Company	3,905,900	6,942	36.55	7.39	0.97	7.70
Mississippi Lignite Mining Company	16,169,100	5,270	44.3	14.3	0.7	NA
Total	28,463,121	5,940	41.35	11.29	0.79	6.80

	Measured + indicated mineral resources					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	330,498,600	6,778	37.64	7.27	0.89	5.63
The Falkirk Mining Company	78,620,505	6,534	39.82	6.66	0.57	NA
Coyote Creek Mining Company	35,107,900	6,943	36.62	7.26	0.94	7.77
Mississippi Lignite Mining Company	27,644,600	5,200	44.2	14.2	0.7	NA
Total	471,871,605	6,657	38.31	7.57	0.83	5.84

	Inferred mineral resources					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	15,000	6,463	37.84	9.78	1.02	1.59
The Falkirk Mining Company	0	NA	NA	NA	NA	NA
Coyote Creek Mining Company	0	NA	NA	NA	NA	NA
Mississippi Lignite Mining Company	0	NA	NA	NA	NA	NA
Total	15,000	6,463	37.84	9.78	1.02	1.59

Table 3.1 Mineral Resources Summary

SUMMARY MINERAL RESERVES AS OF DECEMBER 31, 2021 BASED ON CUT-OFF GRADES OF Coteau - $1.55/mmBTU, Falkirk - $2.60/mmBTU, Coyote - $2.27/mmBTU, and MLMC - $28.04/ton						
	Proven mineral reserves					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	253,946,500	6,779	37.70	7.19	0.89	5.12
The Falkirk Mining Company	78,420,784	6,534	39.83	6.65	0.57	NA
Coyote Creek Mining Company	31,202,000	6,943	36.63	7.25	0.94	7.78
Mississippi Lignite Mining Company	17,167,900	5,070	43.5	15.0	0.6	NA
Total	380,737,184	6,665	38.31	7.44	0.82	5.41

	Probable mineral reserves					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	3,552,300	6,756	38.29	6.78	0.84	5.40
The Falkirk Mining Company	199,721	6,317	37.10	10.69	0.73	NA
Coyote Creek Mining Company	3,905,900	6,942	36.55	7.39	0.97	7.70
Mississippi Lignite Mining Company	9,447,600	5,080	43.1	15.0	0.6	NA
Total	17,105,521	5,868	40.54	11.50	0.74	6.60

	Total mineral reserves					
	Tonnage	**Grades/qualities**				
Lignite Coal:		**Calorific Value (Btu/lb)**	**Moisture (%wt)**	**Ash (%wt)**	**Sulfur (%wt)**	**Sodium (%wt)**
The Coteau Properties Company	257,498,800	6,779	37.71	7.19	0.88	5.12
The Falkirk Mining Company	78,620,505	6,534	39.82	6.66	0.57	NA
Coyote Creek Mining Company	35,107,900	6,943	36.62	7.26	0.94	7.77
Mississippi Lignite Mining Company	26,615,500	5,070	43.4	15.0	0.6	NA
Total	397,842,705	6,631	38.41	7.61	0.81	5.44

Table 3.2 Mineral Reserves Summary

Internal Control Disclosure Over Mineral Resources and Reserves

The modeling and analysis of the Company's resources and reserves has been developed by Company mine personnel and reviewed by several levels of internal management, including the QP, and in some instances, third parties. The development of such resources and reserves estimates, including related assumptions, was a collaborative effort between the QP, Company staff and in some instances, third parties. This section summarizes the internal control considerations for the Company's development of estimations, including assumptions, used in resource and reserve analysis and modeling.

When determining resources and reserves, as well as the differences between resources and reserves, management developed specific criteria, each of which must be met to qualify as a resource or reserve, respectively. These criteria, such as demonstration of economic viability, points of reference and grade, are specific and attainable. The QP and Company management agree on the reasonableness of the criteria for the purposes of estimating resources and reserves. Calculations using these criteria are reviewed and validated by the QP.

Estimations and assumptions were developed independently for each significant mineral location. All estimates require a combination of historical data and key assumptions and parameters. When possible, resources and data from generally accepted industry sources, such as governmental resource agencies, were used to develop these estimations.

Geological modeling and mine planning efforts serve as a base assumption for resource estimates at each significant coal mining operation. These outputs have been prepared by both Company personnel and third parties, and the methodology is

compared to industry best practices. Mine planning decisions are determined and agreed upon by Company management. Management adjusts forward-looking models by reference to historic mining results, including by reviewing actual versus predicted levels of production from the mineral deposit, and if necessary, re-evaluating mining methodologies if production outcomes were not realized as predicted. Ongoing mining of the mineral deposit, coupled with product quality validation pursuant to industry best practices and customer expectations, provides further empirical evidence as to the homogeneity, continuity and characteristics of the mineral resource. Ongoing quality validation of production also provides a means to monitor for any potential changes in quality. Also, ongoing monitoring of ground conditions within the mine, surveying for evidence of subsidence and other visible signs of deterioration that may signal the need to re-evaluate rock mechanics and structure of the mine ultimately inform extraction ratios and mine design, which underpin mineral reserve estimates.

Management also assesses risks inherent in mineral resource and reserve estimates, such as the accuracy of geophysical data that is used to support mine planning, identify hazards and inform operations of the presence of mineable deposits. Also, management is aware of risks associated with potential gaps in assessing the completeness of mineral extraction licenses, entitlements or rights, or changes in laws or regulations that could directly impact the ability to assess mineral resources and reserves or impact production levels. Risks inherent in overestimated reserves can impact financial performance when revealed, such as changes in amortizations that are based on life of mine estimates.

Customer-owned Resources and Reserves

South Hallsville No. 1 Mine — The Sabine Mining Company

The South Hallsville No. 1 Mine generally produces between 1.5 million and 2.0 million tons of lignite annually. The mine began delivering coal in 1985. All production from the mine is delivered to Southwestern Electric Power Company's ("SWEPCO") Henry W. Pirkey Plant (the "Pirkey Plant"). SWEPCO is an American Electric Power (“AEP”) company. The mine's reserves and resources are owned and controlled by AEP. The Company conducts activities to extract these customer-owned and controlled reserves.

During 2020, AEP announced its intent to retire the Pirkey Plant in 2023. SWEPCO expects deliveries from Sabine to continue until the first quarter of 2023 at which time Sabine expects to begin final reclamation. Funding for mine reclamation is the responsibility of SWEPCO.

The South Hallsville No. 1 Mine, operated by Sabine, is located approximately 150 miles east of Dallas, Texas on FM 968. The entrance to the mine is by means of a paved road. Sabine has no title, claim, lease or option to acquire any of the reserves at the South Hallsville No. 1 Mine. Southwestern Electric Power Company controls all of the reserves within the South Hallsville No. 1 Mine.

Five Forks Mine — Demery Resources Company, LLC

The Five Forks Mine generally produces between 0.1 million and 0.3 million tons of lignite annually. The mine began delivering coal in 2012 and is located approximately three miles north of Creston, Louisiana on State Highway 153. The mine's reserves and resources are owned and controlled by the customer. The Company conducts activities to extract these customer-owned and controlled reserves.

Access to the Five Forks Mine is by means of a paved road. Demery has no title, claim, lease or option to acquire any of the reserves at the Five Forks Mine. Demery's customer, Five Forks Mining, LLC, controls all of the reserves within the Five Forks Mine.

Facilities and Equipment

The facilities and equipment for each of the coal mines are maintained to allow for safe and efficient operation. The equipment is well maintained, in good physical condition and is either updated or replaced periodically with newer models or upgrades available to keep up with modern technology. As equipment wears out, the mines evaluate what replacement option will be the most cost-efficient, including the evaluation of both new and used equipment, and proceed with that replacement.

The mining method and total cost of the property, plant and equipment, net of applicable accumulated amortization, depreciation and impairment as of December 31, 2021 is set forth in the chart below:

Location	Mining Method		Total Historical Cost of Mine Property, Plant and Equipment (excluding Coal Land, Real Estate and Construction in Progress), Net of Applicable Accumulated Amortization, Depreciation and Impairment
			(in millions)
Unconsolidated Mining Operations			
Freedom Mine — The Coteau Properties Company	Dragline operation with 3 draglines	$	96.2
Falkirk Mine — The Falkirk Mining Company	Dragline operation with 4 draglines	$	93.8
South Hallsville No. 1 Mine — The Sabine Mining Company	Dragline operation with 4 draglines	$	59.3
Five Forks Mine — Demery Resources Company, LLC	Truck-shovel operation [a]	$	—
Coyote Creek Mine — Coyote Creek Mining Company, LLC	Dragline operation with 1 dragline	$	131.7
Consolidated Mining Operations			
Red Hills Mine — Mississippi Lignite Mining Company	Dragline operation with 1 dragline	$	67.9
Other	N/A	$	1.2

[a] Predominantly all of Demery's machinery and equipment is owned by its customer.

NAMining Segment - Operations

NAMining provides contract mining services for independently owned mines and quarries, primarily operating and maintaining draglines at limestone quarries and utilizing other mining equipment at sand and gravel quarries. During 2021, NAMining operated 32 draglines and other equipment at 25 quarries. Of the 32 draglines, 9 are owned by the Company and 23 are owned by customers. At December 31, 2021, NAMining had $35.5 million in property, plant and equipment, net of applicable accumulated amortization, depreciation and impairment.

The mining process at the limestone mines involves excavating limestone from a water-filled quarry utilizing draglines. The excavated limestone is transported and processed by the customer. The following mines were operational during 2021:

Location Name	Aggregate	Location	State	Customer	Started Operations
White Rock — North	Limestone	Miami	FL	WRQ	1995
Krome	Limestone	Miami	FL	Cemex	2003
Alico	Limestone	Ft. Myers	FL	Cemex	2004
FEC	Limestone	Miami	FL	Cemex	2005
SCL	Limestone	Miami	FL	Cemex	2006
Card Sound	Limestone	Florida City	FL	Cemex	2009
Central State Aggregates	Limestone	Zephyrhills	FL	McDonald Group	2016
Mid Coast Aggregates	Limestone	Sumter County	FL	McDonald Group	2016
West Florida Aggregates	Limestone	Hernando County	FL	McDonald Group	2016
St. Catherine	Limestone	Sumter County	FL	Cemex	2016
Center Hill	Limestone	Sumter County	FL	Cemex	2016
Inglis	Limestone	Crystal River	FL	Cemex	2016
Titan Corkscrew	Limestone	Ft. Myers	FL	Titan America	2017
Palm Beach Aggregates	Limestone	Loxahatchee	FL	Palm Beach Aggregates	2017
Perry	Limestone	Lamont	FL	Martin Marietta	2018
SDI Aggregates	Limestone	Florida City	FL	Blue Water Industries	2018
Queensfield	Sand and gravel	King William County	VA	King William Sand and Gravel Company, Inc.	2018
County Line [(a)]	Limestone	Pasco County	FL	K&M Pasco 130 Holdings, LLC	2019
Newberry	Limestone	Alachua County	FL	Argos USA, LLC	2019
Titan Pennsuco	Limestone	Miami	FL	Titan America	2020
Seven Diamonds	Limestone	Pasco County	FL	Seven Diamonds, LLC	2021
Johnson County	Sand and gravel	Johnson County	IN	Martin Marietta	2021
Little River	Sand and gravel	Ashdown	AR	Lehigh Hanson	2021
Rosser	Sand and gravel	Ennis	TX	Lehigh Hanson	2021
Brooksville Cement Plant	Limestone	Brooksville	FL	Cemex	2021

[(a)] The County Line contract was terminated during the third quarter of 2021. NAMining mined 0.1 million and 0.2 million tons of limestone at this location during the 2021 and 2020 periods, respectively.

NAMining's customers control all of the limestone and sand reserves within their respective mines. NAMining has no title, claim, lease or option to acquire any of the reserves at any of the mines where it provides services.

Access to the White Rock mine is by means of a paved road from 122nd Avenue.

Access to the Krome mine is by means of a paved road from Krome Avenue.

Access to the Alico mine is by means of a paved road from Alico Road.

Access to the FEC mine is by means of a paved road from NW 118th Avenue.

Access to the SCL mine is by means of a paved road from NW 137th Avenue.

Access to the Card Sound mine is by means of a paved road from SW 408th Street.

Access to the Central State Aggregates mine is by means of a paved road from Yonkers Boulevard.

Access to the Mid Coast Aggregates mine is by means of a paved road from State Road 50.

Access to the West Florida Aggregates mine is by means of a paved road from Cortez Boulevard.

Access to the St. Catherine mine is by means of a paved road from County Road 673.

Access to the Center Hill mine is by means of a paved road from West Kings Highway.

Access to the Inglis mine is by means of a paved road from Highway 19 South.

Access to the Titan Corkscrew mine is by means of a paved road from Corkscrew Road.

Access to the Palm Beach Aggregates mine is by means of a paved road from State Road 80.

Access to the Perry mine is by means of paved road from Nutall Rise Road.

Access to the SDI Aggregates mine is by means of paved road from SW 167th AVE.

Access to the Queensfield Mine is by means of paved road from Dabney's Mill Road (SR 604).

Access to the County Line mine is by means of paved road from 18744 County Line Road.

Access to the Newberry mine is by means of paved road from NW County Road 235 (CR 235).

Access to the Titan Pennsuco mine is by means of a paved road from NW 121st Way.

Access to the Seven Diamonds mine is by means of a paved road from US-41 S/Broad St.

Access to the Johnson County mine is by means of a paved road from Old State 37/N Waverly Park Road.

Access to the Little River mine is by means of an unpaved road from Little River 60.

Access to the Rosser mine is by means of a paved road from TX-34 S.

Access to Brooksville Cement plant is by means of a paved road from Cement Plant Road.

Minerals Management - Operations

As an owner of royalty and mineral interests, the Company’s access to information concerning activity and operations of its royalty and mineral interests is limited. The Company does not have information that would be available to a company with oil and natural gas operations because detailed information is not generally available to owners of royalty and mineral interests. Consequently, the exact number of wells producing from or drilling on the Company’s mineral interests at a given point in time is not determinable. The following table sets forth the Company’s estimate of the number of gross and net productive wells as of December 31, 2021:

	Gross	Net
Oil	**467**	**0.9**
Natural Gas	**398**	**11.4**
Total	**865**	**12.3**

Gross wells are the total wells in which an interest is owned.

Net wells are calculated based on the Company's net royalty interest, factoring in both ownership percentage of gross wells and royalty rate.

The majority of the Company’s producing mineral and royalty interest acreage now, or in the future, can be pooled with third-party acreage to form pooled units. Pooling proportionately reduces the Company’s royalty interest in wells drilled in a pooled unit, and it proportionately increases the number of wells in which the Company has such reduced royalty interest.

The following table includes the Company's estimate of acreage for oil and gas mineral interests, NPRIs, and ORRIs as of December 31, 2021:

	Gross Acres	Net Royalty Acres
Appalachia	**34,661**	**36,199**
East Texas/Haynesville	**6,477**	**7,455**
Permian	**63,998**	**1,243**
Eagle Ford	**15,510**	**1,712**
Other	**7,139**	**13,327**
Total	**127,785**	**59,936**

The Company may own more than one type of interest in the same tract of land, but the overlap is not significant. Net Royalty Acres are calculated based on the Company's ownership and royalty rate, normalized to a standard $1/8^{th}$ royalty lease, and assumes a $1/4^{th}$ royalty rate for unleased acres.

The following table includes the Company's estimate of developed and undeveloped acreage based on the gross acres in a basin or region and includes mineral interests, NPRIs, and ORRIs as of December 31, 2021:

	Developed Acreage	Undeveloped Acreage	Gross Acreage
Appalachia	**28,011**	**6,650**	**34,661**
East Texas/Haynesville	**5,253**	**1,224**	**6,477**
Permian	**62,496**	**1,503**	**63,998**
Eagle Ford	**15,510**	**0**	**15,510**
Other	**1,021**	**6,118**	**7,139**
Total	**112,291**	**15,495**	**127,785**

Undeveloped acres are either unleased and open or are leased acres on which wells have not been drilled or completed to a point that would permit the production of commercial quantities of oil or natural gas, regardless of whether such acreage contains proved reserves.

Production and Price History

The following table sets forth the estimated oil and natural gas production data related to the Company's mineral and royalty interests as well as certain price and cost information for the years ended December 31:

	2021 [(4)]	2020
Production data:		
Oil (bbl) [(1)]	**32,627**	2,239
NGL (bbl) [(1)]	**63,559**	68,599
Residue gas (Mcf) [(2)]	**6,225,422**	7,981,545
Total BOE [(3)]	**1,133,756**	1,401,095
Average realized prices:		
Oil (bbl) [(1)]	**$ 66.87**	$ 36.27
NGL (bbl) [(1)]	**$ 29.33**	$ 14.56
Residue gas (Mcf) [(2)]	**$ 3.36**	$ 1.87
Average unit cost		
BOE [(3)]	**$ 4.99**	$ 6.01

[(1)] Bbl. One stock tank barrel, or 42 U.S. gallons liquid volume.

[2] Mcf. One thousand cubic feet of natural gas at the contractual pressure and temperature bases.

[3] BOE. Barrel of Oil Equivalent, a conversion factor of 6 MCF of gas was used for 1 equivalent bbl of oil.

[4] As an owner of mineral and royalty interests, the Company's access to information concerning activity and operations of its royalty and mineral interests is limited. As a result, the Company estimated the last two months of 2021 production and pricing data using projections based on decline rates of wells and prior expense information.

Evaluation and Review of Reserves

The reserves estimates as of December 31, 2021 were prepared by Haas Petroleum Engineering Services, Inc. ("Haas Engineering"). Haas Engineering has provided reservoir engineering services, consulting and ongoing support for major and independent petroleum companies, public utilities, financial institutions, investors, and government agencies since 1980. Haas Engineering does not own an interest in NACCO or any of the Company's properties, nor is it employed on a contingent basis. A copy of Haas Engineering's estimated proved reserve report as of December 31, 2021 is incorporated by reference herein to Exhibit 99.1 to this Form 10-K.

The properties evaluated are located in Alabama, Louisiana, Ohio, Pennsylvania, and Texas and represent all of the Company's oil and gas reserves. A reserves audit is not the same as a financial audit. Reserve engineering is a subjective process of estimating volumes of economically recoverable oil and natural gas that cannot be measured in an exact manner. The accuracy of any reserve estimate is a function of the quality of available data and of engineering and geological interpretation. As a result, the estimates of different engineers often vary. In addition, the results of drilling, testing, and production may justify revisions of such estimates. Accordingly, reserve estimates often differ from the quantities of oil and natural gas that are ultimately recovered. Estimates of economically recoverable oil and natural gas and of future net revenues are based on several variables and assumptions, all of which may vary from actual results, including geologic interpretation, prices, and future production rates and costs.

The reserves estimates have been prepared using standard engineering practices generally accepted by the petroleum industry. Decline curve analysis was used to estimate the remaining reserves of pressure depletion reservoirs with enough historical production data to establish decline trends. Reservoirs under non-pressure depletion drive mechanisms and non-producing reserves were estimated by volumetric analysis, research of analogous reservoirs, or a combination of both. Reserves have been estimated using deterministic and probabilistic methods. The appropriate methodology was used, as deemed necessary, to estimate reserves in conformance with SEC regulations. The maximum remaining reserves life assigned to wells included in this report is 50 years.

Total net proved reserves are defined as those natural gas and hydrocarbon liquid reserves to the Company's interests after deducting all royalties, overriding royalties, and reversionary interests owned by outside parties that become effective upon payout of specified monetary balances. All reserves estimates have been prepared using standard engineering practices generally accepted by the petroleum industry and conform to guidelines developed and adopted by the SEC.

Technologies Used in Reserve Estimation

The SEC's reserves rules allow the use of techniques that have been proved effective by actual production from projects in the same reservoir or an analogous reservoir or by other evidence using reliable technology that establishes reasonable certainty. The term "reasonable certainty" implies a high degree of confidence that the quantities of oil, natural gas and/or NGLs actually recovered will equal or exceed the estimate. To achieve reasonable certainty, the Company employed technologies that have been demonstrated to yield results with consistency and repeatability. The technologies and economic data used in the estimation of the Company's proved reserves include, but are not limited to, well logs, geologic maps, seismic data, well test data, production data, historical price and cost information and property ownership interests. The accuracy of the estimates of the Company's reserves is a function of:

- the quality and quantity of available data and the engineering and geological interpretation of that data;
- estimates regarding the amount and timing of future operating costs, development costs and workovers, all of which may vary considerably from actual results;
- future prices of oil, natural gas and NGLs, which may vary considerably from those estimated; and
- the judgment of the persons preparing the estimates.

The following table presents the Company's estimated net proved oil and natural gas reserves as of December 31, 2021 based on the reserve report prepared by Haas Engineering, the Company's independent petroleum engineering firm. All of the Company's reserves are located in the United States.

	Net reserves as of December 31, 2021		
	Oil (bbl) [1]	**NGL (bbl) [1]**	**Residue gas (Mcf) [2]**
Proved developed	167,430	282,230	16,617,360
Proved undeveloped	220	90	1,210
Total	167,650	282,320	16,618,570

[1] Bbl. One stock tank barrel, or 42 U.S. gallons liquid volume.

[2] Mcf. One thousand cubic feet of natural gas at the contractual pressure and temperature bases.

As an owner of mineral and royalty interests and not working interests, the Company is not required to make capital expenditures and did not make capital expenditures to convert proved undeveloped reserves from undeveloped to developed.

Internal Control Disclosure

The Company's internal staff works closely with Haas Engineering to ensure the integrity, accuracy and timeliness of the data used to calculate proved reserves relating to NACCO's assets. Internal technical team members met with independent reserve engineers periodically during the period covered by the reserves report to discuss the assumptions and methods used in the proved reserve estimation process.

The preparation of the Company's proved reserve estimates are completed in accordance with internal control procedures. These procedures, which are intended to ensure reliability of reserve estimations, include the following:

- Review and verification of historical production data, which data is based on actual production as reported by third-party producers who lease the Company's royalty and mineral interests;
- Preparation of reserve estimates by Haas Engineering under the direct supervision of internal staff;
- Review by the President of Catapult Mineral Partners of all of the Company's reported proved reserves at the close of each quarter, including the review of all significant reserve changes;
- Verification of property ownership by the Company's land department; and
- No employee's compensation is tied to the amount of reserves booked.

The Minerals Management Segment's Business Operations Manager is the technical person primarily responsible for overseeing the preparation of the internal reserve estimates and for coordinating with Haas Engineering in the preparation of the third-party reserve report. The Business Operations Manager has over 10 years of industry experience with positions of increasing responsibility and reports directly to the President of Catapult Mineral Partners, the Company's business unit focused on managing and expanding the Company's portfolio of oil and gas mineral and royalty interests.

<u>Headquarter locations</u>

NACCO leases office space in Mayfield Heights, Ohio, a suburb of Cleveland, Ohio, which serves as its corporate headquarters.

Coal Mining and Minerals Management lease corporate headquarters office space in Plano, Texas.

NAMining leases office and warehouse space in Medley, Florida.

Item 3. LEGAL PROCEEDINGS

Neither the Company nor any of its subsidiaries is a party to any material legal proceeding other than ordinary routine litigation incidental to its respective business.

Item 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of The Dodd-Frank Act and Item 104 of Regulation S-K is included in Exhibit 95 filed with this Form 10-K.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

NACCO's Class A common stock is traded on the New York Stock Exchange under the ticker symbol "NC." Because of transfer restrictions, no trading market has developed, or is expected to develop, for the Company's Class B common stock. The Class B common stock is convertible into Class A common stock on a one-for-one basis.

At December 31, 2021, there were 691 Class A common stockholders of record and 126 Class B common stockholders of record.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Issuer Purchases of Equity Securities [1]

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of the Publicly Announced Program	(d) Maximum Number of Shares (or Approximate Dollar Value) that May Yet Be Purchased Under the Program [1]
October 1 to 31, 2021	—	$ —	—	$ 22,659,516
November 1 to 30, 2021	—	$ —	—	$ 22,659,516
December 1 to 31, 2021	—	$ —	—	$ 22,659,516
Total	—	$ —	—	$ 22,659,516

(1) On November 10, 2021, the Company's Board of Directors approved a stock purchase program ("2021 Stock Repurchase Program") providing for the purchase of up to $20.0 million of the Company's outstanding Class A common stock through December 31, 2023. See Note 12 to the Consolidated Financial Statements in this Form 10-K for a discussion of the Company's stock repurchase programs.

Item 6. SELECTED FINANCIAL DATA

As a "smaller reporting company" as defined by Rule 12b-2 of the Securities Exchange Act of 1934, the Company is not required to provide this information.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
NACCO INDUSTRIES, INC. AND SUBSIDIARIES

(Tabular Amounts in Thousands, Except Per Share and Percentage Data)

OVERVIEW

Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based upon management's current expectations and are subject to various uncertainties and changes in circumstances. Important factors that could cause actual results to differ materially from those described in these forward-looking statements are set forth below under the heading “Forward-Looking Statements."

Management's Discussion and Analysis of Financial Condition and Results of Operations include NACCO Industries, Inc.® (“NACCO” or the “Company”). NACCO brings natural resources to life by delivering aggregates, minerals, reliable fuels and environmental solutions through its robust portfolio of NACCO Natural Resources businesses. The Company operates under three business segments: Coal Mining, North American Mining ("NAMining") and Minerals Management. The Coal Mining segment operates surface coal mines for power generation companies and an activated carbon producer. The NAMining segment is a trusted mining partner for producers of aggregates, lithium and other minerals. The Minerals Management segment, which includes the Catapult Mineral Partners (“Catapult”) business, acquires and promotes the development of mineral interests. In addition, Mitigation Resources of North America® (“Mitigation Resources”) provides stream and wetland mitigation solutions.

The Company has items not directly attributable to a reportable segment that are not included as part of the measurement of segment operating profit, which primarily includes administrative costs related to public company reporting requirements at the parent company and the financial results of Mitigation Resources and Bellaire Corporation ("Bellaire"). Bellaire manages the Company’s long-term liabilities related to former Eastern U.S. underground mining activities.

All financial statement line items below operating profit (other income, including interest expense and interest income, the provision for income taxes and net income) are presented and discussed within this Form 10-K on a consolidated basis.

See “Item 1. Business" beginning on page 1 in this Form 10-K for further discussion of NACCO's subsidiaries. Additional information relating to financial and operating data on a segment basis (including unallocated items) is set forth in Note 15 to the Consolidated Financial Statements contained in this Form 10-K.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The Company's discussion and analysis of its financial condition and results of operations are based upon the Company's consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities (if any). On an ongoing basis, the Company evaluates its estimates based on historical experience, actuarial valuations and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from those estimates.

The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its consolidated financial statements.

Revenue recognition: Revenues are recognized when control of the promised goods or services is transferred to the Company’s customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. The Company accounts for revenue in accordance with Accounting Standards Codification ("ASC") Topic 606, "Revenue from Contracts with Customers." See Note 3 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's revenue recognition.

Long-lived assets: The Company periodically evaluates long-lived assets for impairment when changes in circumstances or the occurrence of certain events indicate the carrying amount of an asset may not be recoverable. Upon identification of indicators of impairment, the Company evaluates the carrying value of the asset by comparing the estimated future undiscounted cash flows generated from the use of the asset and its eventual disposition with the asset's net carrying value. If the carrying value of an asset is considered impaired, an impairment charge is recorded for the amount that the carrying value

of the long-lived asset exceeds its fair value. Fair value is estimated as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The Company regularly performs reviews of potential future development projects and identified certain undeveloped properties where market conditions related to any future development deteriorated during 2020. As a result, the Company recognized charges of $7.3 million in the Minerals Management segment and $1.1 million in the Coal Mining segment to write-off certain capitalized leasehold costs, prepaid royalties and other assets during 2020.

At MLMC, the costs of mining operations are not reimbursed by MLMC's customer. As such, increased costs at MLMC or decreased revenues could materially reduce the Company's profitability. Any reduction in customer demand at MLMC, including reductions related to reduced mechanical availability of the customer's power plant, would adversely affect the Company's operating results and could result in significant impairments. MLMC has approximately $136 million of long-lived assets, including property, plant and equipment and its coal supply agreement intangible asset, which are subject to periodic impairment analysis and review. Identifying and assessing whether impairment indicators exist, or if events or changes in circumstances have occurred, including assumptions about future power plant dispatch levels, changes in operating costs and other factors that impact anticipated revenue and customer demand, requires significant judgment. Actual future operating results could differ significantly from these estimates, which may result in an impairment charge in a future period, which could have a substantial impact on the Company's results of operations.

Income taxes: Tax law requires certain items to be included in the tax return at different times than the items are reflected in the financial statements. Some of these differences are permanent, such as expenses that are not deductible for tax purposes, and some differences are temporary, reversing over time, such as depreciation expense. These temporary differences create deferred tax assets and liabilities using currently enacted tax rates. The objective of accounting for income taxes is to recognize the amount of taxes payable or refundable for the current year, and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the financial statements or tax returns. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the provision for income taxes in the period that includes the enactment date. Management is required to estimate the timing of the recognition of deferred tax assets and liabilities, make assumptions about the future deductibility of deferred tax assets and assess deferred tax liabilities based on enacted laws and tax rates for the appropriate tax jurisdictions to determine the amount of such deferred tax assets and liabilities. Changes in the calculated deferred tax assets and liabilities may occur in certain circumstances, including statutory income tax rate changes, statutory tax law changes, or changes in the structure or tax status.

The Company's tax assets, liabilities, and tax expense are supported by historical earnings and losses and the Company's best estimates and assumptions of future earnings. The Company assesses whether a valuation allowance should be established against its deferred tax assets based on consideration of all available evidence, both positive and negative, using a more likely than not standard. This assessment considers, among other matters, scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies, and results of recent operations. The assumptions about future taxable income require significant judgment and are consistent with the plans and estimates the Company is using to manage the underlying businesses. When the Company determines, based on all available evidence, that it is more likely than not that deferred tax assets will not be realized, a valuation allowance is established.

Since significant judgment is required to assess the future tax consequences of events that have been recognized in the Company's financial statements or tax returns, the ultimate resolution of these events could result in adjustments to the Company's financial statements and such adjustments could be material. The Company believes the current assumptions, judgments and other considerations used to estimate the current year accrued and deferred tax positions are appropriate. If the actual outcome of future tax consequences differs from these estimates and assumptions, due to changes or future events, the resulting change to the provision for income taxes could have a material impact on the Company's results of operations and financial position.

See Note 13 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's income taxes.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
(Tabular Amounts in Thousands, Except Per Share and Percentage Data)

CONSOLIDATED FINANCIAL SUMMARY

The results of operations for NACCO were as follows for the years ended December 31:

	2021	2020
Revenues:		
Coal Mining	**$ 91,851**	$ 72,088
NAMining	**69,924**	42,392
Minerals Management	**31,003**	14,721
Unallocated Items	**4,695**	2,133
Eliminations	**(5,627)**	(2,902)
Total revenue	**$ 191,846**	$ 128,432
Operating profit (loss):		
Coal Mining	**$ 49,059**	$ 25,436
NAMining	**109**	1,872
Minerals Management	**26,080**	3,493
Unallocated Items	**(19,553)**	(17,256)
Eliminations	**(285)**	(97)
Total operating profit	**$ 55,410**	$ 13,448
Interest expense	**1,719**	1,354
Interest income	**(449)**	(1,200)
Closed mine obligations	**1,297**	1,641
Gain on equity securities	**(3,423)**	(1,226)
Other, net	**(584)**	(1,379)
Other income, net	**(1,440)**	(810)
Income before income tax provision (benefit)	**56,850**	14,258
Income tax provision (benefit)	**8,725**	(535)
Net income	**$ 48,125**	$ 14,793
Effective income tax rate	**15.3 %**	(3.8)%

The components of the change in revenues and operating profit are discussed below in "Segment Results."

Other income, net

Interest income decreased $0.8 million primarily due lower interest rates and a lower average invested cash balance during 2021 compared with 2020.

Gain on equity securities represents changes in the market price of invested assets reported at fair value. The change in 2021 compared with 2020 was due to fluctuations in the market prices of the underlying assets. See Note 9 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's invested assets reported at fair value.

North American Coal Corporation India Private Limited ("NACC India") was formed to provide technical business advisory services to the third-party owner of a coal mine in India. During 2014, NACC India's customer defaulted on its contractual payment obligations and as a result of this default, NACC India terminated its contract with the customer and began pursuing contractual remedies. During 2020, the Company received a $1.0 million payment from NACC India's customer which has been reported on the line, Other, net.

Income Taxes

The Company recorded an income tax expense of $8.7 million for the year ended December 31, 2021 on income before income tax of $56.9 million, or 15.3%, compared to income tax benefit of $0.5 million for the year ended December 31, 2020 on income before income tax of $14.3 million, or (3.8%). The income tax benefit for the year ended December 31, 2020 included $7.3 million of discrete tax charges primarily related to settlement of tax examinations, reserves for uncertain tax positions and return to provision adjustments partially offset by a benefit of $4.7 million, primarily due to the rate differential related to carrying back losses under the provisions of the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"). The CARES Act allows net operating tax losses incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. The Company generated a net tax operating loss in 2020 primarily due to the realization of certain deferred tax assets. There were no material discrete items affecting income tax expense in 2021.

The effective income tax rate for 2021 reflects the impact of higher pre-tax income in 2021 compared with 2020, including the termination fee associated with the Bisti contract termination. The effective income tax rate varies based upon the mix and timing of earnings between entities that benefit from percentage depletion and those that do not benefit from percentage depletion. The benefit from percentage depletion is not directly related to the amount of pre-tax income recorded in a period.

See Note 13 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's income taxes.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flows

The following tables detail the change in cash flow for the years ended December 31:

	2021	2020	Change
Operating activities:			
Net income	**$ 48,125**	$ 14,793	$ 33,332
Depreciation, depletion and amortization	**23,085**	18,114	4,971
Deferred income taxes	**(3,553)**	7,517	(11,070)
Stock-based compensation	**5,561**	3,078	2,483
Gain on sale of assets	**(60)**	(269)	209
Inventory impairment charge	**—**	1,973	(1,973)
Other asset impairment charge	**—**	8,359	(8,359)
Other	**1,973**	(3,452)	5,425
Working capital changes	**(256)**	(52,599)	52,343
Net cash provided by (used for) operating activities	**74,875**	(2,486)	77,361
Investing activities:			
Expenditures for property, plant and equipment and acquisition of mineral interests	**(44,561)**	(44,368)	(193)
Proceeds from the sale of assets	**633**	571	62
Other	**(219)**	(2,187)	1,968
Net cash used for investing activities	**(44,147)**	(45,984)	1,837
Cash flow before financing activities	**$ 30,728**	$ (48,470)	$ 79,198

The $77.4 million increase in net cash provided by (used for) operating activities was primarily the result of favorable working capital changes and an increase in net income. Working capital changes primarily included:

- Decreased payments made under deferred compensation and long-term incentive compensation plans in 2021 compared with 2020.
- An increase in Accounts payable during 2021 compared with a decrease in Accounts payable during 2020 due to timing of payments.

	2021	2020	Change
Financing activities:			
Net (reductions) additions to long-term debt and revolving credit agreements	**$ (25,801)**	$ 20,073	$ (45,874)
Cash dividends paid	**(5,617)**	(5,375)	(242)
Other	**(1,755)**	(670)	(1,085)
Net cash (used for) provided by financing activities	**$ (33,173)**	$ 14,028	$ (47,201)

The change in net cash (used for) provided by financing activities was primarily due to repayments during 2021 compared with borrowings during 2020.

Financing Activities

Financing arrangements are obtained and maintained at the subsidiary level. NACoal has a secured revolving line of credit of up to $150.0 million (the "NACoal Facility") that expires in November 2025. Borrowings outstanding under the NACoal Facility were $4.0 million at December 31, 2021. At December 31, 2021, the excess availability under the NACoal Facility was $116.2 million, which reflects a reduction for outstanding letters of credit of $29.8 million.

NACCO has not guaranteed any borrowings of NACoal. The borrowing agreements at NACoal allow for the payment to NACCO of dividends and advances under certain circumstances. Dividends (to the extent permitted by NACoal's borrowing agreement) and management fees are the primary sources of cash for NACCO and enable the Company to pay dividends to stockholders.

The NACoal Facility has performance-based pricing, which sets interest rates based upon NACoal achieving various levels of debt to EBITDA ratios, as defined in the NACoal Facility. Borrowings bear interest at a floating rate plus a margin based on the level of debt to EBITDA ratio achieved. The applicable margins, effective December 31, 2021, for base rate and LIBOR loans were 1.25% and 2.25%, respectively. The NACoal Facility has a commitment fee which is based upon achieving various levels of debt to EBITDA ratios. The commitment fee was 0.35% on the unused commitment at December 31, 2021. During the year ended December 31, 2021, the average borrowing under the NACoal Facility was $20.5 million and the weighted-average annual interest rate was 2.1%.

The NACoal Facility contains restrictive covenants, which require, among other things, NACoal to maintain a maximum net debt to EBITDA ratio of 2.75 to 1.00 and an interest coverage ratio of not less than 4.00 to 1.00. The NACoal Facility provides the ability to make loans, dividends and advances to NACCO, with some restrictions based on maintaining a maximum debt to EBITDA ratio of 1.50 to 1.00, or if greater than 1.50 to 1.00, a Fixed Charge Coverage Ratio of 1.10 to 1.00, in conjunction with maintaining unused availability thresholds of borrowing capacity, as defined in the NACoal Facility, of $15.0 million. At December 31, 2021, NACoal was in compliance with all financial covenants in the NACoal Facility.

The obligations under the NACoal Facility are guaranteed by certain of NACoal's direct and indirect, existing and future domestic subsidiaries, and is secured by certain assets of NACoal and the guarantors, subject to customary exceptions and limitations.

The Company believes funds available from cash on hand, the NACoal Facility and operating cash flows will provide sufficient liquidity to meet its operating needs and commitments arising during the next twelve months and until the expiration of the NACoal Facility in November 2025.

Expenditures for property, plant and equipment and mineral interests

Following is a table which summarizes actual and planned expenditures (in millions):

	Planned 2022	Actual 2021	Actual 2020
NACCO	$ 68.0	**$ 44.6**	$ 44.4

Planned expenditures for 2022 are expected to be approximately $27 million in the NAMining segment, $22 million in the Coal Mining segment, $10 million in the Minerals Management segment and up to $9 million at Mitigation Resources.

In the Coal Mining segment, elevated levels of expected capital expenditures through 2022 are primarily related to spending at MLMC as it develops a new mine area. In the NAMining segment, expected capital expenditures through 2022 are primarily for the acquisition, relocation and refurbishment of draglines as well as the acquisition of other mining equipment to support the expansion of contract mining services beyond NAMining's historical dragline-oriented model, including the acquisition of equipment to support Thacker Pass.

Expenditures are expected to be funded from internally generated funds and/or bank borrowings.

Capital Structure

NACCO's consolidated capital structure is presented below:

	December 31		
	2021	2020	Change
Cash and cash equivalents	**$ 86,005**	$ 88,450	$ (2,445)
Other net tangible assets	**276,733**	244,907	31,826
Intangible assets, net	**31,774**	35,330	(3,556)
Net assets	**394,512**	368,687	25,825
Total debt	**(20,710)**	(46,465)	25,755
Closed mine obligations	**(21,686)**	(21,598)	(88)
Total equity	**$ 352,116**	$ 300,624	$ 51,492
Debt to total capitalization	**6 %**	13 %	(7)%

The increase in other net tangible assets was primarily due to an increase in Property, plant and equipment including mineral interests and Other non-current assets at December 31, 2021 compared with December 31, 2020. The increase in Other non-current assets is primarily due to an increase in pension assets and deferred financing fees as well as an increase in the market price of invested assets reported at fair value.

Contractual Obligations, Contingent Liabilities and Commitments

Pension and postretirement funding can vary significantly each year due to plan amendments, changes in the market value of plan assets, legislation and the Company's decisions to contribute above the minimum regulatory funding requirements. The Company does not expect to contribute to its pension plan in 2022. NACCO maintains one supplemental retirement plan that pays monthly benefits to participants directly out of corporate funds and expects to pay benefits of approximately $0.5 million per year from 2022 through 2031. Benefit payments beyond that time cannot currently be estimated. NACCO also expects to make payments related to its other postretirement plans of approximately $0.2 million per year from 2022 through 2031. Benefit payments beyond that time cannot currently be estimated. All other pension benefit payments are made from assets of the pension plan.

NACCO has asset retirement obligations. See Note 7 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's asset retirement obligations.

NACCO has leases. See Note 10 to the Consolidated Financial Statements in this Form 10-K for further information on the Company's leases.

NACCO has unrecognized tax benefits, including interest and penalties. See Note 13 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's income taxes.

NACoal is a party to certain guarantees related to Coyote Creek. The Company believes that the likelihood of NACoal's future performance under the guarantees is remote, and no amounts related to these guarantees have been recorded. See Note 17 to the Consolidated Financial Statements in this Form 10-K for further discussion of the Company's guarantees.

The Company utilizes letters of credit to support commitments made in the ordinary course of business. As of December 31, 2021 and 2020, outstanding letters of credit totaled $29.8 million and $3.0 million, respectively. The increase in outstanding letters of credit in 2021 is primarily due to the issuance of $20.0 million letters of credit to collateralize a portion of outstanding surety bonds used to guarantee performance of consolidated mine reclamation obligations.

ENVIRONMENTAL MATTERS

The Company is affected by the regulations of numerous agencies, particularly the Federal Office of Surface Mining, the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers and associated state regulatory authorities. In addition, the Company closely monitors proposed legislation and regulation concerning SMCRA, CAA, ACE, CWA, RCRA, CERCLA and other regulatory actions.

Compliance with these increasingly stringent regulations could result in higher expenditures for both capital improvements and operating costs. The Company's policies stress environmental responsibility and compliance with these regulations. Based on current information, management does not expect compliance with these regulations to have a material adverse effect on the Company's financial condition or results of operations. See Item 1 in Part I of this Form 10-K for further discussion of these matters.

SEGMENT RESULTS

COAL MINING SEGMENT

FINANCIAL REVIEW

See "Item 2. Properties" on page 31 in this Form 10-K for discussion of the Company's mineral resources and mineral reserves.

Tons of coal delivered by the Coal Mining segment were as follows for the years ended December 31:

	2021	2020
Unconsolidated mines	**28,052**	28,486
Consolidated mines	**3,025**	2,538
Total tons delivered	**31,077**	31,024

The results of operations for the Coal Mining segment were as follows for the years ended December 31:

	2021	2020
Revenues	**$ 91,851**	$ 72,088
Cost of sales	**79,167**	70,452
Gross profit	**12,684**	1,636
Earnings of unconsolidated operations[(a)]	**56,982**	56,584
Contract termination settlement	**10,333**	—
Selling, general and administrative expenses	**27,363**	30,216
Amortization of intangible assets	**3,556**	2,572
Loss (gain) on sale of assets	**21**	(4)
Operating profit	**$ 49,059**	$ 25,436

[(a)] See Note 17 to the Consolidated Financial Statements in this Form 10-K for a discussion of the Company's unconsolidated subsidiaries, including summarized financial information.

2021 Compared with 2020

Revenues increased 27.4% in 2021 compared with 2020 primarily due to an increase in customer demand and tons delivered at MLMC. Also contributing to the change was the recognition of reclamation revenue from Caddo Creek. During the fourth quarter of 2020, Caddo Creek entered into a contract with a subsidiary of Advanced Emissions Solutions to perform mine reclamation. As a result of these changes, Caddo Creek financial results are consolidated within the Coal Mining segment.

The following table identifies the components of change in operating profit for 2021 compared with 2020:

	Operating Profit
2020	$ 25,436
Increase (decrease) from:	
Contract termination settlement	10,333
Gross profit, excluding MLMC's 2020 inventory impairment charge	9,075
MLMC 's inventory impairment charge during 2020	1,973
Voluntary separation program ("VSP") charge during 2020	1,475
Selling, general and administrative expenses, excluding VSP charge	1,378
Earnings of unconsolidated operations	398
Amortization of intangibles	(984)
Net change on sale of assets	(25)
2021	**$ 49,059**

Operating profit increased $23.6 million in 2021 compared with 2020. The change in operating profit was primarily due to:

- The $10.3 million payment recognized during 2021 related to the Bisti contract termination.
- An increase in gross profit due to an increase in the profit per ton delivered at MLMC and earnings associated with the reclamation contract at Caddo Creek. In addition, 2020 included certain costs associated with the termination of the Camino Real Fuels, LLC contract mining agreement and higher outside service expenses at Centennial Natural Resources.
- The following items recognized in the prior year did not recur in 2021:
    - A $2.0 million inventory impairment charge at MLMC as mining costs exceeded net realizable value.

- ◦ A charge of $1.5 million related to one-time termination benefits as a result of a voluntary separation program for employees who met certain age and service requirements to reduce overall headcount.
- ◦ A $1.1 million asset impairment charge included in selling, general and administrative expenses in the table above.

- In addition, selling, general and administrative expenses in 2021 include a decrease in employee-related costs and professional service expenses, both partially offset by higher insurance expense. Included in insurance expense is an increase of $1.3 million that is reimbursed by one of the Unconsolidated Subsidiaries. The offsetting income related to the reimbursement is included in Earnings of unconsolidated operations.

NORTH AMERICAN MINING ("NAMining") SEGMENT

FINANCIAL REVIEW

Aggregate tons delivered by the NAMining segment were as follows for the years ended December 31:

	2021	2020
Unconsolidated operations	**9,938**	9,367
Consolidated operations	**42,565**	36,546
Total tons delivered	**52,503**	45,913

The results of operations for the NAMining segment were as follows for the years ended December 31:

	2021	2020
Total revenues	**$ 69,924**	$ 42,392
Reimbursable costs	**51,028**	26,893
Revenues excluding reimbursable costs	**$ 18,896**	$ 15,499
Revenues	**$ 69,924**	$ 42,392
Cost of sales	**67,078**	39,266
Gross profit	**2,846**	3,126
Earnings of unconsolidated operations[a]	**3,861**	3,619
Selling, general and administrative expenses	**6,610**	5,138
Gain on sale of assets	**(12)**	(265)
Operating profit	**$ 109**	$ 1,872

[a] See Note 17 to the Consolidated Financial Statements in this Form 10-K for a discussion of the Company's unconsolidated subsidiaries, including summarized financial information.

2021 Compared with 2020

Total revenues increased 64.9% in 2021 compared with 2020 primarily due to a $24.1 million increase in reimbursable costs, which have an offsetting amount in cost of sales and have no impact on operating profit. The relocation of draglines related to new and amended contracts is the main driver of the increase in reimbursable costs. The increase in revenues excluding reimbursable costs is primarily due to an increase in customer demand and tons delivered.

The following table identifies the components of change in operating profit for 2021 compared with 2020.

	Operating Profit
2020	$ 1,872
Increase (decrease) from:	
Selling, general and administrative expenses	(1,472)
Gross profit	(280)
Net change on sale of assets	(253)
Earnings of unconsolidated operations	242
2021	**$ 109**

Operating profit decreased $1.8 million in 2021 compared with 2020 primarily due to an increase in selling, general and administrative expenses, mainly attributable to higher employee-related costs, which include an increase in business development expenses.

MINERALS MANAGEMENT SEGMENT

FINANCIAL REVIEW

The results of operations for the Minerals Management segment were as follows for the years ended December 31:

	2021	2020
Revenues	**$ 31,003**	$ 14,721
Cost of sales	**2,988**	2,342
Gross profit	**28,015**	12,379
Selling, general and administrative expenses	**2,004**	8,886
Gain on sale of assets	**(69)**	—
Operating profit	**$ 26,080**	$ 3,493

2021 Compared with 2020

Revenues and operating profit increased in 2021 compared with 2020 primarily due to royalty income generated by gas production from the Ohio and Louisiana mineral interests, as well as oil production from the Permian Basin and Eagle Ford Shale mineral interests acquired late in the fourth quarter of 2020 and early in the second quarter of 2021, respectively. Favorable changes in natural gas and oil prices also contributed to the improvement in revenues and operating profit. In addition, the Company recognized $3.6 million of settlement income during 2021.

The decrease in selling, general and administrative expenses is primarily due to the absence of a $7.3 million asset impairment charge recognized in 2020. The Company regularly performs reviews of potential future development projects and identified certain undeveloped properties where market conditions related to any future development deteriorated during 2020. As a result, the Company wrote-off certain capitalized leasehold costs and prepaid royalties related to legacy coal interests in 2020.

UNALLOCATED ITEMS AND ELIMINATIONS

FINANCIAL REVIEW

Unallocated Items and Eliminations were as follows for the years ended December 31:

	2021	2020
Operating loss	**$ (19,838)**	$ (17,353)

2021 Compared with 2020

The operating loss increased during 2021 compared with 2020 primarily due to higher employee-related costs and an increase in expenses related to business development initiatives.

During the fourth quarter of 2020, the Company implemented a voluntary separation program for employees who met certain age and service requirements to reduce overall headcount. As a result of this program, the 2020 operating loss includes a charge of $0.3 million related to one-time termination benefits.

NACCO Industries, Inc. Outlook

Coal Mining Outlook

As previously announced, GRE entered into an agreement to sell Coal Creek Station and the adjacent high-voltage direct current transmission line to Bismarck, North Dakota-based Rainbow Energy. The closing of this sale is expected to occur in the second quarter of 2022. Upon completion of the sale of Coal Creek Station, the existing agreements between GRE and Falkirk will terminate. GRE will pay the Company $14.0 million, as well as transfer ownership of an office building and convey membership units in Midwest AgEnergy to wholly owned and consolidated subsidiaries of NACCO.

Upon closing of the sale to Rainbow Energy, a new Coal Sales Agreement ("CSA") between Falkirk and Rainbow Energy will become effective and Falkirk will continue supplying all coal requirements of Coal Creek Station. Falkirk will be paid a management fee per ton of coal delivered for operating the mine, and Rainbow Energy will be responsible for funding all mine operating costs and directly or indirectly providing all of the capital required to operate the mine. The CSA specifies that Falkirk will perform final mine reclamation, which will be funded in its entirety by Rainbow Energy. The initial production period is expected to run ten years from the effective date of the CSA, but the CSA may be extended or terminated early under certain circumstances.

Coal Mining operating profit in 2022 is expected to decrease significantly compared with 2021. This expected decrease is primarily the result of a decrease in coal deliveries from 2021 levels, as well as the termination of the Bisti contract. An anticipated increase in operating expenses primarily due to expected higher insurance costs and other professional fees is also expected to contribute to the reduction in operating profit.

Results at the consolidated mining operations are expected to decrease significantly in 2022 from 2021 primarily due to expected substantially lower earnings at MLMC driven by an anticipated reduction in customer demand from 2021 levels, which contributes to an increase in the cost per ton. Cost inflation on repairs, supplies and diesel fuel, and higher depreciation expense related to recent capital expenditures to develop a new mine area will also contribute to the increase in the cost per ton in 2022. In general, cost per ton delivered is lowest when the power plant requires a consistently high level of coal deliveries, primarily because costs are spread over more tons.

The reduction in earnings at the unconsolidated Coal Mining operations is expected to be mainly driven by lower earnings at Falkirk resulting in part from a planned power plant outage prior to the expected closure of the Rainbow Energy transaction. In addition, to support the transfer of Coal Creek Station, Falkirk has agreed to a reduction in the current per ton management fee from the effective date of the new CSA with Rainbow Energy through May 31, 2024. After May 31, 2024, Falkirk's per ton management fee increases to a higher base in line with current fee levels, and thereafter adjusts annually according to an index

which tracks a broad measure of U.S. inflation. Termination of the Bisti contract in late 2021 will also contribute to a decline in the earnings at the unconsolidated mining operations in 2022.

Segment adjusted EBITDA, which excludes the termination payments of $10.3 million from Bisti's customer in 2021 and the anticipated $14 million contract termination fee from GRE in 2022, is expected to decrease significantly in 2022 from 2021 primarily as a result of the forecasted reduction in operating profit partially offset by an increase in depreciation, depletion and amortization expense. The increase in depreciation, depletion and amortization expense is primarily due to higher capital expenditures at MLMC as a result of the development of a new mine area.

Capital expenditures are expected to be approximately $22 million in 2022. The elevated levels of capital expenditures from 2019 through 2022 relate to the necessary development of a new mine area at MLMC, which will allow continued coal deliveries through the end of the contract. The increase in capital expenditures associated with mine development will result in higher depreciation expense in future periods that will unfavorably affect future operating profit. Capital expenditures for MLMC are expected to decline significantly beginning in 2023.

The Company's contract structure at each of its coal mining operations eliminates exposure to spot coal market price fluctuations. However, fluctuations in natural gas prices and the availability of renewable generation, particularly wind, can contribute to changes in power plant dispatch and customer demand for coal. The significant increase in natural gas prices in 2021 contributed to an increase in customer power plant dispatch and coal deliveries in 2021 over 2020. Sustained higher natural gas prices could lead to increased demand for coal and positively affect the Coal Mining segment results in 2022. Changes to expectations for customer power plant dispatch could affect the Company’s outlook for 2022 and over the longer term. The owner of the power plant served by the Company's Sabine Mine in Texas intends to retire the power plant in the first quarter of 2023, at which time Sabine expects to begin final reclamation. Funding for mine reclamation is the responsibility of the customer. Coteau operates the Freedom Mine in North Dakota. All coal production from the Freedom Mine is delivered to Basin Electric Power Cooperative. Basin Electric utilizes the coal at the Great Plains Synfuels Plant, Antelope Valley Station and Leland Olds Station. The Synfuels Plant is a coal gasification plant owned by Dakota Gas that manufactures synthetic natural gas and produces fertilizers, solvents, phenol, carbon dioxide and other chemical products for sale. In August 2021, Basin Electric announced that it signed a non-binding term sheet which contemplates the sale of the assets of Dakota Gas. As part of the announcement, Basin Electric indicated that the Synfuels Plant will continue existing operations through 2025. The closing is subject to the satisfaction of specified conditions. Basin Electric is also considering other options for the Synfuels Plant if the transaction with the potential buyer does not close.

NAMining Outlook

In 2022, NAMining expects full-year operating profit to increase significantly over 2021 due to an expected increase in customer requirements and contributions from contracts executed during 2021. Segment adjusted EBITDA for 2022 is expected to increase significantly compared with the prior year as a result of the improvement in operating profit and an increase in depreciation expense.

During 2021, NAMining expanded its geographic footprint by entering into new contract mining services agreements at quarries in Indiana, Texas and Arkansas. In addition, NAMining entered into a 15-year mining services contract with a new customer at a limestone quarry in Central Florida. Presently, NAMining is operating two smaller draglines at this quarry while it relocates a larger dragline that will significantly increase production capacity once commissioned, which is expected to occur in the second half of 2022. NAMining also amended a contract with a current customer to provide additional services at a limestone quarry in Florida. NAMining continues to have a substantial pipeline of potential new projects and is pursuing a number of growth initiatives that, if successful, would be accretive to future earnings.

In 2019, NAMining's subsidiary, Sawtooth Mining, LLC, entered into a mining services agreement to serve as the exclusive contract miner for the Thacker Pass lithium project in northern Nevada, owned by Lithium Nevada Corp., a subsidiary of Lithium Americas Corp. (TSX: LAC) (NYSE: LAC). Lithium Americas owns the lithium reserves at Thacker Pass and will be responsible for the processing and sale of the lithium produced. In January 2022, Lithium Americas provided an update on the Thacker Pass project, which noted that final permitting decisions are expected to be received in the first quarter of 2022. Early-works construction is expected to begin in 2022. At maturity, this management fee contract is expected to deliver fee income similar to a mid-sized management fee coal mine.

In 2022, capital expenditures are expected to be approximately $27 million primarily for the acquisition, relocation and refurbishment of draglines, as well as the acquisition of other mining equipment to support the continued expansion of contract-mining services beyond NAMining's historical dragline-oriented model, including the acquisition of equipment to support the Thacker Pass lithium project. The cost of mining equipment related to Thacker Pass will be reimbursed by the customer over a seven-year period from the equipment acquisition date.

Minerals Management Outlook

The Minerals Management segment derives income from royalty-based leases under which lessees make payments to the Company based on their sale of natural gas, oil, natural gas liquids and coal, extracted primarily by third parties.

Operating profit and Segment adjusted EBITDA in 2022 are expected to decrease significantly from 2021 primarily driven by an anticipated reduction in production due to the natural decline curve on wells in Ohio, expectations for natural gas and oil prices, and the absence of $3.6 million of settlement income recognized in 2021. The Company expects oil and gas market prices to moderate in 2022 and stabilize at levels consistent with averages over the second half of 2021.

Natural gas and oil benchmark prices increased during 2021 when compared with historical periods. If natural gas and oil prices remain at higher levels than currently anticipated, results for the 2022 full year could be favorably impacted. Commodity prices are inherently volatile and as an owner of royalty and mineral interests, the Company’s access to information concerning activity and operations of its interests is limited. The Company's expectations are based on the best information currently available and could vary as a result of adjustments made by operators and/or changes to commodity prices.

The Company is in a period of transition where production from more recently acquired mineral interests is expected to begin to offset anticipated declines in production at legacy natural gas wells. This transition is expected to occur over the next few years as the Company’s portfolio of recently acquired mineral interests continues to expand. Minerals Management is targeting additional investments in mineral and royalty interests of approximately $10 million in 2022. These investments are expected to be accretive, but each investment's contribution to earnings is dependent on the details of that investment, including the size and type of interests acquired and the stage and timing of mineral development. The contribution of each investment could also vary due to commodity price changes. These acquired interests are expected to align with the Company’s strategy of selectively acquiring mineral and royalty interests with a balance of near-term cash-flow yields and long-term growth potential, in high-quality reservoirs offering diversification from the Company’s legacy mineral interests.

Consolidated Outlook

Overall, in 2022, NACCO expects consolidated net income and Consolidated Adjusted EBITDA to decrease significantly from 2021. Lower operating profit in the Coal Mining segment and an anticipated reduction in income in the Minerals Management segment are expected to be partially offset by higher operating profit at NAMining and lower income tax expense. Additionally, the Company expects to recognize the value of the North Dakota office building and the membership units in Midwest AgEnergy, which are expected to be received as part of the compensation from GRE upon the closing of the transaction with Rainbow Energy. Securing contracts for new mining projects and acquisitions of additional mineral interests could be accretive to the current forecast.

Consolidated capital expenditures are expected to be approximately $68 million in 2022. Capital expenditures in 2022 include approximately $9 million for expenditures at Mitigation Resources of North America®. As a result of the forecasted capital expenditures and anticipated decrease in net income, cash flow before financing activities is expected to return to a significant use of cash in 2022.

Growth and Diversification

The Company is pursuing growth and diversification by strategically leveraging its core mining and natural resources management skills to build a strong portfolio of affiliated businesses. Management continues to be optimistic about the long-term outlook for growth in the NAMining and Minerals Management segments and in the Company's Mitigation Resources

business. Each of these businesses continues to expand its pipeline of potential new projects with opportunities for growth and diversification.

NAMining is pursuing growth and diversification by expanding the scope of its business development activities to include potential customers who require a broad range of minerals and materials and by leveraging the Company's core mining skills to expand the range of contract mining services it provides. NAMining advanced these efforts in 2021 when it entered into a contract to mine sand and gravel in Indiana and signed contracts to perform all mining operations at two sand and gravel quarries located in Texas and Arkansas. The new contracts in Texas and Arkansas include responsibility for all mining activities, including pre-strip, blasting, excavation and load and haul operations. These new contracts with leading suppliers of construction materials in North America expand the range of contract mining services beyond the traditional scope of NAMining's core, dragline-oriented limestone mining business and expand its geographic footprint beyond Florida. In addition, NAMining continues to pursue additional opportunities to provide comprehensive mining services to operate entire mines, as it expects to do at the new lithium project in Nevada. The goal is to build NAMining into a leading provider of contract mining services for customers that produce a wide variety of minerals and materials. The Company believes NAMining can grow to be a substantial contributor to operating profit, delivering unlevered after-tax returns on invested capital in the mid-teens as this business model matures and achieves significant scale, but the pace of growth will be dependent on the mix and scale of new projects.

The Minerals Management segment continues to grow and diversify by pursuing acquisitions of mineral and royalty interests in the United States, in a market environment that the Company believes remains well-aligned with its strategy and objectives. The Minerals Management segment will benefit from the continued development of its mineral properties without additional capital investment, as all further development costs are borne entirely by third-party producers who lease the minerals. This business model can deliver higher average operating margins over the life of a reserve than traditional oil and gas companies that bear the cost of exploration, production and/or development. Catapult, the Company's business unit focused on managing and expanding the Company's portfolio of oil and gas mineral and royalty interests, has developed a strong network to source and secure new acquisitions, and has several potential acquisitions under review. The goal is to construct a diversified portfolio of high-quality oil and gas mineral and royalty interests in the United States that deliver near-term cash flow yields and long-term projected growth. The Company believes this business will provide unlevered after-tax returns on invested capital in the low-to-mid-teens as the portfolio of reserves and mineral interests grows and this business model matures.

Mitigation Resources continues to expand its business, which creates and sells stream and wetland mitigation credits and provides services to those engaged in permittee-responsible mitigation. This business offers an opportunity for growth and diversification in an industry where the Company has substantial knowledge and expertise and a strong reputation. The Mitigation Resources business has achieved several early successes and is positioned for additional growth. The Company's goal is to grow Mitigation Resources into one of the ten largest U.S. providers of mitigation solutions, largely focused on streams and wetlands, initially in the southeast United States. While this business is in the early stages of development, it is currently focused on expanding and has established mitigation projects in Alabama, Mississippi, Texas and Tennessee. The Company believes that Mitigation Resources can provide solid rates of return as this business matures.

The Company also continues to pursue activities which can strengthen the resiliency of its existing coal mining operations. The Company remains focused on managing coal production costs and maximizing efficiencies and operating capacity at mine locations to help customers with management fee contracts be more competitive. These activities benefit both customers and the Company's Coal Mining segment, as fuel cost is a significant driver for power plant dispatch. Increased power plant dispatch results in increased demand for coal by the Coal Mining segment's customers. Fluctuating natural gas prices and availability of renewable energy sources, such as wind and solar, could affect the amount of electricity dispatched from coal-fired power plants.

The Company continues to look for opportunities to expand its coal mining business where it can apply its management fee business model to assume operation of existing surface coal mining operations in the United States. However, opportunities are very limited in the current environment. In addition, the political and regulatory environment is not receptive to development of new coal-fired power generation projects which would create opportunities to build and operate new coal mines.

The Company is committed to maintaining a conservative capital structure as it continues to grow and diversify, while avoiding unnecessary risk. Strategic diversification will generate cash that can be re-invested to strengthen and expand the businesses. The Company also continues to maintain the highest levels of customer service and operational excellence with an unwavering focus on safety and environmental stewardship.

RECENTLY ISSUED ACCOUNTING STANDARDS

See Note 2 to the Consolidated Financial Statements in this Form 10-K for a description of recently issued accounting standards, if any, including actual and expected dates of adoption and effects to the Company's Consolidated Financial Statements.

FORWARD-LOOKING STATEMENTS

The statements contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this Annual Report on Form 10-K that are not historical facts are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are made subject to certain risks and uncertainties, which could cause actual results to differ materially from those presented. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. The Company undertakes no obligation to publicly revise these forward-looking statements to reflect events or circumstances that arise after the date hereof. Among the factors that could cause plans, actions and results to differ materially from current expectations are, without limitation: (1) changes to or termination of customer or other third-party contracts, or a customer or other third party default under a contract, (2) Any customer's premature facility closure, including GRE's failure to complete the sale of Coal Creek Station to Rainbow Energy, (3) a significant reduction in purchases by the Company's customers, including as a result of changes in coal consumption patterns of U.S. electric power generators, or changes in the power industry that would affect demand for the Company's coal and other mineral reserves, (4) failure to obtain adequate insurance coverages at reasonable rates, (5) the impact of the COVID-19 pandemic, including any impact on suppliers, customers and employees, (6) supply chain disruptions, including price increases and shortages of parts and materials, (7) changes in tax laws or regulatory requirements, including the elimination of, or reduction in, the percentage depletion tax deduction, changes in mining or power plant emission regulations and health, safety or environmental legislation, (8) the ability of the Company to access credit in the current economic environment, or obtain financing at reasonable rates, or at all, and to maintain surety bonds for mine reclamation as a result of current market sentiment for fossil fuels, (9) the effects of investors' and other stakeholders' increasing attention to environmental, social and governance ("ESG") matters, (10) changes in costs related to geological and geotechnical conditions, repairs and maintenance, new equipment and replacement parts, fuel or other similar items, (11) regulatory actions, changes in mining permit requirements or delays in obtaining mining permits that could affect deliveries to customers, (12) weather conditions, extended power plant outages, liquidity events or other events that would change the level of customers' coal or aggregates requirements, (13) weather or equipment problems that could affect deliveries to customers, (14) failure or delays by the Company's lessees in achieving expected production of natural gas and other hydrocarbons; the availability and cost of transportation and processing services in the areas where the Company's oil and gas reserves are located; federal and state legislative and regulatory initiatives relating to hydraulic fracturing; and the ability of lessees to obtain capital or financing needed for well-development operations and leasing and development of oil and gas reserves on federal lands, (15) changes in the costs to reclaim mining areas, (16) costs to pursue and develop new mining, mitigation and oil and gas opportunities and other value-added service opportunities, (17) delays or reductions in coal or aggregates deliveries, (18) changes in the prices of hydrocarbons, particularly diesel fuel, natural gas and oil, (19) the ability to successfully evaluate investments and achieve intended financial results in new business and growth initiatives, (20) disruptions from natural or human causes, including severe weather, accidents, fires, earthquakes and terrorist acts, any of which could result in suspension of operations or harm to people or the environment, and (21) the ability to attract, retain, and replace workforce and administrative employees.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a “smaller reporting company” as defined by Rule 12b-2 of the Securities Exchange Act of 1934, the Company is not required to provide this information.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is set forth in the Financial Statements and Supplementary Data contained in Part IV of this Form 10-K and is hereby incorporated herein by reference to such information.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There were no disagreements with accountants on accounting and financial disclosure for the two-year period ended December 31, 2021 that require disclosure pursuant to this Item 9.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures: An evaluation was carried out under the supervision and with the participation of the Company's management, including the principal executive officer and the principal financial officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, these officers have concluded that the Company's disclosure controls and procedures are effective.

Management's report on internal control over financial reporting: Management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision and with the participation of management, including the principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation under the framework, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2021. The Company's effectiveness of internal control over financial reporting as of December 31, 2021 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in its report, which is included in Item 15 of this Form 10-K and incorporated herein by reference.

Changes in internal control: There have been no changes in the Company's internal control over financial reporting, that occurred during the fourth quarter of 2021, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to Directors of the Company will be set forth in the 2022 Proxy Statement under the subheadings “Part III — Proposals To Be Voted On At The 2022 Annual Meeting — Proposal 1 — Election of Directors,” which information is incorporated herein by reference.

Information with respect to the audit review committee and the audit review committee financial expert will be set forth in the 2022 Proxy Statement under the subheading “Part I — Corporate Governance Information — Directors' Meetings and Committees,” which information is incorporated herein by reference.

Information with respect to compliance with Section 16(a) of the Securities Exchange Act of 1934 by the Company's Directors, executive officers and holders of more than ten percent of the Company's equity securities will be set forth in the 2022 Proxy Statement under the subheading “Part IV — Other Important Information — Delinquent Section 16(a) Reports,” which information is incorporated herein by reference.

The Company has adopted a code of business conduct and ethics applicable to all Company personnel, including the principal executive officer, principal financial officer, principal accounting officer or controller, or other persons performing similar functions. The code of business conduct and ethics, entitled the “Code of Corporate Conduct,” is posted on the Company's website at www.nacco.com under “Corporate Governance.” If the Company makes any amendments to or grants any waivers from the code of business conduct and ethics which are required to be disclosed pursuant to the Securities and Exchange Act of 1934, the Company will make such disclosure on the NACCO website.

Item 11. EXECUTIVE COMPENSATION

Information with respect to executive compensation will be set forth in the 2022 Proxy Statement under the headings “Part II — Executive Compensation Information” and “Part III — Proposals To Be Voted On At The 2022 Annual Meeting — Proposal 1 — Election of Directors,” which information is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information with respect to security ownership of certain beneficial owners and management will be set forth in the 2022 Proxy Statement under the subheading “Part IV — Other Important Information — Beneficial Ownership of Class A Common and Class B Common,” which information is incorporated herein by reference.

Information with respect to compensation plans (including individual compensation arrangements) under which equity securities are authorized for issuance will be set forth in the 2022 Proxy Statement under the subheading “Part IV — Other Important Information — Equity Compensation Plan Information," which information is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information with respect to certain relationships and related transactions will be set forth in the 2022 Proxy Statement under the subheadings “Part I — Corporate Governance Information — Review and Approval of Related-Person Transactions,” which information is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services will be set forth in the 2022 Proxy Statement under the heading “Part III — Proposals To Be Voted On At The 2022 Annual Meeting — Proposal 3 — Ratification of the Appointment of Company's Independent Registered Public Accounting Firm,” which information is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) and (2) The response to Item 15(a)(1) and (2) is set forth beginning at page F-1 of this Form 10-K.

(b) Financial Statement Schedules — The response to Item 15(c) is set forth beginning at page F-42 of this Form 10-K.

(c) Exhibits required by Item 601 of Regulation S-K

Exhibit Number	Exhibit Description
(3) Articles of Incorporation and By-laws.	
3.1(i)	Restated Certificate of Incorporation of the Company is incorporated herein by reference to Exhibit 3(i) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1992, Commission File Number 1-9172.
3.1(ii)	Amended and Restated By-laws of the Company are incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed by the Company on December 18, 2014, Commission File Number 1-9172.
(4) Instruments defining the rights of security holders, including indentures.	
4.1	The Company by this filing agrees, upon request, to file with the Securities and Exchange Commission the instruments defining the rights of holders of long-term debt of the Company and its subsidiaries where the total amount of securities authorized thereunder does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis.
4.2	The Mortgage and Security Agreement, dated April 8, 1976, between The Falkirk Mining Company (as Mortgagor) and Cooperative Power Association and United Power Association (collectively, as Mortgagee) is incorporated herein by reference to Exhibit 4(ii) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1992, Commission File Number 1-9172.
4.3	Amendment No. 1 to the Mortgage and Security Agreement, dated as of December 15, 1993, between Falkirk Mining Company (as Mortgagor) and Cooperative Power Association and United Power Association (collectively, as Mortgagee) is incorporated herein by reference to Exhibit 4(iii) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, Commission File Number 1-9172.
4.4	Amended and Restated Stockholders' Agreement, dated as of September 29, 2017, among NACCO Industries, Inc., the other signatories thereto and NACCO Industries, Inc., as depository, is incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, filed by the Company on October 5, 2017, Commission File Number 1-9172.
4.5	Amendment to Amended and Restated Stockholders' Agreement, dated as of February 14, 2019, among NACCO Industries, Inc., the other signatories thereto and NACCO Industries, Inc., as depository, is incorporated by reference to Exhibit 4.5 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, Commission File Number 1-9172.
4.6	Second Amendment to Amended and Restated Stockholders' Agreement, dated as of February 12, 2021, by and among the Depository, NACCO Industries, Inc., the new Participating Stockholders identified on the signature pages thereto and the Participating Stockholders under the Amended and Restated Stockholders' Agreement, dated as of September 29, 2017, as amended, is incorporated by reference to Exhibit 60 of the Company's General statement of acquisition of beneficial ownership on Form SC 13D, filed on February 12, 2021, Commission File Number 1-9172.
4.7	Third Amendment to Amended and Restated Stockholders' Agreement, dated as of February 11, 2022, by and among the Depository, NACCO Industries, Inc., the new Participating Stockholders identified on the signature pages thereto and the Participating Stockholders under the Amended and Restated Stockholders' Agreement, dated as of September 29, 2017, as amended, is incorporated by reference to Exhibit 99.8 of the Company's General statement of acquisition of beneficial ownership on Form SC 13D, filed on February 11, 2022, Commission File Number 1-9172.
4.8	Description of Securities is incorporated herein by reference to Exhibit 4.6 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, Commission File Number 1-9172.

Exhibit Number	Exhibit Description
(10) Material contracts	
10.1*	NACCO Industries, Inc. Supplemental Executive Long-Term Incentive Bonus Plan (Amended and Restated March 1, 2012) is incorporated herein by reference to Appendix B to NACCO's Definitive Proxy Statement, filed by NACCO on March 16, 2012, Commission File Number 1-9172.
10.2*	NACCO Industries, Inc. Executive Long-Term Incentive Compensation Plan (Amended and Restated March 1, 2019) is incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed by the Company on May 8, 2019, Commission File Number 1-9172.
10.3*	NACCO Industries, Inc. Executive Long-Term Incentive Compensation Plan (Amended and Restated March 1, 2021) is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on May 19, 2021, Commission File Number 1-9172.
10.4*	NACCO Industries, Inc. Non-Employee Directors' Equity Compensation Plan (Amended and Restated May 8, 2019) is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on May 8, 2019, Commission File Number 1-9172.
10.5*	NACCO Industries, Inc. Non-Employee Directors' Equity Compensation Plan (Amended and Restated May 19, 2021) is incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed by the Company on May 19, 2021, Commission File Number 1-9172.
10.6*	Form of Award Agreement for the NACCO Industries, Inc. Supplemental Executive Long-Term Incentive Bonus Plan is incorporated by reference to Exhibit 10.8 to the Company's Current Report on Form 8-K, filed by the Company on September 17, 2012, Commission File Number 1-9172.
10.7*	Form of Cashless Exercise Award Agreement for the NACCO Industries, Inc. Executive Long-Term Incentive Compensation Plan is incorporated herein by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, Commission File Number 1-9172.
10.8*	Form of Non-Cashless Exercise Award Agreement for the NACCO Industries, Inc. Executive Long-Term Incentive Compensation Plan is incorporated herein by reference to Exhibit 10.10 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, Commission File Number 1-9172.
10.9	Separation Agreement, dated as of September 29, 2017, between NACCO Industries, Inc. and Hamilton Beach Brands Holding Company, is incorporated by reference to Exhibit 10.1 of Hamilton Beach Brands Holding Company's Current Report on Form 8-K, filed on October 4, 2017, Commission File Number 1-9172.
10.10	Tax Allocation Agreement, dated as of September 29, 2017, between NACCO Industries, Inc. and Hamilton Beach Brands Holding Company, is incorporated by reference to Exhibit 10.3 of Hamilton Beach Brands Holding Company's Current Report on Form 8-K, filed on October 4, 2017, Commission File Number 1-9172.
10.11	Consulting Agreement, dated as of September 29, 2017, between NACCO Industries, Inc. and Alfred M. Rankin, Jr., is incorporated by reference to Exhibit 10.5 of NACCO Industries, Inc.'s Current Report on Form 8-K, filed on October 5, 2017, Commission File Number 1-9172.
10.12	Amendment to Consulting Agreement, dated as of December 15, 2020, between NACCO Industries, Inc. and Alfred M. Rankin, Jr., is incorporated by reference to Exhibit 10.1 of NACCO Industries, Inc.'s Current Report on Form 8-K, filed on December 15, 2020, Commission File Number 1-9172.
10.13	Amendment to Consulting Agreement, dated as of December 21, 2021, between NACCO Industries, Inc. and Alfred M. Rankin, Jr., is incorporated by reference to Exhibit 10.1 of NACCO Industries, Inc.'s Current Report on Form 8-K, filed on December 22, 2021, Commission File Number 1-9172.
10.14*	NACCO Industries, Inc. Short-Term Incentive Compensation Plan (Effective as of March 1, 2019) is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on February 13, 2019, Commission File Number 1-9172.
10.15*	The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.12 to the Company’s Current Report on Form 8-K, filed by the Company on December 19, 2007, Commission File Number 1-9172.
10.16*	Amendment No. 1 to The North America Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009, Commission File Number 1-9172.
10.17*	The North American Coal Corporation Annual Incentive Compensation Plan (Amended and Restated Effective March 1, 2015) is incorporated herein by reference to Exhibit 10.3 to the Company’s Current Report on Form 8-K, filed by the Company on May 18, 2015, Commission File Number 1-9172.

Exhibit Number	Exhibit Description
10.18*	Amendment No. 2 to The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, Commission File Number 1-9172.
10.19	Coteau Lignite Sales Agreement by and between The Coteau Properties Company and Dakota Coal Company, dated as of January 1, 1990, is incorporated herein by reference to Exhibit 10.11 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.20	First Amendment to Coteau Lignite Sales Agreement by and between The Coteau Properties Company and Dakota Coal Company, dated as of June 1, 1994, is incorporated herein by reference to Exhibit 10.12 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.21	Second Amendment to Coteau Lignite Sales Agreement by and between The Coteau Properties Company and Dakota Coal Company, dated as of January 1, 1997, is incorporated herein by reference to Exhibit 10.13 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.22	Option and Put Agreement by and among The North American Coal Corporation, Dakota Coal Company and the State of North Dakota, dated as of January 1, 1990, is incorporated herein by reference to Exhibit 10.14 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.23	First Amendment to the Option and Put Agreement by and among The North American Coal Corporation, Dakota Coal Company and the State of North Dakota, dated as of June 1, 1994, is incorporated herein by reference to Exhibit 10.15 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.24	Lignite Sales Agreement by and between Mississippi Lignite Mining Company and Choctaw Generation Limited Partnership, dated as of April 1, 1998, is incorporated herein by reference to Exhibit 10.16 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.25	First Amendment to Lignite Sales Agreement by and between Mississippi Lignite Mining Company and Choctaw Generation Limited Partnership, dated as of August 30, 2016, is incorporated herein by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q, filed by the Company on November 1, 2016, Commission File Number 1-9172.+
10.26	Pay Scale Agreement by and between Mississippi Lignite Mining Company and Choctaw Generation Limited Partnership, dated as of September 29, 2005, is incorporated herein by reference to Exhibit 10.17 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.27	Consent and Agreement by and among Mississippi Lignite Mining Company, Choctaw Generation Limited Partnership, SE Choctaw L.L.C. and Citibank, N.A., dated as of December 20, 2002, is incorporated herein by reference to Exhibit 10.29 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.28	Amendment No. 1 to Lignite Sales Agreement, Settlement Agreement and Release by and between Mississippi Lignite Mining Company and Choctaw Generation Limited Partnership, LLLP, dated as of November 16, 2018, is incorporated herein by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, Commission File Number 1-9172.
10.29**	Amendment No. 2 to Lignite Sales Agreement, Settlement Agreement and Release by and between Mississippi Lignite Mining Company and Choctaw Generation Limited Partnership, LLLP, dated as of November 24, 2021.
10.30	Second Restatement of Coal Sales Agreement by and between The Falkirk Mining Company and Great River Energy, dated as of January 1, 2007, is incorporated herein by reference to Exhibit 10.18 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.31	Amendment No. 1 to Second Restatement of Coal Sales Agreement, by and between The Falkirk Mining Company and Great River Energy, dated as of January 21, 2011, is incorporated herein by reference to Exhibit 10.19 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.32	Amendment No. 2 to Second Restatement of Coal Sales Agreement, by and between The Falkirk Mining Company and Great River Energy, dated as of March 1, 2014, is incorporated herein by reference to Exhibit 10.52 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, Commission File Number 1-9172.
10.33	Amendment No. 3 to Second Restatement of Coal Sales Agreement, by and between The Falkirk Mining Company and Great River Energy, dated as of January 1, 2019, is incorporated herein by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, Commission File Number 1-9172.

Exhibit Number	Exhibit Description
10.34	Restatement of Option Agreement by and among The Falkirk Mining Company, Cooperative Power Association, United Power Association, and the State of North Dakota, dated as of January 1, 1997, is incorporated herein by reference to Exhibit 10.20 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.35	Termination Agreement and Release, by and among The Falkirk Mining Company, Great River Energy and NoDak Energy Investments Corporation, dated June 30, 2021, is incorporated herein by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.36**	Amendment No. 1 to Termination Agreement and Release, by and between The Falkirk Mining Company, NoDak Energy Investments Corporation and Great River Energy, dated as of December 28, 2021.
10.37 ***	Coal Sales Agreement, by and between The Falkirk Mining Company and Rainbow Energy Center, LLC, dated June 30, 2021, is incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.38 ***	Guaranty by REMC Assets, LP, dated June 17, 2021, is incorporated herein by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.39 ***	Mortgage, Assignment of Leases, Rents and As-Extracted Collateral, Security Agreement, Financing Statement and Fixture Filing, by and between The Falkirk Mining Company and Rainbow Energy Center, LLC, dated June 30, 2021, is incorporated herein by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.40	Security Agreement, by and between The Falkirk Mining Company and Rainbow Energy Center, LLC, dated June 30, 2021, is incorporated herein by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.41	Option Agreement, by and between The Falkirk Mining Company, Rainbow Energy Center, LLC and the State of North Dakota, Doing Business as The Bank of North Dakota, dated June 30, 2021, is incorporated herein by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q, filed by the Company on August 4, 2021, Commission File Number 1-9172.
10.42	Third Restatement of Lignite Mining Agreement by and between The Sabine Mining Company and Southwestern Electric Power Company, dated as of January 1, 2008, is incorporated herein by reference to Exhibit 10.21 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.+
10.43	Amendment No. 1 to Third Restatement of Lignite Mining Agreement by and between The Sabine Mining Company and Southwestern Electric Power Company, dated as of October 18, 2013 is incorporated herein by reference to Exhibit 10.43 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, Commission File Number 1-9172.
10.44	Option Agreement by and among The North American Coal Corporation, Southwestern Electric Power Company and Longview National Bank, dated as of January 15, 1981, is incorporated herein by reference to Exhibit 10.22 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.45	Addendum to Option Agreement, by and among The North American Coal Corporation, Southwestern Electric Power Company and Longview National Bank, dated as of January 15, 1981 is incorporated herein by reference to Exhibit 10.23 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.46	Amendment to Option Agreement, by and among The North American Coal Corporation, Southwestern Electric Power Company and Longview National Bank, dated as of December 2, 1996, is incorporated herein by reference to Exhibit 10.24 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.47	Second Amendment to Option Agreement, by and among The North American Coal Corporation, Southwestern Electric Power Company and Regions Bank, dated as of January 1, 2008, is incorporated herein by reference to Exhibit 10.25 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.48	Agreement by and among The North American Coal Corporation, Southwestern Electric Power Company, Texas Commerce Bank-Longview, Nortex Mining Company and The Sabine Mining Company, dated as of June 30, 1988, is incorporated herein by reference to Exhibit 10.26 to the Company’s Quarterly Report on Form 10-Q/A, filed by the Company on March 20, 2013, Commission File Number 1-9172.
10.49	Lignite Sales Agreement between Coyote Creek Mining Company, L.L.C. and Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Co. and Northwestern Corporation dated as of October 10, 2012 is incorporated herein by reference to Exhibit 10.58 to the Company’s Annual Report on Form 10-K, filed by the Company on March 6, 2013, Commission File Number 1-9172.++

Exhibit Number	Exhibit Description
10.50	First Amendment to Lignite Sales Agreement, dated as of January 30, 2014, between Coyote Creek Mining Company, L.L.C. and Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Co., a division of MDU Resources Group, Inc. and NorthWestern Corporation is incorporated herein by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 8-K, filed by the Company on January 30, 2014, Commission File Number 1-9172.
10.51	Second Amendment to Lignite Sales Agreement, dated as of March 16, 2015, between Coyote Creek Mining Company, L.L.C. and Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Co., a division of MDU Resources Group, Inc., and NorthWestern Corporation is incorporated herein by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q, filed by the Company on May 5, 2015, Commission File Number 1-9172.
10.52*	Amendment No. 3 to The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed by the Company on October 30, 2013, Commission File Number 1-9172.
10.53*	Amendment No. 4 to The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.54 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, Commission File Number 1-9172.
10.54*	Amendment No. 5 to The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.57 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, Commission File Number I-9172.
10.55*	Amendment No. 6 to The North American Coal Corporation Supplemental Retirement Benefit Plan (Amended and Restated as of January 1, 2008) is incorporated herein by reference to Exhibit 10.52 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, Commission File Number I-9172.
10.56	Agreement, dated as of March 16, 2015, among The North American Coal Corporation, Otter Tail Power Company, Northern Municipal Power Agency, Montana-Dakota Utilities Co., a division of MDU Resources Group, Inc. and Northwestern Corporation is incorporated herein by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed by the Company on May 5, 2015, Commission File Number 1-9172.
10.57	The North American Coal Corporation Excess Retirement Plan (Amended and Restated Effective January 1, 2020) is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on December 18, 2019, Commission File Number 1-9172.
10.58	Amended and Restated Credit Agreement by and among The North American Coal Corporation and the Lenders party thereto and KeyBank National Association as Syndication Agent, PNC Bank National Association as Administrative Agent and KeyBanc Capital Markets Inc. and PNC Capital Markets LLC as Joint Lead Arrangers and Joint Bookrunners, dated as of August 11, 2017 is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on August 15, 2017, Commission File Number 1-9172.
10.59	Amended and Restated Credit Agreement by and among The North American Coal Corporation and the Guarantors party thereto and the Lenders party thereto and KeyBank National Association as Syndication Agent, PNC Bank National Association as Administrative Agent and KeyBanc Capital Markets Inc. and PNC Capital Markets LLC as Joint Lead Arrangers and Joint Bookrunners, dated as of November 12, 2021 is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on November 15, 2021, Commission File Number 1-9172.
10.60	Revolving Credit Commitment Increase Agreement, dated as of December 10, 2021 is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed by the Company on December 13, 2021. Commission File Number 1-9172.

(21) Subsidiaries. A list of the subsidiaries of the Company is attached hereto as Exhibit 21.
(23) Consents of experts and counsel.

23.1	Consents of experts and counsel.

(24) Powers of Attorney.

24.1	A copy of a power of attorney for John S. Dalrymple is attached hereto as Exhibit 24.1.
24.2	A copy of a power of attorney for John P. Jumper is attached hereto as Exhibit 24.2.
24.3	A copy of a power of attorney for Dennis W. LaBarre is attached hereto as Exhibit 24.3.
24.4	A copy of a power of attorney for Michael S. Miller is attached hereto as Exhibit 24.4.
24.5	A copy of a power of attorney for Richard de J. Osborne is attached hereto as Exhibit 24.5.
24.6	A copy of a power of attorney for Alfred M. Rankin, Jr. is attached hereto as Exhibit 24.6.
24.7	A copy of a power of attorney for Matthew M. Rankin is attached hereto as Exhibit 24.7.
24.8	A copy of a power of attorney for Roger F. Rankin is attached hereto as Exhibit 24.8.
24.9	A copy of a power of attorney for Lori J. Robinson is attached hereto as Exhibit 24.9.
24.10	A copy of a power of attorney for Robert S. Shapard is attached hereto as Exhibit 24.10.
24.11	A copy of a power of attorney for Britton T. Taplin is attached hereto as Exhibit 24.11.

(31) Rule 13a-14(a)/15d-14(a) Certifications.

31(i)(1)	Certification of J.C. Butler, Jr. pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act is attached hereto as Exhibit 31(i)(1).
31(i)(2)	Certification of Elizabeth I. Loveman pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act is attached hereto as Exhibit 31(i)(2).
(32)	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed and dated by J.C. Butler, Jr. and Elizabeth I. Loveman.
(95)	Mine Safety Disclosure Exhibit is attached hereto as Exhibit 95.
96.1**	Technical Report Summary relating to The Coteau Properties Company, dated December 31, 2021.
96.2**	Technical Report Summary relating to the Coyote Creek Mining Company, LLC., dated December 31, 2021.
96.3**	Technical Report Summary relating to The Falkirk Mining Company, dated December 31, 2021.
96.4**	Technical Report Summary relating to the Mississippi Lignite Mining Company, dated December 31, 2021.
96.5**	Supplemental Figures Attachment
(99.1**)	Reserve Report of Catapult Mineral Partners.
(99.2**)	Supplemental Figures Attachment

101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

*	Management contract or compensation plan or arrangement required to be filed as an exhibit pursuant to Item15(b) of this Annual Report on Form 10-K.
**	Filed herewith.
***	Certain confidential information contained in this agreement has been omitted because it (i) is not material and (ii) would be competitively harmful if publicly disclosed.
+	Portions of Exhibit have been omitted and filed separately with the Securities and Exchange Commission in reliance on Rule 24b-2 and an Order from the Commission granting the Company's request for confidential treatment dated March 27, 2013. Portions for which confidential treatment has been granted have been marked with three asterisks [***] and a footnote indicating "Confidential treatment requested".
++	Portions of Exhibit have been omitted and filed separately with the Securities and Exchange Commission in reliance on Rule 24b-2 and an Order from the Commission granting the Company's request for confidential treatment dated April 2, 2013. Portions for which confidential treatment has been granted have been marked with three asterisks [***] and a footnote indicating "Confidential treatment requested".

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NACCO Industries, Inc.

By: /s/ Elizabeth I. Loveman

Elizabeth I. Loveman

Vice President and Controller
(principal financial and accounting officer)

March 2, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ J.C. Butler, Jr. J.C. Butler, Jr.	President and Chief Executive Officer (principal executive officer)	March 2, 2022
/s/ Elizabeth I. Loveman Elizabeth I. Loveman	Vice President and Controller (principal financial and accounting officer)	March 2, 2022
*John S. Dalrymple John S. Dalrymple	Director	March 2, 2022
* John P. Jumper John P. Jumper	Director	March 2, 2022
* Dennis W. LaBarre Dennis W. LaBarre	Director	March 2, 2022
* Michael S. Miller Michael S. Miller	Director	March 2, 2022
* Richard de J. Osborne Richard de J. Osborne	Director	March 2, 2022
* Alfred M. Rankin, Jr. Alfred M. Rankin, Jr.	Director	March 2, 2022
* Matthew M. Rankin Matthew M. Rankin	Director	March 2, 2022
* Roger F. Rankin Roger F. Rankin	Director	March 2, 2022
*Lori J. Robinson Lori J. Robinson	Director	March 2, 2022
*Robert S. Shapard Robert S. Shapard	Director	March 2, 2022
* Britton T. Taplin Britton T. Taplin	Director	March 2, 2022

* Elizabeth I. Loveman, by signing her name hereto, does hereby sign this Form 10-K on behalf of each of the above named and designated directors of the Company pursuant to a Power of Attorney executed by such persons and filed with the Securities and Exchange Commission.

/s/ Elizabeth I. Loveman Elizabeth I. Loveman, Attorney-in-Fact	March 2, 2022

ANNUAL REPORT ON FORM 10-K

ITEM 8, ITEM 15(a)(1) AND (2), AND ITEM 15(c)

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS

FINANCIAL STATEMENT SCHEDULES

YEAR ENDED DECEMBER 31, 2021

NACCO INDUSTRIES, INC.

CLEVELAND, OHIO

FORM 10-K

ITEM 15(a)(1) AND (2)

NACCO INDUSTRIES, INC. AND SUBSIDIARIES

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

The following consolidated financial statements of NACCO Industries, Inc. and Subsidiaries and the reports of the Company's independent registered public accounting firm (PCAOB ID:42) are incorporated by reference in Item 8:

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm — For each of the two years in the period ended December 31, 2021.	F-3
Report of Ernst & Young LLP, Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting — As of December 31, 2021.	F-5
Consolidated Statements of Operations	F-6
Consolidated Statements of Comprehensive Income (Loss)	F-7
Consolidated Balance Sheets	F-8
Consolidated Statements of Cash Flows	F-9
Consolidated Statements of Equity	F-10
Notes to Consolidated Financial Statements	F-11

The following consolidated financial statement schedules of NACCO Industries, Inc. and Subsidiaries are included in Item 15(c):

Schedule I — Condensed Financial Information of the Parent

Schedule II — Valuation and Qualifying Accounts

All other schedules for which provision is made in the applicable accounting regulation of the SEC are not required under the related instructions or are inapplicable, and therefore have been omitted.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of NACCO Industries, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of NACCO Industries, Inc. and Subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for the years then ended, and the related notes and the financial statement schedules listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021 and 2020, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 2, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit review committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Falkirk and Great River Energy Contract Termination

Description of the Matter	As discussed in Note 1 to the consolidated financial statements, during June 2021, Great River Energy (“GRE”) entered into an agreement to sell Coal Creek Station and the adjacent high-voltage direct current transmission line to Bismarck, North Dakota-based Rainbow Energy Center, LLC (“Rainbow Energy”) and its affiliates. The closing of the transaction between GRE and Rainbow Energy is subject to the satisfaction of certain conditions. Upon completion of the sale of Coal Creek Station, the existing Coal Sales Agreement, the existing Mortgage and Security Agreement and the existing Option Agreement between GRE and the Falkirk Mining Company (“Falkirk”), a wholly owned subsidiary of North American Coal Corporation (“NACoal”), will terminate. If GRE’s efforts to sell the power plant are successful, a new Coal Sales Agreement (“CSA”) between Falkirk and Rainbow Energy will become effective and Falkirk will supply all coal requirements of Coal Creek Station concurrent with Rainbow Energy’s acquisition of the power plant. The Company evaluated whether the GRE announcement in June 2021 was a variable interest entity (“VIE)” reconsideration event and concluded it was not. Auditing the disclosure of the terms of the contract termination was especially complex in determining whether the GRE contract termination and the subsequent agreement between Falkirk and Rainbow Energy will result in a reconsideration event, a change in the conclusion that Falkirk meets the definition of a VIE and the determination of the primary beneficiary of the VIE. Evaluating the Company’s judgments in determining whether an entity is a VIE and the primary beneficiary of the VIE requires a high degree of complex auditor judgment.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated and tested the design and operating effectiveness of the controls surrounding the Company’s processes to assess the implications of significant transactions and events that could trigger a VIE reconsideration event. To test the implications of the transaction, our audit procedures included, among other things, inspecting the termination agreement between Falkirk and GRE and new CSA between Falkirk and Rainbow Energy that are both effective upon regulatory approval of the sale of Coal Creek Station and evaluating the VIE assessment performed by the Company. We evaluated the significant terms of the contracts and whether the June 2021 announcement by GRE or the contract termination and subsequent agreement between Falkirk and Rainbow Energy will result in a reconsideration event, a change in the conclusion that Falkirk meets the definition of a VIE and the determination of the primary beneficiary.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2002.
Cleveland, Ohio
March 2, 2022

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of NACCO Industries, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited NACCO Industries, Inc. and Subsidiaries' internal control over financial reporting as of December 31, 20210, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, NACCO Industries, Inc. and Subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2021 consolidated financial statements of the Company and our report dated March 2, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's report on internal control over financial reporting in Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Cleveland, Ohio
March 2, 2022

NACCO INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31	
	2021	2020
	(In thousands, except per share data)	
Revenues	**$ 191,846**	$ 128,432
Cost of sales	**148,394**	111,463
Gross profit	**43,452**	16,969
Earnings of unconsolidated operations	**60,843**	60,203
Contract termination settlement	**10,333**	—
Operating expenses		
Selling, general and administrative expenses	**55,722**	53,062
Amortization of intangible assets	**3,556**	2,572
Gain on sale of assets	**(60)**	(269)
Asset impairment charges	**—**	8,359
	59,218	63,724
Operating profit	**55,410**	13,448
Other (income) expense		
Interest expense	**1,719**	1,354
Interest income	**(449)**	(1,200)
Closed mine obligations	**1,297**	1,641
Gain on equity securities	**(3,423)**	(1,226)
Other, net	**(584)**	(1,379)
	(1,440)	(810)
Income before income tax provision (benefit)	**56,850**	14,258
Income tax provision (benefit)	**8,725**	(535)
Net income	**$ 48,125**	$ 14,793
Earnings per share:		
Basic earnings per share	**$ 6.73**	$ 2.11
Diluted earnings per share	**$ 6.69**	$ 2.10
Basic weighted average shares outstanding	**7,146**	7,026
Diluted weighted average shares outstanding	**7,190**	7,057

See notes to the Consolidated Financial Statements.

NACCO INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31	
	2021	2020
	(In thousands)	
Net income	**$ 48,125**	$ 14,793
Other comprehensive income		
Current period pension and postretirement plan adjustment, net of $864 tax expense and $213 tax benefit in 2021 and 2020, respectively	**2,851**	(697)
Reclassification of pension and postretirement adjustments into earnings, net of $170 and $129 tax benefit in 2021 and 2020, respectively	**572**	435
Total other comprehensive income	**3,423**	(262)
Comprehensive income	**$ 51,548**	$ 14,531

See notes to the Consolidated Financial Statements.

NACCO INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31	
	2021	2020
	(In thousands, except share data)	
ASSETS		
Current assets		
Cash and cash equivalents	**$ 86,005**	$ 88,450
Trade accounts receivable	**25,667**	18,894
Accounts receivable from affiliates	**5,605**	4,764
Inventories	**54,085**	47,551
Refundable federal income taxes	**15,054**	17,615
Prepaid insurance	**2,016**	2,564
Other current assets	**14,621**	8,308
Total current assets	**203,053**	188,146
Property, plant and equipment, net	**193,167**	172,417
Intangibles, net	**31,774**	35,330
Investment in unconsolidated subsidiaries	**19,090**	28,978
Operating lease right-of-use assets	**8,911**	10,324
Other non-current assets	**51,225**	40,984
Total assets	**$ 507,220**	$ 476,179
LIABILITIES AND EQUITY		
Current liabilities		
Accounts payable	**$ 12,208**	$ 5,522
Accounts payable to affiliates	**741**	125
Revolving credit agreements	**—**	20,000
Current maturities of long-term debt	**2,527**	2,112
Asset retirement obligations	**1,820**	1,844
Accrued payroll	**16,339**	14,430
Deferred revenue	**4,082**	941
Other current liabilities	**8,299**	7,283
Total current liabilities	**46,016**	52,257
Long-term debt	**18,183**	24,353
Operating lease liabilities	**9,733**	11,196
Asset retirement obligations	**42,131**	39,888
Pension and other postretirement obligations	**6,605**	8,838
Deferred income taxes	**14,792**	17,550
Liability for uncertain tax positions	**10,113**	9,413
Other long-term liabilities	**7,531**	12,060
Total liabilities	**155,104**	175,555
Stockholders' equity		
Common stock:		
Class A, par value $1 per share, 5,616,568 shares outstanding (2020 - 5,489,615 shares outstanding)	**5,616**	5,490
Class B, par value $1 per share, convertible into Class A on a one-for-one basis, 1,566,613 shares outstanding (2020 - 1,568,210 shares outstanding)	**1,567**	1,568
Capital in excess of par value	**16,331**	10,895
Retained earnings	**336,778**	294,270
Accumulated other comprehensive loss	**(8,176)**	(11,599)
Total stockholders' equity	**352,116**	300,624
Total liabilities and equity	**$ 507,220**	$ 476,179

See notes to the Consolidated Financial Statements.

NACCO INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31	
	2021	2020
	(In thousands)	
Operating Activities		
Net income	**$ 48,125**	$ 14,793
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation, depletion and amortization	**23,085**	18,114
Amortization of deferred financing fees	**326**	334
Deferred income taxes	**(3,553)**	7,517
Stock-based compensation	**5,561**	3,078
Gain on sale of assets	**(60)**	(269)
Inventory impairment charge	**—**	1,973
Other asset impairment charges	**—**	8,359
Other	**1,647**	(3,786)
Working capital changes:		
Affiliates receivable/payable	**495**	20
Accounts receivable	**(13,685)**	42
Inventories	**(6,534)**	(9,361)
Other current assets	**3,320**	(2,582)
Accounts payable	**7,445**	(10,622)
Income taxes receivable/payable	**2,699**	(10,790)
Other current liabilities	**6,004**	(19,306)
Net cash provided by (used for) operating activities	**74,875**	(2,486)
Investing Activities		
Expenditures for property, plant and equipment	**(39,230)**	(30,187)
Acquisition of mineral interests	**(5,331)**	(14,181)
Proceeds from the sale of assets	**633**	571
Purchase of equity securities	**—**	(2,000)
Other	**(219)**	(187)
Net cash used for investing activities	**(44,147)**	(45,984)
Financing Activities		
Net (reductions) additions to revolving credit agreement	**(26,000)**	14,000
Additions to long-term debt	**3,634**	7,427
Reductions to long-term debt	**(3,435)**	(1,354)
Cash dividends paid	**(5,617)**	(5,375)
Purchase of treasury shares	**—**	(1,002)
Other	**(1,755)**	332
Net cash (used for) provided by financing activities	**(33,173)**	14,028
Cash and Cash Equivalents		
Total decrease for the year	**(2,445)**	(34,442)
Balance at the beginning of the year	**88,450**	122,892
Balance at the end of the year	**$ 86,005**	$ 88,450

See notes to the Consolidated Financial Statements.

NACCO INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

	Class A Common Stock	Class B Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	(In thousands, except per share data)					
Balance, January 1, 2020	$ 5,397	$ 1,569	$ 8,911	$ 284,852	$ (11,337)	$ 289,392
Stock-based compensation	124	—	2,954	—	—	3,078
Conversion of Class B to Class A shares	1	(1)				—
Purchase of treasury shares	(32)	—	(970)	—	—	(1,002)
Net income	—	—	—	14,793	—	14,793
Cash dividends on Class A and Class B common stock: $0.7675 per share	—	—	—	(5,375)	—	(5,375)
Current period other comprehensive income, net of tax	—	—	—	—	(697)	(697)
Reclassification adjustment to net income, net of tax	—	—	—	—	435	435
Balance, December 31, 2020	$ 5,490	$ 1,568	$ 10,895	$ 294,270	$ (11,599)	$ 300,624
Stock-based compensation	**125**	**—**	**5,436**	**—**	**—**	**5,561**
Conversion of Class B to Class A shares	**1**	**(1)**	**—**	**—**	**—**	**—**
Net income	**—**	**—**	**—**	**48,125**	**—**	**48,125**
Cash dividends on Class A and Class B common stock: $0.7850 per share	**—**	**—**	**—**	**(5,617)**	**—**	**(5,617)**
Current period other comprehensive income, net of tax	**—**	**—**	**—**	**—**	**2,851**	**2,851**
Reclassification adjustment to net income, net of tax	**—**	**—**	**—**	**—**	**572**	**572**
Balance, December 31, 2021	**$ 5,616**	**$ 1,567**	**$ 16,331**	**$ 336,778**	**$ (8,176)**	**$ 352,116**

See notes to the Consolidated Financial Statements.

NOTE 1—Principles of Consolidation and Nature of Operations

The Consolidated Financial Statements include the accounts of NACCO Industries, Inc.® (“NACCO”) and its wholly owned subsidiaries (collectively, the “Company”). NACCO brings natural resources to life by delivering aggregates, minerals, reliable fuels and environmental solutions through its robust portfolio of NACCO Natural Resources businesses. The Company operates under three business segments: Coal Mining, North American Mining ("NAMining") and Minerals Management. The Coal Mining segment operates surface coal mines for power generation companies and an activated carbon producer. The NAMining segment is a trusted mining partner for producers of aggregates, lithium and other minerals. The Minerals Management segment promotes the development of mineral interests. In addition, Mitigation Resources of North America® ("Mitigation Resources") provides stream and wetland mitigation solutions.

The Company also has items not directly attributable to a reportable segment. Intercompany accounts and transactions are eliminated in consolidation. See Note 15 to the Consolidated Financial Statements for further discussion of segment reporting.

The Company’s operating segments are further described below:

Coal Mining Segment
The Coal Mining segment, operating as The North American Coal Corporation® ("NACoal"), operates surface coal mines under long-term contracts with power generation companies and an activated carbon producer pursuant to a service-based business model. Coal is surface mined in North Dakota, Texas, Mississippi, Louisiana and through September 30, 2021, on the Navajo Nation in New Mexico. Each mine is fully integrated with its customer's operations.

As of December 31, 2021, the Company's operating coal mines were: The Coteau Properties Company (“Coteau”), Coyote Creek Mining Company, LLC (“Coyote Creek”), Demery Resources Company, LLC (“Demery”), The Falkirk Mining Company (“Falkirk”), Mississippi Lignite Mining Company (“MLMC”) and The Sabine Mining Company (“Sabine”).

The contract mining agreement between Bisti Fuels Company, LLC (“Bisti”) and its customer, Navajo Transitional Energy Company ("NTEC") was terminated effective September 30, 2021. As required under the agreement, NTEC paid the Company a termination fee of $10.3 million reported on the line Contract termination settlement on the Consolidated Statements of Operations. As of October 1, 2021, NTEC assumed control and responsibility for operation and all reclamation of the Navajo Mine.

The Coteau Properties Company (“Coteau”) operates the Freedom Mine in North Dakota. All coal production from the Freedom Mine is delivered to Basin Electric Power Cooperative (“Basin Electric”). Basin Electric utilizes the coal at the Great Plains Synfuels Plant (the “Synfuels Plant”), Antelope Valley Station and Leland Olds Station. The Synfuels Plant is a coal gasification plant, owned by Dakota Gasification Company (“Dakota Gas’), a subsidiary of Basin Electric, that manufactures synthetic natural gas and produces fertilizers, solvents, phenol, carbon dioxide, and other chemical products for sale. During 2020, Basin Electric informed Coteau that it is considering changes that may result in modifications to its Synfuels Plant that could potentially reduce or eliminate coal requirements at the Synfuels Plant. During August 2021, Bakken Energy (“Bakken”) and Basin Electric signed a non-binding term sheet to transfer ownership of the assets of Dakota Gas to Bakken. Bakken stated the closing date is expected to be April 1, 2023. As part of the term sheet between Basin Electric and Bakken, Basin Electric indicated that the Synfuels Plant will continue existing operations through 2025. The closing is subject to the satisfaction of specified conditions. Basin Electric is also considering other options for the Synfuels Plant if the transaction with Bakken does not close. Basin Electric indicated that if it decides to proceed with any changes that could reduce or eliminate the use of coal, the feedstock change is not expected to occur before 2026.

Falkirk operates the Falkirk Mine in North Dakota. Falkirk is the sole supplier of lignite coal to the Coal Creek Station power plant pursuant to a contract under which Falkirk also supplies approximately 0.3 million tons of lignite coal per year to Spiritwood Station power plant. Coal Creek Station and Spiritwood Station are owned by Great River Energy (“GRE”). In May 2020, GRE announced its intent to sell or retire Coal Creek Station and modify Spiritwood Station to be fueled by natural gas.

During June 2021, GRE entered into an agreement to sell Coal Creek Station and the adjacent high-voltage direct current transmission line to Bismarck, North Dakota-based Rainbow Energy Center, LLC (“Rainbow Energy”) and its affiliates. The

closing of this sale is subject to the satisfaction of certain conditions and presently, the transaction is expected to close during the second quarter of 2022.

Falkirk meets the definition of a variable interest entity ("VIE"). The Company concluded that GRE's May 2020 and June 2021 announcements were not reconsideration events; however, the completion of the Rainbow Energy transaction will result in a reconsideration event. As the terms of the contract between Falkirk and Rainbow Energy are substantially the same as the terms of the contract between Falkirk and GRE, Falkirk is expected to remain a VIE and Rainbow Energy will become the primary beneficiary; therefore, NACCO will continue to account for Falkirk under the equity method.

Upon completion of the sale of Coal Creek Station, the existing Coal Sales Agreement, the existing Mortgage and Security Agreement and the existing Option Agreement between GRE and Falkirk will terminate. Falkirk and GRE have entered into a termination and release of claims agreement. Upon completion of the sale of Coal Creek Station, GRE will pay Falkirk $14.0 million in cash, as well as transfer ownership of an office building located in Bismarck, North Dakota, and convey membership units in Midwest AgEnergy to NACoal. NACCO currently holds a $5.0 million investment in Midwest AgEnergy, which operates two ethanol facilities in North Dakota.

If GRE's efforts to sell the power plant are successful, a new Coal Sales Agreement ("CSA") between Falkirk and Rainbow Energy will become effective and Falkirk will supply all coal requirements of Coal Creek Station concurrent with Rainbow Energy's acquisition of the power plant. Falkirk will no longer make any coal deliveries to GRE's Spiritwood Station. Falkirk will be paid a management fee and Rainbow Energy will be responsible for funding all mine operating costs and directly or indirectly providing all of the capital required to operate the mine. The CSA specifies that Falkirk will perform final mine reclamation, which will be funded in its entirety by Rainbow Energy. The initial production period is expected to run ten years from the effective date of the CSA, but the CSA may be extended or terminated early under certain circumstances. If Rainbow Energy terminates the CSA and closes Coal Creek Station before 2027, Falkirk will be entitled to an additional payment from GRE under the terms of the termination and release of claims agreement. The additional payment amount ranges from $8 million if the closure occurs before 2024 to $2 million if the closure occurs in 2026. To support the transfer to new ownership, Falkirk has agreed to a reduction in the current per ton management fee from the effective date of the new CSA through May 31, 2024. After May 31, 2024, the per ton management fee increases to a higher base in line with current fee levels, and thereafter adjusts annually according to an index which tracks broad measures of U.S. inflation.

If GRE's efforts to sell the power plant are not successful and GRE elects to prematurely close Coal Creek Station, the early termination of the CSA would have a material adverse effect on the Company's business, financial condition and results of operations.

Sabine operates the Sabine Mine in Texas. All production from Sabine is delivered to Southwestern Electric Power Company's ("SWEPCO") Henry W. Pirkey Plant (the "Pirkey Plant"). SWEPCO is an American Electric Power ("AEP") company. During 2020, AEP announced its intent to retire the Pirkey Plant in 2023. SWEPCO expects deliveries from Sabine to continue until the first quarter of 2023 at which time Sabine expects to begin final reclamation. Funding for mine reclamation is the responsibility of SWEPCO.

During 2020, Caddo Creek Resources Company, LLC ("Caddo Creek") ceased all mining and delivery of lignite and commenced mine reclamation. Funding for mine reclamation is the responsibility of a subsidiary of Advanced Emissions Solutions ("AES"). Caddo Creek entered into a contract with a subsidiary of AES to perform the required mine reclamation. The reclamation at Caddo Creek is expected to be substantially complete during the first half of 2022.

During 2020, the contract mining agreement between Camino Real Fuels, LLC ("Camino Real") and its customer, Dos Republicas Coal Partnership ("DRCP"), terminated and resulted in mine closure. Funding for mine reclamation is the responsibility of DRCP.

At all operating coal mines other than MLMC, the Company is paid a management fee per ton of coal or heating unit (MMBtu) delivered. Each contract specifies the indices and mechanics by which fees change over time, generally in line with broad measures of U.S. inflation. The customers are responsible for funding all mine operating costs, including final mine reclamation, and directly or indirectly provide all of the capital required to build and operate the mine. This contract structure eliminates exposure to spot coal market price fluctuations while providing income and cash flow with minimal capital investment. Other than at Coyote Creek, debt financing provided by or supported by the customers is without recourse to NACCO and NACoal. See Note 17 for further discussion of Coyote Creek's guarantees.

All operating coal mines other than MLMC meet the definition of a VIE. In each case, NACCO is not the primary beneficiary of the VIE as it does not exercise financial control; therefore, NACCO does not consolidate the results of these operations within its financial statements. Instead, these contracts are accounted for as equity method investments. The income before income taxes associated with these VIEs is reported as Earnings of unconsolidated operations on the Consolidated Statements of Operations, and the Company's investment is reported on the line Investments in Unconsolidated Subsidiaries in the Consolidated Balance Sheets. The mines that meet the definition of a VIE are referred to collectively as the "Unconsolidated Subsidiaries." For tax purposes, the Unconsolidated Subsidiaries are included within the NACCO consolidated U.S. tax return; therefore, the income tax expense line on the Consolidated Statements of Operations includes income taxes related to these entities. See Note 17 for further information on the Unconsolidated Subsidiaries.

The Company performs contemporaneous reclamation activities at each mine in the normal course of operations. Under all of the Unconsolidated Subsidiaries' contracts, the customer has the obligation to fund final mine reclamation activities. Under certain contracts, the Unconsolidated Subsidiary holds the mine permit and is therefore responsible for final mine reclamation activities. To the extent the Unconsolidated Subsidiary performs such final reclamation, it is compensated for providing those services in addition to receiving reimbursement from customers for costs incurred. At Caddo Creek, the terms of the contract to perform mine reclamation contain a fixed-price component and therefore, Caddo Creek no longer meets the VIE criteria. As a result, Caddo Creek is consolidated within the Company's financial statements.

The MLMC contract is the only operating coal contract in which the Company is responsible for all operating costs, capital requirements and final mine reclamation; therefore, MLMC is consolidated within NACCO's financial statements. MLMC sells coal to its customer at a contractually agreed-upon price which adjusts monthly, primarily based on changes in the level of established indices which reflect general U.S. inflation rates. Profitability at MLMC is affected by customer demand for coal and changes in the indices that determine sales price and actual costs incurred. As diesel fuel is heavily weighted among the indices used to determine the coal sales price, fluctuations in diesel fuel prices can result in significant fluctuations in earnings at MLMC.

NAMining Segment

The NAMining segment provides value-added contract mining and other services for producers of aggregates, lithium and other minerals. The segment is a primary platform for the Company's growth and diversification of mining activities outside of the coal industry. NAMining provides contract mining services for independently owned mines and quarries, creating value for its customers by performing the mining aspects of its customers' operations. This allows customers to focus on their areas of expertise: materials handling and processing, product sales and distribution. NAMining historically operated primarily at limestone quarries in Florida, but is focused on expanding outside of Florida, mining materials other than limestone and expanding the scope of mining operations provided to its customers.

NAMining utilizes both fixed price and management fee contract structures. Certain of the entities within the NAMining segment are VIEs and are accounted for under the equity method as Unconsolidated Subsidiaries. See Note 17 for further discussion.

Minerals Management Segment

The Minerals Management segment derives income primarily by leasing its royalty and mineral interests to third-party exploration and production companies, and, to a lesser extent, other mining companies, granting them the rights to explore, develop, mine, produce, market and sell gas, oil, and coal in exchange for royalty payments based on the lessees' sales of those minerals. During 2021 and 2020, the Minerals Management segment acquired mineral interests, primarily in the Eagle Ford and Permian Basins in Texas and intends to make future acquisitions of mineral and royalty interests that meet the Company's acquisition criteria as part of its growth strategy. See Note 20 for further discussion of Mineral Management's acquisitions.

The Company's legacy royalty and mineral interests are located in Ohio (Utica and Marcellus shale natural gas), Louisiana (Haynesville shale and Cotton Valley formation natural gas), Texas (Cotton Valley and Austin Chalk formation natural gas), Mississippi (coal), Pennsylvania (coal, coalbed methane and Marcellus shale natural gas), Alabama (coal, coalbed methane and natural gas) and North Dakota (coal, oil and natural gas). The majority of the Company's legacy reserves were acquired as part of its historical coal mining operations.

NOTE 2—Significant Accounting Policies

Use of Estimates: The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and judgments. These estimates and judgments affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities (if any) at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents: Cash and cash equivalents include cash in banks and highly liquid investments with original maturities of three months or less.

Inventories: Inventories are stated at the lower of cost and net realizable value. The weighted average method is used for inventory valuation.

Property, Plant and Equipment, Net: Property, plant and equipment are initially recorded at cost. Depreciation, depletion and amortization are provided in amounts sufficient to amortize the cost of the assets, including assets recorded under finance leases, over their estimated useful lives using the straight-line method or the units-of-production method. Buildings and building improvements are depreciated over the life of the mine, which is generally 30 years. Estimated lives for machinery and equipment range from three to 15 years. The units-of-production method is used to amortize certain assets based on estimated recoverable tonnages. Repairs and maintenance costs are expensed when incurred, unless such costs extend the estimated useful life of the asset, in which case such costs are capitalized and depreciated. Asset retirement costs associated with asset retirement obligations are capitalized with the carrying amount of the related long-lived asset and depreciated over the asset's estimated useful life.

Royalty Interests in Oil and Natural Gas Properties: The Company follows the successful efforts method of accounting for its royalty and mineral interests. Under this method, costs to acquire mineral and royalty interests in oil and natural gas properties are capitalized when incurred. Acquisitions of royalty interests of oil and natural gas properties are considered asset acquisitions and are recorded at cost. As an owner of mineral and royalty interests and not working interests, the Company is not required to make capital expenditures and did not make capital expenditures to convert proved undeveloped reserves from undeveloped to developed.

Acquisition costs of proved royalty and mineral interests are amortized using the units of production method over the life of the property, which is estimated using proved reserves. For purposes of amortization, interests in oil and natural gas properties are grouped in a reasonable aggregation of properties with common geological structural features or stratigraphic condition.

The Company reviews and evaluates its royalty interests in oil and natural gas properties for impairment when events or changes in circumstances indicate that the related carrying amounts may not be recoverable. Proved oil and gas properties are reviewed for impairment when events and circumstances indicate a potential decline in the fair value of such properties below the carrying value, such as a downward revision of the reserve estimates or lower commodity prices. When such events or changes in circumstances occur, the Company estimates the undiscounted future cash flows expected in connection with the properties and compares such future cash flows to the carrying amounts of the properties to determine if the carrying amounts are recoverable. If the carrying value of the properties is determined to not be recoverable based on the undiscounted cash flows, an impairment charge is recognized by comparing the carrying value to the estimated fair value of the properties.

See Note 20 for further discussion of the Company's royalty and mineral interests.

Long-Lived Assets: The Company periodically evaluates long-lived assets for impairment when changes in circumstances or the occurrence of certain events indicate the carrying amount of an asset or asset group may not be recoverable. Upon identification of indicators of impairment, the Company evaluates the carrying value of the asset by comparing the estimated future undiscounted cash flows generated from the use of the asset or asset group and its eventual disposition with the asset's net carrying value. If the carrying value of an asset is considered impaired, an impairment charge is recorded for the amount that the carrying value of the long-lived asset or asset group exceeds its fair value. Fair value is estimated as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 9 for further discussion of the Company's nonrecurring fair value measurements.

At MLMC, the costs of mining operations are not reimbursed by MLMC's customer. As such, increased costs at MLMC or decreased revenues could materially reduce the Company's profitability. Any reduction in customer demand at MLMC, including reductions related to reduced mechanical availability of the customer’s power plant, would adversely affect the Company's operating results and could result in significant impairments. MLMC has approximately $136 million of long-lived assets, including property, plant and equipment and its coal supply agreement intangible asset, which are subject to periodic impairment analyses and review. Identifying and assessing whether impairment indicators exist, or if events or changes in

circumstances have occurred, including assumptions about future power plant dispatch levels, changes in future sales price, operating costs and other factors that impact anticipated revenue and customer demand, requires significant judgment. Actual future operating results could differ significantly from these estimates, which may result in an impairment charge in a future period, which could have a substantial impact on the Company's results of operations.

Coal Supply Agreement: The coal supply agreement represents a long-term supply agreement with MLMC's customer and was recorded based on the fair value at the date of acquisition. The coal supply agreement is amortized based on units of production over the term of the agreement, which expires in 2032. The Company reviews identified intangible assets for impairment when changes in circumstances or the occurrence of certain events indicate potential impairment.

Self-insurance Liabilities: The Company is generally self-insured for medical claims, certain workers' compensation claims and certain closed mine liabilities. An estimated provision for claims reported and for claims incurred but not yet reported under the self-insurance programs is recorded and revised periodically based on industry trends, historical experience and management judgment. In addition, industry trends are considered within management's judgment for valuing claims. Changes in assumptions for such matters as legal judgments and settlements, inflation rates, medical costs and actual experience could cause estimates to change in the near term.

Revenue Recognition: See Note 3 to the Consolidated Financial Statements for discussion of revenue recognition.

Stock Compensation: The Company maintains long-term incentive programs that allow for the grant of shares of Class A common stock, subject to restrictions, as a means of retaining and rewarding selected employees for long-term performance and to increase ownership in the Company. Shares awarded under the plans are fully vested and entitle the stockholder to all rights of common stock ownership except that shares may not be assigned, pledged or otherwise transferred during the restriction period. In general, for shares awarded for years ended December 31, 2021 and December 31, 2020, the restriction period ends at the earliest of (i) three years after the participant's retirement date, (ii) three, five or ten years from the award date, or (iii) the participant's death or permanent disability. Pursuant to the plans, the Company issued 138,306 and 79,380 shares related to the years ended December 31, 2021 and 2020, respectively. After the issuance of these shares, there were 561,694 shares of Class A common stock available for issuance under these plans. Compensation expense related to these share awards was $4.1 million ($3.2 million net of tax) and $2.0 million ($1.6 million net of tax) for the years ended December 31, 2021 and 2020, respectively. Compensation expense represents fair value based on the market price of the shares of Class A common stock at the grant date.

The Company also has a stock compensation plan for non-employee directors of the Company under which a portion of the annual retainer for each non-employee director is paid in restricted shares of Class A common stock. For the year ended December 31, 2021, $105,000 ($150,000 for the Chairman) of the non-employee director's annual retainer of $167,000 ($250,000 for the Chairman) was paid in restricted shares of Class A common stock. For the year ended December 31, 2020, $100,000 ($150,000 for the Chairman) of the non-employee director's annual retainer of $162,000 ($250,000 for the Chairman) was paid in restricted shares of Class A common stock. Shares awarded under the plan are fully vested and entitle the stockholder to all rights of common stock ownership except that shares may not be assigned, pledged, hypothecated or otherwise transferred during the restriction period. In general, the restriction period ends at the earliest of (i) ten years from the award date, (ii) the date of the director's death or permanent disability, (iii) five years (or earlier with the approval of the Board of Directors) after the director's date of retirement from the Board of Directors, (iv) the date the director has both retired from the Board of Directors and has reached age 70, or (v) at such other time as determined by the Board of Directors in its sole and absolute discretion. Pursuant to this plan, the Company issued 45,223 and 42,744 shares related to the years ended December 31, 2021 and 2020, respectively. In addition to the mandatory retainer fee received in restricted stock, directors may elect to receive shares of Class A common stock in lieu of cash for up to 100% of the balance of their annual retainer, committee retainer and any committee chairman's fees. These voluntary shares are not subject to any restrictions. Total shares issued under voluntary elections were 753 in 2021 and 745 in 2020. After the issuance of these shares, there were 166,561 shares of Class A common stock available for issuance under this plan. Compensation expense related to these awards was $1.3 million ($1.1 million net of tax) and $1.0 million ($0.8 million net of tax) for the years ended December 31, 2021 and 2020, respectively. Compensation expense represents fair value based on the market price of the shares of Class A common stock at the grant date.

Financial Instruments: Financial instruments held by the Company include cash and cash equivalents, accounts receivable, equity securities, accounts payable, revolving credit agreements and long-term debt.

Fair Value Measurements: The Company accounts for the fair value measurement of its financial assets and liabilities in accordance with U.S. generally accepted accounting principles, which defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

A fair value hierarchy requires an entity to maximize the use of observable inputs, where available, and minimize the use of unobservable inputs when measuring fair value.

Described below are the three levels of inputs that may be used to measure fair value:

Level 1 - Quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities.
Level 2 - Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.
Level 3 - Unobservable inputs are used when little or no market data is available.

The hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The classification of fair value measurements within the hierarchy is based upon the lowest level of input that is significant to the measurement. See Note 9 for further discussion of fair value measurements.

NOTE 3—Revenue Recognition

Nature of Performance Obligations

At contract inception, the Company assesses the goods and services promised in its contracts with customers and identifies a performance obligation for each promised good or service that is distinct. To identify the performance obligations, the Company considers all of the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices.

Each mine or mine area has a contract with its respective customer that represents a contract under ASC 606. For its consolidated entities, the Company's performance obligations vary by contract and consist of the following:

At MLMC, each MMBtu delivered during the production period is considered a separate performance obligation. Revenue is recognized at the point in time that control of each MMBtu of lignite transfers to the customer. Fluctuations in revenue from period to period generally result from changes in customer demand.

During 2020, Caddo Creek entered into a fixed-price contract to perform mine reclamation. The management service to perform mine reclamation is the performance obligation accounted for as a series. Performance momentarily creates an asset that the customer simultaneously receives and consumes; therefore, control is transferred to the customer over time. Revenue from this contract is recognized over time utilizing the cost-to-cost method to measure the extent of progress toward completion of the performance obligation. The Company believes the cost-to-cost method is the most appropriate method to measure progress and that the rate at which costs are incurred to fulfill the contract best depicts the transfer of control to the customer. The extent of progress towards completion is measured based on the ratio of costs incurred to date compared to total estimated costs at completion, and revenue is recorded proportionally based on an estimated profit margin.

At NAMining, the management service to oversee the operation of the equipment and delivery of aggregates or other minerals is the performance obligation accounted for as a series. Performance momentarily creates an asset that the customer simultaneously receives and consumes; therefore, control is transferred to the customer over time. Consistent with the conclusion that the customer simultaneously receives and consumes the benefits provided, an input-based measure of progress is appropriate. As each month of service is completed, revenue is recognized for the amount of actual costs incurred, plus the management fee or fixed fee and the general and administrative fee (as applicable). Fluctuations in revenue from period to period result from changes in customer demand primarily due to increases and decreases in activity levels on individual contracts and variances in reimbursable costs.

The Minerals Management segment enters into contracts which grant the right to explore, develop, produce and sell minerals controlled by the Company. These arrangements result in the transfer of mineral rights for a period of time; however, no rights to the actual land are granted other than access for purposes of exploration, development, production and sales. The mineral rights revert back to the Company at the expiration of the contract.

Under these contracts, granting exclusive right, title, and interest in and to minerals, if any, is the performance obligation. The performance obligation under these contracts represents a series of distinct goods or services whereby each day of access that is provided is distinct. The transaction price consists of a variable sales-based royalty and, in certain arrangements, a fixed component in the form of an up-front lease bonus payment. As the amount of consideration the Company will ultimately be entitled to is entirely susceptible to factors outside its control, the entire amount of variable consideration is constrained at contract inception. The Company believes that the pricing provisions of royalty contracts are customary in the industry. Up-

front lease bonus payments represent the fixed portion of the transaction price and are recognized over the primary term of the contract, which is generally five years.

Significant Judgments

The Company’s contracts with its customers contain different types of variable consideration including, but not limited to, management fees that adjust based on volumes or MMBtu delivered, however, the terms of these variable payments relate specifically to the Company's efforts to satisfy one or more, but not all of, the performance obligations (or to a specific outcome from satisfying the performance obligations) in the contract. Therefore, the Company allocates each variable payment (and subsequent changes to that payment) entirely to the specific performance obligation to which it relates. Management fees, as well as general and administrative fees, are also adjusted based on changes in specified indices (e.g., CPI) to compensate for general inflation changes. Index adjustments, if applicable, are effective prospectively.

Recognition of revenue and recognition of profit related to the Caddo Creek contract requires the use of assumptions and estimates related to the total contract value, the total cost at completion, and the measurement of progress towards completion of the performance obligation. Due to the nature of the contract, developing the estimated total contract value and total cost at completion requires the use of significant judgment. The total contract value includes variable consideration. The Company includes variable consideration in the transaction price at the most likely amount to be earned, based upon the Company’s assessment of expected performance. The Company records these amounts only to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved.

Cost Reimbursement

Certain contracts include reimbursement from customers of actual costs incurred for the purchase of supplies, equipment and services in accordance with contractual terms. Such reimbursable revenue is variable and subject to uncertainty, as the amounts received and timing thereof is highly dependent on factors outside of the Company’s control. Accordingly, reimbursable revenue is fully constrained and not recognized until the uncertainty is resolved, which typically occurs when the related costs are incurred on behalf of a customer. The Company is considered a principal in such transactions and records the associated revenue at the gross amount billed to the customer with the related costs recorded as an expense within cost of sales.

Prior Period Performance Obligations

The Company records royalty income in the month production is delivered to the purchaser. As a non-operator, the Company has limited visibility into when new wells start producing and production statements may not be received for 30 to 90 days or more after the date production is delivered. As a result, the Company is required to estimate the amount of production delivered to the purchaser of the product and the price that will be received for the sale of the product. The expected sales volumes and prices for these properties are estimated and recorded in "Trade accounts receivable" in the accompanying Consolidated Balance Sheets. The difference between the Company’s estimates and the actual amounts received is recorded in the month that payment is received from the third-party lessee. During 2021, the Company recognized $1.8 million of variable consideration that was previously constrained due to uncertainty of collectability. During 2020, royalty income recognized in the reporting period related to performance obligations satisfied in prior reporting periods was immaterial.

Disaggregation of Revenue

In accordance with ASC 606-10-50, the Company disaggregates revenue from contracts with customers into major goods and service lines and timing of transfer of goods and services. The Company determined that disaggregating revenue into these categories achieves the disclosure objective of depicting how the nature, amount, timing, and uncertainty of revenue and cash flows are affected by economic factors. The Company’s business consists of the Coal Mining, NAMining and Minerals Management segments as well as Unallocated Items. See Note 15 to the Consolidated Financial Statements for further discussion of segment reporting.

The following table disaggregates revenue by major sources for the years ended December 31:

Major Goods/Service Lines	**2021**	2020
Coal Mining	**$ 91,851**	$ 72,088
NAMining	**69,924**	42,392
Minerals Management	**31,003**	14,721
Unallocated Items	**4,695**	2,133
Eliminations	**(5,627)**	(2,902)
Total revenues	**$ 191,846**	$ 128,432
Timing of Revenue Recognition		
Goods transferred at a point in time	**$ 80,515**	$ 68,073
Services transferred over time	**111,331**	60,359
Total revenues	**$ 191,846**	$ 128,432

Contract Balances

The opening and closing balances of the Company's current and long-term contract liabilities and receivables are as follows:

	Contract balances			
	Trade accounts receivable	Contract asset (long-term)	Contract liability (current)	Contract liability (long-term)
Balance at January 1, 2021	$ 18,894	$ 4,984	$ 941	$ 3,626
Balance at December 31, 2021	**25,667**	**5,985**	**4,082**	**488**
Increase (decrease)	$ 6,773	$ 1,001	$ 3,141	$ (3,138)

As described above, the Company enters into royalty contracts that grant exclusive right, title, and interest in and to minerals. The transaction price consists of a variable sales-based royalty and, in certain arrangements, a fixed component in the form of an up-front lease bonus payment. The timing of the payment of the fixed portion of the transaction price is upfront, however, the performance obligation is satisfied over the primary term of the contract, which is generally five years. Therefore, at the time any such up-front payment is received, a contract liability is recorded which represents deferred revenue. The difference between the opening and closing balance of this contract liability, which is shown above, primarily results from the difference between new lease bonus payments received and amortization of up-front lease bonus payments received in previous periods.

The amount of revenue recognized in the years ended December 31, 2021 and December 31, 2020 that was included in the opening contract liability was $1.4 million and $0.9 million, respectively. This revenue consists of up-front lease bonus payments received under royalty contracts that are recognized over the primary term of the royalty contracts, which are generally five years. The Company expects to recognize $4.1 million in 2022, $0.3 million in 2023, $0.1 million in 2024, and de minimis amounts in 2025 and 2026 related to the contract liability remaining at December 31, 2021. The difference between the opening and closing balances of the Company's contract balances results from the timing difference between the Company's performance and the customer's payment.

The Company has no contract assets recognized from the costs to obtain or fulfill a contract with a customer.

NOTE 4—Inventories

Inventories are summarized as follows:

	December 31	
	2021	2020
Coal	**$ 19,352**	$ 17,695
Mining supplies	**34,733**	29,856
Total inventories	**$ 54,085**	$ 47,551

During 2020, the Company recorded a $2.0 million inventory impairment charge in the line "Cost of sales" in the accompanying Consolidated Statements of Operations as mining costs exceeded net realizable value at MLMC.

NOTE 5—Property, Plant and Equipment, Net

Property, plant and equipment, net includes the following:

	December 31	
	2021	2020
Coal lands and real estate	**$ 52,011**	$ 50,887
Mineral interests	**19,512**	14,181
Plant and equipment	**264,110**	231,190
Property, plant and equipment, at cost	**335,633**	296,258
Less allowances for depreciation, depletion and amortization	**142,466**	123,841
	$ 193,167	$ 172,417

Total depreciation, depletion and amortization expense on property, plant and equipment was $19.5 million and $15.5 million during 2021 and 2020, respectively.

NOTE 6—Intangible Assets

The Company has a coal supply agreement intangible asset which is subject to amortization based on units of production over the term of the lignite sales agreement which expires in 2032. The gross and net balances are set forth in the following table:

	Gross Carrying Amount	**Accumulated Amortization**	**Net Balance**
Balance at December 31, 2021			
Coal supply agreement	**$ 84,200**	**$ (52,426)**	**$ 31,774**
Balance at December 31, 2020			
Coal supply agreement	$ 84,200	$ (48,870)	$ 35,330

Amortization expense for intangible assets was $3.6 million and $2.6 million in 2021 and 2020, respectively.

Expected annual amortization expense of the coal supply agreement for the next five years is $3.1 million in 2022 through 2026.

NOTE 7—Asset Retirement Obligations

The Company's obligations associated with the retirement of long-lived assets are recognized at fair value at the time the legal obligations are incurred. Upon initial recognition of a liability, a corresponding amount is capitalized as part of the carrying value of the related long-lived asset and is depreciated either by the straight-line method or the units-of-production method. The

liability is accreted each period until the liability is settled, at which time the liability is removed. If the liability is settled for an amount other than the recorded amount, a gain or loss is recognized.

The Company's asset retirement obligations are principally for costs to close its surface mines and reclaim the land it has disturbed as a result of its normal mining activities as well as for costs to dismantle certain mining equipment at the end of the life of the mine. Management's estimate involves a high degree of subjectivity. In particular, the obligation's fair value is determined using a discounted cash flow technique and is based upon mining permit requirements and various assumptions including credit adjusted risk-free-rates, estimates of disturbed acreage, life of the mine, estimated reclamation costs, the application of various environmental laws and regulation and assumptions regarding equipment productivity. The Company reviews its asset retirement obligations at each mine site at least annually and makes necessary adjustments for permit changes and for revisions of estimates of the timing and extent of reclamation activities and cost estimates.

The accretion of the liability is being recognized over the estimated life of each individual asset retirement obligation and is recorded in the line "Cost of sales" in the accompanying Consolidated Statements of Operations. The associated asset is recorded in "Property, Plant and Equipment, net" in the accompanying Consolidated Balance Sheets. The depreciation of the asset is recorded in the line "Cost of sales" in the accompanying Consolidated Statements of Operations.

A reconciliation of the Company's beginning and ending aggregate carrying amount of the asset retirement obligations are as follows:

	Coal Mining	NAMining	Unallocated Items	NACCO Consolidated
Balance at January 1, 2020	$ 19,015	$ 604	$ 17,240	$ 36,859
Liabilities incurred during the period	9,809	—	—	9,809
Liabilities settled during the period	(5,977)	—	(732)	(6,709)
Accretion expense	1,793	—	1,022	2,815
Revision of estimated cash flows	400	(604)	(838)	(1,042)
Balance at December 31, 2020	$ 25,040	$ —	$ 16,692	$ 41,732
Liabilities settled during the period	**(184)**	**—**	**(869)**	**(1,053)**
Accretion expense	**1,996**	**—**	**1,304**	**3,300**
Revision of estimated cash flows	**46**	**—**	**(74)**	**(28)**
Balance at December 31, 2021	**$ 26,898**	**$ —**	**$ 17,053**	**$ 43,951**

Asset retirement obligations are incurred at the time development of a new mine or mine area commences. During 2020, MLMC began development of a new mine area and as such, recorded an additional $9.8 million asset retirement obligation and a corresponding $9.8 million asset was capitalized as a component of Property, plant and equipment, net. The asset retirement obligation's fair value was determined using a discounted cash flow technique and is based upon permit requirements and various estimates and assumptions that would be used by market participants, including estimates of disturbed acreage, reclamation costs and assumptions regarding equipment productivity.

Centennial Natural Resources ("Centennial") ceased coal production at the end of 2015. During 2020, the Company transferred the mine permits for certain Centennial mines to an unrelated third party. As a result of the transfer of the mine permits, the Company was relieved of the associated mine reclamation obligations and therefore recorded a $4.8 million reduction to Centennial's asset retirement obligation, included in "Liabilities settled during the period" in the table above. As part of the transfer of the mine permits, the Company also paid $3.8 million of cash, recorded $1.4 million in Other assets for amounts owed to Centennial from the third-party acquirer, and recognized $2.4 million in Other long-term liabilities in the Consolidated Balance Sheets. The Other long-term liabilities are primarily associated with amounts due to the third-party acquirer upon replacement of outstanding letters of credit.

Bellaire Corporation ("Bellaire") is a non-operating subsidiary of the Company with legacy liabilities relating to closed mining operations, primarily former Eastern U.S. underground coal mining operations. These legacy liabilities include obligations for water treatment and other environmental remediation that arose as part of the normal course of closing these underground mining operations. The accretion of the liability is recognized over the estimated life of the asset retirement obligation and is recorded in the line "Closed mine obligations" in the accompanying Consolidated Statements of Operations. Since Bellaire's properties are no longer active operations, no associated asset has been capitalized.

Prior to 2020, Bellaire established a $5.0 million Mine Water Treatment Trust to provide a financial assurance mechanism in order to assure the long-term treatment of post-mining discharges. The fair value of Bellaire's Mine Water Treatment assets, which are recognized as a component of Other non-current assets on the Consolidated Balance Sheets, are $12.3 million and $11.1 million at December 31, 2021 and December 31, 2020, respectively, and are legally restricted for purposes of settling the Bellaire asset retirement obligation. See Note 9 for further discussion of the Mine Water Treatment Trust.

NOTE 8—Current and Long-Term Financing

Financing arrangements are obtained and maintained at the subsidiary level. NACCO has not guaranteed any borrowings of its subsidiaries.

The following table summarizes the Company's available and outstanding borrowings:

	December 31	
	2021	2020
Total outstanding borrowings of NACoal:		
Revolving credit agreement	**$ 4,000**	$ 30,000
Other debt	**16,710**	16,465
Total debt outstanding	**$ 20,710**	$ 46,465
Current portion of borrowings outstanding	**$ 2,527**	$ 22,112
Long-term portion of borrowings outstanding	**18,183**	24,353
	$ 20,710	$ 46,465
Total available borrowings, net of limitations, under revolving credit agreement	**$ 120,231**	$ 146,951
Unused revolving credit agreement	**$ 116,231**	$ 116,951
Weighted average stated interest rate on total borrowings	**3.7 %**	2.3 %

Annual maturities of total debt, excluding leases, are as follows:

2022	2,377
2023	2,460
2024	2,068
2025	5,175
2026	5,492
Thereafter	2,798
	$ 20,370

Interest paid on total debt was $1.6 million and $1.4 million during 2021 and 2020, respectively. Deferred financing fees of $1.8 million were capitalized during 2021.

NACoal has a secured revolving line of credit of up to $150.0 million (the “NACoal Facility”) that was refinanced during 2021 and expires in November 2025. Borrowings outstanding under the NACoal Facility were $4.0 million at December 31, 2021. At December 31, 2021, the excess availability under the NACoal Facility was $116.2 million, which reflects a reduction for outstanding letters of credit of $29.8 million.

The NACoal Facility has performance-based pricing, which sets interest rates based upon NACoal achieving various levels of debt to EBITDA ratios, as defined in the NACoal Facility. Borrowings bear interest at a floating rate plus a margin based on the level of debt to EBITDA ratio achieved. The applicable margins, effective December 31, 2021, for base rate and LIBOR loans were 1.25% and 2.25%, respectively. The NACoal Facility has a commitment fee which is based upon achieving various levels

of debt to EBITDA ratios. The commitment fee was 0.35% on the unused commitment at December 31, 2021. The weighted average interest rate applicable to the NACoal Facility at December 31, 2021 was 4.50% including the floating rate margin.

The NACoal Facility contains restrictive covenants, which require, among other things, NACoal to maintain a maximum net debt to EBITDA ratio of 2.75 to 1.00 and an interest coverage ratio of not less than 4.00 to 1.00. The NACoal Facility provides the ability to make loans, dividends and advances to NACCO, with some restrictions based on maintaining a maximum debt to EBITDA ratio of 1.50 to 1.00, or if greater than 1.50 to 1.00, a Fixed Charge Coverage Ratio of 1.10 to 1.00, in conjunction with maintaining unused availability thresholds of borrowing capacity, as defined in the NACoal Facility, of $15.0 million. At December 31, 2021, NACoal was in compliance with all financial covenants in the NACoal Facility.

The obligations under the NACoal Facility are guaranteed by certain of NACoal's direct and indirect, existing and future domestic subsidiaries, and is secured by certain assets of NACoal and the guarantors, subject to customary exceptions and limitations.

NACoal has a demand note payable to Coteau, one of the unconsolidated subsidiaries, which bears interest based on the applicable quarterly federal short-term interest rate as announced from time to time by the Internal Revenue Service. At December 31, 2021 and 2020, the balance of the note was $2.6 million and $4.4 million and the interest rate was 0.18% and 0.14%, respectively.

NACoal has six notes payable that are secured by eleven specified units of equipment, bear interest at a weighted average rate of 4.03%, and expire at various dates through 2027. One note includes a principal payment of $4.4 million at the end of the term on December 15, 2026. At December 31, 2021 and 2020, the outstanding balances of the notes were $13.8 million and $10.6 million, respectively.

NOTE 9—Fair Value Disclosure

Recurring Fair Value Measurements: The following table presents the Company's assets accounted for at fair value on a recurring basis:

		Fair Value Measurements at Reporting Date Using		
Description	December 31, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities	**$ 16,070**	**$ 16,070**	**$ —**	**$ —**
	$ 16,070	**$ 16,070**	**$ —**	**$ —**

		Fair Value Measurements at Reporting Date Using		
Description	December 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities	$ 13,164	$ 13,164	$ —	$ —
	$ 13,164	$ 13,164	$ —	$ —

Bellaire's Mine Water Treatment Trust invests in available for sale securities that are reported at fair value based upon quoted market prices in active markets for identical assets; therefore, they are classified as Level 1 within the fair value hierarchy. The Mine Water Treatment Trust realized a gain of $1.7 million and $1.2 million in the years ended December 31, 2021 and 2020, respectively. See Note 7 for further discussion of Bellaire's Mine Water Treatment Trust.

During 2020, the Company invested $2.0 million in equity securities of a public company with a diversified portfolio of royalty producing mineral interests. The investment is reported at fair value based upon quoted market prices in active markets for identical assets; therefore, it is classified as Level 1 within the fair value hierarchy. The Company recognized a gain of $1.7 million and $0.1 million in the years ended December 31, 2021 and 2020, related to the investment in these equity securities. The gains related to equity securities are reported on the line Gain on equity securities in the "Other (income) expense" section of the Consolidated Statements of Operations.

There were no transfers into or out of Levels 1, 2 or 3 during the year ended December 31, 2021.

Nonrecurring Fair Value Measurements: The Company regularly performs reviews of potential future development projects and identified certain undeveloped properties where market conditions related to any future development deteriorated during 2020. As a result, the Company estimated the fair value of the assets using unobservable inputs, which are classified as Level 3 inputs. The long-lived assets were written down to their estimated fair value, which resulted in a non-cash asset impairment charge of $7.3 million in the Minerals Management segment and $1.1 million in the Coal Mining segment for certain capitalized leasehold costs, prepaid royalties and other assets during 2020. The fair value of these long-lived assets was determined to be zero as such assets were deemed to have no future economic benefit based on the Company's analysis using market participant assumptions, and therefore no expected future cash flows. The impairment charges are reported on the line Asset impairment charges in the Consolidated Statements of Operations.

Other Fair Value Measurement Disclosures: The carrying amounts of cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term maturities of these instruments. The fair values of revolving credit agreements and long-term debt, excluding finance leases, were determined using current rates offered for similar obligations taking into account subsidiary credit risk, which is Level 2 as defined in the fair value hierarchy. The fair value and the book value of revolving credit agreements and long-term debt, excluding finance leases, was $20.5 million and $20.4 million, respectively, at December 31, 2021 and $45.2 million and $45.0 million, respectively, at December 31, 2020.

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of accounts receivable. Under its mining contracts, the Company recognizes revenue and a related receivable as coal or limestone is delivered. These mining contracts provide for monthly settlements. The Company's significant credit concentration is uncollateralized; however, historically minimal credit losses have been incurred. To further reduce credit risk associated with accounts receivable, the Company performs periodic credit evaluations of its customers, but does not generally require advance payments or collateral.

NOTE 10—Leases

The Company recognizes right-of-use assets (“ROU assets”) and lease liabilities for operating leases of real estate, mining and other equipment that expire at various dates through 2031. The majority of the Company's leases are operating leases. See the table below for further information on the Consolidated Balance Sheet. The Company's lease agreements do not contain lease payments that depend on an index or a rate, as such, minimum lease payments do not include variable lease payments.

Leased assets and liabilities include the following:

Description	Location	DECEMBER 31 2021	DECEMBER 31 2020
Assets			
Operating	Operating lease right-of-use assets	**$ 8,911**	$ 10,324
Finance	Property, plant and equipment, net [a]	**334**	1,478
Liabilities			
Current			
Operating	Other current liabilities	**$ 1,463**	$ 1,457
Finance	Current maturities of long-term debt	**150**	1,188
Noncurrent			
Operating	Operating lease liabilities	**$ 9,733**	$ 11,196
Finance	Long-term debt	**190**	280

[a] Finance leased assets are recorded net of accumulated amortization of $0.3 million and $0.2 million as of December 31, 2021 and December 31, 2020, respectively.

The components of lease expense for the years ended December 31 are as follows:

Description	Location	2021	2020
Lease expense			
Operating lease cost	Selling, general and administrative expenses	**$ 2,122**	$ 2,103
Finance lease cost:			
Amortization of leased assets	Cost of sales	**220**	164
Interest on lease liabilities	Interest expense	**31**	19
Variable lease expense	Selling, general and administrative expenses	**571**	588
Short-term lease expense	Selling, general and administrative expenses	**1,176**	260
Total lease expense		**$ 4,120**	$ 3,134

Future minimum finance and operating lease payments were as follows at December 31, 2021:

	Finance Leases	Operating Leases	Total
2022	$ 161	$ 2,181	$ 2,342
2023	127	1,705	1,832
2024	63	1,661	1,724
2025	7	1,469	1,476
2026	—	1,501	1,501
Subsequent to 2026	—	6,451	6,451
Total minimum lease payments	358	14,968	$ 15,326
Amounts representing interest	18	3,772	
Present value of net minimum lease payments	$ 340	$ 11,196	

As most of the Company's leases do not provide an implicit rate, the Company determines the incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. The Company considers its credit rating and the current economic environment in determining this collateralized rate. The assumptions used in accounting for ASC 842 for the years ended December 31 are as follows:

Lease term and discount rate	**2021**	2020
Weighted average remaining lease term (years)		
Operating	**8.38**	8.92
Finance	**2.44**	1.38
Weighted average discount rate		
Operating	**7.08 %**	7.00 %
Finance	**4.16 %**	4.11 %

The following table details cash paid for amounts included in the measurement of lease liabilities for the years ended December 31:

Cash paid for amounts included in the measurement of lease liabilities	**2021**	2020
Operating cash flows from operating leases	**$ 2,260**	$ 2,223
Operating cash flows from finance leases	**31**	19
Financing cash flows from finance leases	**275**	623

NOTE 11—Contingencies

Various legal and regulatory proceedings and claims have been or may be asserted against NACCO and certain subsidiaries relating to the conduct of their businesses. These proceedings and claims are incidental to the ordinary course of business of the Company. Management believes that it has meritorious defenses and will vigorously defend the Company in these actions. Any costs that management estimates will be paid as a result of these claims are accrued when the liability is considered probable and the amount can be reasonably estimated. If a range of amounts can be reasonably estimated and no amount within the range is a better estimate than any other amount, then the minimum of the range is accrued. The Company does not accrue liabilities when the likelihood that the liability has been incurred is probable but the amount cannot be reasonably estimated or when the liability is believed to be only reasonably possible or remote. For contingencies where an unfavorable outcome is probable or reasonably possible and which are material, the Company discloses the nature of the contingency and, in some circumstances, an estimate of the possible loss.

These matters are subject to inherent uncertainties, and unfavorable rulings could occur. If an unfavorable ruling were to occur, there exists the possibility of an adverse impact on the Company's financial position, results of operations and cash flows of the period in which the ruling occurs, or in future periods.

NOTE 12—Stockholders' Equity and Earnings Per Share

NACCO Industries, Inc. Class A common stock is traded on the New York Stock Exchange under the ticker symbol "NC." Because of transfer restrictions on Class B common stock, no trading market has developed, or is expected to develop, for the Company's Class B common stock. The Class B common stock is convertible into Class A common stock on a one-for-one basis at any time at the request of the holder. The Company's Class A common stock and Class B common stock have the same cash dividend rights per share. As the liquidation and dividend rights are identical, any distribution of earnings would be allocated to Class A and Class B stockholders on a proportionate basis, and accordingly the net income per share for each class of common stock is identical. The Class A common stock has one vote per share and the Class B common stock has ten votes per share. The total number of authorized shares of Class A common stock and Class B common stock at December 31, 2021 was 25,000,000 shares and 6,756,176 shares, respectively. Treasury shares of Class A common stock totaling 2,600,661 and 2,726,017 at December 31, 2021 and 2020, respectively, have been deducted from shares outstanding.

Stock Repurchase Programs: On November 10, 2021, the Company's Board of Directors approved a stock purchase program ("2021 Stock Repurchase Program") providing for the purchase of up to $20.0 million of the Company’s outstanding Class A common stock through December 31, 2023. NACCO’s previous repurchase program ("2019 Stock Repurchase Program") would have expired on December 31, 2021 but was terminated and replaced by the 2021 Stock Repurchase Program. The Company repurchased 32,286 shares of Class A common stock under the 2019 Stock Repurchase Program for an aggregate purchase price of $1.0 million during 2020.

The timing and amount of any repurchases under the 2021 Stock Repurchase Program are determined at the discretion of the Company's management based on a number of factors, including the availability of capital, other capital allocation alternatives, market conditions for the Company's Class A common stock and other legal and contractual restrictions. The 2021 Stock Repurchase Program does not require the Company to acquire any specific number of shares and may be modified, suspended, extended or terminated by the Company without prior notice and may be executed through open market purchases, privately negotiated transactions or otherwise. All or part of the repurchases under the 2021 Stock Repurchase Program may be implemented under a Rule 10b5-1 trading plan, which would allow repurchases under pre-set terms at times when the Company might otherwise be restricted from doing so under applicable securities laws.

Stock Compensation: See Note 2 for a discussion of the Company's restricted stock awards.

Earnings per Share: The weighted average number of shares of Class A common stock and Class B common stock outstanding used to calculate basic and diluted earnings per share were as follows:

	2021	2020
Basic weighted average shares outstanding	**7,146**	7,026
Dilutive effect of restricted stock awards	**44**	31
Diluted weighted average shares outstanding	**7,190**	7,057
Basic earnings per share	**$ 6.73**	$ 2.11
Diluted earnings per share	**$ 6.69**	$ 2.10

NOTE 13—Income Taxes

The Company provides for income taxes and the related accounts under the asset and liability method. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates expected to be in effect during the year in which the basis differences reverse. Valuation allowances are established when management determines it is more likely than not that some portion, or all, of the deferred tax assets will not be realized.

The components of income (loss) before income tax provision (benefit) and the income tax provision (benefit) for the years ended December 31 are as follows:

	2021	2020
Income (loss) before income tax provision (benefit)		
Domestic	**$ 57,019**	$ 13,990
Foreign	**(169)**	268
	$ 56,850	$ 14,258
Income tax provision (benefit)		
Current income tax provision (benefit):		
Federal	**$ 10,870**	$ (7,859)
State	**1,443**	(408)
Foreign	**(35)**	215
Total current	**12,278**	(8,052)
Deferred income tax (benefit) provision:		
Federal	**(4,449)**	7,847
State	**896**	(330)
Total deferred	**(3,553)**	7,517
	$ 8,725	$ (535)

The Company made income tax payments of $11.5 million and $0.4 million during 2021 and 2020, respectively. During the same periods, income tax refunds totaled $2.6 million and $4.2 million, respectively.

The provision for income taxes differs from the amount computed by applying the statutory federal income tax rate to income before the provision for income taxes. A reconciliation of the federal statutory and effective income tax rate for the years ended December 31 is as follows:

	2021	2020
Income before income tax provision	**$ 56,850**	$ 14,258
Statutory taxes at 21.0%	**$ 11,939**	$ 2,994
State and local income taxes	**1,890**	(626)
Non-deductible expenses	**725**	426
Percentage depletion	**(6,245)**	(3,744)
R&D and other federal credits	**(363)**	(367)
Settlements and uncertain tax positions	**166**	6,286
Coronavirus Aid, Relief, and Economic Security ("CARES") Act - carryback rate differential	**—**	(4,741)
Other, net	**613**	(763)
Income tax provision	**$ 8,725**	$ (535)
Effective income tax rate	**15.3 %**	(3.8)%

The Company recorded an income tax expense of $8.7 million for the year ended December 31, 2021 on income before income tax of $56.9 million, or 15.3%, compared to income tax benefit of $0.5 million on income before income tax of $14.3 million, or (3.8%), for the year ended December 31, 2020. The year ended December 31, 2020 includes $7.3 million of discrete tax charges primarily related to settlement of tax examinations, reserves for uncertain tax positions and return to provision adjustments partially offset by a benefit of $4.7 million, primarily due to the rate differential related to carrying back losses under the provisions of the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"). The CARES Act allows net operating tax losses incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. The Company generated a net tax operating loss in 2020 primarily due to the realization of certain deferred tax assets. There were no material discrete items affecting income tax expense in 2021.

The effective income tax rate for 2021 reflects the impact of higher pre-tax income in 2021 compared with 2020, including the termination fee associated with the Bisti contract termination. The effective income tax rate varies based upon the mix and timing of earnings between entities that benefit from percentage depletion and those that do not benefit from percentage depletion. The benefit from percentage depletion is not directly related to the amount of pre-tax income recorded in a period.

A detailed summary of the total deferred tax assets and liabilities in the Company's Consolidated Balance Sheets resulting from differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes is as follows:

	December 31	
	2021	2020
Deferred tax assets		
Lease liabilities	**$ 24,500**	$ 27,800
Tax carryforwards	**13,837**	17,756
Inventories	**4,522**	3,742
Accrued liabilities	**9,243**	10,160
Employee benefits	**3,496**	2,747
Land valuation adjustment	**5,988**	5,536
Other	**6,527**	5,401
Total deferred tax assets	**68,113**	73,142
Less: Valuation allowance	**11,695**	11,549
	56,418	61,593
Deferred tax liabilities		
Lease right-of-use assets	**24,500**	27,800
Depreciation and depletion	**25,851**	31,972
Partnership investment - development costs	**9,840**	11,686
Accrued pension benefits	**10,941**	7,685
Total deferred tax liabilities	**71,132**	79,143
Net deferred liability	**$ (14,714)**	$ (17,550)

The following table summarizes the tax carryforwards and associated carryforward periods and related valuation allowances where the Company has determined that realization is uncertain:

	December 31, 2021		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
State net operating loss	**$ 17,516**	**$ 14,694**	**2022-2041**

	December 31, 2020		
	Net deferred tax asset	Valuation allowance	Carryforwards expire during:
State net operating loss	$ 18,708	$ 14,478	2021-2040
Federal research credit	2,648	—	2034-2040
Total	$ 21,356	$ 14,478	

The Company has a valuation allowance for certain state and foreign deferred tax assets. Based upon the review of historical earnings and the relevant expiration of carryforwards, including utilization limitations in the various state taxing jurisdictions, the Company believes the valuation allowances are appropriate and does not expect to release valuation allowances within the next twelve months that would have a significant effect on the Company's financial position or results of operations.

The tax returns of the Company and certain of its subsidiaries are under routine examination by various taxing authorities. The Company has not been informed of any material assessment for which an accrual has not been previously provided and the Company would vigorously contest any material assessment. Management believes any potential adjustment would not materially affect the Company's financial condition or results of operations.

In general, the Company operates in taxing jurisdictions that provide a statute of limitations period ranging from three to five years for the taxing authorities to review the applicable tax filings. The examination of the 2013-2016 U.S. federal tax returns is ongoing. The Company has extended the statute of limitations to allow the U.S. taxing authorities to complete their examination.

The following is a reconciliation of the Company's total gross unrecognized tax benefits, defined as the aggregate tax effect of differences between tax return positions and the benefits recognized in the financial statements for the years ended December 31, 2021 and 2020. The increase in the gross unrecognized tax benefits in 2020 was primarily due to tax positions related to worthlessness losses for which the timing of deductibility is uncertain. Approximately $6.4 million and $6.3 million of the gross unrecognized tax benefits as of December 31, 2021 and 2020, respectively, relate to permanent items that, if recognized, would impact the effective income tax rate. This amount differs from the gross unrecognized tax benefits presented in the table below due to (1) the deferred tax asset which would be available if the position were not sustained upon audit and (2) the decrease in U.S. federal income taxes which would occur upon the recognition of the state tax benefits included herein.

	2021	2020
Balance at January 1	**$ 10,459**	$ 2,860
Additions based on tax positions related to prior years	**95**	2,774
Decreases based on settlements with tax authorities	**—**	(803)
Additions based on tax positions related to the current year	**—**	5,628
Balance at December 31	**$ 10,554**	$ 10,459

The Company records interest and penalties on uncertain tax positions as a component of the income tax provision. The Company recognized net expense of less than $0.1 million and net benefit of less than $0.1 million in interest and penalties related to uncertain tax positions during 2021 and 2020, respectively. The total amount of interest and penalties accrued was $0.2 million and $0.1 million as of December 31, 2021 and 2020, respectively.

The Company expects the amount of unrecognized tax benefits will change within the next 12 months; however, the change in unrecognized tax benefits, which is reasonably possible within the next 12 months, is not expected to have a significant effect on the Company's financial position, results of operations or cash flows.

NOTE 14—Retirement Benefit Plans

Defined Benefit Plans: The Company maintains defined benefit pension plans that provide benefits based on years of service and average compensation during certain periods. Prior to 2020, the Company amended the Combined Defined Benefit Plan for NACCO Industries, Inc. and its subsidiaries (the “Combined Plan”) to freeze pension benefits for all employees. The Company also amended the Supplemental Retirement Benefit Plan (the “SERP”) to freeze all pension benefits. All eligible employees of the Company, including employees whose pension benefits are frozen, receive retirement benefits under defined contribution retirement plans.

The assumptions used in accounting for the defined benefit plans were as follows for the years ended December 31:

	2021	2020
Weighted average discount rates for pension benefit obligation	**2.53% - 2.77%**	2.02% - 2.36%
Weighted average discount rates for net periodic benefit cost	**2.02% - 2.36%**	2.98% - 3.20%
Expected long-term rate of return on assets for net periodic benefit cost	**7.00 %**	7.00 %

Set forth below is detail of the net periodic pension income for the defined benefit plans for the years ended December 31:

	2021	2020
Interest cost	**$ 1,002**	$ 1,285
Expected return on plan assets	**(2,568)**	(2,435)
Amortization of actuarial loss	**718**	597
Amortization of prior service cost	**59**	58
Net periodic pension income	**$ (789)**	$ (495)

Set forth below is detail of other changes in plan assets and benefit obligations recognized in other comprehensive (income) loss for the years ended December 31:

	2021	2020
Current year actuarial (gain) loss	**$ (3,793)**	$ 667
Amortization of actuarial loss	**(718)**	(597)
Amortization of prior service cost	**(59)**	(58)
Total recognized in other comprehensive (income) loss	**$ (4,570)**	$ 12

The following table sets forth the changes in the benefit obligation and the plan assets during the year and the funded status of the defined benefit plans at December 31:

	2021	2020
Change in benefit obligation		
Projected benefit obligation at beginning of year	**$ 44,600**	$ 41,854
Interest cost	**1,002**	1,285
Actuarial (gain) loss	**(1,367)**	3,996
Benefits paid	**(2,572)**	(2,535)
Projected benefit obligation at end of year	**$ 41,663**	$ 44,600
Accumulated benefit obligation at end of year	**$ 41,663**	$ 44,600
Change in plan assets		
Fair value of plan assets at beginning of year	**$ 41,099**	$ 37,364
Actual return on plan assets	**4,995**	5,763
Employer contributions	**487**	507
Benefits paid	**(2,572)**	(2,535)
Fair value of plan assets at end of year	**$ 44,009**	$ 41,099
Funded status at end of year	**$ 2,346**	$ (3,501)
Amounts recognized in the balance sheets consist of:		
Non-current assets	**$ 7,806**	$ 4,070
Current liabilities	**(542)**	(549)
Non-current liabilities	**(4,918)**	(7,022)
	$ 2,346	$ (3,501)
Components of accumulated other comprehensive loss consist of:		
Actuarial loss	**$ 9,510**	$ 14,022
Prior service cost	**703**	761
Deferred taxes	**(2,254)**	(3,316)
	$ 7,959	$ 11,467

The Company recognizes as a component of benefit (income) cost, as of the measurement date, any unrecognized actuarial net gains or losses that exceed 10% of the larger of the projected benefit obligations or the plan assets, defined as the "corridor." Amounts outside the corridor are amortized over the average expected remaining service of active participants expected to benefit under the retiree medical plans or over the average expected remaining lifetime of inactive participants for the pension plans. The (gain) loss amounts recognized in AOCI are not expected to be fully recognized until the plan is terminated or as settlements occur, which would trigger accelerated recognition. Prior service costs resulting from plan changes are also in AOCI.

The Company's policy is to make contributions to fund its pension plans within the range allowed by applicable regulations.

The Company maintains one supplemental defined benefit plan that pays monthly benefits to participants directly out of corporate funds. All other pension benefit payments are made from assets of the pension plans.

Future pension benefit payments expected to be paid from assets of the pension plans are:

2022	$ 2,710
2023	2,697
2024	2,716
2025	2,684
2026	2,672
2027 - 2031	12,779
	$ 26,258

The expected long-term rate of return on defined benefit plan assets reflects management's expectations of long-term rates of return on funds invested to provide for benefits included in the projected benefit obligations. In establishing the expected long-term rate of return assumption for plan assets, the Company considers the historical rates of return over a period of time that is consistent with the long-term nature of the underlying obligations of these plans as well as a forward-looking rate of return. The historical and forward-looking rates of return for each of the asset classes used to determine the Company's estimated rate of return assumption were based upon the rates of return earned or expected to be earned by investments in the equivalent benchmark market indices for each of the asset classes.

Expected returns for pension plans are based on a calculated market-related value for pension plan assets. Under this methodology, asset gains and losses resulting from actual returns that differ from the Company's expected returns are recognized in the market-related value of assets ratably over three years.

The pension plans maintain investment policies that, among other things, establish a portfolio asset allocation methodology with percentage allocation bands for individual asset classes. The investment policies provide that investments are reallocated between asset classes as balances exceed or fall below the appropriate allocation bands.

The following is the actual allocation percentage and target allocation percentage for the pension plan assets at December 31:

	2021 Actual Allocation	2020 Actual Allocation	Target Allocation Range
U.S. equity securities	**48.7 %**	45.4 %	36.0% - 54.0%
Non-U.S. equity securities	**19.7 %**	20.3 %	16.0% - 24.0%
Fixed income securities	**31.2 %**	33.9 %	30.0% - 40.0%
Money market	**0.4 %**	0.4 %	0.0% - 10.0%

The defined benefit pension plans do not have any direct ownership of NACCO common stock.

The fair value of each major category of the Company's pension plan assets are valued using quoted market prices in active markets for identical assets, or Level 1 in the fair value hierarchy. Following are the values as of December 31:

	Level 1	
	2021	2020
U.S. equity securities	**$ 21,434**	$ 18,640
Non-U.S. equity securities	**8,678**	8,335
Fixed income securities	**13,723**	13,948
Money market	**174**	176
Total	**$ 44,009**	$ 41,099

Postretirement Health Care: The Company also maintains health care plans which provide benefits to grandfathered eligible retired employees. All health care plans of the Company have a cap on the Company's share of the costs. The health care plans have network provided benefits which result in cost savings for the Company. These plans have no assets. Under the Company's current policy, plan benefits are funded at the time they are due to participants.

The assumptions used in accounting for the postretirement health care plans are set forth below for the years ended December 31:

	2021	2020
Weighted average discount rates for benefit obligation	**2.12 %**	1.37 %
Weighted average discount rates for net periodic benefit cost	**1.37 %**	1.37% - 2.65%
Health care cost trend rate assumed for next year	**6.50 %**	6.25 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	**4.50 %**	5.00 %
Year that the rate reaches the ultimate trend rate	**2029**	2027

Set forth below is detail of the net periodic benefit expense (income) for the postretirement health care plans for the years ended December 31:

	2021	2020
Service cost	**$ 13**	$ 21
Interest cost	**27**	52
Amortization of actuarial loss (gain)	**19**	(1)
Amortization of prior service credit	**(54)**	(59)
Amortization of curtailment	**—**	(31)
Net periodic benefit expense (income)	**$ 5**	$ (18)

Set forth below is detail of other changes in plan assets and benefit obligations recognized in other comprehensive loss for the years ended December 31:

	2021	2020
Current year actuarial (gain) loss	**$ (48)**	$ 194
Amortization of actuarial (loss) gain	**(19)**	1
Amortization of prior service credit	**54**	59
Amortization of curtailment	**—**	31
Transfers	**126**	46
Total recognized in other comprehensive loss	**$ 113**	$ 331

The following sets forth the changes in benefit obligations during the year and the funded status of the postretirement health care at December 31:

	2021	2020
Change in benefit obligation		
Benefit obligation at beginning of year	**$ 2,054**	$ 2,049
Service cost	**13**	21
Interest cost	**27**	52
Plan amendments	**—**	49
Actuarial (gain) loss	**(48)**	145
Benefits paid	**(169)**	(262)
Benefit obligation at end of year	**$ 1,877**	$ 2,054
Funded status at end of year	**$ (1,877)**	$ (2,054)
Amounts recognized in the balance sheets consist of:		
Current liabilities	**$ (190)**	$ (238)
Noncurrent liabilities	**(1,687)**	(1,816)
	$ (1,877)	$ (2,054)
Components of accumulated other comprehensive loss consist of:		
Actuarial loss	**$ 520**	$ 466
Prior service credit	**(108)**	(167)
Deferred taxes	**(195)**	(167)
	$ 217	$ 132

Future postretirement health care benefit payments expected to be paid are:

2022	191
2023	191
2024	182
2025	176
2026	169
2027 - 2031	700
	$ 1,609

Defined Contribution Plans: NACCO and its subsidiaries maintain a defined contribution (401(k)) plan for substantially all employees and provide employer matching contributions based on plan provisions. The plan also provides for a minimum employer contribution. Total costs, including Company contributions, for these plans were $2.9 million and $2.8 million in 2021 and 2020, respectively.

NOTE 15—Business Segments

The Company's operating segments are: (i) Coal Mining, (ii) NAMining and (iii) Minerals Management. The Company determines its reportable segments by first identifying its operating segments, and then by assessing whether any components of these segments constitute a business for which discrete financial information is available and where segment management regularly reviews the operating results of that component. The Company's Chief Operating Decision Maker utilizes operating profit to evaluate segment performance and allocate resources.

The Company has items not directly attributable to a reportable segment which are not included as part of the measurement of segment operating profit, which are primarily administrative costs related to public company reporting requirements at the parent company and the financial results of Mitigation Resources and Bellaire. Mitigation Resources generates and sells stream

and wetland mitigation credits (known as mitigation banking) and provides services to those engaged in permittee-responsible stream and wetland mitigation. Bellaire manages the Company's long-term liabilities related to former Eastern U.S. underground mining activities.

All financial statement line items below operating profit (other income including interest expense and interest income, the provision for income taxes and net income) are presented and discussed within this Form 10-K on a consolidated basis.

See Note 1 for additional discussion of the Company's reportable segments. All current operations reside in the U.S. The accounting policies of the reportable segments are described in Note 2 and Note 20.

In 2021 and 2020, two customers individually accounted for more than 10% of consolidated revenue. The following represents the revenue attributable to each of these entities as a percentage of consolidated revenue for those years:

	Percentage of Consolidated Revenue	
Segment	**2021**	2020
Coal Mining customer	**43 %**	55 %
NAMining customer	**19 %**	19 %

In addition, for the year ended December 31, 2021, the Coal Mining segment derived approximately 68% of the Earnings of Unconsolidated Operations from two customers, Basin Electric and GRE.

The following tables present revenue, operating profit, depreciation expense and capital expenditures for the years ended December 31:

	2021	2020
Revenues		
Coal Mining	**$ 91,851**	$ 72,088
NAMining	**69,924**	42,392
Minerals Management	**31,003**	14,721
Unallocated Items	**4,695**	2,133
Eliminations	**(5,627)**	(2,902)
Total	**$ 191,846**	$ 128,432
Operating profit (loss)		
Coal Mining	**$ 49,059**	$ 25,436
NAMining	**109**	1,872
Minerals Management	**26,080**	3,493
Unallocated Items	**(19,553)**	(17,256)
Eliminations	**(285)**	(97)
Total	**$ 55,410**	$ 13,448
Expenditures for property, plant and equipment and acquisition of mineral interests		
Coal Mining	**$ 16,830**	$ 14,825
NAMining	**21,100**	13,862
Minerals Management	**6,423**	15,474
Unallocated Items	**208**	207
Total	**$ 44,561**	$ 44,368
Depreciation, depletion and amortization		
Coal Mining	**$ 16,649**	$ 14,213
NAMining	**4,435**	2,470
Minerals Management	**1,858**	1,308
Unallocated Items	**143**	123
Total	**$ 23,085**	$ 18,114

Asset information by segment is not discretely maintained for internal reporting or used in evaluating performance.

NOTE 16—Parent Company Condensed Balance Sheets

The condensed balance sheets of NACCO, the parent company, at December 31 are as follows:

		2021		2020
ASSETS				
Cash and cash equivalents	**$**	**83,093**	$	85,365
Accounts receivable from affiliates		**—**		495
Other current assets		**17,578**		20,648
Investment in subsidiaries		**268,720**		211,468
Property, plant and equipment, net		**57**		110
Other non-current assets		**4,885**		5,890
Total Assets	**$**	**374,333**	$	323,976
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities	**$**	**3,865**	$	3,242
Current intercompany accounts payable, net		**637**		2,337
Note payable to Bellaire		**16,750**		16,750
Other non-current liabilities		**965**		1,023
Stockholders' equity		**352,116**		300,624
Total Liabilities and Stockholders' Equity	**$**	**374,333**	$	323,976

The credit agreement at NACoal allows for the transfer of assets to NACCO under certain circumstances. The amount of NACCO's investment that was restricted at December 31, 2021 totaled approximately $1.8 million. The amount of unrestricted cash available to NACCO included in "Investment in subsidiaries" was $1.2 million at December 31, 2021. Dividends and management fees from its subsidiaries are the primary sources of cash for NACCO.

NOTE 17—Unconsolidated Subsidiaries

Each of the Company's wholly owned Unconsolidated Subsidiaries, within the Coal Mining and NAMining segments, meet the definition of a VIE. The Unconsolidated Subsidiaries are capitalized primarily with debt financing provided by or supported by their respective customers, and generally without recourse to NACCO and NACoal. Although NACoal owns 100% of the equity and manages the daily operations of the Unconsolidated Subsidiaries, the Company has determined that the equity capital provided by NACoal is not sufficient to adequately finance the ongoing activities or absorb any expected losses without additional support from the customers. The customers have a controlling financial interest and have the power to direct the activities that most significantly affect the economic performance of the entities. As a result, the Company is not the primary beneficiary and therefore does not consolidate these entities' financial positions or results of operations. See Note 1 for a discussion of these entities.

The investment in the unconsolidated subsidiaries and related tax positions totaled $19.1 million and $29.0 million at December 31, 2021 and 2020, respectively. The Company's risk of loss relating to these entities is limited to its invested capital, which was $7.6 million and $6.5 million at December 31, 2021 and 2020, respectively.

NACoal is a party to certain guarantees related to Coyote Creek. Under certain circumstances of default or termination of Coyote Creek's Lignite Sales Agreement ("LSA"), NACoal would be obligated for payment of a "make-whole" amount to Coyote Creek's third-party lenders. The "make-whole" amount is based on the excess, if any, of the discounted value of the remaining scheduled debt payments over the principal amount. In addition, in the event Coyote Creek's LSA is terminated on or after January 1, 2024 by Coyote Creek's customers, NACoal is obligated to purchase Coyote Creek's dragline and rolling stock for the then net book value of those assets. To date, no payments have been required from NACoal since the inception of these guarantees. The Company believes that the likelihood NACoal would be required to perform under the guarantees is remote, and no amounts related to these guarantees have been recorded.

Summarized financial information for the unconsolidated subsidiaries is as follows:

	2021	2020
Statement of Operations		
Revenue	**$ 764,759**	$ 768,660
Gross profit	**$ 68,076**	$ 69,021
Income before income taxes	**$ 60,865**	$ 60,398
Net income	**$ 53,248**	$ 50,933
Balance Sheet		
Current assets	**$ 168,669**	$ 186,934
Non-current assets	**$ 900,924**	$ 959,032
Current liabilities	**$ 98,887**	$ 143,843
Non-current liabilities	**$ 963,128**	$ 995,658

Revenue includes all mine operating costs that are reimbursed by the customers of the Unconsolidated Subsidiaries as well as the compensation per ton of coal, heating unit (MMBtu) or ton of limestone delivered. Reimbursed costs have offsetting expenses and have no impact on income before income taxes. Income before income taxes represents the Earnings of the unconsolidated operations and the Income from other unconsolidated affiliates.

NACoal received dividends of $51.7 million and $49.7 million from the Unconsolidated Subsidiaries in 2021 and 2020, respectively.

NOTE 18—Related Party Transactions

One of the Company's directors is a retired Jones Day partner. Legal services rendered by Jones Day approximated $1.2 million and $1.0 million for the years ended December 31, 2021 and 2020.

Alfred M. Rankin, Jr. continues to serve as the Chairman of the Board of Directors of NACCO and Mr. Rankin supports the President and Chief Executive Officer of NACCO upon request under the terms of a consulting agreement. Fees for consulting services rendered by Mr. Rankin approximated $0.5 million for both of the years ended December 31, 2021 and 2020.

Hyster-Yale Materials Handling, Inc. ("Hyster-Yale") is a former subsidiary of the Company that was spun-off to stockholders in 2012. Mr. Rankin is Chairman, President and Chief Executive Officer of Hyster-Yale Materials Handling and Chairman, Hyster-Yale Group. In the ordinary course of business, NACoal leases or buys Hyster-Yale lift trucks. The terms may not be comparable to terms that would be obtained in a transaction between unaffiliated parties.

NOTE 19—Other Events and Transactions

Voluntary Separation Program: During the fourth quarter of 2020, the Company adopted a voluntary separation program ("2020 VSP") for eligible employees who met certain age and service requirements in an effort to reduce overall headcount at the Company’s headquarters. The irrevocable acceptance period for associates electing to participate in the 2020 VSP ended during December 2020. In the fourth quarter of 2020, the Company recorded pre-tax charges for the 2020 VSP of $1.8 million included in Selling, general and administrative expense in the accompanying Consolidated Statements of Operations.

NOTE 20—Supplemental Oil and Gas Disclosures (Unaudited)

The Minerals Management segment derives income primarily by leasing its royalty and mineral interests to third-party exploration and production companies, and, to a lesser extent, other mining companies, granting them the rights to explore, develop, mine, produce, market and sell gas, oil, and coal in exchange for royalty payments based on the lessees' sales of those minerals. As an owner of royalty and mineral interests, the Company’s access to information concerning activity and operations of its royalty and mineral interests is limited. The Company does not have information that would be available to a company with working interests in oil and natural gas operations because detailed information is not generally available to owners of royalty and mineral interests. See Note 1, Note 2 and Note 15 for additional discussion of the Minerals Management segment.

During 2021 and 2020, the Minerals Management segment acquired additional mineral interests, primarily in the Eagle Ford and Permian Basins in Texas. Total consideration for the 2021 and 2020 acquisitions of mineral and royalty interests was $5.3 million and $14.2 million, respectively. The 2021 acquisitions include 20.6 thousand gross acres and 1.8 thousand net royalty acres. The 2020 acquisitions include 65.5 thousand gross acres and 1.2 thousand net royalty acres. Total oil and gas mineral and royalty interests include approximately 127.8 thousand gross acres and 59.9 thousand net royalty acres at December 31, 2021.

Aggregate capitalized costs related to oil and gas royalty and mineral interests with applicable accumulated depreciation, depletion and amortization at December 31 are as follows:

		2021
Proved developed	$	**3,266**
Proved undeveloped		**16,246**
Less: accumulated depreciation, depletion and amortization		**868**
Net royalty interests in oil and natural gas properties	**$**	**18,644**

Total net proved reserves are defined as those natural gas and hydrocarbon liquid reserves to Company interests after deducting all royalties, overriding royalties, and reversionary interests owned by outside parties that become effective upon payout of specified monetary balances. Decline curve analysis was used to estimate the remaining reserves of pressure depletion reservoirs with enough historical production data to establish decline trends. Reservoirs under non-pressure depletion drive mechanisms and non-producing reserves were estimated by volumetric analysis, research of analogous reservoirs, or a combination of both. Reserves have been estimated using deterministic and probabilistic methods. All reserves estimates have been prepared using standard engineering practices generally accepted by the petroleum industry and conform to guidelines developed and adopted by the SEC.

The following table presents the Company's estimated net proved oil and natural gas reserves as of December 31, 2021 based on the reserve report prepared by Haas Engineering, the Company’s independent petroleum engineering firm. All of the Company’s reserves are located in the United States.

	Net reserves as of December 31, 2021		
	Oil (bbl) [1]	**NGL (bbl) [1]**	**Residue gas (Mcf) [2]**
Proved developed	**167,430**	**282,230**	**16,617,360**
Proved undeveloped	**220**	**90**	**1,210**
Total	**167,650**	**282,320**	**16,618,570**

[1] Bbl. One stock tank barrel, or 42 U.S. gallons liquid volume.

[2] Mcf. One thousand cubic feet of natural gas at the contractual pressure and temperature bases.

Standardized Measure of Discounted Future Net Cash Flows

Future cash inflows represent expected revenues from production of period-end quantities of proved reserves based on the 12-month unweighted average of first-day-of-the-month commodity prices for the periods presented. Future cash inflows are computed by applying applicable prices relating to proved reserves to the year-end quantities of those reserves. Future production and costs are derived based on current costs assuming continuation of existing economic conditions. Federal income tax expenses are deducted from future production revenues in the calculation of the standardized measure using the statutory tax rate. The Company is subject to certain state based taxes; however, these amounts are not material. The projections should not be viewed as realistic estimates of future cash flows, nor should the “standardized measure” be interpreted as representing current value to the Company. Material revisions to estimates of proved reserves may occur in the future; development and production of the reserves may not occur in the periods assumed; actual prices realized are expected to vary significantly from those used; and actual costs may vary.

The following table provides the future net cash flows relating to proved oil and gas reserves based on the standardized measure of discounted cash flows as of December 31, 2021:

	Gross Amounts	Statutory tax rate	Net Amounts
Future cash inflows	$ 71,400		
Future production costs	14,664		
Future net cash flows before income tax expense	56,736	21 %	44,821
10% discount to reflect timing of cash flows	(19,897)	21 %	(15,719)
Standardized measure of discounted cash flows	$ 36,839	21 %	$ 29,102

SCHEDULE I—CONDENSED FINANCIAL INFORMATION OF THE PARENT
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
PARENT COMPANY CONDENSED BALANCE SHEETS

	December 31	
	2021	2020
	(In thousands)	
ASSETS		
Cash and cash equivalents	**$ 83,093**	$ 85,365
Accounts receivable from affiliates	**—**	495
Other current assets	**17,578**	20,648
Investment in subsidiaries	**268,720**	211,468
Property, plant and equipment, net	**57**	110
Other non-current assets	**4,885**	5,890
Total Assets	**$ 374,333**	$ 323,976
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities	**$ 3,865**	$ 3,242
Current intercompany accounts payable, net	**637**	2,337
Note payable to Bellaire	**16,750**	16,750
Other non-current liabilities	**965**	1,023
Stockholders' equity	**352,116**	300,624
Total Liabilities and Stockholders' Equity	**$ 374,333**	$ 323,976

See Notes to Parent Company Condensed Financial Statements.

SCHEDULE I—CONDENSED FINANCIAL INFORMATION OF THE PARENT
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
PARENT COMPANY CONDENSED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended December 31	
	2021	2020
	(In thousands)	
Expense (income):		
Intercompany interest expense	**$ 1,172**	$ 1,178
Other, net	**(336)**	(1,003)
	836	175
Administrative and general expenses	**4,300**	5,658
Loss before income taxes	**(5,136)**	(5,833)
Income tax (benefit) provision	**(463)**	2,419
Net loss before equity in earnings of subsidiaries	**(4,673)**	(8,252)
Equity in earnings of subsidiaries	**52,798**	23,045
Net income	**48,125**	14,793
Current period pension and postretirement plan adjustment, net of $864 tax expense and $213 tax benefit in 2021 and 2020, respectively	**2,851**	(697)
Reclassification of pension and postretirement adjustments into earnings, net of $170 and $129 tax benefit in 2021 and 2020, respectively	**572**	435
Total other comprehensive income	**3,423**	(262)
Comprehensive Income	**$ 51,548**	$ 14,531

See Notes to Parent Company Condensed Financial Statements.

SCHEDULE I—CONDENSED FINANCIAL INFORMATION OF THE PARENT
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
PARENT COMPANY CONDENSED STATEMENTS OF CASH FLOWS

	Year Ended December 31	
	2021	2020
	(In thousands)	
Operating Activities		
Net income	**$ 48,125**	$ 14,793
Equity in earnings of subsidiaries	**52,798**	23,045
Parent company only net loss	**(4,673)**	(8,252)
Net changes related to operating activities	**8,018**	(22,822)
Net cash provided by (used for) operating activities	**3,345**	(31,074)
Investing Activities		
Net cash used for investing activities	**—**	—
Financing Activities		
Dividends received from subsidiaries	**—**	3,000
Notes payable to Bellaire	**—**	(200)
Purchase of treasury shares	**—**	(1,002)
Cash dividends paid	**(5,617)**	(5,375)
Net cash used for financing activities	**(5,617)**	(3,577)
Cash and cash equivalents		
Decrease for the period	**(2,272)**	(34,651)
Balance at the beginning of the period	**85,365**	120,016
Balance at the end of the period	**$ 83,093**	$ 85,365

See Notes to Parent Company Condensed Financial Statements.

SCHEDULE I—CONDENSED FINANCIAL INFORMATION OF THE PARENT
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO PARENT COMPANY CONDENSED FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2021 AND 2020

The notes to Consolidated Financial Statements, incorporated in Item 15 of this Form 10-K, are hereby incorporated by reference into these Notes to Parent Company Condensed Financial Statements.

NOTE A — ACCOUNTING POLICIES

In the Parent Company Condensed Financial Statements, NACCO's investment in subsidiaries is stated at cost plus equity in undistributed earnings of subsidiaries since the date of acquisition. NACCO's share of net income of unconsolidated subsidiaries is included in net income using the equity method. Parent Company financial statements should be read in conjunction with the Company's consolidated financial statements.

NOTE B — LONG-TERM OBLIGATIONS AND GUARANTEES

It is NACCO's policy not to guarantee the debt of NACoal.

NOTE C — UNRESTRICTED CASH

The amount of unrestricted cash available to NACCO, included in Investment in subsidiaries, was $1.2 million at December 31, 2021 and was in addition to the $83.1 million of cash included in the Parent Company Condensed Balance Sheet at December 31, 2021.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS
NACCO INDUSTRIES, INC. AND SUBSIDIARIES
YEAR ENDED DECEMBER 31, 2021 AND 2020

		Additions			
Description	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts — Describe	Deductions — Describe	Balance at End of Period (A)
	(In thousands)				
2021					
Reserves deducted from asset accounts:					
Deferred tax valuation allowances	**$11,549**	**$ 146**	**$ —**	**$ —**	**$11,695**
2020					
Reserves deducted from asset accounts:					
Deferred tax valuation allowances	$12,296	$ (747)	$ —	$ —	$11,549

(A) Balances which are not required to be presented and those which are immaterial have been omitted.

Exhibit 21

SUBSIDIARIES OF NACCO INDUSTRIES, INC.

The following is a list of active subsidiaries as of the date of the filing with the Securities and Exchange Commission of the Annual Report on Form 10-K to which this is an Exhibit. Except as noted, all of these subsidiaries are wholly owned, directly or indirectly.

Name	Incorporation
America Lignite Energy LLC	Delaware (50%)
Bellaire Corporation	Ohio
C&H Mining Company, Inc.	Alabama
Caddo Creek Resources Company, LLC	Nevada
Camino Real Fuels, LLC	Nevada
Catapult Mineral Partners, LLC	Nevada
Centennial Natural Resources, LLC	Nevada
Coyote Creek Mining Company, LLC	Nevada
Demery Resources Company, LLC	Nevada
The Coteau Properties Company	Ohio
The Falkirk Mining Company	Ohio
GRENAC, LLC	Delaware (50%)
Liberty Fuels Company, LLC	Nevada
Mississippi Lignite Mining Company	Texas
Mitigation Resources of North America, LLC	Nevada
Mitigate Alabama, LLC	Nevada
Mitigate Tennessee, LLC	Nevada
Mitigate Texas, LLC	Nevada
NAM - CMX, LLC	Nevada
NAM - Corkscrew, LLC	Nevada
NAM - CSA, LLC	Nevada
NAM - IND, LLC	Nevada
NAM - Little River, LLC	Nevada
NAM - MCA, LLC	Nevada
NAM - Newberry, LLC	Nevada
NAM - PBA, LLC	Nevada
NAM - Pasco, LLC	Nevada
NAM - Perry, LLC	Nevada
NAM - QueenField, LLC	Nevada
NAM - Rosser, LLC	Nevada
NAM - SACC, LLC	Nevada
NAM - SDI, LLC	Nevada
NAM - WFA, LLC	Nevada
NAM - WRQ, LLC	Nevada
NAM - 7D, LLC	Nevada
NoDak Energy Investments Corporation	Nevada
The North American Coal Corporation	Delaware
North American Coal Corporation India Private Limited	India
North American Mining, LLC	Nevada
North American Coal Royalty Company	Delaware
Otter Creek Mining Company LLC	Nevada
Red Hills Property Company LLC	Mississippi
The Sabine Mining Company	Nevada
Sawtooth Mining, LLC	Nevada
Trident Technology Services Group, LLC	Nevada
Trifecta Renewable Solutions, LLC	Delaware
TRU Global Energy Services, LLC	Delaware
TRU Energy Services, LLC	Nevada
Reed Minerals, Inc.	Alabama
Yockanookany Mitigation Resources, LLC	Nevada

Exhibit 31(i)(1)

Certifications

I, J.C. Butler, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of NACCO Industries, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2022

/s/ J.C. Butler, Jr.

J.C. Butler, Jr.

President and Chief Executive Officer

Exhibit 31(i)(2)

Certifications

I, Elizabeth I. Loveman, certify that:

1. I have reviewed this annual report on Form 10-K of NACCO Industries, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected , or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2022

/s/ Elizabeth I. Loveman

Elizabeth I. Loveman

Vice President and Controller
(principal financial officer)

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of NACCO Industries, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Date: March 2, 2022

/s/ J.C. Butler, Jr.
J.C. Butler, Jr.
President and Chief Executive Officer

Date: March 2, 2022

/s/ Elizabeth I. Loveman
Elizabeth I. Loveman
Vice President and Controller
(principal financial officer)

Exhibit 95

MINE SAFETY DISCLOSURES

NACCO Industries, Inc. (the “Company”) believes that The North American Coal Corporation and its affiliated mining companies (collectively, “NACoal”) is an industry leader in safety. NACoal has health and safety programs in place that include extensive employee training, accident prevention, workplace inspection, emergency response, accident investigation, regulatory compliance and program auditing. The objectives for NACoal's programs are to eliminate workplace incidents, comply with all mining-related regulations and provide support for both regulators and the industry to improve mine safety.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, each operator of a coal or other mine is required to include certain mine safety results in its periodic reports filed with the Securities and Exchange Commission. The operation of NACoal's mines is subject to regulation by the Federal Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Act"). MSHA inspects NACoal's mines on a regular basis and issues various citations and orders when it believes a violation has occurred under the Mine Act. The Company has presented information below regarding certain mining safety and health matters for NACoal's mining operations for the year ended December 31, 2021. In evaluating this information, consideration should be given to factors such as: (i) the number of citations and orders will vary depending on the size of the mine, (ii) the number of citations issued will vary from inspector to inspector and from mine to mine, and (iii) citations and orders can be contested and appealed, and in that process, are often reduced in severity and amount, and are sometimes vacated.

During the year ended December 31, 2021, neither the Company's current mining operations nor it's closed mines: (i) were assessed any Mine Act section 104(b) orders for alleged failure to totally abate the subject matter of a Mine Act section 104(a) citation within the period specified in the citation; (ii) were assessed any Mine Act section 110(b)(2) penalties for failure to correct the subject matter of a Mine Act section 104(a) citation within the specified time period, which failure was deemed flagrant (i.e., reckless or repeated failure to make reasonable efforts to eliminate a known violation that substantially and proximately caused, or reasonably could have been expected to cause, death or serious bodily injury); (iii) received any Mine Act section 107(a) imminent danger orders to immediately remove miners; or (iv) received any MSHA written notices under Mine Act section 104(e) of a pattern of violation of mandatory health or safety standards or of the potential to have such a pattern. In addition, there were no mining-related fatalities at the Company's operations or it's closed mines during the year ended December 31, 2021.

The following table sets forth the total number of specific citations and orders, the total dollar value of the proposed civil penalty assessments that were issued by MSHA, the total number of legal actions initiated and resolved before the Federal Mine Safety and Health Review Commission ("FMSHRC") during the year ended December 31, 2021, and the total number of legal actions pending before the FMSHRC at December 31, 2021, pursuant to the Mine Act, by individual mine at NACoal:

Name of Mine or Quarry (1)	Mine Act Section 104 Significant & Substantial Citations (2)(3)	Mine Act Section 104(d) Citations	Total Dollar Value of Proposed MSHA Assessment	Number of Legal Actions Initiated before the FMSHRC for the year ended at December 31, 2021	Number of Legal Actions Resolved before the FMSHRC for the year ended at December 31, 2021	Number of Legal Actions Pending before the FMSHRC at December 31, 2021
Coteau (Freedom Mine)	—	—	$ 250	—	—	—
Falkirk (Falkirk Mine)	1	—	1,284	—	—	—
Sabine (South Hallsville No. 1 Mine)	1	—	636	—	—	—
Demery (Five Forks Mine)	—	—	—	—	—	—
Caddo Creek (Marshall Mine)	—	—	133	—	—	—
Coyote Creek (Coyote Creek Mine)	—	—	125	—	—	—
Bisti Fuels (Navajo Mine) [4]	2	—	2,034	—	—	—
MLMC (Red Hills Mine)	—	—	—	—	—	—
North American Mining Operations:	—	—	—	—	—	—
Alico Quarry						
Card Sound Quarry	—		—	—	—	—
Center Hill Quarry	—		—	—	—	—
FEC Quarry	—		929	—	—	—
Inglis Quarry	—		—			
Krome Quarry	1		2,558	—	—	—
SCL Quarry	—	—	—	—	—	—
St. Catherine Quarry	—	—	—	—	—	—
Seven Diamonds Quarry	—	—	—	—	—	—
Central State Aggregates Quarry	—	—	—	—	—	—
Johnson County Quarry	—	—	—	—	—	—
Little River Quarry	—	—	—	—	—	—
Mid Coast Aggregates Quarry	—		—	—	—	—
Newberry Quarry	—	—	—	—	—	—
County Line Quarry	—	—	—	—	—	—
Palm Beach Aggregates Quarry	—	—	279	—	—	—
Perry Quarry	—	—	—	—	—	—
Queensfield Mine	—	—	—	—	—	—
Rosser Quarry	—	—	202	—	—	—
SDI Aggregates Quarry	—	—	—	—	—	—
West Florida Aggregates Quarry	—	—	146	—	—	—
Titan Corkscrew Quarry	—	—	—	—	—	—
White Rock Quarry - North	1	—	1,307	—	—	—
Total	6	—	9,883	—	—	—

(1) Bellaire's, Centennial's and Liberty's closed mines are not included in the table above and did not receive any of the indicated citations.

(2) Mine Act section 104(a) significant and substantial citations are for alleged violations of a mining safety standard or regulation where there exists a reasonable likelihood that the hazard contributed to or will result in an injury or illness of a reasonably serious nature.

(3) The reported significant and substantial citation at Sabine during the year ended December 31, 2021, was originally classified by MSHA as significant and substantial. The citation has been reduced to non-significant and substantial.

(4) The contract mining agreement between Bisti Fuels and its customer was terminated effective September 30, 2021.

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Directors

J.C. Butler, Jr.
President and Chief Executive Officer,
NACCO Industries, Inc. and The North American Coal Corporation

John S. Dalrymple
Former Governor of the State of North Dakota

John P. Jumper
Retired Chief of Staff, United States Air Force

Dennis W. LaBarre
Retired Partner, Jones Day

Michael S. Miller
Retired Managing Director, The Vanguard Group

Richard de J. Osborne
Retired Chairman and Chief Executive Officer,
ASARCO Incorporated

Alfred M. Rankin, Jr.
Non-Executive Chairman, NACCO Industries, Inc.

Chairman and Chief Executive Officer,
Hyster-Yale Materials Handling, Inc.

Non-Executive Chairman,
Hamilton Beach Brands Holding Company

Matthew M. Rankin
President and Chief Executive Officer,
Carlisle Residential Properties

Roger F. Rankin
Self-employed (personal investments)

Lori J. Robinson
Retired General, United States Air Force

Robert S. Shapard
Chairman and Retired Chief Executive
Officer of Oncor Electric Delivery Company

Britton T. Taplin
Self-employed (personal investments)

Leadership

J.C. Butler, Jr.
President and Chief Executive Officer

Carroll L. Dewing
Vice President – Operations

John D. Neumann
Vice President, General Counsel and Secretary

J. Patrick Sullivan, Jr.
Vice President and Chief Financial Officer,
The North American Coal Corporation

Elizabeth I. Loveman
Vice President and Controller, NACCO Industries, Inc.

Thomas A. Maxwell
Vice President – Financial Planning and Analysis
and Treasurer, NACCO Industries, Inc.

Andrew B. Hart
Controller, The North American Coal Corporation

Philip N. Berry
President, North American Mining

Brian M. Larson
President, Catapult Mineral Partners

Eric S. Anderson
President, Mitigation Resources of North America

Eric A. Dale
Treasurer and Senior Director, Financial Planning
and Analysis, The North American Coal Corporation

Sarah E. Fry
Associate General Counsel and Assistant Secretary

Miles B. Haberer
Associate General Counsel, Assistant Secretary and
President, North American Coal Royalty Company

Matthew J. Dilluvio
Associate Counsel and Assistant Secretary

Corporate Information

Annual Meeting
The Annual Meeting of Stockholders of NACCO Industries, Inc. will be held on May 18, 2022, at 11:00 a.m. located at:
5875 Landerbrook Drive
Cleveland, Ohio 44124

Stock Exchange Listing
The New York Stock Exchange Symbol: NC

Stock Transfer Agent and Registrar
Stockholder Correspondence:
Computershare
P.O. Box 505000
Louisville, KY 40233-5000

Overnight Correspondence:
Computershare
462 South 4th St., Suite 1600
Louisville, KY 40202

(800) 622-6757 (U.S., Canada and Puerto Rico)
(781) 575-4735 (International)

Legal Counsel
McDermott Will & Emery LLP
444 West Lake Street
Chicago, Illinois 60606

Independent Registered Public Accounting Firm
Ernst & Young LLP
950 Main Ave., Suite 1800
Cleveland, Ohio 44113

Form 10-K
Additional copies of the Company's Form 10-K filed with the Securities and Exchange Commission are available free of charge through NACCO Industries' website (**nacco.com**) or by request to Investor Relations

Investor Relations Contact
Investor questions may be addressed to:
Investor Relations
NACCO Industries
5875 Landerbrook Drive, Suite 220
Cleveland, Ohio 44124
or sent through the Company's website.

Visit Our Websites

Watch Our Video

NACCO Industries: **nacco.com**

NACCO Natural Resources: **nacco.com**

North American Coal: **nacoal.com**

North American Mining: **namining.com**

Mitigation Resources of North America: **mitigate.pro**

Catapult Mineral Partners: **catapultmp.com**

Operations

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