

ARCH RESOURCES, INC.

2023 ANNUAL REPORT



**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
Form 10-K**

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2023
- or
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
- Commission file number: 1-13105**



Arch Resources, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

**1 CityPlace Drive
Suite 300
St. Louis
Missouri**
(Address of principal executive offices)

43-0921172
(I.R.S. Employer
Identification Number)

63141
(Zip code)

Registrant's telephone number, including area code: **(314) 994-2700**

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, \$.01 par value	ARCH	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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, smaller reporting company, or an emerging growth company. See the 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The aggregate market value of the voting stock held by non-affiliates of the registrant (excluding outstanding shares beneficially owned by directors, officers, other affiliates and treasury shares) as of **June 30, 2023** was approximately \$2,052.1 million.

At February 1, 2024 there were 18,360,691 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission in connection with the 2023 annual stockholders' meeting are incorporated by reference into Part III of this Form 10-K.

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If you are not familiar with any of the mining terms used in this report, we have provided explanations of many of them under the caption "Glossary of Selected Mining Terms" on page 38 of this report. Unless the context otherwise requires, all references in this report to "Arch," "the Company," "we," "us," or "our" are to Arch Resources, Inc. and its subsidiaries.

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

This report contains forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, such as our expected future business and financial performance, and are intended to come within the safe harbor protections provided by those sections. The words "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "predicts," "projects," "seeks," "should," "will" or other comparable words and phrases identify forward-looking statements, which speak only as of the date of this report. Forward-looking statements by their nature address matters that are, to different degrees, uncertain. Actual results may vary significantly from those anticipated due to many factors, including:

- loss of availability, reliability and cost-effectiveness of transportation facilities and fluctuations in transportation costs;
- operating risks beyond our control, including risks related to mining conditions, mining, processing and plant equipment failures or maintenance problems, weather and natural disasters, the unavailability of raw materials, equipment or other critical supplies, mining accidents, and other inherent risks of coal mining that are beyond our control;
- inflationary pressures on and availability and price of mining and other industrial supplies;
- changes in coal prices, which may be caused by numerous factors beyond our control, including changes in the domestic and foreign supply of and demand for coal and the domestic and foreign demand for steel and electricity;
- volatile economic and market conditions;
- the effects of foreign and domestic trade policies, actions or disputes on the level of trade among the countries and regions in which we operate, the competitiveness of our exports, or our ability to export;
- the effects of significant foreign conflicts;
- the loss of, or significant reduction in, purchases by our largest customers;
- our relationships with, and other conditions affecting our customers and our ability to collect payments from our customers;
- risks related to our international growth;
- competition, both within our industry and with producers of competing energy sources, including the effects from any current or future legislation or regulations designed to support, promote or mandate renewable energy sources;
- alternative steel production technologies that may reduce demand for our coal;
- our ability to secure new coal supply arrangements or to renew existing coal supply arrangements;
- cyber-attacks or other security breaches that disrupt our operations, or that result in the unauthorized release of proprietary, confidential or personally identifiable information;
- our ability to acquire or develop coal reserves in an economically feasible manner;

- inaccuracies in our estimates of our coal reserves;
- defects in title or the loss of a leasehold interest;
- the availability and cost of surety bonds; including potential collateral requirements;
- We may not have adequate insurance coverage for some business risks;
- disruptions in the supply of coal from third parties;
- Decreases in the coal consumption of electric power generators could result in less demand and lower prices for thermal coal;
- our ability to pay dividends or repurchase shares of our common stock according to our announced intent or at all;
- the loss of key personnel or the failure to attract additional qualified personnel and the availability of skilled employees and other workforce factors;
- public health emergencies, such as pandemics or epidemics, could have an adverse effect on our business;
- existing and future legislation and regulations affecting both our coal mining operations and our customers' coal usage, governmental policies and taxes, including those aimed at reducing emissions of elements such as mercury, sulfur dioxides, nitrogen oxides, particulate matter or greenhouse gases;
- increased pressure from political and regulatory authorities, along with environmental and climate change activist groups, and lending and investment policies adopted by financial institutions and insurance companies to address concerns about the environmental impacts of coal combustion;
- increased attention to environmental, social or governance matters ("ESG");
- our ability to obtain or renew various permits necessary for our mining operations;
- risks related to regulatory agencies ordering certain of our mines to be temporarily or permanently closed under certain circumstances;
- risks related to extensive environmental regulations that impose significant costs on our mining operations, and could result in litigation or material liabilities;
- the accuracy of our estimates of reclamation and other mine closure obligations;
- the existence of hazardous substances or other environmental contamination on property owned or used by us;
- risks related to tax legislation and our ability to use net operating losses and certain tax credits; and
- other factors, including those discussed in "Legal Proceedings," set forth in Item 3 of this report and "Risk Factors," set forth in Item 1A of this report.

All forward-looking statements in this report, as well as all other written and oral forward-looking statements attributable to us or persons acting on our behalf, are expressly qualified in their entirety by the cautionary statements contained in this section and elsewhere in this report. These factors are not necessarily all of the important factors that could affect us. These risks and uncertainties, as well as other risks of which we are not aware or which we currently do not believe to be material, may cause our actual future results to be materially different than those expressed in our forward-looking statements. These forward-looking statements speak only as of the date on which such statements were

made, and we do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by the federal securities laws.

Additionally, our discussions of certain ESG matters and issues herein are developed with various standards and frameworks (including standards for the measurement of underlying data), and the interests of various stakeholders. As such, such discussions may not necessarily be “material” under the federal securities laws for SEC reporting purposes. Furthermore, many of our disclosures regarding ESG matters are subject to methodological considerations or information, including from third parties, that is still evolving and subject to change. For example, our disclosures based on any standards may change due to revisions in framework requirements, availability of information, changes in our business or applicable government policies, or other factors, some of which may be beyond our control.

PART I

ITEM 1. BUSINESS

Introduction

We are one of the world's largest coal producers and a premier producer of metallurgical coal. For the year ended December 31, 2023, we sold approximately 75 million tons of coal, including approximately 0.1 million tons of coal we purchased from third parties. We sell substantially all of our coal to steel mills, power plants and industrial facilities. At December 31, 2023, we operated seven active mines located in three of the major coal-producing regions of the United States. The locations of our mines and access to export facilities enable us to ship coal worldwide. We incorporate by reference the information about the geographical breakdown of our coal sales for the respective periods covered within this report contained in Note 20, "Risk Concentrations" to the Consolidated Financial Statements.

Business Strategy

We are a leading United States producer of metallurgical products for the global steel industry, and the leading supplier of premium High-Vol A metallurgical coal globally. We operate four large, modern metallurgical mines that consistently achieve high standards for both mine safety and environmental stewardship. Leer and Leer South longwall mines anchor our large-scale, first quartile metallurgical franchise. The Leer franchise consistently ranks among the lowest cost U.S. metallurgical mines and produces a product quality that is recognized and sought-after worldwide. The Leer and Leer South operations are complemented by the Beckley and Mountain Laurel continuous miner mines, which in aggregate provide us with a full suite of high-quality metallurgical products for sale into the global metallurgical market.

Arch and its subsidiaries also operate thermal mines in the Powder River Basin and Colorado that produce thermal coal for sale into international and domestic markets. In Colorado, our West Elk mine produces a high-quality thermal product that can compete effectively in seaborne markets, where thermal coal demand remains robust. In addition, West Elk supplies a sizeable North American industrial customer base that we believe will continue to rely significantly on thermal coal, which can be highly advantageous for specific industrial applications. In the Powder River Basin, most of our production is sold to U.S. power generators, who are systematically shifting their generating capacity to other, non-coal fuel and energy sources. In keeping with this shift and the ongoing decline in domestic demand for thermal coal, Arch is managing the shrinking of its operating footprint in an economically and socially responsible manner, taking into careful consideration the needs of its thermal employee base, the communities in which we operate, and the needs of our thermal power customers as well as consumers of power generation generally. We remain confident that our Powder River Basin mines can continue to provide significant, incremental cash flow to complement the strong cash-generating capabilities of our core metallurgical franchise in the near to intermediate term, while self-funding their own closure obligations over the longer term.

We believe that our long-term success depends upon achieving excellence in mine safety and environmental stewardship; conducting business in an ethical and transparent manner; investing in our people and the communities in which we operate; and demonstrating strong corporate governance. With our strategic shift towards metallurgical products – which are an essential input in the production of new steel – we have aligned our value proposition to reflect the world's intensifying focus on sustainability and the construction of a new, steel-intensive, low-carbon economy. We were the first – and remain the only – U.S. metallurgical coal producer to join Responsible Steel, the steel industry's global multi-stakeholder standard and certification initiative. In the fourth quarter of 2023, our Leer mine achieved Level A verification for all protocols comprising the Towards Sustainable Mining (TSM) Initiative, which we believe further enhances our standing as a supplier of choice to increasingly sustainability-focused global steelmakers.

We are a demonstrated leader in mine safety, with an average lost-time incident rate during the past five years that is nearly 2.5 times better than the industry average. Our subsidiaries have won more than 40 national and state safety awards in the past five years.

In the environmental arena, our subsidiaries received zero notices of violation (NOV) in 2023 and 2021 while receiving one NOV in 2022. Arch has averaged fewer than one NOV per year over the past five years, versus an average of approximately 15 annually by 10 other major U.S. coal producers. In the area of water management, there have been zero exceedances for a 100 percent compliance record for the third year in a row.

Coal Characteristics

End users generally characterize coal as thermal coal or metallurgical coal. Heat value, sulfur, ash, moisture content, and volatility, in the case of metallurgical coal, are important variables in the marketing and transportation of coal. These characteristics help producers determine the best end use of a particular type of coal. The following is a description of these general coal characteristics:

Heat Value. In general, the carbon content of coal supplies most of its heating value, but other factors also influence the amount of energy it contains per unit of weight. The heat value of coal is commonly measured in Btus. Coal is generally classified into four categories, lignite, subbituminous, bituminous and anthracite, reflecting the progressive response of individual deposits of coal to increasing heat and pressure. Anthracite is coal with the highest carbon content and, therefore, the highest heat value, nearing 15,000 Btus per pound. Bituminous coal, used primarily to generate electricity and to make coke for the steel industry, has a heat value ranging between 10,500 and 15,500 Btus per pound. Subbituminous coal ranges from 8,300 to 13,000 Btus per pound and is generally used for electric power generation. Lignite coal is a geologically young coal which has the lowest carbon content and a heat value ranging between 4,000 and 8,300 Btus per pound.

Sulfur Content. Federal and state environmental regulations, including regulations that limit the amount of sulfur dioxide that may be emitted as a result of combustion, have affected and may continue to affect the demand for certain types of coal. The sulfur content of coal can vary from seam to seam and within a single seam. The chemical composition and concentration of sulfur in coal affects the amount of sulfur dioxide produced in combustion. Coal-fueled power plants can comply with sulfur dioxide emission regulations by burning coal with low sulfur content, blending coals with various sulfur contents, purchasing emission allowances on the open market and/or using sulfur dioxide emission reduction technology.

Ash. Ash is the inorganic material remaining after the combustion of coal. As with sulfur, ash content varies from seam to seam. Ash content is an important characteristic of coal because it impacts boiler performance and electric generating plants must handle and dispose of ash following combustion. The composition of the ash, including the proportion of sodium oxide and fusion temperature, is also an important characteristic of coal, as it helps to determine the suitability of the coal to end users. The absence of ash is also important to the process by which metallurgical coal is transformed into coke for use in steel production.

Moisture. Moisture content of coal varies by the type of coal, the region where it is mined and the location of the coal within a seam. In general, high moisture content decreases the heat value and increases the weight of the coal, thereby making it more expensive to transport. Moisture content in coal, on an as-sold basis, can range from approximately 2% to over 30% of the coal's weight.

Other. Users of metallurgical coal measure certain other characteristics, including fluidity, volatility, and swelling capacity to assess the strength of coke produced from a given coal or the amount of coke that certain types of coal will yield. These characteristics are important elements in determining the value of the metallurgical coal we produce and market.

Industry Overview

Background. Coal is mined globally using various methods of surface and underground recovery. Coal is primarily used for steel production and electric power generation, but it is also used for certain industrial processes such as cement production. Coal is a globally marketed commodity and can be transported to demand centers by ocean-going vessels, barge, rail, truck or conveyor belt.

In 2023, world coal production further recovered from the COVID-19 pandemic related supply and demand disruptions experienced in 2020. An expansionary economic environment was supportive of coal fundamentals in 2023. Based on preliminary industry data and internal estimates, we believe world coal production increased around 2% in 2023 to approximately 8.9 billion metric tons; this likely represents an all-time for yearly world coal production after having increased around 8% in 2022.

China is the largest producer of coal in the world accounting for over 50% of total production. According to available data from the Chinese National Bureau of Statistics and Estimates, China produced around 4.7 billion metric tons of coal in 2023. Other major coal producing countries are India, Indonesia, the United States, Australia, Russia, South Africa and Colombia. India, the world's second biggest coal producer, could reach 1 billion metric tons of production in 2024. In 2023, U.S. coal production decreased by approximately 2% to 528 million metric tons, after increasing around 3% in 2022 to around 540 million metric tons mainly due to lower demand for power generation. U.S. coal production has decreased by roughly 50% in the past decade as coal-fired generation demand has continued to decrease. The U.S. is now the fourth largest producer after being surpassed by India and Indonesia in the past decade.

Steel is produced via two main methods: basic oxygen furnace (BOF) and electric arc furnace (EAF). EAF steelmaking produces steel by using an electrical current to melt scrap steel, while BOF steelmaking relies on coke and iron ore as key inputs to produce pig iron, which is then converted into steel. Metallurgical coal is a key part of the BOF process as it is used to make coke.

The main steel producing countries are China, India, Japan, United States, Russia, South Korea, Turkey, Germany, Brazil, and Italy. Approximately 72% of global steel is produced via the BOF steelmaking process, while in the United States, BOF accounts for around 31% of steel production. Arch sells high-quality metallurgical coal products that are essential inputs for BOF steel production worldwide. Our focus is to be a premier low-cost, metallurgical coal supplier to the global steel industry.

In 2023, world steel production is expected to be little changed from 2022 due to ongoing global recessionary fears, inflationary pressures and the Ukraine-Russia war. The World Steel Association forecasts steel demand to grow around 2% globally in 2023; however, the demand growth will not be balanced. Steel demand growth in some key regions, including Europe, South America, Africa and the Middle East, will be negative, according to World Steel Association forecasts. Chinese steel production was flat in 2023, as the government implemented production controls.

Global trade of metallurgical coal was also affected by the pandemic and has slowly recovered. We estimate metallurgical coal import-export trade flows improved slightly in 2023 from 2022 levels. A full restoration of trade volumes back to pre-pandemic levels could take place in 2024; however, certain factors continue to affect the industry, including weather, geological issues, workforce absenteeism, supply chain constraints, transportation reliability and lingering effects from the COVID-19 pandemic, including responses thereto. The primary nations that supply seaborne metallurgical coal to the global steel markets are Australia, the United States, Canada, and Russia.

Australia is the largest metallurgical coal exporter and the second largest thermal coal exporter in the world. Towards the end of 2020, China implemented a ban on all coal imports from Australia. This ban imposed by the key importer of coal on the key exporter of coal rearranged historical global trade patterns. Although the ban on Australian coal was lifted in 2023, it was in place long enough to further open the Chinese markets to United States coal suppliers. In 2023, Australian exports of metallurgical to China were limited compared to recent historical averages. Australian metallurgical coal exports are expected to have fallen in 2023, reaching the lowest level in 11 years, based on preliminary trade data. Additionally, the regulatory environment in Australia has become more restrictive for coal mining, including the recently enacted increase in royalty rates within Queensland. These actions have limited additional investment in the coal mining industry.

We rank among the largest metallurgical coal producers in the United States. Based on internal estimates, we produced around 11% of total U.S. metallurgical coal supply, which was estimated to be around 75 million tons in 2023. Our metallurgical coal was sold to five North American customers and exported to 34 customers overseas in 11 countries in 2023.

All of our metallurgical coal is produced at operations in West Virginia. Approximately 50% of the metallurgical coal produced in the United States is produced in West Virginia. Carbon content, volatility, fluidity, coke strength after reaction (CSR), and other chemical and physical properties are among critical characteristics for metallurgical coal.

We produce coal used for electric power generation (thermal) and industrial facilities from our mines located in Wyoming and Colorado. The European energy crisis, which was exacerbated by the Ukraine-Russia war, contributed to strong demand for our thermal coal products from international buyers in 2022, although the demand growth in 2023 was subdued. The European Union, which has traditionally been a major market for Russian coals, imposed a ban on Russian coals as of August 2022. Limited global investments in thermal coal supply, weather events, a lack of qualified labor availability, and other factors limited the supply response, which resulted in record prices for domestic and international markets in 2022.

Much of our domestic coal is sold at the mine where title and risk of loss transfer to the customer as coal is loaded into the railcar or truck. Customers are generally responsible for transportation - typically using third party carriers. There are, however, some agreements where we retain responsibility for the coal during delivery to the customer site or intermediate terminal. Our export coals usually change title and risk of loss as the coal is loaded on a vessel. Normally we contract for transportation services from the mine to the ocean loading port. On occasion, we retain title to the coal to the ocean receiving port.

In 2023, approximately 88% of our coal volumes were sold as thermal products with the remaining 12% sold as metallurgical products. However, due to the significantly higher value and selling price of our metallurgical coals compared to thermal coals, our metallurgical segment contributed around 60% of our total sales revenue in 2023.

We seek to establish direct long-term relationships with customers through exemplary customer service while operating safe and environmentally responsible mines. The commercial environment in which we operate is very competitive. We compete with domestic and international coal producers, traders or brokers, and non-coal based power producers, as well as with electric arc-based steel producers. We compete using price, coal quality, transportation, optionality, customer administration, reputation, and reliability.

We have an experienced and knowledgeable sales, marketing, and logistics group. This group is dedicated to meeting customer needs, coordinating transportation, and managing risk.

Coal prices are tied to competing fuel sources as well as supply and demand patterns, which are influenced by many uncontrollable factors. For power generation, the price of coal is affected by the relative supply and demand of competitive coal, transportation, availability, weather, competing power generation fuels particularly natural gas, governmental subsidies of alternate energy sources, regulations and economic conditions. For metallurgical coal, the price of coal is affected by the supply and demand of competitive coal, transportation, the price of steel, the price of scrap, demand for steel, transportation rates, strength of the U.S. dollar, regulations, international trade disputes and economic conditions.

U.S. Coal Production. The United States is among the largest coal producers in the world. According to the U.S. Energy Information Administration (EIA), there are over 250 billion short tons of recoverable coal reserves in the United States. Current domestic recoverable coal reserves could supply the coal-fired generation fleet for the next 500 years, based on current demand.

The EIA subdivides United States coal production into three major areas: Western Region, Appalachia, and Interior Region. According to the preliminary information from EIA, total U.S. coal production decreased by an estimated 13 million short tons in 2023, to around 582 million short tons.

The Western Region includes the Powder River Basin and the Western Bituminous region. According to the EIA, coal produced in the Western Region decreased from approximately 335 million short tons in 2022 to around 320 million short tons in 2023. The Powder River Basin is located in northeastern Wyoming and southeastern Montana and is the largest producing region in the United States. Coal from this region is sub-bituminous coal with low sulfur content ranging from 0.2% to 0.9% and heating values ranging from 8,300 to 9,500 BTU/lb. Powder River Basin coal generally has a lower heat content than other regions and is produced from thick seams using surface recovery methods. The Western Bituminous region includes Colorado, Utah and southern Wyoming. Coal from this region typically has low sulfur content ranging from 0.4% to 0.8% and heating values ranging from 10,000 to 12,200 BTU/lb. Western

Bituminous coal has certain quality characteristics, especially its higher heat content, low ash and low sulfur, that make this a desirable coal for domestic and international power producers.

Appalachia is divided into north, central and southern regions. According to the EIA, coal produced in the Appalachian region increased from approximately 161 million short tons in 2022 to around 167 million short tons in 2023. Appalachian coal is located near the prolific eastern shale-gas producing regions. Central Appalachian thermal coal is disadvantaged for power generation because of the depletion of economically attractive reserves, increasing costs of production, and permitting issues. However, virtually all U.S. metallurgical coal is produced in Appalachia and the relative scarcity and high quality of this coal allows for a pricing premium over thermal coal. Appalachia, while still a major producer of thermal coal, is undergoing a shift towards heavier reliance on metallurgical coal production for both domestic and international use. This is especially the case in Central Appalachia.

Northern Appalachia includes Pennsylvania, Northern West Virginia, Ohio and Maryland. Coal from this region generally has a high heat value ranging from 10,300 to 13,500 BTU/lb. and a sulfur content ranging from 0.8% to 4.0%. Central Appalachia includes Southern West Virginia, Virginia, Kentucky and Northern Tennessee. Coal mined from this region generally has a high heat value ranging from 11,400 to 13,200 BTU/lb. and low sulfur content ranging from 0.2% to 2.0%. Southern Appalachia primarily covers Alabama and generally has a heat content ranging from 11,300 to 12,300 BTU/lb. and a sulfur content ranging from 0.7% to 3.0%. Southern Appalachia mines are primarily focused on metallurgical markets.

The Interior coal region includes Arkansas, Illinois, Kansas, Louisiana, Mississippi, Missouri, Oklahoma, Texas, and Western Kentucky. The Illinois Basin is the largest producing region in the Interior and consists of Illinois, Indiana and western Kentucky. According to the EIA, coal produced in the Interior Region decreased from approximately 98 million short tons in 2022 to around 95 million short tons in 2023. Coal from the Illinois Basin generally has a heat value ranging from 10,100 to 12,600 BTU/lb. and has a sulfur content ranging from 1.0% to 4.3%. Despite its high sulfur content, coal from the Illinois Basin can generally be used by electric power generation facilities that have installed emissions control devices, such as scrubbers.

Coal Mining Methods

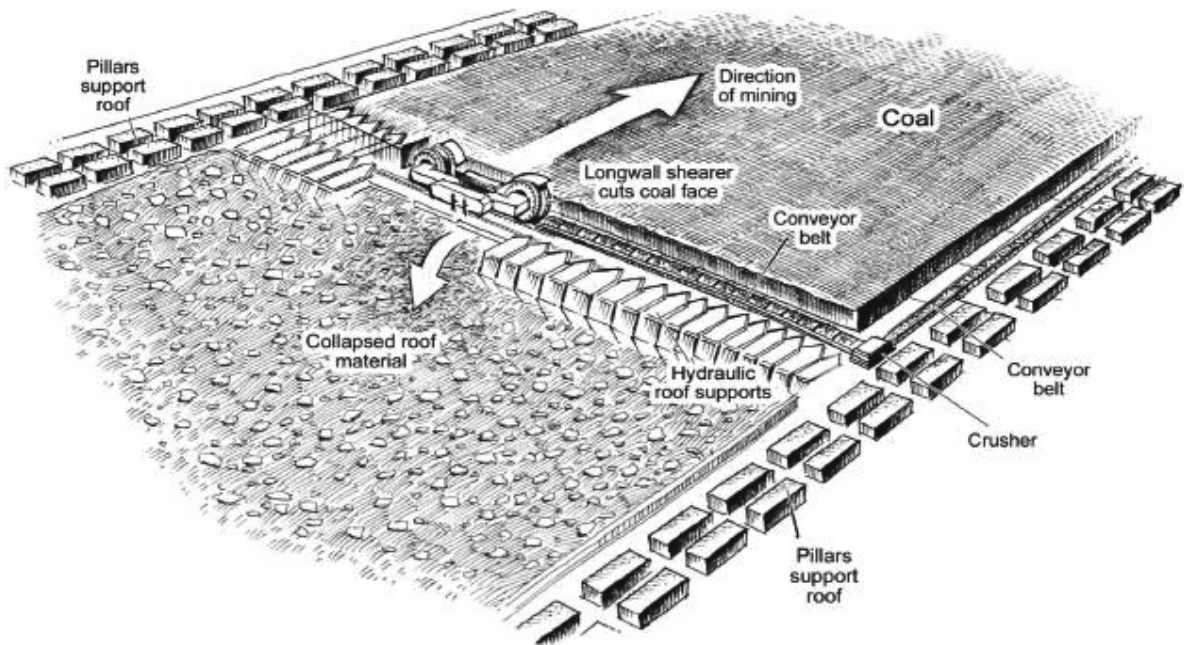
The geological characteristics of our coal reserves largely determine the coal mining method we employ. We use two primary methods of mining coal: underground mining and surface mining.

Underground Mining. We use underground mining methods when coal is located deep beneath the surface. We have included the identity and location of our underground mining operations below under “Our Mining Operations-General.”

Our underground mines are typically operated using one or both of two different mining techniques: longwall mining and room-and-pillar mining.

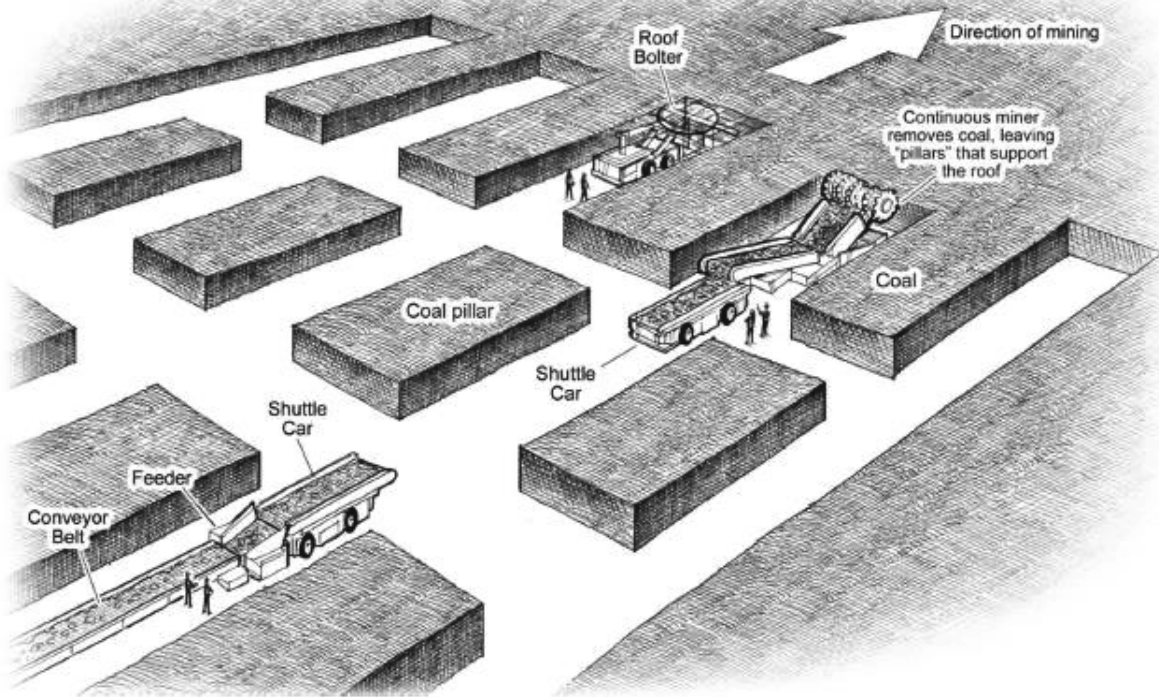
Longwall Mining. Longwall mining involves using a mechanical shearer to extract coal from long rectangular blocks of medium to thick seams. Ultimate seam recovery using longwall mining techniques can exceed 75%. In longwall mining, continuous miners are used to develop access to these long rectangular coal blocks. Hydraulically powered supports temporarily hold up the roof of the mine while a rotating drum mechanically advances across the face of the coal seam, cutting the coal from the face. Chain conveyors then move the loosened coal to an underground mine conveyor system for delivery to the surface. Once coal is extracted from an area, the roof is allowed to collapse in a controlled fashion behind the hydraulic roof supports. Depending on the depth of the cover, the seam thickness and

overlying geology, the collapse of the roof can cause surface subsidence. The following diagram illustrates a typical underground mining operation using longwall mining techniques:



Room-and-Pillar Mining. Room-and-pillar mining is effective for small blocks of thin coal seams or larger blocks of thicker coal that has more variable geologic conditions. In room-and-pillar mining, a network of rooms is cut into the coal seam, leaving a series of pillars of coal to support the roof of the mine. Continuous miners are used to cut the coal and shuttle cars are used to transport the coal to a conveyor belt for further transportation to the surface. The pillars generated as part of this mining method can constitute up to 40% of the total coal in a seam. Higher seam recovery rates can be achieved if retreat mining is used. In retreat mining, coal is mined from the pillars as workers retreat. As retreat mining occurs, the roof is allowed to collapse in a controlled fashion.

The following diagram illustrates our typical underground mining operation using room-and-pillar mining techniques:



Coal Preparation and Blending. We crush the coal mined from our Powder River Basin mining complexes and ship it directly from our mines to the customer. Typically, no additional preparation is required for a saleable product. Coal extracted from some of our underground mining operations contains impurities, such as rock, shale and clay occupying a wide range of particle sizes. All of our mining operations in the Appalachia region use a coal preparation plant located near the mine or connected to the mine by a conveyor. These coal preparation plants allow us to process the coal we extract from those mines to ensure a consistent quality and to enhance its suitability for particular end-users. In addition, depending on coal quality and customer requirements, we may blend coal mined from different locations, including coal produced by third parties, in order to achieve a more suitable product.

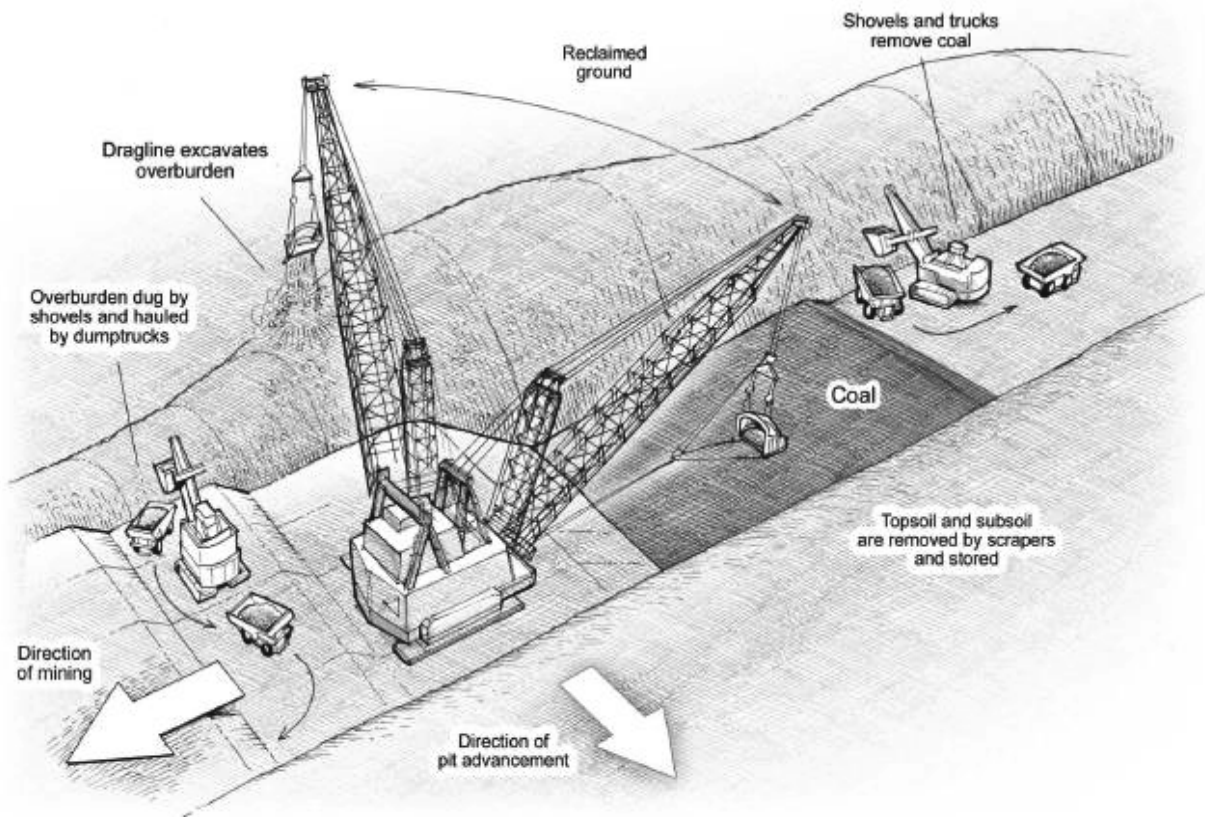
The processes we employ at our preparation plants depend on the size of the raw coal. For coarse material, the separation process relies on the difference in the density between coal and waste rock and, for the very fine fractions, the separation process relies on the difference in surface chemical properties between coal and the waste minerals. To remove impurities, we crush raw coal and classify it into various sizes. For the largest size fractions, we use dense media vessel separation techniques in which we float coal in a tank containing a liquid of a pre-determined specific gravity. Since coal is lighter than its impurities, it floats, and we can separate it from rock and shale. We treat intermediate sized particles with dense medium cyclones, in which a liquid is spun at high speeds to separate coal from rock. Fine coal is treated in spirals, in which the differences in density between coal and rock allow them, when suspended in water, to be separated. Ultra fine coal is recovered in column flotation cells utilizing the differences in surface chemistry between coal and rock. By injecting stable air bubbles through a suspension of ultra-fine coal and rock, the coal particles adhere to the bubbles and rise to the surface of the column where they are removed. To minimize the moisture content in coal, we process most coal sizes through centrifuges. A centrifuge spins coal very quickly, causing water accompanying the coal to separate.

For more information about the locations of our preparation plants, you should see the section entitled “Our Mining Operations.”

Surface Mining. We use surface mining when coal is found close to the surface. We have included the identity and location of our surface mining operations below under “Our Mining Operations-General.” The majority of the thermal coal we produce comes from surface mining operations.

Surface mining involves removing the topsoil then drilling and blasting the overburden (earth and rock covering the coal) with explosives. We then remove the overburden with heavy earth-moving equipment, such as draglines, power shovels, excavators and loaders. Once exposed, we drill, fracture and systematically remove the coal using haul trucks or conveyors to transport the coal to a preparation plant or to a loadout facility. We reclaim disturbed areas as part of our normal mining activities. After final coal removal, we use draglines, power shovels, excavators or loaders to backfill the remaining pits with the overburden removed at the beginning of the process. Once we have replaced the overburden and topsoil, we reestablish native vegetation and plant life into the natural habitat and make other improvements that have local community and environmental benefits.

The following diagram illustrates a typical dragline surface mining operation:



Our Mining Operations

General. At December 31, 2023, we operated seven active mines in the United States. The Company reports its results of operations primarily through two reportable segments: the Metallurgical (MET) segment, containing the Company’s metallurgical operations in West Virginia, and the Thermal segment containing the Company’s thermal operations in Wyoming and Colorado. For additional information about the operating results of each of our segments for the years ended December 31, 2023, 2022, and 2021, see Note 23, “Segment Information” to the Consolidated Financial Statements.

In general, we have developed our mining complexes and preparation plants at strategic locations in close proximity to rail or barge shipping facilities. Coal is transported from our mining complexes to customers by means of railroads, trucks, barge lines, and ocean-going vessels from terminal facilities. We currently own or lease under long-term arrangements all of the equipment utilized in our mining operations. We employ sophisticated preventative maintenance and rebuild programs and upgrade our equipment to ensure that it is productive, well-maintained and cost-competitive.

In November of 2021, we sold our equity investment in Knight Hawk Holdings, LLC, which had been part of our Corporate, Other and Eliminations grouping. For further information on the sale of Knight Hawk Holdings, LLC, please see Note 4, “Divestitures” to the Consolidated Financial Statements.

The following map shows the locations of our active, royalty and undeveloped mining operations. Note that this is limited to those properties in which we have current mining operations or expect to have an economic benefit due to mining activity in the future:



The following table provides a summary of information regarding our active mining complexes as of December 31, 2023, including the total tons sold associated with these complexes for the years ended December 31, 2023, 2022, and 2021 and the total reserves associated with these complexes at December 31, 2023. The amount disclosed below for the total cost of property, plant and equipment of each mining complex does not include the costs of the coal reserves that we have assigned to an individual complex. The Company owns 100% of the active mining complexes below.

Mining Complex	Mines	Mining Equipment	Railroad	Tons Sold ⁽¹⁾			Total Cost of Property, Plant and Equipment at December 31, 2023	Total Recoverable Mineral Reserves (Million tons)
				2021	2022	2023		
Metallurgical:								
Leer	U	LW, CM	CSX	4.6	3.9	4.3	\$ 363.2	36.1
Leer South	U	LW, CM	CSX	0.8	2.2	2.7	713.9	62.7
Beckley	U	CM	CSX	1.1	0.9	1.2	118.6	25.3
Mountain Laurel	U	CM	CSX	1.0	0.8	1.1	92.6	16.6
Thermal:								
Black Thunder	S	D, S	UP/BN	60.2	62.3	60.5	260.2	420.0
Coal Creek	S	D, S	UP/BN	2.0	3.8	2.3	0.3	—
West Elk	U	LW, CM	UP	3.0	4.3	2.9	31.2	38.2
Totals				<u>72.7</u>	<u>78.2</u>	<u>75.0</u>	<u>\$ 1,580.0</u>	<u>598.9</u>

S = Surface mine

U = Underground mine

D = Dragline

S = Shovel/truck

LW = Longwall

CM = Continuous miner

UP = Union Pacific Railroad

CSX = CSX Transportation

BN = Burlington Northern-Santa Fe Railway

(1) Tons of coal we purchased from third parties that were not processed through our loadout facilities are not included in the amounts shown in the table above.

In October 2018, the Securities and Exchange Commission (“SEC”) adopted amendments to its current disclosure rules to modernize the mineral property disclosure requirements for mining registrants. The amendments include the adoption of S-K 1300, which will govern disclosure for mining registrants (the “SEC Mining Modernization Rules”).

Descriptions in this report of our mineral reserves and resources are prepared in accordance with S-K 1300, as well as similar information provided by other issuers in accordance with S-K 1300, may not be comparable to similar information that is presented elsewhere outside of this report. Please refer to the Technical Report Summaries (“TRS”) filed as Exhibits 96.1-96.3 to our Annual Report on Form 10-K for the period ended December 31, 2023 for additional information with respect to our material properties. Refer to Item 2. Properties for further discussion on the reserves and material properties.

Metallurgical

Leer. The Leer Complex is a longwall operation, located in Taylor County, West Virginia, that includes approximately 36.1 million tons of proven and probable coal reserves as of December 31, 2023 and is primarily sold as High-Vol A metallurgical quality coal in the Lower Kittanning seam, and is part of approximately 93,300 acres that is considered our Tygart Valley area. A significant portion of the reserves at Leer are owned rather than leased from third parties.

All the production is processed through a 1,400 ton-per-hour preparation plant and loaded on the CSX railroad. A 15,000-ton train can be loaded in less than four hours.

Leer South. The Leer South mining complex is a longwall operation in the Lower Kittanning seam with a preparation plant and a loadout facility located on approximately 26,600 acres in Barbour County, West Virginia. The 1,600 ton-per-hour preparation plant is located near the mine, and the loadout facility is served by the CSX railroad and connected to the plant by a 4,000 ton-per-hour conveyor system. The loadout facility is capable of loading a 15,000 ton unit train in less than four hours.

Coal quality is primarily High-Vol A metallurgical coal similar to our Leer Complex. The Leer South mining complex had approximately 62.7 million tons of proven and probable reserves at December 31, 2023. A significant portion of the reserves at Leer South are owned rather than leased from third parties.

Beckley. The Beckley mining complex is located on approximately 16,700 acres in Raleigh County, West Virginia. Beckley is extracting high quality, Low-Vol metallurgical coal in the Pocahontas No. 3 seam. The Beckley mining complex had approximately 25.3 million tons of proven and probable reserves at December 31, 2023.

Coal is conveyed from the mine to a 600-ton-per-hour preparation plant before shipping the coal via the CSX railroad. The loadout facility can load a 10,000-ton train in less than four hours.

Mountain Laurel. Mountain Laurel is an underground mining complex located on approximately 38,200 acres in Logan County and Boone County, West Virginia. Underground mining operations at the Mountain Laurel mining complex extracts High-Vol B metallurgical coal from the Alma and No. 2 Gas seams. The Mountain Laurel mining complex has approximately 16.6 million tons of proven and probable reserves at December 31, 2023.

We process all of the coal through a 1,400-ton-per-hour preparation plant before shipping the coal to our customers via the CSX railroad. The loadout facility can load a 15,000-ton train in less than four hours.

Thermal

Black Thunder. Black Thunder is a surface mining complex located on approximately 35,300 acres in Campbell County, Wyoming. The Black Thunder complex extracts thermal coal from the Upper Wyodak and Main Wyodak seams.

We control a significant portion of the coal reserves through federal and state leases. The Black Thunder mining complex had approximately 420.0 million tons of proven and probable reserves at December 31, 2023.

The Black Thunder mining complex currently consists of four active pit areas and two active loadout facilities. We ship all of the coal raw to our customers via the Burlington Northern Santa Fe and Union Pacific railroads. We do not process the coal mined at this complex. Each of the loadout facilities can load a 15,000-ton train in less than two hours.

Coal Creek. Coal Creek is a surface mining complex located on approximately 7,400 acres in Campbell County, Wyoming. The Coal Creek mining complex extracts thermal coal from the Wyodak-R1 and Wyodak-R3 seams.

The Coal Creek complex currently consists of one active pit area and a loadout facility. We ship all of the coal raw to our customers via the Burlington Northern Santa Fe and Union Pacific railroads. We do not process the coal mined at this complex. The loadout facility can load a 15,000-ton train in less than three hours.

In alignment with our desire to shrink our operational footprint and associated liabilities, we have committed to systematically reclaiming our Coal Creek operation as sales from the complex taper down.

West Elk. West Elk is an underground mining complex located on approximately 18,400 acres in Gunnison County, Colorado. The West Elk mining complex extracts thermal coal from the E seam. We are currently working on developing longwall panels in the B seam at the complex.

We control a significant portion of the coal reserves through federal and state leases. The West Elk mining complex had approximately 38.2 million tons of proven and probable reserves at December 31, 2023.

The West Elk complex currently consists of a longwall, continuous miner sections, a preparation plant, and a loadout facility. We ship most of the coal raw to our customers via the Union Pacific railroad. When required to improve the quality of some of our coal production, it is processed through the 800 ton-per-hour preparation plant. The loadout facility can load an 11,000-ton train in less than three hours.

Sales, Marketing and Trading

Overview. Coal prices are influenced by a number of factors and can vary materially by region. The price of coal within a region is influenced by general marketplace conditions, the supply and price of alternative fuels to coal (such as natural gas and subsidized renewables), production costs, coal quality, transportation costs involved in moving coal from the mine to the point of use and mine operating costs. For example, in thermal coal markets, higher heat and lower ash content generally result in higher prices, and higher sulfur and higher ash content generally result in lower prices within a given geographic region. In metallurgical coal markets, chemical properties within the coal and transportation costs determine price differences.

The cost of producing coal at the mine is also influenced by geologic characteristics such as seam thickness, overburden ratios and depth of underground reserves. It is generally less expensive to mine coal seams that are thick and located close to the surface than to mine thin underground seams. Within a particular geographic region, underground mining, which is the mining method we use in our Appalachian mines, is generally more expensive than surface mining, which is the mining method we use in the Powder River Basin. This is the case because of the higher capital costs relative to the reserve base, including costs for construction of extensive ventilation systems, and higher per unit labor costs due to lower productivity associated with underground mining.

Our sales, marketing and trading functions are principally based in St. Louis, Missouri and consist of sales and trading, transportation and distribution, quality control and contract administration personnel as well as revenue management. We also have sales employees in our Singapore and London offices. In addition to selling coal produced from our mining complexes, from time to time we purchase and sell coal mined by others, some of which we blend with coal produced from our mines. We focus on meeting the needs and specifications of our customers rather than just selling our coal production.

Customers. The Company markets its metallurgical and thermal coal to domestic and foreign steel producers, domestic and foreign power generators, and other industrial facilities. For the year ended December 31, 2023, we derived approximately 15% of our total coal revenues from sales to our three largest customers, JFE Steel Corporation, T S Global Procurement Company Pte. and Southern Company and approximately 39% of our total coal revenues from sales to our 10 largest customers.

In 2023, we sold coal to domestic customers located in 29 different states. The locations of our mines enable us to ship coal to most of the major coal-fueled power plants in the United States.

In addition, in 2023, we exported coal to Europe, Asia, Central and South America, and Africa. Revenue from exports to seaborne countries was \$1.8 billion, \$2.3 billion and \$1.1 billion for the years ended December 31, 2023, 2022 and 2021, respectively. As of December 31, 2023 and 2022, trade receivables related to metallurgical-quality coal sales totaled \$206.3 million and \$142.9 million, respectively, or 75% and 60% of total trade receivables, respectively. We do not have foreign currency exposure for our international sales as all sales are denominated and settled in U.S. dollars.

The Company's seaborne revenues by coal shipment destination for the year ended December 31, 2023, were as follows:

(In thousands)	
Europe	\$ 696,975
Asia	935,158
Central and South America	136,423
Africa	4,971
Total	<u>\$ 1,773,527</u>

Long-Term Coal Supply Arrangements

As is customary in the coal industry, we enter into fixed price, fixed volume term-based supply contracts, the terms of which are sometimes more than one year ("long-term"), with many of our customers. Multiple year contracts usually have specific and possibly different volume and pricing arrangements for each year of the contract. Long-term contracts allow customers to secure a supply for their future needs and provide us with greater predictability of sales volume and sales prices. In 2023, we sold approximately 75% of the tonnage (representing approximately 46% of the Company's revenues) of our coal under long-term supply arrangements. The majority of our supply contracts include a fixed price for the term of the agreement or a pre-determined escalation in price for each year. Some of our long-term supply agreements may include a variable pricing system. While most of our sales contracts are for terms of one to five years, some are as short as one month. At December 31, 2023, the average volume-weighted remaining term of our long-term contracts for metallurgical and thermal coal was approximately 2.5 years, with remaining terms ranging from one to four years. At December 31, 2023, remaining tons under long-term supply agreements, including those subject to price re-opener or extension provisions, were approximately 110.2 million tons.

We typically sell coal to North American customers under term arrangements through a "request-for-proposal" process. We also respond to private solicitations and generally do not know if a customer intends to buy the coal for which they solicited. The terms of our coal sales agreements are dictated by the availability and price of alternative fuels, general marketplace conditions, the quality of the coal we have available to sell, our mine operations (including operating costs), the length of contract, as well as negotiations with customers. Consequently, the terms of these contracts may vary to some extent by customer, including base price adjustment features, price re-opener terms, coal quality requirements, quantity parameters, permitted sources of supply, future regulatory changes, extension options, *force majeure*, termination, damages and assignment provisions. Our long-term supply contracts typically contain provisions to adjust the base price due to new governmental statutes, ordinances or regulations. We typically sell our metallurgical coal to non-North American customers based on various indices or agreements to mutually negotiate the price. These agreements generally are for one year and can reset pricing with each shipment. Additionally, some of our contracts contain provisions that allow for the recovery of costs affected by modifications or changes in the interpretations or application of any applicable statute by local, state or federal government authorities. These provisions only apply to the base price of coal contained in these supply contracts. In some circumstances, a significant adjustment in base price can lead to termination of the contract.

Certain of our contracts contain index provisions that change the price based on changes in market based indices or changes in economic indices or both. Certain of our contracts contain price re-opener provisions that may allow a party to commence a renegotiation of the contract price at a pre-determined time. Price re-opener provisions may automatically set a new price based on prevailing market price or, in some instances, require us to negotiate a new price, sometimes within a specified range of prices. In a limited number of agreements, if the parties do not agree on a new price, either party has an option to suspend the agreement for the pricing period not agreed to. In addition, certain of our contracts contain clauses that may allow customers to terminate the contract in the event of certain changes in environmental laws and regulations that impact their operations.

Customers are generally required to take their coal on a ratable basis but have been known to push sales out in low demand periods when contract prices are higher. Each of these situations must be dealt with on an individual basis.

Coal quality and volumes are stipulated in coal sales agreements. In most cases, the annual pricing and volume obligations are fixed, although in some cases the volume specified may vary depending on the customer consumption requirements. Most of our coal sales agreements contain provisions requiring us to deliver coal within certain ranges for specific coal characteristics such as heat content (for thermal coal contracts), volatile matter (for metallurgical coal contracts), and for both types of contracts, sulfur, ash and moisture content. Failure to meet these specifications can result in economic penalties, suspension or cancellation of shipments or termination of the contracts.

Our coal sales agreements also typically contain *force majeure* provisions allowing temporary suspension of performance by us or our customers, during the duration of events beyond the control of the affected party, including events such as strikes, adverse mining conditions, mine closures or serious transportation problems that affect us or unanticipated plant outages that may affect the buyer. Our contracts also generally provide that in the event a *force majeure* circumstance exceeds a certain time period, the unaffected party may have the option to terminate the purchase or sale in whole or in part. Some contracts stipulate that this tonnage can be made up by mutual agreement or at the discretion of the buyer. Agreements between our customers and the railroads servicing our mines may also contain *force majeure* provisions.

In most of our thermal coal contracts, we have a right of substitution (unilateral or subject to counterparty approval), allowing us to provide coal from different mines, including third-party mines, as long as the replacement coal meets quality specifications and will be sold at the same equivalent delivered cost.

In some of our coal supply contracts, we agree to indemnify or reimburse our customers for damage to their or their rail carrier's equipment while on our property, which results from our or our agents' negligence, and for damage to our customer's equipment due to non-coal materials being included with our coal while on our property.

Trading. In addition to marketing and selling coal to customers through traditional coal supply arrangements, we seek to optimize our coal production and leverage our knowledge of the coal industry through a variety of other marketing, trading and asset optimization strategies. From time to time, we may employ strategies to use coal and coal-related commodities and contracts for those commodities in order to manage and hedge volumes and/or prices associated with our coal sales or purchase commitments, reduce our exposure to the volatility of market prices or augment the value of our portfolio of traditional assets. These strategies may include physical coal contracts, as well as a variety of forward, futures or options contracts, swap agreements or other financial instruments, in coal or other commodities such as natural gas and foreign currencies.

We maintain a system of complementary processes and controls designed to monitor and manage our exposure to market and other risks that may arise as a consequence of these strategies. These processes and controls seek to preserve our ability to profit from certain marketing, trading and asset optimization strategies while mitigating our exposure to potential losses.

Transportation. We generally sell coal to international customers at export terminals, and we are usually responsible for the cost of transporting coal to the export terminals. We transport our coal to Atlantic coast terminals, Pacific cost terminals or terminals along the Gulf of Mexico for transportation to international customers. Our international customers are generally responsible for paying the cost of ocean freight. We may also sell coal to international customers delivered to an unloading facility at the destination country.

We own a 35% interest in Dominion Terminal Associates LLP (DTA), a limited liability partnership that operates a ground storage-to-vessel coal transloading facility in Newport News, Virginia. The facility has a rated throughput capacity of 20 million tons of coal per year and ground storage capacity of approximately 1.7 million tons. The facility primarily serves international customers, as well as domestic coal users located along the Atlantic coast of the United States. From time-to-time, we may lease a portion of our port capacity to third parties. DTA is in need of capital investment to maximize functionality and minimize downtime to mechanical issues. Together with DTA leadership and ownership partners, we are evaluating a needs assessment and rough timeline for the recommended work. In connection with expected capital investments at DTA, we expect the total investment to be between \$57 million and \$85 million which equates to our 35% share between \$20.0 million and \$30.0 million on contributions for equity affiliate in 2024.

Additionally, we have entered into throughput agreements with third parties to facilitate international shipments. The majority of our international metallurgical shipments are shipped through DTA or Curtis Bay, which is strategically located on the CSX network and the Chesapeake Bay.

We ship our coal to domestic customers by means of railcars, barges, or trucks, or a combination of these means of transportation. We generally sell coal used for domestic consumption free on board (f.o.b.) at the mine or nearest loading facility. Our domestic customers normally bear the costs of transporting coal by rail, barge or truck.

Historically, most domestic electricity generators have arranged long-term shipping contracts with rail, trucking or barge companies to assure stable delivery costs. Transportation can be a large component of a purchaser's total cost. Although the purchaser pays the freight, transportation costs still are important to coal mining companies because the purchaser may choose a supplier largely based on cost of transportation. Transportation costs borne by the customer vary greatly based on each customer's proximity to the mine, our proximity to the loadout facilities and the provisions of their specific transportation agreements. Trucks and overland conveyors haul coal over shorter distances, while barges, Great Lake carriers and ocean vessels move coal to export markets and domestic markets requiring shipment over the Great Lakes and several river systems.

Most coal mines are served by a single rail company, but much of the Powder River Basin, including our mines, are served by two rail carriers: the Burlington Northern-Santa Fe railroad and the Union Pacific railroad. We generally transport coal produced at our Appalachian mining complexes via the CSX railroad. Besides rail deliveries, some customers in the eastern United States rely on a river barge system or over-the-road trucks.

Competition

The coal industry is intensely competitive with alternative energy sources outside of the industry and between producing companies. The most important factors on which we compete are coal quality, delivered costs to the customer and reliability of supply. Our principal domestic coal-producing peers include Allegheny Metallurgical; Alpha Metallurgical Resources Inc.; Blackhawk Mining LLC; Coronado Coal LLC; Corsa Coal Corp.; Eagle Specialty Materials LLC; Navajo Transitional Energy Company LLC; Peabody Energy Corp.; Ramaco Resources; and Warrior Met Coal, Inc. Some of these coal producers are larger than we are and may have greater financial resources and larger reserve bases than we do. We also compete directly with a number of smaller producers in each of the geographic regions in which we operate, as well as companies that produce coal from one or more foreign countries, such as Australia, Canada, Colombia, Indonesia, South Africa and Russia.

Our principal competitor in thermal coal is natural gas, other alternative fuels, and subsidized renewables. Specifically, coal competes directly with other fuels, such as natural gas, nuclear energy, hydropower, subsidized renewable, and petroleum, for steam and electrical power generation. Costs and other factors relating to these alternative fuels, such as safety and environmental considerations, as well as tax incentives and various mandates, affect the overall demand for coal as a fuel and the price we can charge for the coal. Rail rates and the performance of the railroads, which are generally controlled by our customers, meaningfully impacts our competitiveness with other producers and alternative fuel sources. For example, rail rates for domestic coal, a cost that we cannot control, can account for over two-thirds of the delivered cost of the product.

Suppliers

Principal supplies used in our business include petroleum-based fuels, explosives, tires, steel and other raw materials as well as spare parts and other consumables used in the mining process. We use third-party suppliers for a significant portion of our equipment rebuilds and repairs, drilling services and construction. We use sole source suppliers for certain parts of our business such as explosives and fuel, and preferred suppliers for other parts of our business such as original equipment suppliers, dragline and shovel parts and related services. We believe adequate substitute suppliers are available. For more information about our suppliers, you should see Item 1A, "Risk Factors-Inflationary pressures on mining and other industrial supplies, including steel-based supplies, diesel fuel and rubber tires, or the inability to obtain a sufficient quantity of those supplies, could negatively affect our operating costs or disrupt or delay our production."

Environmental and Other Regulatory Matters

Coal mining is one of the most regulated and inspected industrial activities in the United States. Federal, state and local authorities regulate the U.S. coal mining industry with respect to matters such as employee health and safety and the environment, including the protection of air quality, water quality, wetlands, special status species of plants and animals, land uses, cultural and historic properties and other environmental resources identified during the permitting process. Reclamation is required during production and after mining has been completed. Materials used and generated by mining operations must also be managed according to applicable regulations and law. These laws have, and will continue to have, a significant effect on our production costs and our competitive position.

We endeavor to conduct our mining operations in compliance with applicable federal, state and local laws and regulations. However, due in part to the extensive, comprehensive and changing regulatory requirements, violations during mining operations occur from time to time. We cannot assure you that we have been or will be at all times in complete compliance with such laws and regulations. Expenditures we incur to maintain compliance with all applicable federal and state laws have been and are expected to continue to be significant and increase overtime. Federal and state mining laws and regulations require us to obtain surety bonds to guarantee performance or payment of certain long-term obligations, including mine closure and reclamation costs, federal and state workers' compensation benefits, coal leases and other miscellaneous obligations. Compliance with these laws has substantially increased the cost of coal mining for domestic coal producers.

Future laws, regulations or orders, as well as future interpretations, changes in political policies and more rigorous enforcement of existing laws, regulations or orders, may require substantial increases in equipment and operating costs and delays, interruptions or a termination of operations, the extent to which we cannot predict. Future laws, regulations or orders may also cause coal to become a less attractive fuel source, thereby reducing coal's share of the market for fuels and other energy sources used to generate electricity. As a result, future laws, regulations or orders may adversely affect our mining operations, cost structure or our customers' demand for coal.

The following is a summary of the various federal and state environmental and similar regulations that have a material impact on our business:

Mining Permits and Approvals. Numerous governmental permits or approvals are required for mining operations. When we apply for these permits and approvals, we may be required to prepare and present to federal, state or local authorities' data pertaining to the effect or impact that any proposed production or processing of coal may have on the environment. For example, in order to obtain a federal coal lease, the U.S. Department of the Interior, Bureau of Land Management ("BLM") must prepare an environmental impact statement to assist the BLM in determining the potential environmental impact of lease issuance, including any collateral effects from the mining, transportation and burning of coal, which may in some cases include a review of impacts on climate change. The authorization, permitting and implementation requirements imposed by federal, state and local authorities may be costly and time consuming and may delay commencement or continuation of mining operations. In the states where we operate, the applicable laws and regulations also provide that a mining permit or modification can be delayed, refused or revoked if officers, directors, shareholders with specified interests or certain other affiliated entities with specified interests in the applicant or permittee have, or are affiliated with another entity that has, outstanding permit violations. Thus, past or ongoing violations of applicable laws and regulations could provide a basis to revoke existing permits and to deny the issuance of additional permits.

In order to obtain mining permits and approvals from federal and state regulatory authorities, mine operators must submit a reclamation plan for restoring, upon the completion of mining operations, the mined property to its prior condition or other authorized use. Typically, we submit the necessary permit applications several months or even years before we plan to begin mining a new area. Some of our required permits are becoming increasingly more difficult and expensive to obtain, and the application review processes are taking longer to complete and becoming increasingly subject to challenge and political manipulation even after a permit has been issued.

Under some circumstances, substantial fines and penalties, including revocation or suspension of mining permits, may be imposed under the laws described above. Monetary sanctions and, in severe circumstances, criminal sanctions may be imposed for failure to comply with these laws.

Surface Mining Control and Reclamation Act. The Surface Mining Control and Reclamation Act, which we refer to as SMCRA, establishes mining, environmental protection, reclamation and closure standards for all aspects of surface mining as well as many aspects of underground mining. Mining operators must obtain SMCRA permits and permit renewals from the Office of Surface Mining, which we refer to as OSM, or from the applicable state agency if the state agency has obtained regulatory primacy. A state agency may achieve primacy if the state regulatory agency develops a mining regulatory program that is no less stringent than the federal mining regulatory program under SMCRA. All states in which we conduct mining operations have achieved primacy and issue permits in lieu of OSM, but are still subject to federal oversight.

SMCRA permit provisions include a complex set of requirements which include, among other things, coal prospecting; mine plan development; topsoil or growth medium removal and replacement; selective handling of overburden materials; mine pit backfilling and grading; disposal of excess spoil; protection of the hydrologic balance; subsidence control for underground mines; surface runoff and drainage control; establishment of suitable post mining land uses; and revegetation. We begin the process of preparing a mining permit application by collecting baseline data to adequately characterize the pre-mining environmental conditions of the permit area. This work is typically conducted by third-party consultants with specialized expertise and includes surveys and/or assessments of the following: cultural and historical resources; geology; soils; vegetation; aquatic organisms; wildlife; potential for threatened, endangered or other special status species; surface and ground water hydrology; climatology; riverine and riparian habitat; and wetlands. The geologic data and information derived from the other surveys and/or assessments are used to develop the mining and reclamation plans presented in the permit application. The mining and reclamation plans address the provisions and performance standards of the state's equivalent SMCRA regulatory program, and are also used to support applications for other authorizations and/or permits required to conduct coal mining activities. Also included in the permit application is information used for documenting surface and mineral ownership, variance requests, access roads, bonding information, mining methods, mining phases, other agreements that may relate to coal, other minerals, oil and gas rights, water rights, permitted areas, and ownership and control information required to determine compliance with OSM's Applicant Violator System, including the mining and compliance history of officers, directors and principal owners of the entity.

Once a permit application is prepared and submitted to the regulatory agency, it goes through an administrative completeness review and a thorough technical review. Also, before a SMCRA permit is issued, a mine operator must submit a bond or otherwise secure the performance of all reclamation obligations. After the application is submitted, a public notice or advertisement of the proposed permit is required to be given, which begins a notice period that is followed by a public comment period before a permit can be issued. It is not uncommon for a SMCRA mine permit application to take over a year to prepare, depending on the size and complexity of the mine, and anywhere from six months to two years or even longer for the permit to be issued. The variability in time frame required to prepare the application and issue the permit can be attributed primarily to the various regulatory authorities' discretion in the handling of comments and objections relating to the project received from the general public and other agencies. Also, it is not uncommon for a permit to be delayed as a result of litigation related to the specific permit or another related company's permit.

In addition to the bond requirement for an active or proposed permit, the Abandoned Mine Land Fund, which was created by SMCRA, requires that a fee be paid on all coal produced. The proceeds of the fee are used to restore mines closed or abandoned prior to SMCRA's adoption in 1977, as well as fund other state and federal initiatives. For the first three quarters of 2023, the fee was \$0.28 per ton of coal produced from surface mines and \$0.12 per ton of coal produced from underground mines. As a result of the Infrastructure Investment and Jobs Act of 2021, which included the Abandoned Mine Land Reclamation Amendments of 2021, the fees decreased as of the calendar quarter beginning October 1, 2021. The current fee is \$0.224 per ton of coal produced from surface mines and \$0.096 per ton of coal produced from underground mines. In 2023, we recorded \$15.1 million of expense related to these reclamation fees.

Surety Bonds. Mine operators are often required by federal and/or state laws, including SMCRA, to assure, usually through the use of surety bonds, payment of certain long-term obligations including mine closure or reclamation costs, federal and state workers' compensation costs, coal leases and other miscellaneous obligations. Although surety bonds are usually non-cancelable during their term, many of these bonds are renewable on an annual basis and collateral requirements may change.

The costs of these bonds have widely fluctuated in recent years while the market terms of surety bonds have remained difficult for mine operators. These changes in the terms of the bonds have been accompanied at times by a decrease in the number of companies willing to issue surety bonds. As of December 31, 2023, we posted an aggregate of approximately \$456.3 million in surety bonds, cash, and letters of credit outstanding for reclamation purposes.

At December 31, 2023, the Company maintains a fund for asset retirement obligations at our Black Thunder mine and thus far has contributed \$142.3 million that will serve to defease the long-term asset retirement obligation for its thermal asset base.

For additional information, please see "Failure to obtain or renew surety bonds on acceptable terms could affect our ability to secure reclamation and coal lease obligations and, therefore, our ability to mine or lease coal, which could have a material adverse effect on our business and results of operations," contained in Item 1A, "Risk Factors—Risk Related to Our Operations," for a discussion of certain risks associated with our surety bonds.

Mine Safety and Health. Stringent safety and health standards have been imposed by federal legislation since Congress adopted the Mine Safety and Health Act of 1969. The Mine Safety and Health Act of 1977 significantly expanded the enforcement of safety and health standards and imposed comprehensive safety and health standards on all aspects of mining operations. In addition to federal regulatory programs, all of the states in which we operate also have programs aimed at improving mine safety and health. Collectively, federal and state safety and health regulation in the coal mining industry is among the most comprehensive and pervasive systems for the protection of employee health and safety affecting any segment of U.S. industry.

Under the Black Lung Benefits Revenue Act of 1977 and the Black Lung Benefits Reform Act of 1977, each coal mine operator must secure payment of federal black lung benefits to claimants who are current and former employees and to a trust fund for the payment of benefits and medical expenses to claimants who last worked in the coal industry prior to July 1, 1973. The trust fund is funded by an excise tax on coal production. The Inflation Reduction Act of 2022 set the tax at the lower of \$1.10 per ton for coal mined in underground operations and \$0.55 per ton for coal mined in surface operations, in each case not to exceed 4.4% of the gross sales price. This excise tax does not apply to coal shipped outside the United States. We recorded \$35.5 million, \$21.5 million, and \$34.8 million of expense related to this excise tax in 2023, 2022, and 2021. Versions of a Black Lung Benefits Improvement Act have been introduced in both the 2021-2022 and 2023-2024 U.S. Congressional sessions. The 2021-2022 bill died in committee. The 2023-2024 bill aims to remove barriers, including lengthy processing times, lack of a legal representative and inflation, that may prevent claimants from accessing black lung benefits.

On January 18, 2023, the Office of Workers' Compensation Programs ("OWCP") proposed revisions to regulations under the Black Lung Benefits Act governing authorization of self-insurers. The revisions seek to codify the practice of basing a self-insured operator's security requirement on an actuarial assessment of its total present and future black lung liability. A material change to the regulations is the requirement that all self-insured operators must post security equal to 120% of their projected black lung liabilities. The proposed regulations were posted to the Federal Register on January 19, 2023 with written comments to be accepted within 60 days of this date. The comment period was subsequently extended to April 19, 2023. The revisions proposed by the OWCP were a material deviation from their bulletin issued in December 2020 that would have required the majority of coal operators to post security equal to 70% of their projected black lung liabilities. If the above regulation is codified into law, the Company will be required to post additional collateral to maintain its self-insured status. The Company is evaluating alternatives to self-insurance, including the purchase of commercial insurance to cover these claims. Additionally, the Company is assessing the availability of surety bond capacity within the markets, additional sources of liquidity, and other items to prepare for the proposed regulations.

Clean Air Act. The federal Clean Air Act and similar state and local laws that regulate air emissions affect coal mining directly and indirectly. Direct impacts on coal mining and processing operations include Clean Air Act permitting requirements and emissions control requirements. These include emissions of ozone precursors and particulate matter which may include controlling fugitive dust. The Clean Air Act also indirectly affects coal mining operations, for example, by extensively regulating the emissions of fine particulate matter measuring 2.5 micrometers in diameter or smaller, sulfur dioxide, nitrogen oxides, mercury and other compounds emitted by coal-fueled power plants and industrial boilers, which are the largest end-users of our coal. Already stringent regulation of emissions were further tightened throughout the Obama Administration, including the Mercury and Air Toxics Standard (MATS), finalized in 2011 and discussed in more detail below. In addition, the U.S. Environmental Protection Agency (the “EPA”) has issued regulations with respect to other emissions, such as greenhouse gases, from new, modified, reconstructed and existing electric generating units, including coal-fired plants. For example, in May 2023, the EPA proposed revised New Source Performance Standards (“NSPS”) under Clean Air Act section 111(b) for greenhouse gas emissions from new and reconstructed fossil fuel-fired stationary combustion turbine electric generating units and from fossil fuel-fired steam generating units that undertake a large modification. Other greenhouse gas regulations apply to industrial boilers (see discussion of Climate Change, below). On January 20, 2021, the current administration issued an executive order directing all federal agencies to review and take action to address any federal regulations, orders, guidance documents, policies and any similar agency actions promulgated during the prior administration that may be inconsistent with the administration’s policies. As a result, it is unclear the degree to which certain recent regulatory developments may be modified or rescinded. The executive order also established an Interagency Working Group on the Social Cost of Greenhouse Gases (“Working Group”), which is called on to, among other things, develop methodologies for calculating the “social cost of carbon,” “social cost of nitrous oxide” and “social cost of methane.” The Working Group published a Technical Support Document in February 2021 seeking public comments by May 2021. Recommendations from the Working Group were due beginning June 1, 2021 and final recommendations no later than January 2022. The Working Group made initial recommendations in February 2021; final recommendations have not been released. Building on the Working Group’s interim values for social cost of greenhouse gases, the EPA released, for public review in November 2022, a September 2022 draft report with updated social cost of carbon figures. In November 2023, the EPA released a final Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances on the Social Cost of Greenhouse Gases setting the estimated Social Cost of CO₂ at \$120, \$190 or \$340, the Social Cost of CH₄ at \$1,300, \$1,600 or \$2,300 and the Social Cost of N₂O at \$35,000, \$54,000 or \$87,000, each per metric ton and each depending on the discount rate used. On December 22, 2023, the Working Group published a memorandum recommending that agencies “use their professional judgment to determine which estimates of the [social cost of greenhouse gases] reflect the best available evidence, are most appropriate for particular analytical contexts, and best facilitate sound decision-making.” Further regulation of air emissions, as well as uncertainty regarding the future course of regulation, could eventually reduce the demand for coal.

On January 27, 2021, the current administration issued an executive order focused on addressing climate change. Among other things, the executive order directed the Secretary of the Interior to pause new oil and natural gas leasing on public lands or in offshore waters pending completion of a comprehensive review of the federal permitting and leasing practices, consider whether to adjust royalties associated with coal, oil, and gas resources extracted from public lands and offshore waters, or take other appropriate action, to account for corresponding climate costs. In response to the executive order, the U.S. Department of the Interior suspended new oil and gas leases on federal land and in federal waters. The suspension was challenged in federal court, and in June 2021 a federal district court judge in Louisiana issued a preliminary injunction blocking the suspension. The executive order also directed the federal government to identify “fossil fuel subsidies” to take steps to ensure that, to the extent consistent with applicable law, federal funding is not directly subsidizing fossil fuels. In November 2021, the U.S. Department of the Interior issued a “Report On The Federal Oil And Gas Leasing Program,” which assesses the current state of oil and gas leasing on federal lands and proposes several reforms, including raising royalty rates and implementing stricter standards for entities seeking to purchase oil and gas leases. On July 24, 2023, the BLM published a proposed rule that would revise BLM’s oil and gas leasing regulations to align the regulations with certain provisions of the Inflation Reduction Act pertaining to royalty rates, rentals and minimum bids, to amend certain operating requirements, to update bonding requirements for leasing, development and production and to improve BLM’s leasing process. The final rule has not yet been finalized.

Clean Air Act requirements that may directly or indirectly affect our operations include the following:

- *Acid Rain.* Title IV of the Clean Air Act, promulgated in 1990, imposed a two-phase reduction of sulfur dioxide emissions by electric utilities. Phase II became effective in 2000 and applies to all coal-fueled power plants with a capacity of more than 25-megawatts. Generally, the affected power plants have sought to comply with these requirements by switching to lower sulfur fuels, installing pollution control devices, reducing electricity generating levels or purchasing or trading sulfur dioxide emissions allowances. Although we cannot accurately predict the future effect of this Clean Air Act provision on our operations, we believe that implementation of Phase II has been factored into the pricing of the coal market.
- *Particulate Matter.* The Clean Air Act requires the EPA to set national ambient air quality standards, which we refer to as NAAQS, for certain pollutants associated with the combustion of coal, including sulfur dioxide, particulate matter, nitrogen oxides and ozone. Areas that are not in compliance with these standards, referred to as non-attainment areas, must take steps to reduce emissions levels. For example, NAAQS currently exist for particulate matter measuring 10 micrometers in diameter or smaller (“PM10”) and for fine particulate matter measuring 2.5 micrometers in diameter or smaller (“PM2.5”), and the EPA revised the PM2.5 NAAQS on December 14, 2012, making it more stringent. The states were required to make recommendations on nonattainment designations for the new NAAQS in late 2013. The EPA issued final designations for most areas of the country in 2012 and made some revisions in 2015. Individual states must now identify the sources of emissions and develop emission reduction plans. These plans may be state-specific or regional in scope. Under the Clean Air Act, individual states have up to 12 years from the date of designation to secure emissions reductions from sources contributing to the problem. In December 2020, the EPA issued a decision, following its review of the PM NAAQS, and decided to retain the 2012 PM NAAQS with no revisions. . On January 27, 2023, the EPA published a proposed rule that would strengthen the primary (health-based) annual PM2.5 standard. Comments were accepted for 60 days, and the rule has not yet been finalized. Future regulation and enforcement of the new PM2.5 standard, as well as future revisions of PM standards, will affect many power plants, especially coal-fueled power plants, and all plants in non-attainment areas.
- *Ozone.* On October 26, 2015, the EPA published a final rule revising the existing primary and secondary NAAQS for ozone, reducing them to 70ppb on an 8-hour average. On November 17, 2016, the EPA issued a proposed implementation rule on non-attainment area classification and state implementation plans (“SIPs”). The EPA published a final rule in November 2017 that issued area designations with respect to ground-level ozone for approximately 35% of the U.S. counties, designating them as either “attainment/unclassifiable” or “unclassifiable.” In April 2018 and July 2018, the EPA issued ozone designations for all areas not addressed in the November 2017 rule. States with moderate or high nonattainment areas were required to submit SIPs by October 2021. Significant additional emission control expenditures will likely be required at certain coal-fueled power plants to meet the new stricter NAAQS. Nitrogen oxides, which are a byproduct of coal combustion, are classified as an ozone precursor. As a result, emissions control requirements for new and expanded coal-fueled power plants and industrial boilers will continue to become more demanding in the years ahead. On December 6, 2018, the EPA issued a Final Rule implementing the 2015 Ozone NAAQS for nonattainment areas (“2015 Ozone Implementation Rule”). The 2015 Ozone Implementation Rule is notable for providing greater flexibility to States to consider international sources of pollution and other mechanisms for relief from strict application of the standard. With such flexibility, the effect on demand for coal will vary by state. By law, the EPA must review each NAAQS every five years. In December 2020, the EPA announced that it was retaining without revision the 2015 NAAQS for ozone. However, as noted above, on January 20, 2021, the current administration issued an executive order directing federal agencies to review and take action to address any federal regulations or similar agency actions promulgated during the prior administration that may be inconsistent with the current administration’s stated priorities. The EPA was specifically ordered to, among other things, propose a Federal Implementation Plan for ozone standards for California, Connecticut, New York, Pennsylvania and Texas by January 2022. In December 2021 and January 2022, EPA approved multiple revisions to ozone SIPs in Pennsylvania, New York, Connecticut, and a number of

air quality districts in California. As addressed further below, in February 2023, the EPA finalized the disapproval of interstate transport SIPs submitted by 19 states addressing the 2015 Ozone NAAQS.

- *Nox SIP Call.* The Nitrogen Oxides State Implementation Plan (“Nox SIP”) Call program was established by the EPA in October 1998 to reduce the transport of ozone on prevailing winds from the Midwest and South to states in the Northeast, which said that they could not meet federal air quality standards because of migrating pollution. The program was designed to reduce nitrous oxide emissions by one million tons per year in 22 eastern states and the District of Columbia. Phase II reductions were required by May 2007. As a result of the program, many power plants were required to install additional emission control measures, such as selective catalytic reduction devices. Installation of additional emission control measures has made it more costly to operate coal-fueled power plants, which could make coal a less attractive fuel.
- *Interstate Transport.* The EPA finalized the Clean Air Interstate Rule, which we refer to as CAIR, in March 2005. CAIR called for power plants in 28 Eastern states and the District of Columbia to reduce emission levels of sulfur dioxide and nitrous oxide, which could lead to non-attainment of PM2.5 and ozone NAAQS in downwind states (interstate transport), pursuant to a cap and trade program similar to the system now in effect for acid deposition control. In July 2008, in *State of North Carolina v. EPA* and consolidated cases, the D.C. Circuit disagreed with the EPA’s reading of the Clean Air Act and vacated CAIR in its entirety. In December 2008, the D.C. Circuit revised its remedy and remanded the rule to the EPA. The EPA proposed a revised transport rule on August 2, 2010 (75 Fed. Reg. 45209) to address attainment of the 1997 ozone NAAQS and the 2006 PM2.5 NAAQS. The rule was finalized as the Cross State Air Pollution Rule (“CSAPR”) on July 6, 2011, with compliance required for SO2 reductions beginning January 1, 2012 and compliance with Nox reductions required by May 1, 2012. Numerous appeals of the rule were filed, and, on August 21, 2012, the D.C. Circuit vacated the rule, leaving the EPA to continue implementation of the CAIR. Controls required under the CAIR, especially in conjunction with other rules, may have affected the market for coal inasmuch as multiple existing coal fired units were being retired rather than having required controls installed.

The U.S. Supreme Court agreed to hear the EPA’s appeal of the decision vacating CSAPR and on April 29, 2014, issued an opinion reversing the August 21, 2012 D.C. Circuit decision, remanding the case back to the D.C. Circuit. The EPA then requested that the court lift the CSAPR stay and toll the CSAPR compliance deadlines by three years. On October 23, 2014, the D.C. Circuit granted the EPA’s request, and that court later dismissed all pending challenges to the rule on July 28, 2015 but it remanded some state budgets to the EPA for further consideration. CSAPR Phase 1 implementation began in 2015, with Phase 2 beginning in 2017. CSAPR generally requires greater reductions than under CAIR. As a result, some coal-fired power plants will be required to install costly pollution controls or shut down which may adversely affect the demand for coal. Finally, in October 2016, the EPA issued an update to the CSAPR to address interstate transport of air pollution under the more recent 2008 ozone NAAQS and the state budgets remanded by the D.C. Circuit. On August 10, 2017, the D.C. Circuit suspended briefing in the litigation after industry petitioners challenging the rule requested to delay proceedings so the EPA can determine whether to reconsider the revised CSAPR. On June 29, 2018, the EPA issued a proposed determination that the 2016 CSAPR Update Rule fully addresses states’ interstate transport obligations under the 2008 ozone NAAQS. However, the EPA has also signaled in a variety of 2018 memoranda that states may have more flexibility to consider international emissions and higher thresholds in developing SIPs than under prior guidance. It is not clear how the combination of upholding the 2016 CSAPR Update Rule while allowing greater SIP flexibility will affect decisions to install controls or shut down units, and any resulting effects on the demand for coal. On September 13, 2019 the D.C. Circuit upheld most of the 2016 CSAPR Update Rule, but vacated a provision that allowed upwind states to continue to contribute significantly to downwind states’ noncompliance beyond downwind states’ statutory compliance deadlines. On October 15, 2020, EPA proposed the Revised CSAPR Update Rule in order to address 21 states’ outstanding interstate pollution transport obligations for the 2008 NAAQS. On April 30, 2021, the EPA published the final rule, 86 Fed. Reg. 23,054, entitled the “Revised Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS.” The Revised CSAPR Update Rule became effective on June 29, 2021, and

was challenged by the “Midwest Ozone Group,” a collection of utilities and industry entities. On March 3, 2023, the D.C. Circuit upheld the CSAPR Update Rule.

On February 28, 2022, the EPA issued a proposal to impose a Federal Implementation Plan (“FIP”) in 26 states to address interstate transport of ozone season Nox emissions and compliance with the 2015 Ozone NAAQS. The EPA’s proposal includes stringent new Nox emissions budgets for fossil fuel-fired power plants in 25 states.

As noted above, in February 2023, the EPA finalized the disapproval of interstate transport SIPs submitted by 19 states addressing the 2015 Ozone NAAQS, a prerequisite to the approval of FIPs in their place. Petitions for review of the SIP disapprovals for several states have been filed in federal courts of appeals, which have stayed the disapprovals of SIPs submitted by multiple states, including West Virginia. On March 15, 2023, the EPA issued its final “Good Neighbor Plan,” which includes reductions in NOx emissions from power plants and industrial facilities in 23 states with the goal of reducing pollution that contributes to problems attaining and maintaining the 2015 Ozone NAAQS in downwind states. The Good Neighbor Plan FIP has been challenged and stayed in multiple courts of appeals, and states and industries have requested that the U.S. Supreme Court stay the Good Neighbor Plan nationwide. That case is scheduled to be heard in February 2024. In light of the litigation and the various stays of the EPA’s SIP disapprovals and FIP approvals, the EPA has issued two interim final rules that adjust or stay certain requirements of the FIP consistent with the court orders. If the Good Neighbor Plan comes into effect in its current form, it may adversely affect the demand for coal.

- *Mercury.* In February 2008, the D.C. Circuit vacated the EPA’s Clean Air Mercury Rule (“CAMR”), which was promulgated to reduce mercury emissions from coal-fired power plants and remanded it to the EPA for reconsideration. In response, the EPA announced an Electric Generating Unit (“EGU”) Mercury and Air Toxics Standard (“MATS”) on December 16, 2011. The MATS was finalized April 16, 2012, and required compliance for most plants by 2015. In addition, before the court decision vacating the CAMR, some states had either adopted the CAMR or adopted state-specific rules to regulate mercury emissions from power plants that are more stringent than the CAMR. MATS compliance, coupled with state mercury and air toxics laws and other factors have required many plants to install costly controls, re-fire with natural gas or retire, which may adversely affect the demand for coal.

MATS was challenged in the D.C. Circuit, which upheld the rule on April 15, 2013. Petitioners successfully obtained Supreme Court review, and on June 29, 2015, the Supreme Court issued a 5-4 decision striking down the final rule based on the EPA’s failure to consider economic costs in determining whether to regulate. The case was remanded to the D.C. Circuit. The EPA began reconsideration of costs, and petitioners unsuccessfully sought a stay of the rule in the Supreme Court in February 2016. In April 2016, the EPA issued a MATS 2016 Supplemental Finding, a final finding that it is appropriate and necessary to set standards for emissions of air toxics from coal- and oil-fired power plants. On December 27, 2018, the EPA released a proposed Supplemental Cost Finding, concluding that direct regulation of air toxics from coal- and oil-fired power plants is not cost-justified, but proposing to leave the emissions standards and other requirements of the 2012 rule in place. On May 22, 2020, the EPA released a final Supplemental Finding, again concluding that it is not “appropriate and necessary” to regulate EGUs under section 112 of the CAA. The EPA also took final action on the residual risk and technology review (“RTR”) required by CAA section 112. The results from the RTR showed that emissions of hazardous air pollutants (“HAPs”) had been reduced such that residual risk is at acceptable levels, there are no developments in HAP emissions controls to achieve further cost-effective reductions beyond the current standards, and, therefore, that no changes to the MATS rule were warranted. However, in the January 20, 2021 Executive Order, the Biden Administration announced a review of the rule in conjunction with other climate-related regulations, and is considering revisiting the “appropriate and necessary” determination and reversing the Supplemental Finding. On January 31, 2022, the EPA proposed revoking the May 2020 finding and proposed finding that it remains “appropriate and necessary” to regulate HAPs from EGUs under section 112 after considering cost. In April 2023, the EPA issued a proposed rule that would revise the MATS rule for power plants. The proposed rule includes a more stringent standard for emissions of

filterable particulate matter for coal-fired EGUs and a much lower mercury emission limit for lignite-fired EGUs. The proposed rule also requires the installation and operation of continuous emissions monitors for particulate matter.

- *Regional Haze.* The EPA has initiated a regional haze program designed to protect and improve visibility at and around national parks, national wilderness areas and international parks, particularly those located in the southwest and southeast United States. Under the Regional Haze Rule, affected states were required to submit regional haze SIPs by December 17, 2007, that, among other things, were to identify facilities that would have to reduce emissions and comply with stricter emission limitations. The vast majority of states failed to submit their plans by December 17, 2007, and the EPA issued a Finding of Failure to Submit plans on January 15, 2009 (74 Fed. Reg. 2392). The EPA had taken no enforcement action against states to finalize implementation plans and was slowly dealing with the state Regional Haze SIPs that were submitted, which resulted in the National Parks Conservation Association commencing litigation in the D.C. Circuit on August 3, 2012, against the EPA for failure to enforce the rule (*National Parks Conservation Act v. EPA, D.C. Cir*). Industry groups, including the Utility Air Regulatory Group intervened.

The EPA ultimately agreed in a consent decree with environmental groups to impose regional haze federal implementation plans (“FIPs”) or to take action on regional haze SIPs before the agency for 42 states and the District of Columbia. The EPA has completed those actions for all but several states in its first planning period (2008-2010). In many eastern states, the EPA has allowed states to meet “best available retrofit control technology” (“BART”) requirements for power plants through compliance with CAIR and CSAPR (a policy under pending litigation). Other states have had BART imposed on a case-by-case basis, and where the EPA found SIPs deficient, it disapproved them and issued FIPs. It is possible that the EPA may continue to increase the stringency of control requirements imposed under the Regional Haze Program as it moves toward the next planning period.

This program may result in additional emissions restrictions from new coal-fueled power plants whose operations may impair visibility at and around federally protected areas. This program may also require certain existing coal-fueled power plants to install additional control measures designed to limit haze-causing emissions, such as sulfur dioxide, nitrogen oxides, volatile organic chemicals and particulate matter. These limitations could affect the future market for coal. However, on January 18, 2018, the EPA announced that it was revisiting the 2017 Regional Haze Rule revisions, and announced an intent to commence a new rulemaking. On September 11, 2018, the EPA released a “Regional Haze Reform Roadmap” and reaffirmed its commitment to additional rulemaking.

On August 20, 2019, EPA issued guidance to states in preparing SIPs to meet the 2021 deadline, highlighting state flexibility. In September 2021, EPA issued a clarification memorandum, narrowing some of the flexibility identified in prior guidance. On August 30, 2022, the EPA published a notice of its final finding that 15 states have failed to submit SIPs that meet the requirements for the regional haze second planning period, triggering a two-year timeframe for the EPA to impose a FIP on those states or for states to take action that the EPA deems compliant. In June 2023, Sierra Club and other organizations filed a lawsuit against the EPA in the United States District Court for the District of Columbia alleging that the EPA’s failure to act on seven states’ submitted SIPs within the two-year statutory timeframe is a violation of the Clean Air Act. In November 2023, the lawsuit was amended to add 27 more states. This litigation is pending. Regional haze litigation over specific implementation continues, and both evolving guidance and the litigation could affect demand for coal.

- *New Source Review.* A number of pending regulatory changes and court actions are affecting the scope of the EPA’s new source review program, which under certain circumstances requires existing coal-fueled power plants to install the more stringent air emissions control equipment required of new plants. One of these pending regulatory changes is the EPA’s November 15, 2021 proposed rule on “Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review” and the EPA’s December 6, 2022 supplemental

proposed rule intended to update, strengthen, and expand the standards proposed in the November 15, 2021 proposed rule. On December 2, 2023, the EPA published the final rule, which contains more stringent emissions requirements for oil and natural gas production and regulates methane and volatile organic compound emissions from existing sources for the first time. In addition, on May 23, 2023, the EPA proposed revised NSPS under CAA section 111(b) for greenhouse gas emissions from new and reconstructed fossil fuel-fired stationary combustion turbine electric generating units and from fossil fuel-fired steam generating units that undertake a large modification. The new source review program is continually revised and such revisions may impact demand for coal nationally.

Climate Change. Carbon dioxide, which is defined to be a greenhouse gas, is a by-product of burning coal by our coal. Global climate issues, including with respect to greenhouse gases such as carbon dioxide and any relationship between greenhouse gas emissions and perceived global warming, continue to attract significant public and scientific attention as well as regulation. For example, the Fourth, Fifth, and Sixth Assessment Reports of the Intergovernmental Panel on Climate Change have expressed concern about the impacts of human activity, especially from fossil fuel combustion, on global climate issues. As a result of the public and scientific attention, several governmental bodies increasingly are focusing on global climate issues and, more specifically, levels of emissions of carbon dioxide from coal combustion by power plants, as well as public reporting requirements regarding greenhouse gas emissions. Additional regulation of greenhouse gas emissions in the United States is likely to occur pursuant to future U.S. treaty obligations, statutory or regulatory changes at the federal, state or local level or otherwise.

Demand for coal also may be impacted by international efforts to reduce emissions of greenhouse gases. For example, in December 2015, representatives of 195 nations reached an agreement (the “Paris Agreement”) that will, for the first time, commit participating countries to lowering greenhouse gas emissions, as discussed further below. Further, the United States and a number of international development banks, such as the World Bank, the European Investment Bank and European Bank for Reconstruction and Development, have announced that they will no longer provide financing for the development of new coal-fueled power plants, subject to very narrow exceptions.

Although the U.S. Congress has considered various legislative proposals that would address global climate issues and greenhouse gas emissions, no such federal proposals have been adopted into law to date. In the absence of U.S. federal legislation on these topics, the EPA has been the primary source of federal oversight, although future regulation of greenhouse gases and global climate matters in the United States could occur pursuant to future U.S. treaty obligations, statutory or regulatory changes under the Clean Air Act, federal adoption of a greenhouse gas regulatory scheme or otherwise.

In 2007, the U.S. Supreme Court held that the EPA has authority under the Clean Air Act to regulate carbon dioxide emissions from automobiles and can decide against regulation only if the EPA determines that carbon dioxide does not significantly contribute to climate change and does not endanger public health or the environment. Although the Supreme Court’s holding did not expressly involve the EPA’s authority to regulate greenhouse gas emissions from stationary sources, such as coal-fueled power plants, the EPA since has determined on its own that it has the authority to regulate greenhouse gas emissions from power plants, and the EPA has published a formal determination that six greenhouse gases, including carbon dioxide, endanger both the public health and welfare of current and future generations.

In 2014, the EPA proposed a sweeping rule, known as the “Clean Power Plan,” to cut carbon emissions from existing electric generating units, including coal-fired power plants. A final version of the Clean Power Plan was adopted in August 2015. The final version of the Clean Power Plan aims to reduce carbon dioxide emissions from electrical power generation by 32% by 2030 relative to 2005 levels through reduction of emissions from coal-burning power plants and increased use of renewable energy and energy conservation methods. Under the Clean Power Plan, states are free to reduce emissions by various means and must submit emissions reduction plans to the EPA by September 2016 or, with an approved extension, September 2018. If a state has not submitted a plan by then, the Clean Power Plan authorizes the EPA to impose its own plan on that state. In order to determine a state’s goal, the EPA has divided the country into three regions based on connected regional electricity grids. States are to implement their plans by focusing on (i) increasing the generation efficiency of existing fossil fuel plants, (ii) substituting lower carbon dioxide emitting natural gas generation for coal-powered generation and (iii) substituting generation from new zero carbon dioxide emitting

renewable sources for fossil fuel powered generation. States are permitted to use regionally available low carbon generation sources when substituting for in-state coal generation and coordinate with other states to develop multi-state plans. Following the adoption, 27 states sued the EPA, claiming that the EPA overstepped its legal authority in adopting the Clean Power Plan. In February 2016, the U.S. Supreme Court ordered the EPA to halt enforcement of the Clean Power Plan until a lower court rules on the lawsuit and until the Supreme Court determines whether or not to hear the case. In October 2017, the EPA commenced rulemaking proceedings to rescind the Clean Power Plan, and in December 2017, the EPA published an Advanced Notice of Proposed Rulemaking announcing an intent to commence a new rulemaking to replace the Clean Power Plan with an alternative framework for regulating carbon dioxide.

In a parallel litigation, 25 states and other parties filed lawsuits challenging the EPA's final New Source Performance Standards rules, which we refer to as NSPS, for carbon dioxide emissions from new, modified, and reconstructed power plants under the Clean Air Act. One of the primary issues in these lawsuits is the EPA's establishment of standards of performance based on technologies including carbon capture and sequestration, which we refer to as CCS. New coal plants cannot meet the new standards unless they implement CCS, which reportedly is not yet commercially available or technically feasible. In conjunction with the EPA's proposal to rescind the Clean Power Plan, the EPA also requested a stay of the NSPS litigation. The D.C. Circuit granted the request, and the litigation was held in abeyance.

On June 19, 2019, the EPA finalized the Affordable Clean Energy ("ACE") rule as a replacement for the Clean Power Plan, rendering the prior litigation moot. The ACE rule establishes emission guidelines for states to develop plans to address greenhouse gas emissions from existing coal-fired power plants. The ACE rule has several components: a determination of the best system of emission reduction for greenhouse gas emissions from coal-fired power plants, a list of "candidate technologies" states can use when developing their plans, a new preliminary applicability test for determining whether a physical or operational change made to a power plant may be a "major modification" triggering New Source Review, and new implementing regulations for emission guidelines under Clean Air Act section 111(d). On January 19, 2021, the D.C. Circuit Court of Appeals vacated the ACE rule and its implied repeal of the Clean Power Plan, remanding the rule to the EPA for further proceedings. As the remand was proceeding, the U.S. Supreme Court agreed, in *West Virginia v. EPA* and three other consolidated cases, to revisit the EPA's authority to regulate carbon emissions under Clean Air Act section 111(d) and considered the EPA's authority to regulate emissions sector-wide rather than on individual sources under section 111(d). These issues implicate not only the ACE, but potentially a variety of other rules related to coal combustion. In June 2022, the Supreme Court ruled against the EPA, holding that the Clean Power Plan's attempt to force an overall shift in power generation from higher-emitting to lower-emitting sources exceeded the EPA's statutory authority under the CAA. The Court therefore reversed the D.C. Circuit's vacatur of the ACE rule. On October 27, 2022, the D.C. Circuit issued an order effectively reinstating the ACE rule, but because the EPA had informed the court that it was presently undertaking a rulemaking process to replace the ACE rule with a new rule governing greenhouse gas emissions from existing fossil-fuel-fired power plants, the court placed the case in abeyance pending completion of that rulemaking. As noted above, on March 10, 2023, the EPA published a direct final rule extending until April 15, 2024 the deadline for state plans required to be submitted under the ACE rule. On May 23, 2023, the EPA proposed revised NSPS under Clean Air Act section 111(b) for greenhouse gas emissions from new and reconstructed fossil fuel-fired stationary combustion turbine electric generating units and from fossil fuel-fired steam generating units that undertake a large modification. If this proposed rule is finalized in its current form, it may adversely affect the demand for coal.

In December 2015, 195 nations (including United States) signed the Paris Agreement, a long-term, international framework convention designed to address climate change over the next several decades. This agreement entered into force in November 2016 after more than 70 countries, including the United States, ratified or otherwise agreed to be bound by the agreement. The United States was among the countries that submitted its declaration of intended greenhouse gas reductions in early 2015, stating its intention to reduce U.S. greenhouse gas emissions by 26-28% by 2025 compared to 2005 levels. Under President Trump, the United States, formally exited the Agreement on November 4, 2020, but President Biden has recommitted the United States to the Paris Agreement. Having rejoined the Paris Agreement, the United States submitted its Nationally Determined Contribution ("NDC"), or climate action plan, to the United Nations establishing a target of reducing the United States' net greenhouse gas emissions by 50-52% below 2005 levels by 2030. The United States followed up on the establishment of its NDC by announcing a suite of measures to reduce greenhouse gas emissions at the 27th Conference to the Parties on the UN Framework Convention on Climate

Change (“COP27”) held in Sharm el Sheik, Egypt, in November of 2022, including the development of an Energy Transition Accelerator to utilize carbon markets to promote deployment of renewable energy and support a transition away from fossil fuels. The COP27 announcements also included an update to the Methane Emissions Reduction Action Plan and an affirmation of progress under the “Global Methane Pledge” that aims to cut global methane pollution at least 30% by 2030 relative to 2020 levels, which was announced in the prior year. In November 2023 at a subsequent COP, COP28, the parties approved a road map for transitioning away from fossil fuels. Over the long term, international participation in the Paris Agreement framework could reduce overall demand for coal which could have a material adverse impact on us. These effects could be more adverse to the extent the United States continues to participate in these reduction programs (whether via the Paris Agreement or otherwise).

Several U.S. states have enacted legislation establishing greenhouse gas emissions reduction goals or requirements, joined regional greenhouse gas reduction initiatives or issued greenhouse gas reporting requirements. Many states also have enacted legislation or regulations requiring electricity suppliers to use renewable energy sources to generate a certain percentage of power, provide financial incentives to electricity suppliers for using renewable energy sources or impose costs on emitters of greenhouse gases in the electric generation sector. For example, eleven northeastern and mid-Atlantic states currently are members of the Regional Greenhouse Gas Initiative, which is a mandatory cap-and-trade program established in 2005 to cap regional carbon dioxide emissions from power plants. Similarly, California, Washington and Quebec remain members of the Western Climate Initiative, which was formed in 2008 to establish a voluntary regional greenhouse gas reduction goal and develop market-based strategies to achieve emissions reductions, and those two jurisdictions have adopted their own greenhouse gas cap-and-trade regulations and a joint “cap and trade” emissions reduction program. Any particular state, or any of these or other regional group, may have or adopt in the future rules or policies that cause some users of coal to switch from coal to a lower carbon fuel. There can be no assurance at this time that any new carbon dioxide cap-and-trade-program, carbon tax or other regulatory or policy regime, if implemented by any one or more states or regions in which our customers operate or at the federal level, will not affect the future market for coal in those states or regions and lower the overall demand for coal.

Clean Water Act. The federal Clean Water Act (sometimes shortened to CWA) and corresponding state and local laws and regulations affect coal mining operations by restricting the discharge of pollutants, including dredged and fill materials, into waters of the United States. The Clean Water Act provisions and associated state and federal regulations are complex and subject to amendments, legal challenges and changes in implementation. Recent court decisions and regulatory actions have created uncertainty over Clean Water Act jurisdiction and permitting requirements that could variously increase or decrease the cost and time we expend on Clean Water Act compliance.

The scope of waters that fall within the Clean Water Act’s jurisdiction is expansive and may include features not commonly understood to be a stream or wetland. In June 2015, the EPA and the Army Corps of Engineers (the “Corps”) issued a new rule defining the scope of “waters of the United States” (“WOTUS”) that are subject to regulation. The 2015 WOTUS rule was challenged by a number of states and private parties in various federal courts. In December 2017, the EPA and the Corps proposed a rule to repeal the 2015 WOTUS rule. The repeal took effect on December 23, 2019. In December 2018, the EPA and Corps also formally proposed a new rule revising the definition of WOTUS. The new rule -- the Navigable Waters Protection Rule (“NWPR”) -- became effective on June 22, 2020 and substantially reduced the scope of waters that fall within the Clean Water Act’s jurisdiction, in part by excluding ephemeral streams, which potentially qualified as “Waters of the United States” under the 2015 WOTUS rule. Numerous challenges to the NWPR were filed, and in 2021 under the new Biden administration, the EPA and the Corps asked the courts in the pending litigation to remand the NWPR for agency reconsideration but to maintain the effect of the NWPR in the interim. In August 2021, a federal district court in Arizona declined the request and vacated the NWPR without specifying whether its decision applied nationwide. However, the EPA and the Corps announced on September 3, 2021 that they would revert to the pre-2015 rule until further notice. On December 7, 2021, the EPA and the Corps announced a new proposed rule, which would largely retain the pre-2015 regulatory framework with the addition of other waters that meet the “relatively permanent” or “significant nexus” standards, and the agencies finalized the rule on December 30, 2022. On January 24, 2022, the U.S. Supreme Court decided to hear a challenge to EPA’s interpretation of WOTUS. In January 2023, the EPA and the Corps issued a final rule to revise the definition of WOTUS to put back into place the pre-2015 definition, updated to reflect consideration of subsequent court decisions. In May 2023, the Supreme Court decided *Sackett v. EPA*, which reduced the EPA’s jurisdictional reach by limiting the types of wetlands that constitute WOTUS. *Sackett* codified the definition of WOTUS as only “geographical features that are described in

ordinary parlance as ‘streams, oceans, rivers, and lakes’” and to adjacent wetlands that are “indistinguishable” from those bodies of water due to a continuous surface connection. On September 8, 2023, the EPA issued its final rule revising the definition of WOTUS to conform to the Supreme Court’s decision in *Sackett*.

Clean Water Act requirements that may directly or indirectly affect our operations include the following:

- **Water Discharge.** Section 402 of the Clean Water Act creates a process for establishing effluent limitations for discharges to streams that are protective of water quality standards through the National Pollutant Discharge Elimination System, which we refer to as the NPDES, or an equally stringent program delegated to a state regulatory agency. Regular monitoring, reporting and compliance with performance standards are preconditions for the issuance and renewal of NPDES permits that govern discharges into waters of the United States. Discharges that exceed the limits specified under NPDES permits can lead to the imposition of penalties, and persistent non-compliance could lead to significant penalties, compliance costs and delays in coal production. In addition, the imposition of future restrictions on the discharge of certain pollutants into waters of the United States could increase the difficulty of obtaining and complying with NPDES permits, which could impose additional time and cost burdens on our operations.
- Discharges of pollutants into waters that states have designated as impaired (i.e., as not meeting present water quality standards) are subject to Total Maximum Daily Load, which we refer to as TMDL, regulations. The TMDL regulations establish a process for calculating the maximum amount of a pollutant that a water body can receive while maintaining state water quality standards. Pollutant loads are allocated among the various sources that discharge pollutants into that water body. Mine operations that discharge into water bodies designated as impaired will be required to meet new TMDL allocations. The adoption of more stringent TMDL-related allocations for our coal mines could require more costly water treatment and could adversely affect our coal production.

The Clean Water Act also requires states to develop anti-degradation policies to ensure that non-impaired water bodies continue to meet water quality standards. The issuance and renewal of permits for the discharge of pollutants to waters that have been designated as “high quality” are subject to anti-degradation review that may increase the costs, time and difficulty associated with obtaining and complying with NPDES permits.

Under the Clean Water Act, citizens may sue to enforce NPDES permit requirements. Beginning in 2012, multiple citizens’ suits were filed in West Virginia against mine operators for alleged violations of NPDES permit conditions requiring compliance with West Virginia’s water quality standards. Some of the lawsuits alleged violations of water quality standards for selenium, whereas others alleged that discharges of conductivity and sulfate were causing violations of West Virginia water quality standards that prohibit adverse effects to aquatic life. The suits sought penalties as well as injunctive relief that would limit future discharges of selenium, conductivity or sulfate through the implementation of expensive treatment technologies. The federal district court for the Southern District of West Virginia has ruled in favor of the citizen suit groups in multiple suits alleging violations of the water quality standard for selenium and in two suits alleging violations of water quality standards due to discharge of conductivity (one of which was upheld on appeal by the United States Court of Appeals for the Fourth Circuit in January 2017). In 2015, the West Virginia Legislature amended the West Virginia Water Pollution Control Act and associated rules to expressly prohibit the direct enforcement of water quality standards against permit holders. On March 27, 2019, the EPA approved these changes.

Citizens may also sue under the Clean Water Act when pollutants are being discharged without NPDES permits. Beginning in 2013, multiple citizens’ suits were filed in West Virginia against landowners alleging ongoing discharges of pollutants, including selenium and conductivity, from valley fills at reclaimed mining sites. In each case, the reclamation bond had been released and the mining and NPDES permits had been terminated following the completion of reclamation. While it is difficult to predict the outcome of such suits, any determination that discharges from valley fills require NPDES permits could result in increased compliance costs following the completion of mining at our operations.

- **Dredge and Fill Permits.** Many mining activities, such as the development of refuse impoundments, fresh water impoundments, refuse fills, valley fills, and other similar structures, may result in impacts to waters

of the United States, including wetlands, streams and, in certain instances, man-made conveyances that have a hydrologic connection to such streams or wetlands. Under the Clean Water Act, coal companies are required to obtain a Section 404 permit from the Corps, prior to conducting such mining activities. The Corps is authorized to issue general “nationwide” permits for specific categories of activities that are similar in nature and that are determined to have minimal adverse effects on the environment. Permits issued pursuant to Nationwide Permit 21, which we refer to as NWP 21, generally authorize the disposal of dredged and fill material from surface coal mining activities into waters of the United States, subject to certain restrictions. Since March 2007, permits under NWP 21 were reissued for a five-year period with new provisions intended to strengthen environmental protections. There must be appropriate mitigation in accordance with nationwide general permit conditions rather than less restricted state-required mitigation requirements, and permit holders must receive explicit authorization from the Corps before proceeding with proposed mining activities. Notwithstanding the additional environmental protections designed in the NWP 21, on July 15, 2009, the Corps proposed to immediately suspend the use of NWP 21 in six Appalachian states, including West Virginia, Kentucky and Virginia where the Company conducts operations. On June 17, 2010, the Corps announced that it had suspended the use of NWP 21 in the same six states although it remained for use elsewhere. In February 2012, the Corps proposed to reissue NWP 21, albeit with significant restrictions on the acreage and length of stream channel that can be filled in the course of mining operations. The Corps’ decisions regarding the use of NWP 21 does not prevent the Company’s operations from seeking an individual permit under § 404 of the CWA, nor does it restrict an operation from utilizing another version of the nationwide permit, NWP 50, authorized for small underground coal mines that must construct fills as part of their mining operations. On January 13, 2021, the Corps published a final rule modifying its NWP program. The final rule replaced several of the 2017 NWPs, including NWP 21 and NWP 50, and added several new NWPs. The Corps removed the provision in NWP 21 and NWP 50 requiring the permittee to “receive a written authorization” from the Corps before commencing the covered activity.

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- *Effluent Limitations Guidelines.* In March 2023, the EPA published proposed and direct final rules containing revisions to the effluent limitations guidelines (“ELG”) rule for the steam electric power generating point source category. If finalized, the rule would establish more stringent discharge standards for flue gas desulfurization wastewater, bottom ash transport water and combustion residual leachate at existing sources.

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act, which we refer to as RCRA, may affect coal mining operations through its requirements for the management, handling, transportation and disposal of hazardous wastes. Many mining wastes are excluded from the regulatory definition of hazardous wastes, and coal mining operations covered by SMCRA permits are by statute exempted from RCRA permitting. RCRA also allows the EPA to require corrective action at sites where there is a release of hazardous substances. In addition, each state has its own laws regarding the proper management and disposal of waste material. In June 2010, the EPA released a proposed rule to regulate the disposal of certain coal combustion residuals, which we refer to as CCR. The proposed rule set forth two very different options for regulating CCR under RCRA. The first option called for regulation of CCR as a hazardous waste under Subtitle C, which creates a comprehensive program of federally enforceable requirements for waste management and disposal. The second option utilized Subtitle D, which would give the EPA authority to set performance standards for waste management facilities and would be enforced primarily through citizen suits. The proposal left intact the so-called Bevill exemption for beneficial uses of CCR. The EPA finalized the CCR rule on December 19, 2014, setting nationwide solid nonhazardous waste standards for CCR disposal. On April 17, 2015, the EPA finalized regulations under the solid waste provisions (Subtitle D) of RCRA and not the hazardous waste provisions (Subtitle C) which became effective on October 19, 2015. The final rule establishes national minimum criteria for existing and new CCR landfills, surface impoundments and lateral expansions, and also establishes structural integrity criteria for new and existing surface impoundments (including establishing requirements for owners and operators to conduct periodic structural integrity-related assessments). The criteria include location restrictions, design and operating criteria, groundwater monitoring and corrective action, closure requirements and post-closure care and recordkeeping, notification and internet posting requirements. While classification of CCR as a hazardous waste would have led to more stringent restrictions and higher costs, this regulation may still increase our customers' operating costs and potentially reduce their ability to purchase coal. In addition, contamination caused by the past disposal of CCR, including coal ash,

could lead to citizen suit enforcement against our customers under RCRA or other federal or state laws and potentially reduce the demand for coal. In another development regarding coal combustion wastes, the EPA conducted an assessment of impoundments and other units that manage residuals from coal combustion and that contain free liquids following a massive coal ash spill in Tennessee in 2008. The EPA contractors conducted site assessments at many impoundments and is requiring appropriate remedial action at any facility that is found to have a unit posing a risk for potential failure. The EPA is posting utility responses to the assessment on its web site as the responses are received. After industry groups filed a suit in the D.C. Circuit, challenging the 2015 rule, former EPA Administrator Pruitt issued a letter on September 13, 2017 indicating the agency's decision to reconsider the rule in response to industry petitions. On August 22, 2018, the D.C. Circuit remanded the rule at the EPA's request. On August 28, 2020, the EPA issued a final revised rule that modifies standards regarding beneficial use and assessing environmental harm, and extends deadlines for regulated entities to come into compliance. Environmental groups sought to challenge the rule, but the petition was untimely and was voluntarily dismissed. In January 2022, the EPA issued new closure performance standard requirements for CCR impoundments that are likely to impose additional expense for facility closures. Challenges to those new requirements are currently pending before the D.C. Circuit. In May 2023, the EPA proposed revisions to the CCR rule that would expand the scope of the rule to include legacy CCR surface impoundments (i.e., inactive impoundments at inactive facilities) and would establish requirements for CCR management units (i.e., currently-exempt solid waste management units that involve the direct placement of CCR on the land). Future regulations resulting from the EPA coal combustion refuse assessments may impact the ability of the Company's utility customers to continue to use coal in their power plants.

Comprehensive Environmental Response, Compensation and Liability Act. The Comprehensive Environmental Response, Compensation and Liability Act, which we refer to as CERCLA, and similar state laws affect coal mining operations by, among other things, imposing cleanup requirements for threatened or actual releases of hazardous substances that may endanger public health or welfare or the environment. Under CERCLA and similar state laws, joint and several liability may be imposed on waste generators, site owners and lessees and others regardless of fault or the legality of the original disposal activity. Although the EPA excludes most wastes generated by coal mining and processing operations from the hazardous waste laws, such wastes can, in certain circumstances, constitute hazardous substances for the purposes of CERCLA. In addition, the disposal, release or spilling of some products used by coal companies in operations, such as chemicals, could trigger the liability provisions of the statute. Thus, coal mines that we currently own or have previously owned or operated, and sites to which we sent waste materials, may be subject to liability under CERCLA and similar state laws. In particular, we may be liable under CERCLA or similar state laws for the cleanup of hazardous substance contamination at sites where we own surface rights.

Endangered Species. The Endangered Species Act and other related federal and state statutes protect species threatened or endangered with possible extinction. Protection of threatened, endangered and other special status species may have the effect of prohibiting or delaying us from obtaining mining permits and may include restrictions on timber harvesting, road building and other mining or agricultural activities in areas containing the affected species. A number of species indigenous to our properties are protected under the Endangered Species Act or other related laws or regulations. Based on the species that have been identified to date and the current application of applicable laws and regulations, however, we do not believe there are any species protected under the Endangered Species Act that would materially and adversely affect our ability to mine coal from our properties in accordance with current mining plans. We have been able to continue our operations within the existing spatial, temporal and other restrictions associated with special status species. In its final rule published on December 16, 2020, the FWS adopted a regulatory definition of "habitat" for the first time, which could have important consequences for future designations of "critical habitat" under the Endangered Species Act. In October 2021, the Biden administration published rules that changed the definition of "habitat" and altered a policy that made it easier to exclude territory from critical habitat. Designation of critical habitat by the FWS can affect projects that require federal agency permits or funding, because section 7 of the Endangered Species Act requires federal agencies to ensure, through consultation with the FWS, that their actions are not likely to adversely modify or destroy designated critical habitat. Should more stringent protective measures be developed and applied to threatened, endangered or other special status species or to their critical habitat, then we could experience increased operating costs or difficulty in obtaining future mining permits.

Use of Explosives. Our mining operations are subject to numerous regulations relating to blasting activities. Pursuant to these regulations, we incur costs to design and implement blast schedules and to conduct pre-blast surveys and blast monitoring. In addition, the storage of explosives is subject to strict regulatory requirements established by four

different federal regulatory agencies. For example, pursuant to a rule issued by the Department of Homeland Security in 2007, facilities in possession of chemicals of interest, including ammonium nitrate at certain threshold levels, must complete a screening review in order to help determine whether there is a high level of security risk such that a security vulnerability assessment and site security plan will be required.

Other Environmental Laws. We are required to comply with numerous other federal, state and local environmental laws in addition to those previously discussed. These additional laws include, for example, the Safe Drinking Water Act, the Toxic Substance Control Act and the Emergency Planning and Community Right-to-Know Act.

Human Capital Resources

At December 31, 2023, Arch and its subsidiaries currently employ more than 3,400 people that are non-unionized in the United States and four employees overseas. Management believes that it has good relations with its employees.

Arch's responsible and respectful corporate culture has allowed it to attract and retain an experienced, talented and high-performing workforce. The Company and its subsidiaries had an average voluntary retention rate of 90% in 2023. Approximately 40% of the Company's workforce had at least 10 years of Company service in 2023.

Health and Safety. Safety is a deeply engrained value at Arch. We have consistently led our large, integrated peers in safety performance, as measured by lost-time incident rate.

The Company averaged 0.55 lost-time incidents per 200,000 employee-hours worked at December 31, 2023 in comparison to a national average lost-time incident rate of 2.13 (which represents the national average through the third quarter of 2023).

Across the organization, employees engage in a proactive, behavior-based approach to safety. Every field employee participates in safety training on an ongoing basis, and nearly 100 percent of our field employees have been trained as safety observers. If an at-risk behavior or a barrier to safe behavior is identified, employees are empowered to engage and to apply their training to resolve the potentially unsafe condition or practice immediately.

Since launching the behavior-based program in 2007, Arch's operating subsidiaries have recorded more than 2 million safety observations and in so doing have created a deep, employee-driven safety culture. Most importantly, the process has resulted in the successful modification of at-risk behaviors and has served as a platform for reinforcing positive behaviors. In addition, Arch operations conduct safety meetings in advance of every shift, to ensure that every employee begins every workday sharply focused on working safely.

Training and Development. We recognize the importance of furthering education and development of our employees through the various stages of their careers. To that end, we offer free access to thousands of courses that are designed for personal and career development through an online education platform. A number of these courses are tailored so employees can earn Continuing Education Units (CEU), Professional Development Hours (PDH), and Professional Engineering (PE) Units to fulfill accreditation requirements. Additionally, employees are eligible for a tuition reimbursement benefit through a program designed to encourage and support development of employee skills by providing financial assistance for an approved course of study. In the past five years, Arch's tuition reimbursement program totaled more than \$1 million. These programs reflect our view that ongoing employee development is good business as well as a valuable benefit that can help attract and retain talented and skilled people.

We also invest significantly in the development of our next generation of leaders. Over the past five years, we have designed and conducted ongoing multi-day leadership workshops designed to educate high-potential corporate and subsidiary employees about our strategic direction, financial position, asset base and corporate culture, as well as to enhance leadership skillsets. More than 455 high-potential employees have participated in those workshops, with the Company's senior management team and other senior leaders participating in the training sessions.

In addition, we hold a safety and environmental stewardship summit at our headquarters location in Saint Louis each year. More than 200 employees from all subsidiary mine sites in addition to the senior leadership team and corporate employees participate in this summit each year, which creates opportunities for sharing best practices across the operations while reinforcing the Company's deep commitment to excellence in these critical areas of performance.

Information about our Executive Officers

The following is a list of our executive officers, their ages as of February 15, 2024 and their positions and offices during the last five years:

Name	Age	Position
Paul T. Demzik	62	Mr. Demzik has served as our Senior Vice President and Chief Commercial Officer since January 2019. From June 2013 to January 2019, Mr. Demzik served as Head of Thermal Coal Trading with Anglo American Marketing Limited in London and served as President of Peabody COALTRADE, LLC from July 2005 to July 2012.
John T. Drexler	54	Mr. Drexler has served as our Senior Vice President and Chief Operating Officer since 2020. Mr. Drexler served as our Senior Vice President and Chief Financial Officer from 2008 to 2020 and our Vice President-Finance and Accounting from 2006 to 2008. From 2005 to 2006, Mr. Drexler served as our Director of Planning and Forecasting. Prior to 2005, Mr. Drexler held several other positions within our finance and accounting department. Mr. Drexler also served on the board of Knight Hawk Holdings, LLC.
John W. Eaves	66	Mr. Eaves has served as our Executive Chairman of the Board of Directors since retiring as Chief Executive Officer in 2020. Mr. Eaves was our Chief Executive Officer from 2012 to 2020. Mr. Eaves served as our Chairman of the Board from 2015 to 2016 and our President and Chief Operating Officer from 2006 to 2012. From 2002 to 2006, Mr. Eaves served as our Executive Vice President and Chief Operating Officer. Mr. Eaves currently serves on the board of the CF Industries Holdings, Inc. Mr. Eaves was previously a Director of Advanced Emissions Solutions, Inc., The National Association of Manufacturers, The National Mining Association, and former Chairman of the National Coal Council.
Matthew C. Giljum	52	Mr. Giljum has served as our Senior Vice President and Chief Financial Officer since 2020. Mr. Giljum served as our Vice President of Finance and Treasurer from 2015 to 2020. Prior to that role, he served as the Company's Vice President of Finance, as well as a number of other positions of increasing responsibility in the Company's finance department.
Rosemary L. Klein	56	Ms. Klein has served as our Senior Vice President - Law, General Counsel and Secretary since October 2020. Prior to that she served as special counsel in the Company's legal department since 2015. Prior to joining the Company in 2015, Ms. Klein served as general counsel and corporate secretary - and held other senior leadership roles - at several multinational, publicly held corporations, including Solutia Inc. and Spartech Corporation.
Paul A. Lang	63	Mr. Lang has served as our President and Chief Executive Officer since 2020. Mr. Lang served as our President and Chief Operating Officer since April 2015 and has served as our Executive Vice President and Chief Operating Officer since April 2012 and as our Executive Vice President-Operations from August 2011 to April 2012. Mr. Lang served as Senior Vice President-Operations from 2006 through August 2011, as President of Western Operations from 2005 through 2006 and President and General Manager of Thunder Basin Coal Company from 1998 to 2005. Mr. Lang is a member of the Board of Directors of Rogers Group, Inc., The National Mining Association and the Board of Trustees of Missouri University of Science and Technology. Mr. Lang is also a member of the Rail Energy Transportation Advisory Committee of the Federal Surface Transportation Board. In addition, he has served as Director of Knight Hawk Holdings, LLC and on the development board of the Mining Department of the Missouri University of Science & Technology, and is the former chairman of the University of Wyoming's School of Energy Resources Council.
Deck S. Slone	60	Mr. Slone has served as our Senior Vice President-Strategy and Public Policy since June 2012. Mr. Slone served as our Vice President-Government, Investor and Public Affairs from 2008 to June 2012. Mr. Slone served as our Vice President-Investor Relations and Public Affairs from 2001 to 2008. In the past Mr. Slone served as the chairman of the National Coal Council, the co-chair of the Carbon Utilization Research Council, and the Chair of the National Mining Association's Energy Policy Task Force.
John A. Ziegler, Jr.	57	Mr. Ziegler has served as our Senior Vice President & Chief Administrative Officer since January 2019. Mr. Ziegler served as our Chief Commercial Officer since March 2014. Mr. Ziegler served as our Vice President-Human Resources from April 2012 to March 2014. From October 2011 to April 2012, Mr. Ziegler served as our Senior Director-Compensation and Benefits. From 2005 to October 2011 Mr. Ziegler served as Vice President-Contract Administration, President of Sales, then finally Senior Vice President, Sales and Marketing and Marketing Administration. Mr. Ziegler joined Arch in 2002 as Director-Internal Audit. Prior to joining Arch Resources, Mr. Ziegler held various finance and accounting positions with bioMerieux and Ernst & Young.

Available Information

We file annual, quarterly and current reports, and amendments to those reports, proxy statements and other information with the Securities and Exchange Commission. You may access and read our filings without charge through the SEC's website, at *sec.gov*.

We also make the documents listed above available without charge through our website, *archrsc.com*, as soon as practicable after we file or furnish them with the SEC. You may also request copies of the documents, at no cost, by telephone at (314) 994-2700 or by mail at Arch Resources, Inc., 1 CityPlace Drive, Suite 300, St. Louis, Missouri, 63141 Attention: Senior Vice President-Strategy and Public Policy. The information on our website is not part of this Annual Report on Form 10-K.

GLOSSARY OF SELECTED MINING TERMS

Certain terms that we use in this document are specific to the coal mining industry and may be technical in nature. The following is a list of selected mining terms and the definitions we attribute to them.

Bituminous coal	Coal used primarily to generate electricity and to make coke for the steel industry with a heat value ranging between 10,500 and 15,500 Btus per pound.
Btu	A measure of the energy required to raise the temperature of one pound of water one degree of Fahrenheit.
Coking coal	Coal used to produce coke, the primary source of carbon used in steelmaking.
Compliance coal	Coal which, when burned, emits 1.2 pounds or less of sulfur dioxide per million Btus, requiring no blending or other sulfur dioxide reduction technologies in order to comply with the requirements of the Clean Air Act.
Continuous miner	A machine used in underground mining to cut coal from the seam and load it onto conveyors or into shuttle cars in a continuous operation.
Dragline	A large machine used in surface mining to remove the overburden, or layers of earth and rock, covering a coal seam. The dragline has a large bucket, suspended by cables from the end of a long boom, which is able to scoop up large amounts of overburden as it is dragged across the excavation area and redeposit the overburden in another area.
Hard coal	Coking coal of gross calorific value greater than 5700 kcal/kg on an ash free but moist basis and further disaggregated into anthracite, coking coal and other bituminous coal.
High-Vol A	A coking coal used in steel production with a volatile matter content between 31% and 34.5% on a dry basis.
High-Vol B	A coking coal used in steel production with a volatile matter content between 34.5% and 38% on a dry basis.
Indicated mineral resource	Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.
Inferred mineral resource	Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project, and may not be converted to a mineral reserve.
Lignite Coal	Coal with the lowest carbon content and a heat value ranging between 4,000 and 8,300 Btus per pound.
Longwall mining	One of two major underground coal mining methods, generally employing two rotating drums pulled mechanically back and forth across a long face of coal.
Low-sulfur coal	Coal which, when burned, emits 1.6 pounds or less of sulfur dioxide per million Btus.
Low-Vol	A coking coal used in steel production with a volatile matter content between 16% and 23% on a dry basis.

Measured mineral resource	Measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in S-K 1300, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.
Metallurgical coal	Coal used in steel production either as coking coal or pulverized coal injection (PCI).
Mid-Vol	A coking coal used in steel production with a volatile matter greater than 22% but less than 31% on a dry basis.
Preparation plant	A facility used for crushing, sizing and washing coal to remove impurities and to prepare it for use by a particular customer.
Probable mineral reserves	Probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource.
Proven mineral reserves	Proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.
Pulverized coal injection coal (PCI)	Coal that is introduced directly into the blast furnace as a source of energy and carbon in the steelmaking process.
Reclamation	The restoration of land and environmental values to a mining site after the coal is extracted. The process commonly includes “recontouring” or shaping the land to its approximate original appearance, restoring topsoil and planting native grass and ground covers.
Qualified Person	Qualified Person or “QP” is an individual who is 1) a mineral industry professional with at least five years of relevant experience in the type of mineralization and type of deposit under consideration and in the specific type of activity that person is undertaking on behalf of the registrant; and 2) an eligible member or license in good standing of a recognized professional organization at the time of the technical report summary (TRS) is prepared.
Reserves	Reserves or mineral reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.
Resources	Resources or mineral resources is a concentration or occurrence of material of economic interest on the earth’s crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.
Room-and-pillar mining	One of two major underground coal mining methods, utilizing continuous miners creating a network of “rooms” within a coal seam, leaving behind “pillars” of coal used to support the roof of a mine.
Subbituminous coal	Coal used primarily to generate electricity with a heat value ranging between 8,300 and 13,000 Btus per pound.
Technical Report Summary (TRS)	A technical report summary or “TRS” report provides a statement a company’s coal reserves and has been prepared by a qualified person “QP” in accordance with the United States Securities and Exchange Commission (SEC), Regulation S-K 1300 for Mining Property Disclosure.

ITEM 1A. RISK FACTORS.

Our business involves certain risks and uncertainties. In addition to the risks and uncertainties described below, we may face other risks and uncertainties, some of which may be unknown to us and some of which we may deem immaterial. The following review of important risk factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. If one or more of these risks or uncertainties occur, our business, financial condition or results of operations may be materially and adversely affected.

Summary Risk Factors

Our business is subject to several risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, financial condition, results of operations, and cash flows. These risks are discussed more fully below and include, but are not limited to, risks related to:

Risks Related to Our Operations and Industry

- The loss of availability, reliability and cost-effectiveness of transportation facilities and fluctuations in transportation costs;
- Operating risks related to our coal mining operations that are beyond our control;
- Inflationary pressures on and availability and price of mining and other industrial supplies;
- A decline in coal prices;
- Volatile economic and market conditions;
- The effects of foreign and domestic trade policies;
- The effects of major foreign conflicts;
- The loss of, or a significant reduction in, purchases by our largest customers;
- Our ability to collect payments from our customers;
- International growth in our sales adds new and unique risks to our business;
- Competition from other producers, alternative fuel sources or subsidized renewables, including with respect to transportation, could put downward pressure on coal prices;
- Decreases in steel production from blast furnaces or advancement of alternative steel production technologies;
- Changes in purchasing patterns in the coal industry;
- If we or our service providers sustain cyber-attacks or other security incidents that disrupt our operations or involve unauthorized access to proprietary, confidential or personally identifiable information;
- Our inability to acquire additional coal reserves or our inability to develop coal reserves;
- Inaccuracies in our estimates of our coal reserves;
- A defect in title or the loss of a leasehold interest in certain properties or surface rights;
- Failure to obtain or renew surety bonds or insurance;
- We may not have adequate insurance coverage for some business risks;
- Disruptions in the quantities of coal purchased from other third parties;
- Decreases in the coal consumption of electric power generators could result in less demand and lower prices for thermal coal;
- We may not be able to pay dividends or repurchase shares of our common stock in accordance with our announced intent or at all;
- Our ability to operate our business effectively could be impaired if we lose key personnel or fail to attract qualified personnel;
- Public health emergencies, such as pandemics or epidemics, could have an adverse effect on our business;

Risks Related to Environmental Regulations, Other Regulations and Legislation

- Extensive environmental regulations, including existing and potential future regulatory requirements and costs relating to air emissions, affect our customers and could reduce the demand for coal as a fuel source;
- Increased pressure from political and regulatory authorities, along with environmental activist groups, and lending and investment policies adopted by financial institutions and insurance companies to address concerns about the environmental impacts of coal combustion;
- Increased attention to ESG matters could adversely impact our business and the value of the company.
- Our failure to obtain or renew permits necessary for our mining operations could negatively affect our business;
- Federal or state regulatory agencies have the authority to order certain of our mines to be temporarily or permanently closed under certain circumstances;
- Extensive environmental regulations impose significant costs on our mining operations, and future regulations could materially increase those costs or limit our ability to produce and sell coal;
- If the assumptions underlying our estimates of reclamation and mine closure obligations are inaccurate;
- Our operations may impact the environment or cause exposure to hazardous substances, and our properties may have environmental contamination;
- Changes in the legal and regulatory environment could complicate or limit our business activities, increase our operating costs or result in litigation;

Risks Related to Income Taxes

- Our ability to use net operating losses is subject to a current limitation and may be subject to additional limitations in the future.
- U.S. tax legislation may materially adversely affect our financial condition, results of operations and cash flows;

Risks Related to Our Operations and Industry

The loss of availability, reliability and cost-effectiveness of transportation facilities and fluctuations in transportation costs could affect the demand for our coal or impair our ability to supply coal to our customers.

We depend upon third-party transportation systems, including rail, barge, and truck, as well as seaborne vessels and port facilities, to deliver coal to our customers. Disruptions in transportation services due to weather-related problems, mechanical difficulties, labor shortages, mismanagement by the service providers, strikes, lockouts, bottlenecks, route closures, geopolitical disputes, natural disasters, health crises and responses thereto, and other events beyond our control, could impair our ability to supply coal to our customers. Decreased performance levels and the lack of reliability from these third-party transportation providers, over longer periods of time could cause our customers to look to other sources for their coal needs. In addition, increases in transportation costs, including the price of fuel, could make coal a less competitive source of energy when compared to alternative fuels or could make coal produced in one region of the United States less competitive than coal produced in other regions of the United States or abroad.

Poor rail service and/or rail rates increasing could lead to continued demand destruction of domestic utilities. This failure to provide adequate rail service and increasing rail rates has diminished the historic reliability and competitiveness of the coal-fired power plants, and continues to add uncertainty into the market.

If we experience disruptions in our transportation services or if transportation costs increase significantly and we are unable to find alternative transportation providers, our coal mining operations may be disrupted, we could experience a delay or halt of production or our profitability could decrease significantly. In addition, a growing portion of our coal sales in recent years has been into export markets, and we are actively seeking additional international customers. Our ability to maintain and grow our export sales revenue and margins depends on several factors, including the existence of sufficient and cost-effective export terminal capacity for the shipment of coal to foreign markets and the ability of third-party transportation providers to adequately provide a cost-effective service. At present, there is limited terminal capacity

for the export of coal into foreign markets. Our access to existing and future terminal capacity may be adversely affected by, among other factors, regulatory and permit requirements, environmental and other legal challenges, public perceptions and resulting political pressures, foreign and domestic trade policies, operational issues at terminals and competition among domestic coal producers for access to limited terminal capacity. If we are unable to maintain terminal capacity or are unable to access additional future terminal capacity for the export of our coal on commercially reasonable terms, or at all, our results could be materially and adversely affected.

From time to time, we enter into “take or pay” contracts for rail and port capacity related to our export sales. These contracts require us to pay for a minimum quantity of coal to be transported on the railway or through the port, regardless of whether we sell and ship any coal. If we fail to acquire sufficient export sales to meet our minimum obligations under these contracts, we are still obligated to make payments to the railway or port facility, which could have a negative impact on our cash flows, profitability and results of operations.

Our coal mining operations are subject to operating risks that are beyond our control, which could result in materially increased operating expenses and decreased production levels and could materially and adversely affect our profitability.

We conduct underground and surface mining operations. Certain factors beyond our control, including those listed below, could disrupt our coal mining operations, adversely affect production and shipments and increase our operating costs:

- poor mining conditions resulting from geological, hydrological or other conditions that may cause production challenges;
- a major incident at the mine site that causes all or part of the operations of the mine to cease for some period of time;
- mining, processing and plant equipment failures and unexpected maintenance problems;
- adverse weather and natural disasters, such as heavy rains or snow, flooding and other natural events affecting operations, transportation or customers, which could become more frequent or severe as a result of climate change, and public health crises;
- the unavailability of raw materials, equipment (including heavy mobile equipment) or other critical supplies such as repair parts, tires, explosives, fuel, lubricants and other consumables of the type, quantity and/or size needed to meet production expectations;
- planned, unexpected or accidental subsidence from underground mining;
- disputes over access and subsidence rights;
- accidental mine water discharges, fires, gas inundations, explosions or similar mining accidents;
- actions of state and federal authorities that regulate our operations;
- delays, closures, or labor unavailability by third parties that transport coal shipments or other products; and
- competition and/or conflicts with other natural resource extraction activities and production within our operating areas, such as coalbed methane extraction or oil and gas development.

If any of these conditions or events occurs, our coal mining operations may be disrupted and we could experience a delay or halt of production or shipments or our operating costs could increase significantly. In addition, if our insurance coverage is limited or excludes certain of these conditions or events, then we may not be able to recover, or recover fully for losses incurred as a result of such conditions or events, some of which may be substantial.

Inflationary pressures on mining and other industrial supplies, including steel-based supplies, diesel fuel and rubber tires, or the inability to obtain a sufficient quantity of those supplies, could negatively affect our operating costs or disrupt or delay our production.

Inflation rates in the U.S. could result in decreased demand for our products, increased operating costs, increased interest rates and constrained liquidity, reduced government spending and volatility in financial markets. Our coal mining operations use significant amounts of steel, diesel fuel, explosives, rubber tires and other mining and industrial supplies. The cost of roof control supplies, including roof bolts and plates, we use in our underground mining operations depends

on the price of steel. We also use significant amounts of diesel fuel, explosives and tires for trucks and other heavy machinery, particularly at our Black Thunder mining complex. Future increases in costs for supplies that are used directly or indirectly in the normal course of our business and increases in other operating costs, such as increases in steel prices, freight rates, labor and other materials and supplies may negatively impact our profitability.

Due to the decline in the mining industry, there has been a corresponding decrease in the number of providers of mining equipment and supplies. If we are unable to procure these equipment and supplies, our coal mining operations may be disrupted or we could experience a delay or halt in our production. Any of the foregoing events could materially and adversely impact our business, financial condition, results of operations and cash flows.

Coal prices are subject to change based on a number of factors and can be volatile. If there is a decline in prices, it could materially and adversely affect our profitability and the value of our coal reserves.

Our profitability and the value of our coal reserves depend upon the prices we receive for our coal. The contract prices we may receive in the future for coal depend upon factors beyond our control, including the following:

- the domestic and foreign demand for coal, which depends significantly on the demand for steel and electricity;
- overall global economic activity and growth and the unknown geopolitical consequences of the wars between Ukraine and Russia and between Israel and Hamas and other macro issues;
- competition for production of steel from non-coal sources including, electric arc furnaces or other processes that may use alternatives to coking as a reduction agent, which may limit demand for coking coal;
- the quantity and quality of coal available from our peers and alternative sources of fuel;
- competition for subsidized renewable energy production;
- domestic and foreign air emission standards for coal-fueled power plants and blast furnaces and the ability to meet these standards;
- adverse weather, climatic or other natural conditions, including unseasonable weather patterns, which could become more frequent or severe in connection with climate change;
- domestic and foreign economic conditions, including economic slowdowns and the relative exchange rates of U.S. dollars for foreign currencies;
- domestic and foreign legislative, regulatory and judicial developments, environmental regulatory changes or changes in energy policy and energy conservation measures that could adversely affect the coal industry, such as legislation limiting carbon emissions or providing for increased funding and incentives for alternative energy sources;
- the imposition of tariffs, quotas, trade barriers and other trade protection measures;
- the proximity to, capacity of, and cost of transportation and port facilities; and
- technological advancements, including those related to hydrogen-based steel production alternative energy sources, and those intended to convert coal-to-liquids or gas.

Declines in the prices we receive for our future coal sales, could materially and adversely affect us by decreasing our profitability, cash flows, liquidity and the value of our coal reserves.

Volatile economic and market conditions have affected and in the future may continue to affect our revenues and profitability.

Global economic downturns have negatively impacted, and in the future could negatively impact, our revenues and profitability. Our profitability depends, in large part, on conditions in the markets that we serve, which fluctuate in response to various factors beyond our control. The prices at which we sell our coal are largely dependent on prevailing market prices. We have experienced significant price volatility at times during the past several years.

Economic conditions, including those caused by the continuing effects of elevated inflation and interest rates, increased military conflicts and wars, and supply chain disruptions have led to extreme volatility of prices. If there are further downturns in economic conditions, our and our customers' businesses, financial condition and results of operations could be adversely affected. There can be no assurance that our cost control actions and capital discipline, or any other

actions that we may take, will be sufficient to offset any adverse effect these conditions may have on our business, financial condition or results of operations.

The effects of foreign and domestic trade policies, actions or disputes on the level of trade among the countries and regions in which we operate could negatively impact our business, financial condition or results of operations.

Trade barriers such as tariffs imposed by the United States could potentially lead to trade disputes with other foreign governments and adversely impact global economic conditions. For instance, in March 2018, the United States imposed a 25% tariff on all imported steel into the United States citing national security interests, which resulted in certain foreign countries imposing offsetting tariffs in retaliation. In December 2021, the Biden Administration revised the 25% tariff with the European Union to a tariff-rate quota on imports greater than a certain tonnage amount, and continued the original Section 232 tariffs, under the Trade Expansion Act of 1962, as amended, with respect to all other importers of steel into the United States. Continued or worsening United States-China trade tensions may result in additional tariffs or other protectionist measures that could materially, adversely affect foreign demand for our coal.

In addition, potential changes to international trade agreements, trade policies, trade concessions or other political and economic arrangements may benefit coal producers operating in countries other than the United States. We may not be able to compete based on price or other factors with companies that, in the future, benefit from favorable foreign trade policies or other arrangements.

The effects of major foreign conflicts on the level of trade, including sanctions, among the countries and regions in which we operate could negatively impact our business, financial condition or results of operations.

We face risks related to several ongoing wars and regional conflicts, including the Ukraine-Russia war, and the Israel-Hamas war and escalations thereof, as well as trade disruptions related to conflict in the Persian Gulf and Red Sea. The extent and duration of these and similar military or armed conflicts, including terrorism, are impossible to predict, but could result in sanctions and future market or supply disruptions, which could be significant and may have a severe adverse effect on the countries and regions or global trade broadly in which we operate. For example, various governments, such as the European Union, have banned imports from Russia including commodities such as natural gas and coal, and resulting sanctions and future market or supply disruptions in these and other regions are difficult to predict and could severely impact the world economy. These events significantly impacted coal markets by disrupting previously existing trading patterns. The resulting volatility, including market expectations of potential changes in coal prices and inflationary pressures on steel products, significantly impacted prices for our coal and the availability and cost of supplies and equipment and could continue to impact us in the future.

The loss of, or a significant reduction in, purchases by our largest customers could adversely affect our profitability.

For the year ended December 31, 2023, we derived approximately 15% of our total coal revenues from sales to our three largest customers and approximately 39% of our total coal revenues from sales to our ten largest customers. If any of those customers, particularly any of our three largest customers, were to significantly reduce the quantities of coal it purchases from us, or if we are unable to sell coal to those customers on terms as favorable to us, it may have an adverse impact on the results of our business.

Our ability to collect payments from our customers could be impaired if their creditworthiness deteriorates, and our financial position could be materially and adversely affected by the bankruptcy of any of our significant customers.

Our ability to receive payment for coal sold and delivered depends on the continued creditworthiness of our customers. If we determine that a customer is not creditworthy, we may be able to withhold delivery under the customer's coal sales contract. If this occurs, we may decide to sell the customer's coal on the spot market, which may be at prices lower than the contracted price, or we may be unable to sell the coal at all. Furthermore, the bankruptcy of any of our significant customers could materially and adversely affect our financial position.

In addition, our customer base may change with deregulation as domestic utilities sell their power plants to their non-regulated affiliates or third parties that may be less creditworthy, thereby increasing the risk we bear for customer payment default. Some power plant owners may have credit ratings that are below investment grade or may become below investment grade after we enter into contracts with them. Furthermore, our metallurgical customers operate in a highly competitive and cyclical industry where their creditworthiness could deteriorate rapidly. In addition, competition with other coal suppliers could force us to extend credit to customers and on terms that could increase the risk of payment default. Customers in other countries may also be subject to other pressures and uncertainties that may affect their ability to pay, including trade barriers, exchange controls and local economic and political conditions.

International growth in our sales adds new and unique risks to our business.

We have sales offices in Singapore and the United Kingdom. Our international offices sell our coal to new international customers, which may present uncertainties and new risks. A majority of our metallurgical coal sales consist of sales to international customers, and we expect that international sales will continue to account for a larger portion of our revenue. A number of foreign countries in which we sell our metallurgical coal implicate additional risks and uncertainties due to the different economic, cultural and political environments. Such risks and uncertainties include, but are not limited to:

- longer sales-cycles and time to collection, producing large swings in working capital from period to period;
- tariffs and international trade barriers and export license requirements, including any that might result from global trade uncertainties;
- different and changing legal and regulatory requirements;
- potential liability under the U.S. Foreign Corrupt Practices Act of 1977, as amended, or comparable foreign regulations;
- government currency controls;
- fluctuations in foreign currency exchange and interest rates;
- political and economic instability, changes, hostilities and other disruptions; and
- unexpected changes in diplomatic and trade relationships.

Negative developments in any of these factors in the foreign markets into which we sell our metallurgical coal could result in a reduction in demand for metallurgical coal, the cancellation or delay of orders already placed, difficulty in collecting receivables, higher costs of doing business and/or non-compliance with legal and regulatory requirements, each, or any of which, could materially adversely impact our cash flows, results of operations and profitability.

Competition, including with respect to transportation, could put downward pressure on coal prices and, as a result, materially and adversely affect our revenues and profitability.

We have significant competition with producers of other fuels, such as natural gas and subsidized renewables. Natural gas pricing has declined in recent years and has historically been the main basis for setting the price of our domestic thermal product. Historically, declines in the price of natural gas have caused demand for coal to decrease and have adversely affected the price of our coal. Sustained periods of low natural gas prices have, coupled with social policy decisions, also contributed to utilities phasing out or closing existing coal-fired power plants, and could reduce or eliminate construction of any new coal-fired power plants. This longer-term trend has, and could continue to have, a material adverse effect on demand and prices for our thermal coal. Moreover, the construction of new pipelines and other natural gas distribution channels may increase competition within regional markets and thereby decrease the demand for and price of our thermal coal.

In addition to other fuel sources, we compete with numerous other domestic and foreign coal producers for domestic and international sales. Overcapacity and increased production within the coal industry, both domestically and internationally, and decelerating steel demand have at times, and could in the future, materially reduce coal prices and therefore materially reduce our revenues and profitability. In addition, our ability to ship our coal to international customers depends on port capacity. Increased competition within the coal industry for international sales could result in us not being able to obtain throughput capacity at port facilities, or the rates for such throughput capacity could increase to a point where it is not economically feasible to export our coal.

Decreases in steel production from blast furnaces or advancement of alternative steel production technologies may reduce demand for our metallurgical product.

Our principal product is a premium High-Vol metallurgical coal for blast furnace steel producers. Premium High-Vol metallurgical coal generally commands a significant price premium over other forms of coal because of its value in use in blast furnaces for steel production. Premium High-Vol metallurgical coal is a scarce commodity and has specific physical and chemical properties that can impact the efficiency of blast furnace operation. Alternative technologies are continually being investigated and developed with a view to reducing production costs or for other reasons, such as minimizing environmental or social impact. If competitive technologies emerge or are increasingly utilized that use other materials in place of our product or that diminish the required amount of our product, such as electric arc furnaces or pulverized coal injection processes, demand and price for our metallurgical coal might fall. Many of these alternative technologies are designed to use lower quality coals or other sources of carbon instead of higher cost High-Vol metallurgical coal. While conventional blast furnace technology has been the most economic large-scale steel production technology for several decades, and while emergent technologies typically take many years to commercialize, there can be no assurance that, over the longer term, competitive technologies not reliant on High-Vol metallurgical coal could emerge which could reduce demand and price premiums for High-Vol metallurgical coal.

Our profitability depends upon the coal supply agreements we have with our customers. Changes in purchasing patterns in the coal industry could make it difficult for us to extend our existing coal supply agreements or to enter into new agreements in the future.

The success of our business depends on our ability to retain our current customers, renew our existing customer contracts, and solicit new customers. Our ability to do so generally depends on a variety of factors, including the quality and price of our products, our ability to market these products effectively, our ability to deliver on a timely basis and the level of competition that we face. If current customers do not honor contract commitments, or if they terminate agreements or exercise *force majeure* provisions allowing for the temporary suspension of their performance, our revenues will be adversely affected. There are a variety of reasons that may cause some of our customers not to renew, extend or enter into new coal supply agreements or to enter into agreements to purchase fewer tons of coal or on different terms or prices than in the past. In addition, uncertainty caused by federal and state regulations, including under the U.S. Clean Air Act, could deter our customers from entering into coal supply agreements. Also, the availability and price of competing fuels, such as natural gas, as well as the use of tax incentives and public policy for renewable energy sources to deter coal consumption could influence the volume of coal a customer is willing to purchase under contract.

Our coal supply agreements typically contain *force majeure* provisions allowing the parties to temporarily suspend performance during specified events beyond their control. Most of our coal supply agreements also contain provisions requiring us to deliver coal that satisfies certain quality specifications, such as heat value, sulfur content, ash content, volatile matter, hardness and ash fusion temperature, among other attributes. These provisions in our coal supply agreements could result in negative economic consequences to us, including price adjustments, having to purchase replacement coal in a higher-priced open market, the rejection of deliveries or, in the extreme, contract termination. Our profitability may be negatively affected if we are unable to seek protection during adverse economic conditions or if we incur financial or other economic penalties as a result of these provisions of our coal supply agreements. For more information about our long-term coal supply agreements, you should see the section entitled “Long-Term Coal Supply Arrangements” under Item 1.

Serious cyber-attacks or other security incidents that disrupt our operations or compromise proprietary or confidential information could expose us to significant liability, reputational harm, loss of revenue, increased costs and material risks to our business and results.

We are dependent on computer systems, hardware, software, technology infrastructure, networks and other information technology systems (collectively, “IT Systems”) to operate our business and to comply with regulatory, legal and tax requirements. Some of these IT Systems are owned and operated by us, but we also rely on many third parties, such as services providers and others in the supply chain, for critical products and services, including but not limited to

software, hardware and cloud computing. In addition, in the ordinary course of our business, we and various third parties generate, collect, process, transmit and store data, such as proprietary business information and personally identifiable information (collectively, “Confidential Information”).

We and certain of our business partners and service providers have experienced and expect to continue to experience cyberattacks and other security incidents in the future. Such future attacks and incidents may cause material adverse impacts on our business. There can be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our IT Systems and Confidential Information. We are in an industry and business involving energy-related assets that is at a relatively greater risk of cyber-attacks by sophisticated adversaries, such as nation state actors, as compared to other targets in the United States. Our IT Systems and those of important third parties are vulnerable to malicious and intentional cyberattacks involving malware (such as ransomware) and viruses, accidental or inadvertent incidents, the exploitation of security vulnerabilities or “bugs” in software or hardware, social engineering/phishing attacks, and malfeasance by insiders, among other scenarios. Both the frequency and magnitude of cyberattacks is expected to increase, and attackers are increasingly sophisticated. As a result, we may be unable to anticipate, detect or prevent future attacks, particularly as the methodologies utilized by attackers change frequently or are not recognized until launched, and we may be unable to investigate or remediate incidents because attackers are increasingly using techniques and tools (such as artificial intelligence) designed to circumvent controls, avoid detection, and remove or obfuscate forensic evidence.

A serious compromise to the confidentiality, integrity or availability of our IT Systems, or the IT Systems of our business partners or service providers, whether caused maliciously or inadvertently, may cause significant operational disruptions, unauthorized physical access to one or more of our facilities or locations, or electronic access to, or corruption or destruction or loss of Confidential Information. Such attacks or incidents could result in, among other things, unfavorable publicity and reputational damage, litigation (including class actions), disruptions to our operations, loss of customers, financial obligations that may not be covered by our insurance for damages, regulatory investigations and enforcement, and fines or penalties related to the theft, release or misuse of information, any or all of which could have a material adverse impact on our results of operations, financial condition or cash flow. In addition, as cyber threats continue to evolve, we may be required to expend significant additional resources to modify or enhance our protective measures or to investigate and remediate any system vulnerabilities or for compliance purposes. This is particularly the case given fast evolving legislative and regulatory changes to data privacy, data security and data protection laws globally. Any losses, costs or liabilities directly or indirectly related to cyberattacks or other incidents may not be covered by, or may exceed the coverage limits of, any or all of our applicable insurance policies.

Our inability to acquire additional coal reserves or our inability to develop coal reserves in an economically feasible manner may adversely affect our business.

Our profitability depends substantially on our ability to mine and process, in a cost-effective manner, coal reserves that possess the quality characteristics desired by our customers. As we mine, our coal reserves deplete. As a result, our future success depends upon our ability to obtain, through acquisition or development of owned reserves, coal that is economically recoverable. If we fail to acquire or develop additional coal reserves, our existing reserves will eventually be depleted. We may not be able to obtain replacement reserves when we require them. Even if available, replacement reserves may not be available at favorable prices, or we may not be capable of mining those reserves at costs that are comparable with our existing coal reserves. In certain locations, leases for oil, natural gas and coalbed methane reserves are located on, or adjacent to, some of our reserves, potentially creating conflicting interests between us and lessees of those interests. Other lessees’ rights relating to these mineral interests could prevent, delay or increase the cost of developing our coal reserves. These lessees may also seek damages from us based on claims that our coal mining operations impair their interests.

Our ability to obtain coal reserves in the future could also be limited by the availability of cash we generate from our operations or available financing, restrictions under our existing or future financing arrangements, competition from other coal producers, limited opportunities or the inability to acquire coal properties on commercially reasonable terms. Increased opposition from non-governmental organizations and other third parties may also lengthen, delay or adversely

impact the acquisition process. If we are unable to acquire replacement reserves, our future production may decrease significantly and our operating results may be negatively affected. In addition, we may not be able to mine future reserves as profitably as we do at our current operations.

Inaccuracies in our estimates of our coal reserves could result in decreased profitability from lower than expected revenues or higher than expected costs.

Our future performance depends on, among other things, the accuracy of our estimates of our proven and probable coal reserves. We base our estimates of reserves on engineering, economic and geological data assembled, analyzed and reviewed by internal and third-party engineers and consultants. We update our estimates of the quantity and quality of proven and probable coal reserves annually to reflect the production of coal from the reserves, updated geological models and mining recovery data, the tonnage contained in new lease areas acquired and estimated costs of production and sales prices. There are numerous factors and assumptions inherent in estimating the quantities and qualities of, and costs to mine, coal reserves, including many factors beyond our control, including the following:

- quality of the coal;
- geological and mining conditions, which may not be fully identified by available exploration data and / or may differ from our experiences in areas where we currently mine;
- historical production from the area compared with production from other similar producing areas;
- the percentage of coal ultimately recoverable;
- the assumed effects of regulation, including the issuance of required permits, taxes, including severance and excise taxes, and royalties, and other payments to governmental agencies;
- assumptions concerning the timing for the development of the reserves;
- assumptions concerning physical access to the reserves; and
- assumptions concerning equipment and productivity, future coal prices, operating costs, including for critical supplies such as fuel, tires and explosives, capital expenditures and development and reclamation costs.

As a result, estimates of the quantities and qualities of economically recoverable coal attributable to any particular group of properties, classifications of reserves based on risk of recovery, estimated cost of production and estimates of future net cash flows expected from these properties, as prepared by different engineers, or by the same engineers at different times, may vary materially due to changes in the above factors and assumptions. Actual production recovered from identified reserve areas and properties, and revenues and expenditures associated with our mining operations, may vary materially from estimates. Any inaccuracy in our estimates related to our reserves could result in decreased profitability from lower-than-expected revenues and/or higher than expected costs.

A defect in title or the loss of a leasehold interest in certain properties or surface rights could limit our ability to mine our coal reserves or result in significant unanticipated costs.

We conduct a significant part of our coal mining operations on properties that we own as well as on properties we lease from third parties. A title defect, the loss of a lease or surface rights or a dispute over subsidence could adversely affect our ability to mine the associated coal reserves. We may not verify title to our leased properties or associated coal reserves until we have committed to developing those properties or coal reserves. We may not commit to develop properties or coal reserves until we have obtained necessary permits and completed exploration. As such, the title to properties that we intend to lease or coal reserves that we intend to mine may contain defects prohibiting our ability to conduct mining operations. Similarly, our leasehold interests may be subject to superior property rights of other third parties. In order to conduct our mining operations on properties where these defects exist, we may incur unanticipated costs. In addition, some leases require us to produce a minimum quantity of coal and require us to pay minimum production royalties. Our inability to satisfy those requirements may cause the leasehold interest to terminate, which could negatively impact our business, financial condition, results of operations and cash flows.

Failure to obtain or renew surety bonds on acceptable terms could affect our ability to secure reclamation and coal lease obligations and, therefore, our ability to mine or lease coal.

Federal and state laws require us to obtain surety bonds or post other 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, coal leases and other obligations. The amount of security required to be obtained can change as the result of new federal or state laws, as well as changes to the factors used to calculate the bonding or security amounts. We may have difficulty procuring or maintaining our surety bonds. Our bond issuers may demand higher fees or additional collateral, including letters of credit or other terms less favorable to us upon those renewals.

Because we are required by state and federal law to have these surety bonds or other acceptable security in place before mining can commence or continue, our failure to maintain surety bonds, letters of credit or other guarantees or security arrangements would materially and adversely affect our ability to mine or lease metallurgical coal. 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 sureties and restrictions on availability of collateral for current and future third-party surety bond issuers under the terms of our financing arrangements.

As of December 31, 2023, we had approximately \$552.5 million in surety bonds backed by \$70.5 million of letters of credit outstanding. Any further issuances of letters of credit to satisfy the increased collateral demands or any replacement surety bonds would immediately reduce the borrowing capacity under our credit facilities. At December 31, 2023, the Company established a fund for asset retirement obligations and thus far has contributed \$142.3 million that will serve to defease the long-term asset retirement obligation for its Powder River Basin Mines.

We may not have adequate insurance coverage for some business risks.

Our operations are generally subject to a number of hazards and risks that could result in personal injury or damage to, or destruction of, equipment, property or facilities. Depending on the nature and extent of a loss, the insurance that we maintain to address risks that are typical in our businesses may not be adequate or available to fully protect or reimburse us, or our insurance coverage may be limited, canceled or otherwise terminated. Insurance against some risks, such as liabilities for environmental pollution, or certain hazards or interruption of certain business activities, may not be available at an economically reasonable cost, or at all. Even if available, we may self-insure where we determine it is most cost effective to do so. As a result, despite the insurance coverage that we carry, accidents or other negative developments involving our production, mining, processing or transportation activities causing losses in excess of policy limits, or losses arising from events not covered under insurance policies, could have a material adverse effect on our financial condition and cash flows. The risk of increased insurance costs may have greater impact where the adverse event results in us asserting an insurance claim, the cost of which our insurers may seek to recoup during a future insurance renewal through increased premiums or limitations on coverage.

Disruptions in the quantities of coal purchased from other third parties could temporarily impair our ability to fill customer orders or increase our operating costs.

From time to time, we purchase coal from third parties that we sell to our customers. Operational difficulties at mines operated by third parties from whom we purchase coal, changes in demand from other coal producers and other factors beyond our control could affect the availability, pricing, and quality of coal purchased by us. Disruptions in the quantities of coal purchased by us could impair our ability to fill our customer orders or require us to purchase coal from other sources to satisfy those orders. If we are unable to fill a customer order or if we are required to purchase coal from other sources at higher prices and / or lower quality, in order to satisfy a customer order, we could lose existing customers and our operating costs could increase.

Decreases in the coal consumption of electric power generators could result in less demand and lower prices for thermal coal, which could materially and adversely affect our revenues and results of operations.

Thermal coal accounted for 88% of our coal sales by volume and 42% of the coal sales revenue during 2023. The majority of these sales were to electric power generators. The amount of coal consumed for electric power generation is affected primarily by the overall demand for electricity, the availability, quality and price of competing fuels (particularly

natural gas) for power generation and governmental regulations which may dictate an alternate source of fuel regardless of economics such as subsidized renewables. Overall economic activity and the associated demand for power by industrial users can have significant effects on overall electricity demand and can be impacted by a number of factors. An economic slowdown can significantly slow the growth of electricity demand and could result in reduced demand for coal. Weather patterns also greatly affect electricity demand. Extreme temperatures, both hot and cold, cause increased power usage and, therefore, increase generating requirements from all sources. Mild temperatures, on the other hand, result in lower electrical demand, which allows generators to choose the source of power generation that is most cost efficient.

Other sources of generation have the potential to displace coal-fueled generation, particularly from older, less efficient coal-powered generators and this has occurred to date. We expect that the new power plants constructed in the United States, to meet increasing demand for electricity generation, will not be fueled by coal, given the relative cost and permitting difficulties now associated with coal as compared to other sources of energy. State and federal mandates for increased use of electricity from renewable energy sources also have an impact on the market for our coal. Several states have enacted legislative mandates requiring electricity suppliers to use renewable energy sources to generate a certain percentage of power. There have been numerous proposals to establish a similar uniform national standard, although none of these proposals have been enacted to date; however, the Biden Administration has set a goal of a carbon pollution-free power sector by 2035. Additionally, many utilities have established their own emissions reduction goals, which may lead to the phase-out of coal-fired plants in favor of other energy sources. The costs of certain renewable energy sources have become increasingly competitive to coal, and possible advances in technologies and incentives, such as tax credits, to enhance the economics of renewable energy sources, could make these sources even more competitive. Any reduction in the amount of coal consumed by electric power generators could reduce the price of coal that we mine and sell, thereby reducing our revenues and materially and adversely affecting our business and results of operations.

We may not be able to pay dividends or repurchase shares of our common stock in accordance with our announced intent or at all.

The Board of Directors' determinations regarding fixed or variable dividends and share repurchases will depend on a variety of factors, including our net income, cash flow generated from operations or other sources, liquidity position, changes in working capital, potential alternative uses of cash, such as acquisitions and organic growth opportunities, and a desire to increase cash on our balance sheet, as well as economic conditions and expected future financial results.

Our ability to declare future dividends and make future share repurchases will depend on our future financial performance, which in turn depends on the successful implementation of our strategy and on financial, competitive, regulatory, technical and other factors, general economic conditions, demand and selling prices for our products, working capital adjustments, decisions related to the amount and timing of contributions to the thermal reclamation fund and other factors specific to our industry, many of which are beyond our control. Therefore, our ability to generate cash depends on the performance of our operations and could be limited by decreases in our profitability or increases in costs, regulatory changes, capital expenditures, debt servicing requirements or an increase in collateral requirements.

The frequency and amount of dividends, if any, may vary significantly from amounts paid in previous periods. The Company can provide no assurance that it will continue to pay fixed or variable dividends or repurchase shares. Any failure to pay dividends or repurchase shares of our common stock could negatively impact our reputation, lessen investor confidence in us, and cause the market price of our common stock to decline.

Our ability to operate our business effectively could be impaired if we lose key personnel or fail to attract qualified personnel.

We manage our business with several key personnel, the loss of whom could have a material adverse effect on us, absent the completion of an orderly transition. Efficient mining using modern techniques and equipment requires skilled laborers with mining experience and proficiency as well as qualified managers and supervisors. The demand for skilled employees sometimes causes a significant constriction of the labor supply resulting in higher labor costs. When coal producers compete for skilled miners, recruiting challenges can occur and employee turnover rates can increase, which negatively affect operating efficiency and costs. If a shortage of skilled workers exists and we are unable to train or retain the necessary number of miners, it could adversely affect our productivity, costs and ability to expand production.

Our executive officers and other key personnel have significant experience in the coal business and the loss of certain of these individuals could harm our business. Moreover, there may be a limited number of persons with the requisite experience and skills to serve in our senior management positions. There can be no assurance that we will continue to be successful in attracting and retaining enough qualified personnel in the future or that we will be able to do so on acceptable terms. The loss of key management personnel could harm our ability to successfully manage our business functions, prevent us from executing our business strategy and have a material adverse effect on our results of operations and cash flows.

Public health emergencies, such as pandemics or epidemics, could have an adverse effect on our business, results of operations, financial condition, and cash flows

Our operations expose us to risks associated with pandemics, epidemics, or other public health emergencies. Such events could lead to restrictions and mandates, which could differ across jurisdictions, and there could be global impacts resulting directly or indirectly from such an event or events, including labor shortages, logistical challenges, and supply chain disruptions such as increased port congestion, and increases in costs for certain goods and services. For instance, the onset of the COVID-19 pandemic that began in the first quarter of 2020 negatively affected our business, sales volumes, operating costs, and financial results to varying degrees and could continue to negatively affect our results of operations, cash flows, and financial position in the future.

Risks Related to Environmental Regulation, Other Regulations and Legislation

Extensive environmental regulations, including existing and potential future regulatory requirements relating to air emissions, affect our customers and could reduce the demand for coal as a fuel source and cause coal prices and sales of our coal to materially decline.

Coal contains impurities, including but not limited to sulfur, mercury, chlorine and other elements or compounds, many of which are released into the air when coal is combusted by our customers dependent on their site specific pollution control equipment. The operations of our customers are subject to extensive environmental regulation particularly with respect to air emissions. For example, the federal Clean Air Act and similar state and local laws extensively regulate the amount of sulfur dioxide, particulate matter, nitrogen oxide, and other compounds emitted into the air from electric power plants, which are the largest end-users of our coal. A series of more stringent requirements relating to particulate matter, ozone, haze, mercury, sulfur dioxide, nitrogen oxide and other air pollutants may be developed and implemented. For instance, the Clean Power Plan promulgated under the Obama administration, would have severely limited emissions of carbon dioxide which would adversely affect our ability to sell coal. However, in April 2017, the EPA announced that it was initiating a review of the Clean Power Plan consistent with President Trump's Executive Order 13783, and, in October 2017, the EPA published a proposed rule to formally repeal the Clean Power Plan. In June 2019, the EPA issued the final Affordable Clean Energy rule, which revised the agency's interpretation of Clean Air Act section 111(d). In January 2021, the D.C. Circuit Court of Appeals vacated the Affordable Clean Energy rule and its implied repeal of the Clean Power Plan, remanding to the EPA for further proceedings. The Supreme Court then heard the case and decided against the EPA and the Clean Power Plan, holding that the Clean Power Plan's attempt to force an overall shift in power generation from higher-emitting to lower-emitting sources exceeded the EPA's statutory authority. The Court therefore reversed the D.C. Circuit's vacatur of the Affordable Clean Energy rule. On October 27, 2022, the D.C. Circuit issued an order effectively reinstating the Affordable Clean Energy rule, but the court placed the case in abeyance pending the EPA's completion of a rulemaking to replace the rule. On March 10, 2023, the EPA published a direct final rule extending until April 15, 2024 the deadline for state plans required to be submitted under the Affordable Clean Energy rule. On May 23, 2023, the EPA proposed revised NSPS under Clean Air Act section 111(b) for greenhouse gas emissions from new and reconstructed fossil fuel-fired stationary combustion turbine electric generating units and from fossil fuel-fired steam generating units that undertake a large modification.

In addition, the change in presidential administration has resulted in a further shift in policy by the EPA. As explained above, in December 2015, the United States and 195 other countries entered into the "Paris Agreement" during the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, a long-term, international framework convention designed to address climate change over the next several decades. The Trump administration formally withdrew the United States from the Paris Agreement, effective November 2020. However,

President Biden has recommitted the United States to the Paris Agreement and the United States has officially submitted to the United Nations a Nationally Determined Contribution of reducing its net greenhouse gas emissions by 50-52% below 2005 levels by 2030. Since then, the United States and other signatories to the Paris Agreement have taken further steps toward reducing greenhouse gas emissions and addressing climate change, as further discussed above. The impacts of these orders, pledges, agreements and any legislation or regulation promulgated to fulfill the United States' commitments under the Paris Agreement, the UN Framework Convention on Climate Change, or other international conventions cannot be predicted at this time. However, any efforts to control and/or reduce greenhouse gas emissions by the United States or other countries that have also pledged "Nationally Determined Contributions," or concerted conservation efforts that result in reduced electricity consumption, could adversely impact coal prices, our ability to sell coal and, in turn, our financial position and results of operations.

In addition, a January 21, 2021 executive order from the Biden administration directed all federal agencies to review and take action to address any federal regulations, orders, guidance documents, policies and any similar agency actions promulgated during the prior administration that may be inconsistent with the administration's policies. The executive order also established an Interagency Working Group on the Social Cost of Greenhouse Gases ("Working Group"), which is called on to, among other things, develop methodologies for calculating the "social cost of carbon," "social cost of nitrous oxide" and "social cost of methane." The Working Group published a Technical Support Document with interim values and initial recommendations in February 2021. Building on the Working Group's interim values for social cost of greenhouse gases, the EPA released for public review, in November 2022, a September 2022 draft report with a social cost of carbon of \$190 per metric ton of carbon dioxide emitted in 2020 at a 2% discount rate. That figure is intended to be used to guide federal decisions on the costs and benefits of various policies and approvals, although such efforts have been the subject of a series of judicial challenges. In November 2023, the EPA released a final Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances on the Social Cost of Greenhouse Gases setting estimated Social Cost of CO₂ at \$120, \$190 or \$340, the Social Cost of CH₄ at \$1,300, \$1,600 or \$2,300 and the Social Cost of N₂O at \$35,000, \$54,000 or \$87,000, each per metric ton and each depending on the discount rate used. On December 22, 2023, the Working Group published a memorandum recommending that agencies "use their professional judgment to determine which estimates of the social cost of greenhouse gasses reflect the best available evidence, are most appropriate for particular analytical contexts, and best facilitate sound decision-making." At this time, we cannot determine whether the administration's efforts on social cost or other interagency climate efforts will lead to any particular actions that give rise to a material adverse effect on our business, financial condition and results of operations. The Biden administration issued another executive order on January 27, 2021, that was specifically focused on addressing climate change. Further regulation of air emissions at the federal level, as well as uncertainty regarding the future course of federal regulation, could reduce demand for coal and negatively impact our financial position and results of operations.

In March 2021, the Biden Administration announced a framework for the "Build Back Better" agenda. The proposed framework included policies to address climate change across the federal government through the tax code, an energy efficiency and clean energy standard, and research and development, among other areas of focus.

"Build Back Better" has been on two tracks in Congress, with a bipartisan "infrastructure" bill that has passed in the Senate and House of Representatives and was signed into law on November 15, 2021, which includes climate provisions focused on transportation and resiliency and an expected multi-trillion-dollar budget social spending bill that is being advanced under the reconciliation process to address additional priorities, including the climate impacts of energy production. On August 16, 2022, President Biden signed into law the Inflation Reduction Act, which was originally introduced as an amendment to the Build Back Better Act, which will provide incentives and programs to a range of renewable energy, decarbonization, and energy efficiency projects. A Clean Electricity Standard, or similar program, remains a goal of the Biden Administration, despite an unclear political path forward, and we are closely monitoring both legislative and executive agency action.

We are also subject to state and local regulations, which may be more stringent than federal rules. For example, certain United States cities and states have announced their intention to satisfy their proportionate obligations under the Paris Agreement. In addition, almost one-half of states have taken measures to track and reduce emissions of greenhouse gases, and some states have elected to participate in voluntary regional cap-and-trade programs like the Regional Greenhouse Gas Initiative in the northeastern United States. Many State and local governments have also passed legislation and/or regulations requiring electricity suppliers to use renewable energy sources to generate a certain percentage of power, or provide financial incentives to electricity suppliers for using renewable energy sources. State and local governments

may pass additional laws mandating the use of alternative energy sources, such as wind power and solar energy, or imposing additional costs on the use of coal for electricity generation which may decrease demand for our coal products. State and local commitments and regulations could have a material adverse effect on our business, financial condition and results of operations.

Considerable uncertainty is associated with these air emissions initiatives, and the content of regulatory requirements in the United States and other countries continues to evolve and develop, which could require significant emissions control expenditures for many coal-fueled power plants. As a result, these power plants may switch to other fuels that generate fewer of these emissions, may install more effective pollution control equipment that reduces the need for low sulfur coal, or may cease operations, possibly reducing future demand for coal and a reduced need to construct new coal-fueled power plants. Any switching of fuel sources away from coal, closure of existing coal-fired plants or reduced construction of new plants could have a material adverse effect on demand for, and prices received for, our coal. Alternatively, less stringent air emissions limitations, particularly related to sulfur, to the extent enacted, could make low sulfur coal less attractive, which could also have a material adverse effect on the demand for and prices received for our coal.

You should see Item 1, “Environmental and Other Regulatory Matters” for more information about the various governmental regulations affecting the market for our products.

Increased pressure from political and regulatory authorities, along with environmental and climate change activist groups, and lending and investment policies adopted by financial institutions and insurance companies to address concerns about the environmental impacts of coal combustion, including climate change, may potentially materially and adversely impact our future financial results, liquidity and growth prospects.

Global climate issues continue to attract significant public and scientific attention. For example, the Assessment Reports of the Intergovernmental Panel on Climate Change have expressed concern about the impacts of human activity, especially from fossil fuel combustion, on the global climate. As a result of the public and scientific attention, several governmental bodies increasingly are focusing on climate issues and, more specifically, levels of emissions of carbon dioxide from coal combustion by power plants. Although the Supreme Court held that the EPA did not have the statutory authority to issue the Clean Power Plan, there remains considerable political will for laws and regulations restricting emissions, including emissions from our industry and the industries of our customers. As such, the final status of any regulatory requirements is uncertain.

Future regulation of greenhouse gas emissions in the United States could occur pursuant to future treaty obligations, statutory or regulatory changes at the federal, state or local level or otherwise. The enactment of laws or the passage of regulations regarding greenhouse gas emissions from the combustion of coal by the U.S., some of its states or other countries, or other actions to limit emissions have resulted in, and may continue to result in, electricity generators switching from coal to other fuel sources or coal-fueled power plant closures. Further, policies limiting available financing for the development of new coal-fueled power plants could adversely impact the global demand for coal in the future. You should see Item 1, “Environmental and Other Regulatory Matters-Climate Change” for more information about governmental regulations relating to greenhouse gas emissions.

There have been recent efforts by members of the general financial and investment communities, such as investment advisors, sovereign wealth funds, public pension funds, universities and other groups, to divest themselves and to promote the divestment of securities issued by companies involved in the fossil fuel extraction market, such as coal producers. In California, for example, legislation was signed into law in October 2015 requiring California’s state pension funds to divest investments in companies that generate 50% or more of their revenue from coal mining. Also, in December 2017, the Governor of New York announced that the New York Common Fund would immediately cease all new investments in entities with “significant fossil fuel activities,” and the World Bank announced that it would no longer finance upstream oil and gas after 2019, except in “exceptional circumstances.” Other activist campaigns have urged banks to cease financing coal-driven businesses. As a result, numerous banks, other financing sources and insurance companies have taken actions to limit available financing and insurance coverage for the development of new coal-fueled power plants and coal mines and utilities that derive a majority of their revenue from thermal coal. However, various states have enacted, or are considering enacting, laws to sanction, or require public funds to divest from, financial institutions that restrict investments in fossil fuel companies based off of extra-regulatory environmental or social factors, or to require

such institutions to provide “fair access” to financial services to companies regardless of industry. While similar regulations had been developed by the federal government under the Trump Administration, the Biden Administration has either suspended or repealed such rulemakings. For example, in November 2022, the Department of Labor published a final rule clarifying that consideration of ESG factors in investment decisions is permissible for ERISA fiduciaries. As such, the final status of efforts to divest or promote the divestment from the fossil fuel extraction market is unclear, but any such efforts may adversely affect the demand for and price of our securities and impact our access to the capital and financial markets.

Additionally, in March 2022, the SEC proposed new rules relating to the disclosure of a range of climate-related risks and other information. To the extent this rule is finalized as proposed, we and/or our customers could incur increased costs related to the assessment and disclosure of climate-related information. Certain states are also adopting or considering adopting climate change-related disclosure requirements, for example California recently adopted legislation regarding climate change-related risk and greenhouse gas emissions disclosures, and other states are looking at similar legislation or regulation. Enhanced climate disclosure requirements could also accelerate any trend by certain stakeholders and capital providers to restrict or seek more stringent conditions with respect to their financing of certain carbon intensive sectors.

Any future laws, regulations or other policies of the nature described above may adversely impact our business in material ways. The degree to which any particular law, regulation or policy impacts us will depend on several factors, including the substantive terms involved, the relevant time periods for enactment and any related transition periods. We routinely attempt to evaluate the potential impact on us of any proposed laws, regulations or policies, which requires that we make several material assumptions. From time to time, we determine that the impact of one or more such laws, regulations or policies, if adopted and ultimately implemented as proposed, may result in materially adverse impacts on our operations, financial condition or cash flow. In general, it is likely that any future laws, regulations or other policies aimed at reducing greenhouse gas emissions will negatively impact demand for our coal and future laws, regulations and other policies expanding our reporting obligations are likely to increase costs associated with our legal compliance, which may become significantly burdensome for our business.

Increased attention to ESG matters could adversely impact our business and the value of the company.

Increasing attention to climate change, societal expectations on companies to address climate change, investor and societal expectations regarding voluntary ESG disclosures, and consumer demand for alternative forms of energy, including changes in general energy consumption patterns attributable to energy conservation trends, may result in negative views with respect to ESG that could result in a low ESG scores or ratings for the Company, which could harm the perception of our Company by certain investors, or could result in the exclusion of our securities from consideration by those investors.

Certain financial institutions, including banks and insurance companies, have taken actions to limit available financing, insurance and other services to entities that produce or use fossil fuels. Additionally, some investors and financial institutions use ESG or sustainability scores, ratings and benchmarking studies provided by various organizations that assess corporate performance and governance related to environmental and social matters, including climate change, in making their financing and voting decisions. Companies in the energy industry, and in particular those focused on coal, natural gas or petroleum extraction and refining unsurprisingly often have lower ESG or sustainability scores or ratings compared to companies in other industries. These lower scores or ratings may have adverse consequences including, but not limited to:

- restricting our ability to access capital and financial markets in the future or increasing our cost of capital;
- reducing the demand and price for our securities;
- increasing the cost of borrowing;
- causing a decline in our credit ratings or a substantially lower credit rating than a company with a similar balance sheet in a different industry;
- reducing the availability, and/or increasing the cost of, third-party insurance;
- increasing our retention of risk through self-insurance; and
- making it more difficult to obtain surety bonds, letters of credit, bank guarantees or other financing.

ESG expectations, including both the matters in focus and the management of such matters, continue to evolve rapidly. For example, in addition to climate change, there is increasing attention on topics such as diversity and inclusion, human rights, and human and natural capital, in companies' own operations as well as their supply chains. In addition, perspectives on the efficacy of ESG considerations continue to evolve, and we cannot currently predict how regulators', investors' and other stakeholders' views on ESG matters may affect the regulatory and investment landscape and affect our business, financial condition, and results of operations. While we may publish voluntary disclosures regarding ESG matters or take other actions from time to time, in an effort to improve the ESG profile of our operations or products, we cannot guarantee that these efforts will have the desired effect. For example, our voluntary disclosures may include statements based on assumptions, estimates or third-party information we currently believe to be reasonable, but which may subsequently be erroneous or misinterpreted. In addition, we may commit to certain ESG initiatives over time, and we may not ultimately be able to achieve our goals or reach our commitments, either on the timeframes or costs initially anticipated or at all, due to factors that within or outside of our control. If we do not, or are perceived to not, adapt or comply with investor or stakeholder expectations and standards on ESG matters, we may suffer from reputational damage and an increased risk of litigation or activism, and our business, financial condition and results of operations could be materially and adversely affected. Any reputational damage associated with ESG factors may also adversely impact our ability to recruit and retain employees and customers. In addition, we anticipate that there may be increased levels of regulation, disclosure-related and otherwise, with respect to ESG matters, which will likely lead to increased compliance costs, as well as scrutiny that could heighten all of the risks identified in this risk factor. Such ESG matters may also affect our suppliers or customers, which could augment or cause additional impacts to our business or operations.

Our failure to obtain and renew permits necessary for our mining operations could negatively affect our business.

Mining companies must obtain numerous permits that impose strict regulations on various environmental and operational matters in connection with coal mining. These include permits issued by various federal, state and local agencies and regulatory bodies. The permitting rules, and the interpretations of these rules, are complex, change frequently and are often subject to discretionary interpretations by the regulators, all of which may make compliance more difficult or impractical, and may possibly preclude the continuance of ongoing operations or the development of future mining operations. The public, including non-governmental organizations, anti-mining groups and individuals, have certain statutory rights to comment upon and submit objections to requested permits and environmental impact statements prepared in connection with applicable regulatory processes, and otherwise engage in the permitting process, including bringing citizens' lawsuits to challenge the issuance of permits, the validity of environmental impact statements or the performance of mining activities. Accordingly, required permits may not be issued or renewed in a timely fashion or at all, or permits issued or renewed may be conditioned in a manner that may restrict our ability to efficiently and economically conduct our mining activities, any of which could materially reduce our production, cash flow and profitability.

Federal or state regulatory agencies have the authority to order certain of our mines to be temporarily or permanently closed under certain circumstances, which could materially and adversely affect our ability to meet our customers' demands.

Federal and state regulatory agencies each have the authority, under certain circumstances following significant health and safety incidents, such as fatalities, to order a mine to be temporarily or permanently closed. If this occurred, we may be required to incur capital expenditures to re-open the mine. In the event that these agencies order the closing of our mines, our coal sales contracts generally permit us to issue *force majeure* notices which suspend our obligations to deliver coal under these contracts. However, our customers may challenge our issuances of *force majeure* notices. If these challenges are successful, we may have to purchase coal from third-party sources, if it is available, to fulfill these obligations, incur capital expenditures to re-open the mines and/or negotiate settlements with the customers, which may include price or commitment reductions, extensions of time for delivery or terminations of customers' contracts. Any of these actions could have a material adverse effect on our business and results of operations.

Extensive environmental regulations impose significant costs on our mining operations, and future regulations could materially increase those costs or limit our ability to produce and sell coal.

The coal mining industry is subject to increasingly strict regulation by federal, state and local authorities with respect to environmental matters such as:

- limitations on land use;
- mine permitting and licensing requirements;
- reclamation and restoration of mining properties after mining is completed and required surety bonds or other instruments to secure those reclamation and restoration obligations;
- management of materials generated by mining operations;
- the storage, treatment and disposal of wastes;
- remediation of contaminated soil and groundwater;
- air quality standards;
- water pollution;
- protection of human health, plant-life and wildlife, including endangered or threatened species;
- protection of wetlands;
- the discharge of materials into the environment;
- subsidence;
- the effects of mining on surface water and groundwater quality and availability; and
- the management of electrical equipment containing polychlorinated biphenyls.

The costs, liabilities and requirements associated with the laws and regulations related to these and other environmental matters may be costly and time-consuming and may delay commencement or continuation of exploration or production operations. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of cleanup and site restoration costs and liens, the issuance of injunctions to limit or cease operations, the suspension or revocation of permits and other enforcement measures that could have the effect of limiting production from our operations. We may incur material costs and liabilities resulting from claims for damages to property or injury to persons arising from our operations. If we are pursued for sanctions, costs or liabilities in respect of these matters, our profitability could be materially and adversely affected.

New legislation or administrative regulations or new judicial interpretations or administrative enforcement of existing laws and regulations, including proposals related to the protection of the environment that would further regulate and tax the coal industry, may also require us to change operations significantly or incur increased costs, which could have a material adverse effect on our financial condition and results of operations. Please refer to the section entitled “Environmental and Other Regulatory Matters” in Item 1 for more information about the various governmental regulations affecting us.

If the assumptions underlying our estimates of reclamation and mine closure obligations are inaccurate, our costs could be greater than anticipated.

SMCRA and counterpart state laws and regulations establish operational, reclamation and closure standards for all aspects of surface mining, as well as most aspects of underground mining. We base our estimates of reclamation and mine closure liabilities on permit requirements, engineering studies and our engineering expertise related to these requirements. Our management and engineers periodically review these estimates. Actual costs can vary from our original estimates if our assumptions are incorrect, major operational changes are implemented, or if governmental regulations change significantly. We are required to record new obligations as liabilities at fair value under U.S. GAAP. In estimating fair value, we consider the estimated current costs of reclamation and mine closure and applied inflation rates, together with third-party profit, as required. The third-party profit is an estimate of the approximate markup that would be charged by contractors for work performed on our behalf. The resulting estimated reclamation and mine closure obligations could change significantly if actual amounts change significantly from our assumptions, which could have a material adverse effect on our results of operations and financial condition.

Our operations may impact the environment or cause exposure to hazardous substances, and our properties may have environmental contamination, which could result in material liabilities to us.

Our operations currently use hazardous materials and generate hazardous wastes from time to time. We could become subject to claims for toxic torts, natural resource damages and other damages as well as for the investigation and cleanup of soil, surface water, groundwater, and other media. Such claims may arise, for example, out of conditions at sites that we currently own or operate, as well as at sites that we previously owned or operated, or at sites that we may acquire. Under certain federal and state environmental laws, our liability for such conditions may be joint and several with other owners/operators, so that we may be held responsible for more than our share of the contamination or other damages, or even for the entire share. Liability under these laws is generally strict. Accordingly, we may incur liability without regard to fault or to the legality of the conduct giving rise to the conditions.

We maintain extensive coal refuse areas and slurry impoundments at a number of our mining complexes. Such areas and impoundments are subject to extensive regulation. Slurry impoundments can fail, which could release large volumes of coal slurry into the surrounding environment. Structural failure of an impoundment can result in extensive damage to the environment and natural resources, such as bodies of water that the coal slurry reaches, as well as liability for related personal injuries and property damages, and injuries to wildlife. Some of our impoundments overlie mined-out areas, which can pose a heightened risk of failure and of damages arising out of failure. If one of our impoundments were to fail, we could be subject to substantial claims for the resulting environmental contamination and associated liability, as well as for fines and penalties.

Drainage flowing from or caused by mining activities can be acidic with elevated levels of dissolved metals, a condition referred to as “acid mine drainage,” which we refer to as AMD. The treating of AMD can be costly. Although we do not currently face material costs associated with AMD, it is possible that we could incur significant costs in the future.

These and other similar unforeseen impacts that our operations may have on the environment, as well as exposures to hazardous substances or wastes associated with our operations, could result in costs and liabilities that could materially and adversely affect our business, financial condition and results of operations.

Changes in the legal and regulatory environment could complicate or limit our business activities, increase our operating costs or result in litigation.

The conduct of our businesses is subject to various laws and regulations administered by federal, state and local governmental agencies in the United States. These laws and regulations may change, sometimes dramatically, as a result of political, economic or social events or in response to significant events. Environmental and other non-governmental organizations and activists, many of which are well funded, continue to exert pressure on regulators and other government bodies to enact more stringent laws and regulations. For instance, increasing attention to global climate change has resulted in an increased possibility of governmental investigations and, potentially, private litigation against us and our customers. For example, claims have been made against certain energy companies alleging that greenhouse gas emissions constitute a public nuisance or that such companies have been aware of the adverse effects of greenhouse gas emissions for some time but failed to adequately disclose such impacts to consumers or investors. While our business is not a party to any such litigation, we could be named in actions making similar allegations. Moreover, the proliferation of successful climate change litigation could adversely impact demand for coal and ultimately have a material adverse effect on our business, financial condition and results of operations. Changes in the legal and regulatory environment in which we operate may impact our results, increase our costs or liabilities, complicate or limit our business activities or result in litigation. Such legal and regulatory environment changes may include changes in such items as: the processes for obtaining or renewing permits; federal Lease By Application (“LBA”) programs; costs associated with providing healthcare benefits to employees; health and safety standards; accounting standards; disclosure requirements; taxation requirements; competition laws; and trade policies, including policies concerning tariffs, quotas, trade barriers and other trade protection measures.

Risks Related to Income Taxes

Our ability to use net operating losses is subject to a current limitation, and may be subject to additional limitations in the future.

Our ability to use our net operating losses (“NOLs”) in existence immediately prior to our emergence from bankruptcy in 2016 has been limited by the “ownership change” under Section 382 of the Internal Revenue Code (the “Code”) that occurred as a result of such emergence (the “Emergence Ownership Change”). NOLs generated after the Emergence Ownership Change are generally not subject to limitations, except as noted below.

For U.S. federal income tax purposes, NOLs generated in taxable years beginning after December 31, 2017 are not subject to expiration; however, such NOLs are limited to offsetting 80% of our U.S. federal taxable income.

If we undergo an additional “ownership change” under Section 382 of the Code (very generally defined as a greater than 50% change, by value, in equity ownership by certain shareholders or groups of shareholders over a rolling three-year period), such ownership change may impose further limitations on our ability to use any NOLs in existence immediately prior to such ownership change. We may experience ownership changes as a result of subsequent shifts in our stock ownership. Future legal or regulatory changes could also limit our ability to utilize our NOLs. To the extent we are not able to offset future taxable income with our NOLs, our net income and cash flows may be adversely affected.

U.S. tax legislation may materially adversely affect our financial condition, results of operations and cash flows.

Our consolidated effective income tax rate could be materially adversely affected by changing tax laws and regulations (such as the enactment of the Inflation Reduction Act which, among other changes, introduced a 15% corporate minimum tax on certain United States corporations and a 1% excise tax on certain stock repurchases by United States corporations) or the interpretation thereof, the practices of tax authorities in jurisdictions in which we operate, and the resolution of issues arising from tax audits or examinations and any related interest or penalties.

We are unable to predict what tax reforms may be proposed or enacted in the future or what effect such changes would have on our business, but such changes, to the extent they are brought into tax legislation, regulations, policies or practices in jurisdictions in which we operate, could adversely affect our future results of operations, reduce post-tax returns to our stockholders and increase the complexity, burden and cost of tax compliance.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 1C. CYBERSECURITY

Cybersecurity Risk Management and Strategy

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information.

We design and assess our program based on the National Institute of Standards and Technology Cybersecurity Framework (NIST CSF). This does not imply that we meet any particular technical standards, specifications, or requirements, but rather that we use the NIST CSF as a guide to help us identify, assess, and manage cybersecurity risks relevant to our business.

Our cybersecurity risk management program is integrated into our overall enterprise risk management program, and shares common methodologies, reporting channels and governance processes that apply across the enterprise risk management program to other legal, compliance, strategic, operational, and financial risk areas.

Key aspects of our cybersecurity risk management program include:

- risk assessments designed to help identify material cybersecurity risks to our critical systems and information;
- a security team principally responsible for managing (1) our cybersecurity risk assessment processes, (2) our security controls, and (3) our response to cybersecurity incidents;
- the use of external service providers, where appropriate, to assess, test or otherwise assist with aspects of our security controls;
- cybersecurity awareness training for our employees, incident response personnel, and senior management;
- a cybersecurity incident response plan that includes procedures for responding to cybersecurity incidents; and
- a process to review the cybersecurity risk profile and operational criticality of the key service providers and to seek appropriate contractual cybersecurity protections.

We have not identified risks from known cybersecurity threats, including as a result of any prior cybersecurity incidents, that have materially affected us, including our operations, business strategy, results of operations, or financial condition. We face ongoing risks from certain cybersecurity threats that, if realized, are reasonably likely to materially affect us, including our operations, business strategy, results of operations, or financial condition. See Item 1A, “Risk Factors – Serious cyber-attacks or other security incidents that disrupt our operations or compromise proprietary or confidential information could expose us to significant liability, reputational harm, loss of revenue, increased costs and material risks to our business and results.”

Cybersecurity Governance

Our Board of Directors considers cybersecurity risk as part of its risk oversight function and has delegated to its Audit Committee oversight of cybersecurity and other information technology risks. Our Audit Committee oversees management’s implementation of our cybersecurity risk management program.

Our Audit Committee receives periodic reports from management on our cybersecurity risks. In addition, management updates our Audit Committee, as necessary, regarding significant cybersecurity incidents. Our Audit Committee reports to the full Board of Directors regarding its activities, including those related to cybersecurity. Our Board of Directors also receives briefings from management on our cybersecurity risk management program. Board members receive presentations on cybersecurity topics from IT leadership, which includes our Senior Vice President & Chief Administrative Officer and our Vice President of IT and CIO, or external experts as part of the Board’s continuing education on topics that impact public companies.

Our Computer Security Incident Response Team (“CSIRT”) is responsible for coordinating and executing on the cybersecurity response procedures and for seeking assistance from other Company stakeholders and external advisors. Our CSIRT includes IT leadership, an Incident Commander, our Senior Vice President & Chief Financial Officer, Legal counsel, Human Resources, and Internal Audit. The team has primary responsibility for our overall cybersecurity risk management program and supervises both our internal cybersecurity personnel and our retained external cybersecurity consultants. Our management team includes our Vice President of IT and CIO, who has over 20 years of experience in IT with direct experience overseeing our IT security team for the past two years.

Our management team and IT leadership stay informed about and monitor efforts to prevent, detect, mitigate, and remediate cybersecurity risks and incidents through various means, which may include briefings from internal security personnel, threat intelligence and other information obtained from governmental, public or private sources, including external consultants engaged by us, and alerts and reports produced by security tools deployed in the IT environment.

ITEM 2. PROPERTIES.

Disclosure of Mineral Reserves and Resources

In October 2018, the Securities and Exchange Commission (“SEC”) adopted amendments to its current disclosure rules to modernize the mineral property disclosure requirements for mining registrants. The amendments include the adoption of S-K 1300, which will govern disclosure for mining registrants (the “SEC Mining Modernization Rules”). The SEC Mining Modernization Rules replace the historical property disclosure requirements for mining registrants that were included in the SEC’s Industry Guide 7 and better align disclosure with international industry and regulatory practices.

Descriptions in this report of our mineral deposits are prepared in accordance with S-K 1300, as well as similar information provided by other issuers in accordance with S-K 1300, may not be comparable to similar information that is presented elsewhere outside of this report. Leer, Leer South, and Black Thunder were considered material properties. The Leer South Technical Report Summary was updated in 2023 because there was a material change in the mine plan. As there have been no material changes in the mineral reserves or mineral resources for our Leer Mine and Black Thunder Mine, we are not filing updated technical summary reports for those locations in connection with this annual report on form 10-K. Please refer to the Technical Report Summaries filed as exhibits hereto for additional information with respect to our material properties and Material Mining Properties section below.

The qualified persons that have reviewed and approved the scientific and technical information contained in this annual report are identified in the footnotes to the tables summarizing the mineral reserves and resources estimates below. Our coal reserve estimates at December 31, 2023 were prepared by our engineers and geologists and reviewed by Weir International, Inc. and Marshall Miller and Associates, Inc., which are third party mining and geological consultants. Internally qualified personnel were used for all non-material properties and selected resources.

Refer to Item 1. Business “Our Mining Operations” for further discussion regarding our active mining complexes as of December 31, 2023, including the total tons sold associated with these complexes, mining type, mining equipment, location, existing infrastructure, total cost of property, plant and equipment of each mining complex.

Presentation of information concerning Mineral Reserves

The estimates of proven and probable reserves at our mines and the estimates of mine life included in this annual report have been prepared by the qualified persons referred to herein, and in accordance with the technical definitions established by the SEC. Under S-K 1300:

- Proven mineral reserves are the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.
- Probable mineral reserves are the economically mineable part of an indicated and, in some cases, a measured mineral resource.
- Indicated mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.
- Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors

likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project, and may not be converted to a mineral reserve.

- Measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in S-K 1300, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

We periodically revise our reserves and resources estimates when we have new geological data, economic assumptions or mining plans. During 2023, we performed an analysis of our reserves and resources estimates for certain operations, which is reflected in new estimates as of December 31, 2023. Reserves and resource estimates for each operation assume that we either have or expect to obtain all the necessary rights and permits to mine, extract and process mineral reserves or resources at each mine. Certain figures in the tables, discussions and notes have been rounded. For a description of risks relating to our estimates of mineral reserves and resources, see our “Risk Factors” within Item 1A.

Our Properties

The following table provides a summary of information regarding our active mining complexes as of December 31, 2023:

<u>Mine⁽¹⁾</u>	<u>Location</u>	<u>Ownership</u>	<u>Operator</u>	<u>Stage of Development</u>	<u>Mine Type</u>	<u>Processing Plant</u>
Leer ⁽²⁾	Taylor County, WV	100%	ICG Tygart Valley	Production	Underground	Yes
Leer South ⁽³⁾	Barbour County, WV	100%	Wolf Run Mining LLC	Production	Underground	Yes
Beckley	Raleigh County, WV	100%	ICG Beckley LLC	Production	Underground	Yes
Mountain Laurel	Logan County, WV	100%	Mingo Logan LLC	Production	Underground	Yes
Black Thunder ⁽⁴⁾	Campbell County, WY	100%	Thunder Basin Coal Company L.L.C.	Production	Surface	No
Coal Creek	Campbell County, WY	100%	Thunder Basin Coal Company L.L.C.	Production	Surface	No
West Elk	Gunnison County, CO	100%	Mountain Coal Company L.L.C.	Production	Underground	Yes

- (1) The Mineral Reserve estimates with respect to our mines have been prepared by the qualified persons referred to herein. Refer to Item 1. Business “Our Mining Operations” on the title process. Refer to Item 1. Business “Environmental and Other Regulatory Matters” for discussion on the permitting process.
- (2) Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves. The qualified person for Mineral Reserves is Weir Consulting, an independent mining firm. Mineral reserves are estimated at average sales price per short ton FOB mine of \$110.18 and average cash cost per short ton of \$59.94. Refer to Exhibit 96.1 Technical Report Summary for Leer Mine – S-K 1300 Report.
- (3) Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves. The qualified person for Mineral Reserves is Marshall Miller & Associates, an independent mining firm. Mineral reserves are estimated at average sales price per short ton FOB mine of \$150.30 and average cash cost per short ton of \$75.99. Refer to Exhibit 96.1 Technical Report Summary for Leer South Mine – S-K 1300 Report.
- (4) Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves. The qualified person for Mineral Reserves is Weir Consulting, an independent mining firm. Mineral reserves are estimated at average sales price per short ton FOB mine of \$14.67 and average cash cost per short ton of \$12.46. Refer to Exhibit 96.1 Technical Report Summary for Black Thunder Mine – S-K 1300 Report.

At December 31, 2023, we owned or controlled, primarily through long-term leases, approximately 28,292 acres of coal land in Ohio, 952 acres of coal land in Maryland, 10,095 acres of coal land in Virginia, 303,811 acres of coal land in West Virginia, 75,874 acres of coal land in Wyoming, 230,607 acres of coal land in Illinois, 32,667 acres of coal land in Kentucky, 362 acres of coal land in Montana, 248 acres of coal land in Pennsylvania, and 19,018 acres of coal land in Colorado. In addition, we also owned or controlled through long-term leases smaller parcels of property in Alabama, Indiana, Washington, Arkansas, California, Utah and Texas. We lease approximately 57,863 acres of our coal land from the federal government and approximately 15,318 acres of our coal land from various state governments. Certain of our preparation plants or loadout facilities are located on properties held under leases which expire at varying dates over the next 30 years. Most of the leases contain options to renew. Our remaining preparation plants and loadout facilities are located on property owned by us or for which we have a special use permit.

Our executive headquarters occupies leased office space at 1 CityPlace Drive, in St. Louis, Missouri. Our subsidiaries currently own or lease the equipment utilized in their mining operations. You should see Item 1, “Our Mining Operations” for more information about our mining operations, mining complexes and transportation facilities.

Our Coal Reserves

We estimate that we owned or controlled approximately 0.9 billion tons of recoverable mineral reserves and 1.2 billion tons of measurable and indicated resources at December 31, 2023. Our coal reserve estimates at December 31, 2023 were prepared by our engineers and geologists and reviewed by Weir International, Inc., a mining and geological consultant. Our coal reserve estimates are based on data obtained from our drilling activities and other available geologic data. Our coal reserve estimates are periodically updated to reflect past coal production and other geologic and mining data. Acquisitions or sales of coal properties will also change these estimates. Changes in mining methods or the utilization of new technologies may increase or decrease the recovery basis for a coal seam.

Our coal reserve estimates include reserves that can be economically and legally extracted or produced at the time of their determination. In determining whether our reserves meet this standard, we take into account, among other things, our potential inability to obtain a mining permit, the possible necessity of revising a mining plan, changes in estimated future costs, changes in future cash flows caused by changes in costs required to be incurred to meet regulatory requirements and obtaining mining permits, variations in quantity and quality of coal, and varying levels of demand and their effects on selling prices. We use various assumptions in preparing our estimates of our coal reserves. You should see “Inaccuracies in our estimates of our coal reserves could result in decreased profitability from lower than expected revenues or higher than expected costs” contained in Item 1A, “Risk Factors.”

The following table shows our estimates of Mineral Reserves as of December 31, 2023 prepared in accordance with Subpart 1300 of Regulation S-K.

**Total Mineral Reserves
(Tons in millions)**

Product / Region / Mine	Representative Coal Quality	Recoverable Mineral Reserves (million tons)		Total
		Proven	Probable	
Metallurgical Coal				
Central Appalachia				
Beckley	1	21.9	3.4	25.3
Mountain Laurel	3	9.3	7.3	16.6
VA, Royalty	2	0.4	—	0.4
Total Central Appalachia		31.6	10.7	42.3
Northern Appalachia				
Leer	3	11.4	24.7	36.1
Leer South	3	44.7	18.0	62.7
Other Northern Appalachia	3	47.8	31.0	78.8
Total Northern Appalachia		103.9	73.7	177.6
Total Metallurgical Coal		135.5	84.4	219.9
Thermal Coal				
Colorado				
West Elk	4	35.0	3.2	38.2
Illinois Basin, Royalty	5	137.9	33.5	171.4
Wyoming				
Black Thunder	6	419.0	1.0	420.0
Total Wyoming		419.0	1.0	420.0
Total Thermal Coal		591.9	37.7	629.6
Total Coal		727.4	122.1	849.5

(1) Low-Vol

(2) Mid-Vol

(3) High-Vol

(4) 11,500 BTU/lbs.; 0.90 lbs. SO₂/MMBTU

(5) 11,200 BTU/lbs.; 4.95 lbs. SO₂/MMBTU

(6) 8,900 BTU/lbs.; 0.66 lbs. SO₂/MMBTU

(7) The Mineral Reserve estimates with respect to our mines have been prepared by the qualified persons referred to herein.

The following table shows our estimates of Mineral Resources as of December 31, 2023 prepared in accordance with Subpart 1300 of Regulation S-K.

Total Mineral Resources (Tons in millions)		In-Place Mineral Resources (million tons)			
		Measured	Indicated	Measured + Indicated	Inferred
Product / Region / Mine	Representative Coal Quality	Measured	Indicated	Measured + Indicated	Inferred
Metallurgical Coal					
Central Appalachia					
Mountain Laurel	3	2.5	17.4	19.9	22.5
VA, Royalty	2	16.3	—	16.3	—
Total Central Appalachia		18.8	17.4	36.2	22.5
Northern Appalachia					
Leer	3	2.6	12.6	15.2	4.9
Leer South	3	8.9	4.0	12.9	—
Other Northern Appalachia	3	77.5	105.0	182.6	0.9
Total Northern Appalachia		89.0	121.6	210.7	5.8
Total Metallurgical Coal		107.8	139.0	246.9	28.3
Thermal Coal					
Colorado					
West Elk Mine	4	51.2	10.7	61.9	—
Illinois Basin					
Macoupin County, IL	5	—	170.6	170.6	—
Other Illinois Basin	6	21.4	106.0	127.4	56.2
Total Illinois Basin		21.4	276.6	298.0	56.2
Wyoming					
Black Thunder	7	200.0	5.0	205.0	—
Coal Creek	8	126.5	1.2	127.7	—
Other Campbell County	9	266.0	10.4	276.4	—
Total Wyoming		592.5	16.6	609.1	—
Total Thermal Coal		665.1	303.9	969.0	56.2
Total Coal		772.9	442.9	1,215.9	84.5

(1) Low-Vol

(2) Mid-Vol

(3) High-Vol

(4) 11,390 Btu/lb; 0.9 lb SO₂/Mbtu

(5) 11,565 BTU/lbs, 9.7 lbs. SO₂/MMBTU

(6) 10,200 - 11,900 BTU/lbs; 6.1 - 9.3 lbs. SO₂/MMBTU

(7) 8,985 BTU/lbs.; 0.6 lbs. SO₂/MMBTU

(8) 8,175 BTU/lbs.; 0.8 lbs. SO₂/MMBTU

(9) 8,200 – 9,100 BTU/lbs.; 0.6 - 0.9 lbs. SO₂/MMBTU

(10) The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Resources are not mineral reserves and do not have demonstrated economic viability.

Federal and state legislation controlling air pollution affects the demand for certain types of coal by limiting the amount of sulfur dioxide which may be emitted as a result of fuel combustion and encourages a greater demand for low-sulfur coal. All of our identified coal reserves have been subject to preliminary coal seam analysis to test sulfur content. Of these reserves, approximately 56% consist of compliance coal, or coal which emits 1.2 pounds or less of sulfur dioxide per million Btus upon combustion, while an additional approximately 15% could be sold as low-sulfur coal. The balance is classified as high-sulfur coal. Most of our reserves are suitable for the domestic steam coal markets. A substantial portion of the low-sulfur and compliance coal reserves at a number of our Appalachian mining complexes may also be used as metallurgical coal.

The carrying cost of our coal reserves at December 31, 2023 was \$221.0 million, consisting of \$5.5 million of prepaid royalties and a net book value of coal lands and mineral rights of \$215.5 million.

Our coal reserve and resource estimates are updated periodically to reflect coal production, acquisitions and dispositions of mineral interests, new drilling, mine or geological data, and changes in regulations, market conditions or other economic factors. As coal seams in the United States have been mined for many years and are well established, we do not conduct material exploration activity. However, we periodically conduct drilling of additional core holes to provide additional geological evidence as part of our routine mine permitting and planning processes. The following is a summary of the changes in our coal reserves and resources for the year-ended December 31, 2023:

Change in Coal Reserves (Tons in millions)						
Mine	Year ended December 31, 2022	Acquired/Leased	Production	Change in Mine Plan	Other	Year ended December 31, 2023
Product / Region / Mine						
Metallurgical Coal						
Central Appalachia						
Beckley	19.6	0.1	(1.1)	5.9	0.8	25.3
Mountain Laurel	16.7	-	(1.0)	0.9	0.0	16.6
VA, Royalty	0.6	-	(0.2)	-	-	0.4
Total Central Appalachia	36.9	0.1	(2.3)	6.8	0.8	42.3
Northern Appalachia						
Leer	42.4	-	(4.4)	0.4	(2.3)	36.1
Leer South	66.6	-	(2.8)	(1.7)	0.6	62.7
Other Northern Appalachia	78.7	-	-	-	0.1	78.8
Total Northern Appalachia	187.7	-	(7.2)	(1.3)	(1.6)	177.6
Total Metallurgical Coal	224.6	0.1	(9.5)	5.5	(0.8)	219.9
Thermal Coal						
Colorado						
West Elk	48.1	-	(3.2)	(6.5)	(0.2)	38.2
Illinois Basin, Royalty	175.0	-	(3.6)	-	-	171.4
Wyoming						
Black Thunder	480.0	-	(60.5)	-	0.5	420.0
Total Wyoming	480.0	-	(60.5)	-	0.5	420.0
Total Thermal Coal	703.1	-	(67.3)	(6.5)	0.3	629.6
Total Coal	927.7	0.1	(76.8)	(1.0)	(0.5)	849.5

Change in Coal Resources (Tons in millions)

Mine	Year ended December 31, 2022	Acquired/Leased	Production	Change in Mine Plan	Other	Year ended December 31, 2023
Product / Region / Mine						
Metallurgical Coal						
Central Appalachia						
Mountain Laurel	42.8	-	-	-	(0.4)	42.4
VA, Royalty	16.3	-	-	-	-	16.3
Total Central Appalachia	59.1	-	-	-	(0.4)	58.7
Northern Appalachia						
Leer	19.4	-	-	-	0.7	20.1
Leer South	12.9	-	-	-	-	12.9
Other Northern Appalachia	193.8	-	-	-	(10.3)	183.5
Total Northern Appalachia	226.1	-	-	-	(9.6)	216.5
Total Metallurgical Coal	285.2	-	-	-	(10.0)	275.2
Thermal Coal						
Colorado						
West Elk Mine	-	-	-	-	61.9	61.9
Illinois Basin						
Macoupin County, IL	170.6	-	-	-	-	170.6
Other Illinois Basin	183.6	-	-	-	-	183.6
Total Illinois Basin	354.2	-	-	-	-	354.2
Wyoming						
Black Thunder	205.0	-	-	-	-	205.0
Coal Creek	130.3	-	(2.6)	-	-	127.7
Other Campbell County	276.4	-	-	-	-	276.4
Total Wyoming	611.7	-	(2.6)	-	-	609.1
Total Thermal Coal	965.9	-	(2.6)	-	61.9	1,025.2
Total Coal	1,251.1	-	(2.6)	-	51.9	1,300.4

Material Mining Properties

The information that follows relating our material properties: Leer, Leer South, Black Thunder – is derived from, and in some instances is an extract from, the technical report summaries (“TRSS”) relating to such properties prepared in compliance with 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 TRSS, incorporated herein by reference and made a part of this Annual Report on Form 10-K.

The following table shows our estimates of Mineral Reserves as of December 31, 2023 prepared in accordance with Subpart 1300 of Regulation S-K for our material mining properties:

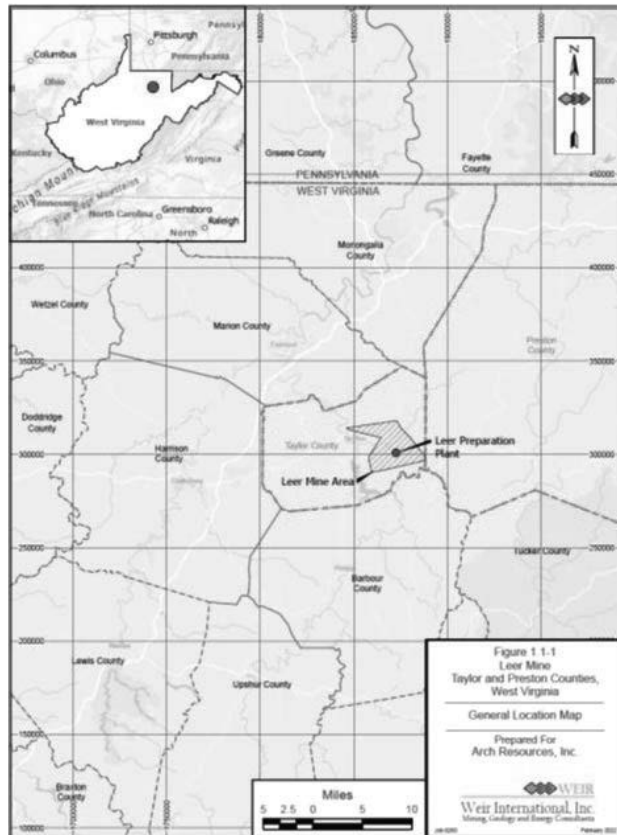
Product / Region / Mine	Recoverable Mineral Reserves (As-Received)			2022 Total	Percentage Change	Notes
	(million tons)					
	Proven	Probable	2023 Total			
Metallurgical Coal						
Northern Appalachia						
Leer	11.4	24.7	36.1	42.4	(14.9)%	1,2
Leer South	44.7	18.0	62.7	66.6	(5.9)%	1,2
Thermal Coal						
Wyoming						
Black Thunder	419.0	1.0	420.0	480.0	(12.5)%	1,2

(1) Year 2023 production

(2) Modifications to Life of Mine Plan

Leer

Leer is located at approximately 39° 19' 59.8584" N Latitude and 79° 57' 30.7584" W Longitude, which is approximately 25 miles south of Morgantown, West Virginia, primarily in Taylor County, with minimal extension into Preston County, within the Northern West Virginia coal field of the NAPP Region of the United States. The USGS 7.5-minute quadrangle map sheets are Fairmont East, Gladesville, Grafton, and Thornton.



Leer is a permitted underground longwall mine that commenced production of metallurgical coal in the fourth quarter of 2011. The longwall mining method has been successfully utilized in the Northern Appalachia Region, and in other coal producing regions of the United States, since the 1960s. Longwall mining has the highest mining recovery of modern-day underground mining methods. Longwall mining includes room and pillar continuous mining to develop main entries, longwall headgates and tailgates, and retreat mining production panels.

Leer is mining the Lower Kittanning Seam and parting interval within the seam utilizing continuous miners to develop longwall panels to be mined using a longwall mining system. Leer is primarily sold as High-Vol A, and is part of approximately 93,000 acres that is considered our Tygart Valley area. Leer develops longwall districts (sets of adjacent longwall panels) with alphabetic designations.

Prior to the development of Leer, there was very little mining that occurred on the property. A small underground coal mine operated by the Thornton Fire Brick Company was located in the Upper Freeport Seam to the southeast of Thornton, West Virginia. This mine was located off of Three Fork Creek and operated in the early 1900s. The Thornton Fire Brick Company also operated a surface mine or "clay pit" near Thornton, West Virginia, mining fireclay for brickmaking in the early 1900s. Available maps show an underground mine, of limited extent, in the Lower

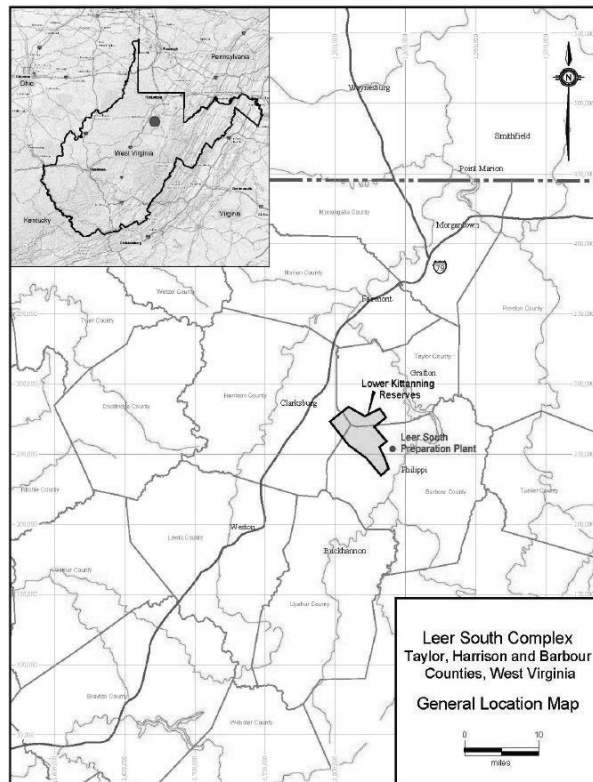
Kittanning Seam to the south of Leer on the east side of Frog Run. Available data shows this as Sterling Coal Company's Cecil coal mine, with mining shown to have occurred in the early 1900s.

Leer's surface facilities are located within the Leer permit area, near central area of the mid-north boundary of the permit. The surface facilities include mine administration, engineering and operations offices, coal preparation plant, rail loadout, mine maintenance facilities, warehouse facilities, parking lots, preparation plant waste disposal, settling ponds, and Leer slope portal access. The total disturbed area for the Leer surface facilities is approximately 200 acres.

All the production is processed through a 1,400 ton-per-hour preparation plant and loaded on the CSX railroad. A 15,000-ton train can be loaded in less than four hours. Sources of electrical power, water, supplies, and materials are readily available. Electrical power is provided to the mines and facilities by regional utility companies. Water is supplied by public water services, surface impoundments, or water wells. A total of approximately 553 non-unionized salary and hourly employees are assigned to Leer. The hourly labor force remains non-union and no change in this labor arrangement is anticipated in the short term. The total cost of Leer and its associated plant and equipment as of December 31, 2023 is approximately \$363.2 million.

Leer South

Leer South is located at approximately 39° 11' 55.0572" N Latitude and 80° 3' 33.5088" W Longitude, which is approximately located near Barbour, Harrison, and Taylor Counties in West Virginia. Leer South office is located north of the town of Philippi, the county seat of Barbour County, West Virginia. The nearest cities are Clarksburg and Bridgeport, approximately 17 miles to the northwest. The city of Buckhannon is located 26 miles to the south of the mine. Charleston, the state capital of West Virginia, is located approximately 136 miles southwest of the Property.



Leer South is a permitted underground longwall mine that commenced production of metallurgical coal in the third quarter of 2021. Leer South operation mines in the Lower Kittanning seam, has a preparation plant and a loadout facility located on approximately 26,600 acres in Barbour County, West Virginia.

Arch has obtained all mining and discharge permits to operate its mine and processing, loadout, and related support facilities. A significant portion of the reserves at Leer South are owned rather than leased from third parties. Since 1974, the Property has been controlled by various mining companies including (in chronological order: Republic Steel Corporation, Old Ben Coal Company, Black Diamond Energy Inc., Anker Mining Company (Anker), International Coal Group (ICG), and Arch. Mine development in the Clarion seam was started by ICG in 2006, and expansion into the Lower Kittanning seam was begun by Arch in 2018.

Due to its coal reserve and seam characteristics, Leer South operates using longwall mining methods. Resource and reserve models were therefore generated with longwall mining constraints in mind for Leer South's underground resources. The mine produces coal that is suitable for the high-volatile metallurgical coal markets and also produces a middlings product for consumption in thermal markets.

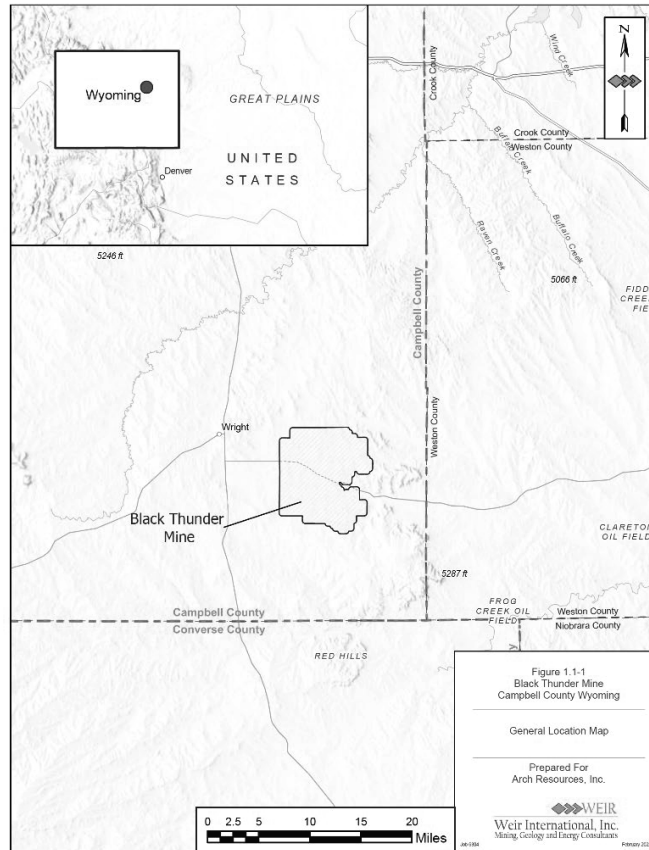
All the production is processed through a 1,600 ton-per-hour preparation plant and loaded on the CSX railroad. A 15,000-ton train can be loaded in less than four hours. Sources of electrical power, water, supplies, and materials are readily available. Electrical power is provided to the mines and facilities by regional utility companies. Water is supplied by public water services, surface impoundments, or water wells. The total cost of Leer South and its associated plant and equipment as of December 31, 2023 is approximately \$713.9 million. A total of approximately 611 non-unionized salary and hourly employees are assigned to Leer South.

Black Thunder

Black Thunder is located at approximately 43° 41' 49.8012" N Latitude and 105° 17' 20.3496" W Longitude, which is approximately 50 miles south of Gillette, Wyoming in Campbell County, within the PRB coal producing region of the United States. The United States Geological Survey (USGS) 7.5-minute quadrangle map sheets, upon which the Black Thunder can be found, are Hilight, Open A Ranch, Reno Reservoir, Piney Canyon NW, Teckla and Piney Canyon SW. The Black Thunder permit area includes approximately 35,300 acres of controlled mineral property.

Black Thunder surface facilities are located within the Black Thunder permit area, near the central area of the mid-north boundary of the permit. The surface facilities include mine administration, engineering, and operations offices, mine roads, laydown areas, ponds, crushers, rail loadouts, mine maintenance facilities, warehouse facilities, parking lots.

The total disturbed area for Black Thunder surface facilities is approximately 3,230 acres. The coal, backfill, and topsoil stockpiles represent approximately 5,300 additional acres of disturbed area.



We control a significant portion of the coal reserves through federal and state leases. All of the leases have a production royalty rate of 12.5 percent of the Gross Sales Price (GSP). The leases have a minimum royalty that must be paid annually in order to maintain the lease, with the exception of one lease, which has a one-time minimum royalty payment.

Prior to the development of Black Thunder, there was no mining that occurred on the property. Black Thunder is a surface coal mine utilizing draglines and truck/shovel mining equipment for overburden removal. The mine was opened by Atlantic Richfield Company (ARCO) in 1977 and has been operated under Thunder Basin Coal Company, LLC since that time. In 1998, Arch purchased all of ARCO’s domestic coal operations, which included the Thunder Basin Coal Company, Black Thunder. In 2004, Arch purchased the adjacent North Rochelle Mine from Triton Coal Company and merged it into Black Thunder. The former North Rochelle Mine facilities and reserves were subsequently sold to Peabody Coal Company in 2006. In 2009, Arch purchased the adjacent Jacobs Ranch Mine from Rio Tinto Coal and merged it into Black Thunder, which created a mining complex that produced 116.2 million tons of coal in 2010.

Black Thunder currently consists of four active pit areas and two active loadout facilities. We ship all of the coal raw to our customers via the Burlington Northern Santa Fe and Union Pacific railroads. We do not process the coal mined at this complex. Each of the loadout facilities can load a 15,000-ton train in less than two hours.

Mine facilities built by Atlantic Richfield Company included a rail spur and loadout loop, a loadout with two 12,500-ton silos, a 100,000-ton slot storage barn, two crusher locations, a coal analysis lab, maintenance shop, warehouse, bathhouse, reclamation shop, and an administrative building. Initial pit development was conducted with truck/shovel mining equipment, but ARCO subsequently added three draglines by the time the mine was acquired by Arch. The Jacobs

Ranch Mine also constructed mine facilities similar to those constructed by ARCO, however, as time progressed and mining moved farther west, these facilities, including the loadout, have been idled. The Jacobs Ranch Mine was historically one of the larger truck/shovel mines until a Bucyrus-Erie 2570W dragline with a 121 cubic yard bucket was brought on-line in 2006. Water is supplied by public water services, surface impoundments, or water wells. A total of approximately 1,010 non-unionized salary and hourly employees are assigned to Black Thunder. The total cost of Black Thunder and its associated plant and equipment as of December 31, 2023 is approximately \$260.2 million.

Internal Control Disclosure

Quality control procedures followed by Arch geologists are clearly defined. These procedures include the field geologist to be on site wherever drilling is occurring. On completion of a core run, the core is logged and the samples are sealed in plastic sample bags. These samples do not leave the geologists possession once they have been removed from the core barrel. The geologist is required to keep a written detailed log of each drill hole. Rock quality designation logs are to be prepared for roof and floor start for all underground mineable seams. The geologist's seam thickness measurements are checked against the geophysical logs for thickness accuracy and to confirm core recovery. In order to keep the chain of custody clear, the core samples are stored in a locked facility, that only Arch geologists have access to, until the core is delivered to the laboratory for analysis.

In our exploration and mineral resource and reserve estimation efforts, we utilize an American National Standards Institute (ANSI) certified third party laboratory, which has in-house quality control and assurance procedures. Once in possession of the samples, the laboratory standard sample preparation and security procedures are followed. After the sample has been tested, reviewed, and accepted, the disposal of the sample is done in accordance with local, state and EPA approved methods.

Weir International, Inc. (WEIR), an independent mining and geology engineering firm, has reviewed Arch's procedures and determined the sample preparation, security and analysis procedures used for the drill hole samples meet coal industry standards and practices for quality testing, with laboratory results suitable to use for geological modeling, mineral resource estimation and economic evaluation.

Year-end reserve estimates are and will continue to be reviewed by our Chief Executive Officer and other senior management, and revisions are communicated to our board of directors. Inaccuracies in our estimates of our coal reserves could result in decreased profitability from lower than expected revenue or higher than expected costs. Actual production recovered from identified reserve areas and properties, and revenue and expenditures associated with our mining operations, may vary materially from estimates.

Title to Coal Property

Title to coal properties held by lessors or grantors to us and our subsidiaries and the boundaries of properties are normally verified at the time of leasing or acquisition. However, in cases involving less significant properties and consistent with industry practices, title and boundaries are not completely verified until such time as our independent operating subsidiaries prepare to mine such reserves. If defects in title or boundaries of undeveloped reserves are discovered in the future, control of and the right to mine such reserves could be adversely affected. You should see "A defect in title or the loss of a leasehold interest in certain property or surface rights could limit our ability to mine our coal reserves or result in significant unanticipated costs" contained in Item 1A, "Risk Factors" for more information.

At December 31, 2023, approximately 33% of our coal reserves were held in fee, with the balance controlled by leases, most of which do not expire until the exhaustion of mineable and merchantable coal. Under current mining plans, substantially all reported leased reserves will be mined out within the period of existing leases or within the time period of assured lease renewals. Royalties are paid to lessors either as a fixed price per ton or as a percentage of the gross sales price of the mined coal. The majority of the significant leases are on a percentage royalty basis. In some cases, a payment is required, payable either at the time of execution of the lease or in annual installments. In most cases, the prepaid royalty amount is applied as a credit against future production royalty obligations.

From time to time, lessors or sublessors of land leased by our subsidiaries have sought to terminate such leases on the basis that such subsidiaries have failed to comply with the financial terms of the leases or that the mining and related operations conducted by such subsidiaries are not authorized by the leases. Some of these allegations relate to leases upon which we conduct operations material to our consolidated financial position, results of operations and liquidity, but we do not believe any pending claims by such lessors or sublessors have merit or will result in the termination of any material lease or sublease.

We leased approximately 73,431 acres of property to other coal operators in 2023. We received royalty income of \$9.1 million during 2023 from the mining of approximately 4.1 million tons, \$6.0 million during 2022 from the mining of approximately 3.1 million tons and \$5.2 million during 2021 from the mining of approximately 2.9 million tons on those properties. We have included reserves at properties leased by us to other coal operators in the reserve figures set forth in this report.

ITEM 3. LEGAL PROCEEDINGS.

We are involved in various claims and legal actions arising in the ordinary course of business, including employee injury claims. After conferring with counsel, it is the opinion of management that the ultimate resolution of these claims, to the extent not previously provided for, will not have a material effect on our consolidated financial condition, results of operations or liquidity.

ITEM 4. MINE SAFETY DISCLOSURES.

The statement concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this Annual Report on Form 10-K for the period ended December 31, 2023.

PART II

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

Our common stock is listed on the New York Stock Exchange ("NYSE") under the symbol "ARCH" and has been trading since October 5, 2016 upon our emergence from bankruptcy. No prior established public trading market existed for this newly issued common stock prior to this date. Based upon information provided by our transfer agent, as of January 8, 2024, we had 5 stockholders of Class A common stock and 1 stockholder of Class B common stock on record. As many of our shares are held by brokers and other institutions on behalf of shareholders, we are unable to estimate the total number of beneficial holders of our common stock represented by these record holders.

Holders of our common stock are entitled to receive dividends when they are declared by our Board of Directors. We paid dividends on our common stock totaling \$206.1 million in 2023, or \$10.66 per share. There is no assurance as to the amount or payment of dividends in the future because they will be subject to ongoing Board review and authorization will be based on a number of factors, including business and market conditions, the Company's future financial performance and other capital priorities.

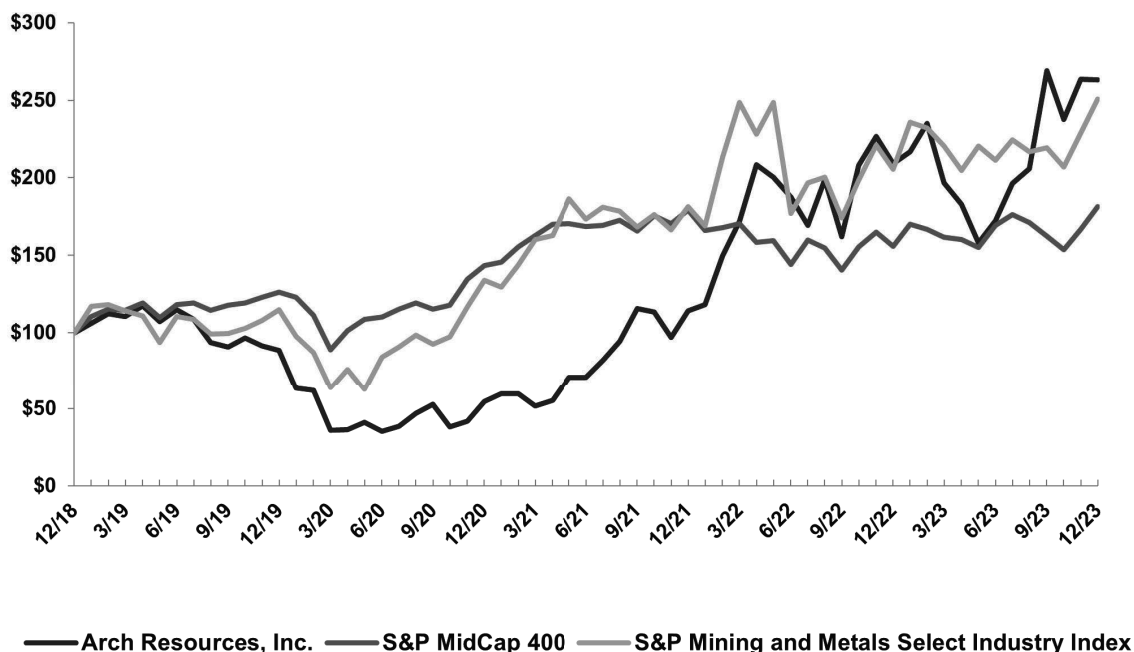
Stockholder Return Performance Presentation

The following graph compares the cumulative five year total return of holders of Arch Resources, Inc.'s common stock with the cumulative total returns of the S&P Midcap 400 index and the S&P Metals and Mining Select Industry index. The graph assumes that the value of the investment in our common stock, the S&P Midcap 400 index,

and the S&P Metals and Mining Select Industry index (including reinvestment of dividends) was \$100 on December 31, 2018 and tracks it through December 31, 2023.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Arch Resources, Inc., the S&P MidCap 400 Index, and S&P Mining and Metals Select Industry Index



*\$100 invested on 12/31/18 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

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	12/31/18	12/31/19	12/31/20	12/31/21	12/31/22	12/31/23
Arch Resources, Inc.	100.00	88.37	54.49	114.04	209.16	263.32
S&P Midcap 400	100.00	126.20	143.44	178.95	155.58	181.15
S&P Metals and Mining Select Industry	100.00	114.83	133.71	181.14	205.53	250.59

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Issuer Purchases of Equity Securities

During the second quarter of 2022, the Board of Directors increased the remaining outstanding authorization for share repurchases to \$500 million. The timing of any future share repurchases, and the ultimate number of shares of our common stock to be purchased, will depend on a number of factors, including business and market conditions, our future financial performance, and other capital priorities. The shares will be acquired in the open market or through private transactions in accordance with Securities and Exchange Commission requirements. The share repurchase program has no termination date, but may be amended, suspended or discontinued at any time and does not commit us to repurchase shares of our common stock. The actual number and value of the shares to be purchased will depend on the performance of our stock price and other market conditions.

During 2023, the Company repurchased 989,792 shares at an average price of \$124.78 for an aggregate purchase price of approximately \$123.5 million, with \$125.5 million paid in 2023. As of December 31, 2023, the Company had repurchased 12,196,627 shares at an average share price of \$90.98 per share for an aggregate purchase price of approximately \$1,109.7 million since inception of the stock repurchase program, and the remaining authorized amount for stock repurchases under this program is approximately \$217.7 million.

A summary of our common stock repurchases during the three months ended December 31, 2023 is set forth in the table below:

Date	Total Number Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan (in thousands)
October 1 through October 31, 2023	19,781	\$ 151.96	19,781	\$ 217,703
November 1 through November 30, 2023	—	\$ —	—	\$ 217,703
December 1 through December 31, 2023	—	\$ —	—	\$ 217,703
Total	<u>19,781</u>	<u>\$ 151.96</u>	<u>19,781</u>	

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Overview

Our results for the year ended December 31, 2023, benefited from continued strength in global metallurgical coal markets, and, to a lesser degree, international thermal coal markets. Although these markets retreated from the historic highs achieved in the year ended December 31, 2022, they remain above long-term averages. Economic growth remained constrained, particularly in Europe and the Americas, due to continued inflationary pressure and tighter monetary policies from many nations' central banks designed to curb inflation. Slower economic growth negatively impacts end user demand for our products, but supply constraints have offset softer demand and supported global metallurgical and thermal coal markets.

Almost two years since the February 24, 2022, Russian invasion of Ukraine, the war continues with no indication any resolution is close. Major changes in energy trading patterns appear to be set while hostilities continue. Bans on the import of Russian coal by the European Union, the United Kingdom, Japan, and other nations continue to drive Russian coal into China, India, Turkey, and other Asian countries. These destinations have generally sourced Russian coals at discounts, sometimes significant discounts, from what similar quality coals from other origins would have required. We expect continued availability of discounted Russian coal into Asian markets. However, we believe most Russian coal is thermal and lower quality metallurgical. The availability of high quality Russian coking coal is minimal.

During the year ended December 31, 2023, China effectively lifted the ban on imports of coal from Australia. While Australian coal is once again flowing into China, it is at much lower volumes than before the ban. Increased Chinese domestic production and increased imports of discounted Russian coal continue to pressure import volumes from Australia. Australia remains the largest global exporter of coking coal, but Australian coking coal exports are on track to decline for the fourth straight year. Exports of high-quality coking coal from the United States and Canada, the second and third largest suppliers to the seaborne high quality coking coal markets, respectively, are on track to increase in the year ended December 31, 2023, versus the previous year. However, the North American increase does not make up for the Australian decrease, and all three countries remain below pre-pandemic 2019 export levels.

Some new coking coal supply has been added to the market, particularly in the United States. However, production and logistical disruptions, continue to constrain supply. The duration of specific supply disruptions is unknown. We believe that underinvestment in the sector in recent years underlies both the current and longer-term market dynamics. Underinvestment in the sector appears likely to persist, despite favorable markets, as government policies, including the significantly increased royalty structure in Queensland Australia, and diminished access to traditional capital markets, limits investment in the sector. In the current environment, we expect coking coal prices to remain volatile. Slowing economic growth, particularly in Europe, the Americas, and China, could negatively impact demand for finished steel products. Any reduction in demand for finished steel products or expectations for reductions would put downward pressure on coking coal indices. Conversely, increasing economic growth, particularly in India and other developing Asian countries, could positively impact demand for finished steel products. Longer term, we believe continued limited global capital investment in new coking coal production capacity, normal reserve depletion, and an eventual increase in economic growth will provide support to coking coal markets.

Domestic thermal coal consumption is on track to decline significantly in the year ended December 31, 2023, compared to the year ended December 31, 2022, and we believe stockpiles at many coal fired electric generators are well above desired levels. For much of the year ended December 31, 2023, natural gas prices were at levels such that the economic dispatch of gas versus thermal coal was dependent on region and plant specific parameters. We have firm sales commitments for the 2024 calendar year for our thermal segment at volume levels that provide for their economic operation. Longer term, we continue to believe thermal coal demand in the United States will remain pressured by continuing increases in subsidized renewable generation sources, particularly wind and solar, and planned retirements of coal-fueled generating facilities. Certain of our customers have deferred 2023 contracted volumes into 2024 and beyond. International thermal coal market indices remain above historical averages and continue to provide economic opportunity for our thermal operations.

We continue to pursue strategic alternatives for our thermal assets, including, among other things, potential divestiture. We are concurrently shrinking our operational footprint at our Powder River Basin operations. During the year ended December 31, 2023, we contributed \$6.3 million to our fund for asset retirement obligations, representing interest earned, bringing our total to \$142.3 million. Additionally, we performed approximately \$15.9 million of reclamation work at our thermal operations in the year ended December 31, 2023. We plan to continue to grow the thermal mine reclamation fund through interest earnings. Currently, our planned production levels are in alignment with existing commitments. Longer term, we will maintain our focus on aligning our thermal production rates with the expected secular decline in domestic thermal coal demand and viable industrial and export opportunities, while adjusting our thermal operating plans to minimize future cash requirements and maintain flexibility to react to short-term market fluctuations.

During the first three months of 2023, we encountered adverse geologic conditions at our West Elk thermal coal operation. These conditions impacted both our volumes and coal quality. Due to this situation, we issued force majeure notices to our West Elk customers and logistics providers with shipments affected by that event. On September 1, 2023, we lifted the force majeure and believe geologic conditions at West Elk will allow normal operations going forward. We continue to communicate with customers and logistics providers, to manage the transition back to normal operations.

Results of Operations

The following discussion and analysis are for the year ended December 31, 2023, compared to the same period in 2022 unless otherwise stated. For a discussion and analysis of the year ended December 31, 2022, compared to the same period in 2021, please refer to Management’s Discussion and Analysis of Financial Condition and Results of Operations included in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on February 16, 2023.

Year Ended December 31, 2023 and 2022

Revenues. Our revenues include sales to customers of coal produced at our operations and coal purchased from third parties. Transportation costs are included in cost of coal sales and amounts billed by us to our customers for transportation are included in revenues.

Coal sales. The following table summarizes information about our coal sales for the years ended December 31, 2023 and 2022:

	Year Ended December 31,		
	2023	2022	(Decrease) / Increase
	(In thousands)		
Coal sales	\$ 3,145,843	\$ 3,724,593	\$ (578,750)
Tons sold	74,935	78,274	(3,339)

On a consolidated basis, coal sales in 2023 decreased \$578.8 million or 15.5% from 2022, and tons sold decreased 3.3 million tons, or 4.3%. Coal sales from Metallurgical operations decreased \$265.4 million due primarily to lower realized pricing offset by increased volume. Thermal segment coal sales decreased \$313.4 million due primarily to lower realized pricing coupled with decreased volume. See discussion in “Operational Performance” for further information about segment results.

Costs, expenses and other. The following table summarizes costs, expenses and other components of operating income for the years ended December 31, 2023 and 2022:

	<u>Year Ended December 31,</u>		<u>Increase (Decrease) in Net Income</u>
	<u>2023</u>	<u>2022</u>	
	(In thousands)		
Cost of sales (exclusive of items shown separately below)	\$ 2,341,956	\$ 2,338,863	\$ (3,093)
Depreciation, depletion and amortization	146,418	133,300	(13,118)
Accretion on asset retirement obligations	21,170	17,721	(3,449)
Change in fair value of coal derivatives, net	1,572	1,274	(298)
Selling, general and administrative expenses	98,871	105,355	6,484
Other operating (income) expense, net	(10,598)	18,669	29,267
Total costs, expenses and other	\$ 2,599,389	\$ 2,615,182	\$ 15,793

Cost of sales. Our cost of sales for the year ended December 31, 2023 increased \$3.1 million, or 0.1%, compared to the year ended December 31, 2022. The increase in cost of sales is due to increased compensation costs of approximately \$52.7 million, increased repairs and supplies costs of approximately \$46.4 million, partially offset by decreased transportation costs of approximately \$94.9 million. See discussion in “Operational Performance” for further information about segment results.

Depreciation, depletion and amortization. The increase in depreciation, depletion, and amortization for the year ended December 31, 2023 primarily relates to increased amortization within the Thermal segment related to the annual re-costing exercise on asset retirement obligations completed during the fourth quarter of 2022.

Accretion on asset retirement obligations. The increase in accretion expense for the year ended December 31, 2023 is primarily related to the results of our annual recosting exercise completed during the fourth quarter of 2022.

Change in fair value of coal derivatives, net. The costs in both the year ended December 31, 2023 and 2022 are primarily related to mark-to-market losses on coal derivatives that are used to hedge our price risk for international thermal coal shipments.

Selling, general and administrative expenses. Selling, general and administrative expenses in the year ended December 31, 2023 decreased compared to the year ended December 31, 2022 due primarily to decreased compensation costs of approximately \$10.7 million, primarily related to higher incentive compensation accruals recorded in the year ended December 31, 2022, offset by increased contract services of approximately \$3.1 million, and increased travel expenses of approximately \$0.4 million.

Other operating (income) expense, net. The increase in other operating (income) expense, net in the year ended December, 31, 2023 as compared to the year ended December, 31, 2022 is primarily due to the net favorable impact of certain coal derivative settlements of approximately \$48.3 million (\$6.3 million income in 2023 compared to \$42.0 million in expense in 2022) partially offset by the net unfavorable impact of mark to market movements on heating oil positions of approximately \$12.4 million and a net unfavorable impact from equity investments of \$4.1 million.

Non-operating expense. The following table summarizes non-operating expense for the years ended December 31, 2023 and 2022:

	Year Ended December 31,		
	2023	2022 (In thousands)	Increase (Decrease) in Net Income
Non-service related pension and postretirement benefit credits (costs)	\$ 3,786	\$ (2,841)	\$ 6,627
Net loss resulting from early retirement of debt	(1,126)	(14,420)	13,294
Total non-operating expenses	\$ 2,660	\$ (17,261)	\$ 19,921

Non-service related pension and postretirement benefit credits (costs). See Note 17, “Employee Benefit Plans” to the Consolidated Financial Statements for additional information regarding the termination of the Company’s Cash Balance Pension.

Net loss resulting from early retirement of debt. In the year ended December 31, 2022, we repaid \$273.8 million of our Term Loan and entered into privately negotiated exchanges and repurchases for approximately \$142.1 million principal amount of our Convertible Notes. As a result of these transactions, we recorded losses of \$14.4 million resulting from early debt extinguishment expenses. For further information regarding the Term Loan repurchases and the Convertible Notes exchanges and repurchases, see Note 10, “Debt and Financing Arrangements” to the Consolidated Financial Statements.

Provision for (benefit from) income taxes. The following table summarizes our provision for income taxes for the years ended December 31, 2023 and 2022:

	Year Ended December 31,		
	2023	2022 (In thousands)	Increase (Decrease) in Net Income
Provision for (benefit from) income taxes	\$ 87,514	\$ (251,926)	\$ (339,440)

The benefit from income taxes in the year ended December 31, 2022 is related to the release of the valuation allowance we have held against the value of our net deferred tax assets due to the significant three-year cumulative income position caused in large part by record profitability in 2022. See Note 11, “Taxes” to the Consolidated Financial Statements for additional information and a reconciliation of the statutory federal income tax provision (benefit) at the statutory rate to the actual benefit from taxes.

Operational Performance

Year Ended December 31, 2023 and 2022

Our mining operations are evaluated based on Adjusted EBITDA, per-ton cash operating costs (defined as including all mining costs except depreciation, depletion, amortization, accretion on asset retirements obligations, and pass-through transportation expenses divided by segment tons sold), and on other non-financial measures, such as safety and environmental performance. Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization, the amortization of sales contracts, the accretion on asset retirement obligations, and non-operating income (expense). Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results by excluding transactions that are not indicative of our core operating performance. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. Furthermore, analogous measures are used by

industry analysts to evaluate the Company’s operating performance. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies.

The following table shows operating results of coal operations for the years ended December 31, 2023 and 2022.

	Year Ended December 31, 2023	Year Ended December 31, 2022	Variance
<i>Metallurgical</i>			
Tons sold (in thousands)	9,295	7,832	1,463
Coal sales per ton sold	\$ 166.11	\$ 223.91	\$ (57.80)
Cash cost per ton sold	\$ 89.08	\$ 93.61	\$ 4.53
Cash margin per ton sold	\$ 77.03	\$ 130.30	\$ (53.27)
Adjusted EBITDA (in thousands)	\$ 717,834	\$ 1,021,932	\$ (304,098)
<i>Thermal</i>			
Tons sold (in thousands)	65,640	70,442	(4,802)
Coal sales per ton sold	\$ 17.48	\$ 19.50	\$ (2.02)
Cash cost per ton sold	\$ 15.61	\$ 14.57	\$ (1.04)
Cash margin per ton sold	\$ 1.87	\$ 4.93	\$ (3.06)
Adjusted EBITDA (in thousands)	\$ 125,469	\$ 353,884	\$ (228,415)

This table reflects numbers reported under a basis that differs from U.S. GAAP. See the “Reconciliation of Non-GAAP measures” below for explanation and reconciliation of these amounts to the nearest GAAP figures. Other companies may calculate these per ton amounts differently, and our calculation may not be comparable to other similarly titled measures.

Metallurgical — Adjusted EBITDA for the year ended December 31, 2023, decreased from the year ended December 31, 2022, due to decreased coal sales per ton sold, partially offset by increased tons sold and decreased cash cost per ton sold. The decline in coal sales per ton sold over the prior year is due to global coking coal indices retreating from the historical highs seen in the year ended December 31, 2022, in the aftermath of the Russian invasion of Ukraine. Even with the decline from historical highs, as discussed previously in the “Overview,” coking coal indices remained above long-term averages throughout the year ended December 31, 2023, due to supply constraints and a longer term, global lack of investment in the industry. Tons sold increased in the year ended December 31, 2023, compared to the year ended December 31, 2022, as production increased at all of our metallurgical operations. Cash cost per ton sold decreased compared to the prior year despite continued inflationary pressure on most goods and services, due to the increased production volume and decreased taxes and royalties that are based on a percentage of coal sales per ton sold.

Our Metallurgical segment sold 8.5 million tons of coking coal and 0.8 million tons of associated thermal coal in the year ended December 31, 2023, compared to 7.4 million tons of coking coal and 0.4 million tons of associated thermal coal in the year ended December 31, 2022. Longwall operations accounted for approximately 76% of our shipment volume in the year ended December 31, 2023, compared to approximately 78% of our shipment volume in the year ended December 31, 2022.

Thermal — Adjusted EBITDA for the year ended December 31, 2023, decreased compared to the year ended December 31, 2022, due to decreased coal sales per ton sold, decreased tons sold, and increased cash cost per ton sold. The decrease in coal sales per ton sold in the current year period is due to the annual roll off and replacement of high-priced domestic business we were able to contract during the second half of 2021, for the year ended December 31, 2022, when the prices of domestic thermal coal increased to historically high levels. Coal sales per ton sold were also negatively impacted by the retreat of global thermal coal indices from the historical highs seen in the year ended December 31, 2022. Tons sold decreased in the current year as domestic demand declined in response to lower natural gas prices that competed for economic dispatch of generation assets. Cash cost per ton sold increased due to the decline in tons sold and continued general inflationary pressure on most goods and services.

During the first three months of 2023, we encountered adverse geologic conditions at our West Elk thermal coal operation. These conditions impacted both our volumes and coal quality. Due to this situation, we issued force majeure notices to our West Elk customers and logistics providers with shipments affected by that event. On September 1, 2023, we lifted the force majeure, and believe geologic conditions at West Elk will allow normal operations going forward. We continue to communicate with customers and logistics providers, to manage the transition back to normal operations.

Reconciliation of NON-GAAP measures

Non-GAAP Segment coal sales per ton sold

Non-GAAP Segment coal sales per ton sold is calculated as segment coal sales revenues divided by segment tons sold. Segment coal sales revenues are adjusted for transportation costs, and may be adjusted for other items that, due to generally accepted accounting principles, are classified in "other income" on the Consolidated Income Statements, but relate to price protection on the sale of coal. Segment coal sales per ton sold is not a measure of financial performance in accordance with generally accepted accounting principles. We believe segment coal sales per ton sold provides useful information to investors as it better reflects our revenue for the quality of coal sold and our operating results by including all income from coal sales. The adjustments made to arrive at these measures are significant in understanding and assessing our financial condition. Therefore, segment coal sales revenues should not be considered in isolation, nor as an alternative to coal sales revenues under generally accepted accounting principles.

Year Ended December 31, 2023 (In thousands)	Metallurgical	Thermal	Idle and Other	Consolidated
GAAP Revenues in the Condensed Consolidated Income Statements	\$ 1,892,326	\$ 1,253,517	\$ —	\$ 3,145,843
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue				
Coal risk management derivative settlements classified in "other income"	—	(6,254)	—	(6,254)
Transportation costs	348,321	112,386	—	460,707
Non-GAAP Segment coal sales revenues	\$ 1,544,005	\$ 1,147,385	\$ —	\$ 2,691,390
Tons sold	9,295	65,640		
Coal sales per ton sold	\$ 166.11	\$ 17.48		

Year Ended December 31, 2022 (In thousands)	Metallurgical	Thermal	Idle and Other	Consolidated
GAAP Revenues in the Condensed Consolidated Income Statements	\$ 2,157,710	\$ 1,566,883	\$ —	\$ 3,724,593
Less: Adjustments to reconcile to Non-GAAP Segment coal sales revenue				
Coal risk management derivative settlements classified in "other income"	—	42,068	—	42,068
Transportation costs	404,098	151,523	—	555,621
Non-GAAP Segment coal sales revenues	\$ 1,753,612	\$ 1,373,292	\$ —	\$ 3,126,904
Tons sold	7,832	70,442		
Coal sales per ton sold	\$ 223.91	\$ 19.50		

Non-GAAP Segment cash cost per ton sold

Non-GAAP Segment cash cost per ton sold is calculated as segment cash cost of coal sales divided by segment tons sold. Segment cash cost of coal sales is adjusted for transportation costs, and may be adjusted for other items that, due to generally accepted accounting principles, are classified in "other income" on the Consolidated Income Statements, but relate directly to the costs incurred to produce coal. Segment cash cost per ton sold is not a measure of financial performance in accordance with generally accepted accounting principles. We believe segment cash cost per ton sold better reflects our controllable costs and our operating results by including all costs incurred to produce coal. The adjustments made to arrive at these measures are significant in understanding and assessing our financial condition. Therefore, segment cash cost of coal sales should not be considered in isolation, nor as an alternative to cost of sales under generally accepted accounting principles.

Year Ended December 31, 2023 (In thousands)	Metallurgical	Thermal	Idle and Other	Consolidated
GAAP Cost of sales in the Condensed Consolidated Income Statements	\$ 1,176,332	\$ 1,133,789	\$ 31,835	\$ 2,341,956
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales				
Diesel fuel risk management derivative settlements classified in "other income"		(3,215)	—	(3,215)
Transportation costs	348,321	112,386	—	460,707
Cost of coal sales from idled or otherwise disposed operations not included in segments	—	—	21,324	21,324
Other (operating overhead, certain actuarial, etc.)	—	—	10,511	10,511
Non-GAAP Segment cash cost of coal sales	<u>\$ 828,011</u>	<u>\$ 1,024,618</u>	<u>\$ —</u>	<u>\$ 1,852,629</u>
Tons sold	9,295	65,640		
Cash Cost Per Ton Sold	\$ 89.08	\$ 15.61		

Year Ended December 31, 2022 (In thousands)	Metallurgical	Thermal	Idle and Other	Consolidated
GAAP Cost of sales in the Condensed Consolidated Income Statements	\$ 1,137,240	\$ 1,187,603	\$ 14,020	\$ 2,338,863
Less: Adjustments to reconcile to Non-GAAP Segment cash cost of coal sales				
Diesel fuel risk management derivative settlements classified in "other income"	—	9,956	—	9,956
Transportation costs	404,098	151,523	—	555,621
Cost of coal sales from idled or otherwise disposed operations not included in segments	—	—	2,610	2,610
Other (operating overhead, certain actuarial, etc.)	—	—	11,410	11,410
Non-GAAP Segment cash cost of coal sales	<u>\$ 733,142</u>	<u>\$ 1,026,124</u>	<u>\$ —</u>	<u>\$ 1,759,266</u>
Tons sold	7,832	70,442		
Cash Cost Per Ton Sold	\$ 93.61	\$ 14.57		

Reconciliation of Segment Adjusted EBITDA to Net Income

The discussion in “Results of Operations” above includes references to our Adjusted EBITDA for each of our reportable segments. Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization, the amortization of sales contracts, and the accretion on asset retirement obligations. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results by excluding transactions that are not indicative of our core operating performance. We use Adjusted EBITDA to measure the operating performance of our segments and allocate resources to our segments. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDA.

	Year Ended December 31, 2023	Year Ended December 31, 2022
Net income	\$ 464,038	\$ 1,330,914
Provision for (benefit from) income taxes	87,514	(251,926)
Interest (income) expense, net	(2,438)	13,162
Depreciation, depletion and amortization	146,418	133,300
Accretion on asset retirement obligations	21,170	17,721
Non-service related pension and postretirement benefit (credits) costs	(3,786)	2,841
Net loss resulting from early retirement of debt	1,126	14,420
Adjusted EBITDA	714,042	1,260,432
EBITDA from idled or otherwise disposed operations	15,986	(828)
Selling, general and administrative expenses	98,871	105,355
Other	14,404	10,857
Segment Adjusted EBITDA from coal operations	<u>\$ 843,303</u>	<u>\$ 1,375,816</u>

Other includes primarily income from our equity investments, certain changes in the fair value of coal derivatives and coal trading activities, certain changes in fair value of heating oil derivatives we use to manage our exposure to diesel fuel pricing, net EBITDA provided by our land company, and certain miscellaneous revenue.

For the year ended December 31, 2023, Other decreased Adjusted EBITDA by approximately \$3.5 million as compared to the year ended December 31, 2022, primarily due to the net unfavorable impact from equity investments of \$4.1 million.

Liquidity and Capital Resources

Our primary sources of liquidity are proceeds from coal sales to customers and certain financing arrangements. Excluding significant investing activity, we intend to satisfy our working capital requirements and fund capital expenditures and debt-service obligations with cash generated from operations and cash on hand. We remain focused on prudently managing costs, including capital expenditures, maintaining a strong balance sheet, and ensuring adequate liquidity.

Given the volatile nature of coal markets, we believe it remains important to take a prudent approach to managing our balance sheet and liquidity. Additionally, banks and other lenders have become increasingly unwilling to provide financing to coal producers, especially those with significant thermal coal exposure. Due to the nature of our business, we may be limited in accessing debt capital markets or obtaining additional bank financing, or the cost of accessing this financing could become more expensive.

Our priority is to maintain our strong financial position with substantial liquidity and low levels of debt and other liabilities, while returning significant value to our stockholders. We ended the year with cash, cash equivalents, and short-term investments of \$320.5 million and total liquidity of \$444.4 million inclusive of availability under our credit facilities. During the year ended December 31, 2023, capital expenditures were approximately \$176.0 million, and we expect our capital spending to remain at maintenance levels for the foreseeable future. During the year ended December 31, 2023, we repurchased \$13.2 million in principal amount of our Convertible Notes for consideration of \$58.4 million and received approximately \$44.2 million for warrants that were exercised. During the year ended December 31, 2023, our working capital increased by approximately \$84.3 million. We believe our current liquidity level is sufficient to fund our business and meet both our short-term (the next twelve months) and reasonably foreseeable long-term requirements and obligations including our variable rate dividend policy. We expect to maintain minimum liquidity levels of approximately \$250 million to \$300 million, with a substantial portion of that held in cash. In addition, we expect to hold additional cash at the end of each quarter in an amount that represents a substantial portion of the following quarter's dividend payment.

We believe we have significantly increased our future cash-generating capabilities, and as a result, in the second quarter of 2022, we launched a comprehensive capital return program that includes both a variable rate cash dividend and share repurchases. Additionally, the Board maintains the flexibility to consider other alternatives, including capital preservation. For the year ended December 31, 2023, we have paid approximately \$206.1 million to our stockholders in the form of dividends and spent approximately \$125.5 million to repurchase our common stock. Any future dividends and all of these potential uses of capital are subject to board approval and declaration.

Based on the fourth quarter discretionary cash flow, a combined fixed and variable dividend payment of \$1.65 per share will be made to stockholders of record as of February 29, 2024, payable on March 15, 2024.

The table below summarizes our fourth quarter discretionary cash flow and total dividend payout:

	Three Months Ended December 31, 2023
Cash flow from operating activities	\$ 181,556
Less: Capital expenditures	(55,007)
Discretionary cash flow	\$ 126,549
Variable dividend percentage	25%
Total dividend to be paid	\$ 31,637
Total dividend per share (variable and fixed)	\$ 1.65

During the second quarter of 2022, the Board of Directors increased the remaining outstanding authorization for share repurchases to \$500 million. During the year ended December 31, 2023, we repurchased 989,792 shares of our

stock for approximately \$123.5 million, with \$125.5 million paid in 2023, bringing total repurchases to 12,196,627 shares for approximately \$1,109.7 million since the inception of the program in 2017. The timing of any future share repurchases, and the ultimate number of shares to be purchased, will depend on a number of factors, including business and market conditions, our future financial performance, and other capital priorities. The shares will be acquired in the open market or through private transactions in accordance with Securities and Exchange Commission requirements. Our share repurchase program may be amended, suspended or discontinued at any time and does not commit us to repurchase shares of our common stock.

On January 18, 2023, the Office of Workers' Compensation Programs ("OWCP") proposed revisions to regulations under the Black Lung Benefits Act governing authorization of self-insurers. The revisions seek to codify the practice of basing a self-insured operator's security requirement on an actuarial assessment of its total present and future black lung liability. A material change to the regulations is the requirement that all self-insured operators must post security equal to 120% of their projected black lung liabilities. The proposed regulations were posted to the Federal Register on January 19, 2023 with written comments to be accepted within 60 days of this date. A subsequent extended comment period expired on April 19, 2023; however, the final regulations have not yet been published. The revisions proposed by the OWCP were a material deviation from their bulletin issued in December 2020 that would have required the majority of coal operators to post security equal to 70% of their projected black lung liabilities, which, at the time, equated to the Company posting additional collateral of \$71.1 million. If the above regulation is codified into law, the Company will be required to post additional collateral to maintain its self-insured status. The Company is evaluating alternatives to self-insurance, including the purchase of commercial insurance to cover these claims. Additionally, the Company is assessing additional sources of liquidity and other items to satisfy the proposed regulations. Any of these outcomes will require additional collateral and would reduce our available liquidity.

During the year ended December 31, 2022, we repaid \$273.8 million of our Term Loan and as of December 31, 2023 the remaining balance was \$3.5 million. On February 8, 2024, the Company entered into a new senior secured term loan credit agreement in the principal amount of \$20.0 million. The new term loan requires quarterly principal amortization payments of \$3.3 million and matures on June 30, 2025. The loan is guaranteed by substantially all of the domestic subsidiaries of the Company. Additionally, the loan is secured by substantially all of the assets of the Company and the guarantors, subject to customary exceptions (including an exclusion for owned and leased real property). The proceeds from the new term loan were used to pay off the \$3.5 million balance of the existing term loan debt facility.

During the first half of 2023, the Company repurchased the remaining Convertible Notes with a principal amount of \$13.2 million for aggregate consideration consisting of \$58.4 million in cash. For further information regarding the Convertible Notes and the Convertible Notes exchanges and repurchases, see Note 10, "Debt and Financing Arrangements" to the Consolidated Financial Statements.

We have an aggregate of outstanding \$98.1 million of Tax Exempt Bonds issued by the West Virginia Economic Development Authority. The proceeds of the Tax Exempt Bonds were used to finance certain costs of the acquisition, construction, reconstruction, and equipping of solid waste disposal facilities at our Leer South development, and for capitalized interest and certain costs related to the issuance of the Tax Exempt Bonds. For further information regarding the Tax Exempt Bonds, see Note 10 "Debt and Financing Arrangements" to the Consolidated Financial Statements.

On August 3, 2022, we amended and extended our existing trade accounts receivable securitization facility provided to Arch Receivable Company, LLC, a special-purpose entity that is a wholly owned subsidiary of Arch Resources ("Arch Receivable") (the "Securitization Facility"), which supports the issuance of letters of credit and requests for cash advances. The amendment to the Securitization Facility increased the size of the facility from \$110 million to \$150 million of borrowing capacity and extended the maturity date to August 1, 2025. For further information regarding the Securitization Facility see Note 10, "Debt and Financing Arrangements" to the Consolidated Financial Statements.

On August 3, 2022, we amended the \$50 million senior secured inventory-based revolving credit facility (the "Inventory Facility") with Regions Bank ("Regions") as administrative agent and collateral agent, as lender and swingline lender (in such capacities, the "Lender") and as letter of credit issuer. The facility has a minimum liquidity

requirement of \$100 million and a maturity date of August 3, 2025. For further information regarding the Inventory Facility, see Note 10, “Debt and Financing Arrangements” to the Consolidated Financial Statements.

The table below summarizes our availability under our credit facilities as of December 31, 2023:

	Face Amount	Borrowing Base	Letters of Credit Outstanding	Availability	Contractual Expiration
	(Dollars in thousands)				
Securitization Facility	\$ 150,000	\$ 150,000	\$ 50,194	\$ 99,806	August 1, 2025
Inventory Facility	50,000	50,000	26,200	23,800	August 3, 2025
Total	<u>\$ 200,000</u>	<u>\$ 200,000</u>	<u>\$ 76,394</u>	<u>\$ 123,606</u>	

The above standby letters of credit outstanding have primarily been issued to satisfy certain insurance-related collateral requirements. The amount of collateral required by counterparties is based on their assessment of our ability to satisfy our obligations and may change at the time of policy renewal or based on a change in their assessment. Future increases in the amount of collateral required by counterparties would reduce our available liquidity.

Contractual Obligations

The table below summarizes our contractual obligations as of December 31, 2023:

	Payments Due by Period				Total
	2024	2025-2026	2027-2028	after 2028	
	(Dollars in thousands)				
Long-term debt, including related interest	\$ 40,778	\$ 108,093	\$ —	\$ —	\$ 148,871
Leases	4,491	8,457	1,533	—	14,481
Coal lease rights	3,425	6,363	4,907	36,482	51,177
Unconditional purchase obligations	221,176	—	—	—	221,176
Total contractual obligations	<u>\$ 269,870</u>	<u>\$ 122,913</u>	<u>\$ 6,440</u>	<u>\$ 36,482</u>	<u>\$ 435,705</u>

The related interest on long-term debt was calculated using rates in effect at December 31, 2023, for the remaining term of outstanding borrowings.

Coal lease rights represent non-cancelable royalty lease agreements, as well as lease bonus payments due.

Unconditional purchase obligations include open purchase orders and other purchase commitments, which have not been recognized as a liability. The commitments in the table above relate to contractual commitments for the purchase of materials and supplies, payments for services and capital expenditures.

The table above excludes our asset retirement obligations. Our consolidated balance sheet reflects a liability of \$261.8 million including amounts classified as a current liability for asset retirement obligations that arise from SMCRA and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. Asset retirement obligations are recorded at fair value when incurred and accretion expense is recognized through the expected date of settlement. Determining the fair value of asset retirement obligations involves a number of estimates, as discussed in the section entitled “Critical Accounting Estimates” below, including the timing of payments to satisfy the obligations. The timing of payments to satisfy asset retirement obligations is based on numerous factors, including mine closure dates. Additionally, through December 31, 2023, the Company has contributed \$142.3 million to a fund to defease the long-term asset retirement obligation for its thermal asset base; this amount is recorded as “Fund for asset retirement obligations” on the Consolidated Balance Sheets. The funds will be utilized for final mine closure reclamation activities. Please see Note 12, “Asset Retirement Obligations” to our Consolidated Financial Statements for further information about our asset retirement obligations.

The table above also excludes certain other obligations reflected in our consolidated balance sheet, including estimated funding for pension and postretirement benefit plans and worker’s compensation obligations.

Please see Note 16, “Workers’ Compensation Expense”, and Note 17, “Employee Benefit Plans” to our Consolidated Financial Statements for more information about the amounts we have recorded for workers’ compensation and pension and postretirement benefit obligations, respectively.

Off-Balance Sheet Arrangements

In the normal course of business, we are a party to certain off-balance sheet arrangements. These arrangements include guarantees, indemnifications, financial instruments with off-balance sheet risk, such as bank letters of credit and performance or surety bonds. Liabilities related to these arrangements are not reflected in our consolidated balance sheets, and we do not expect any material adverse effects on our financial condition, results of operations or cash flows to result from these off-balance sheet arrangements.

We use a combination of surety bonds and letters of credit to secure our financial obligations for reclamation, workers’ compensation, coal lease obligations and other obligations as follows as of December 31, 2023:

	<u>Reclamation Obligations</u>	<u>Lease Obligations</u>	<u>Workers’ Compensation Obligations</u>	<u>Other</u>	<u>Total</u>
	(Dollars in thousands)				
Surety bonds	\$ 455,698	\$ 40,411	\$ 50,028	\$ 6,366	\$ 552,503
Letters of credit	—	—	69,170	1,354	70,524

Cash Flow

The following is a summary of cash provided by or used in each of the indicated types of activities during the years ended December 31, 2023 and 2022:

(In thousands)	<u>Year Ended December 31,</u>	
	<u>2023</u>	<u>2022</u>
Cash provided by (used in):		
Operating activities	\$ 635,374	\$ 1,209,540
Investing activities	(185,622)	(203,794)
Financing activities	(398,004)	(1,094,882)

Cash provided by operating activities declined in the year ended December 31, 2023 versus the year ended December 31, 2022, mainly due to the decrease in results from operations discussed in the “Overview” and “Operational Performance” sections above, coupled with a net unfavorable change in working capital of \$180.3 million, partially offset by decreased funding of our fund for asset retirement obligations of approximately \$109 million.

Cash used in investing activities declined in the year ended December 31, 2023 versus the year ended December 31, 2022, primarily due to a net decrease in cash used in short term investments of approximately \$27 million, partially offset by an approximate \$8 million increase in cash used for investments in and advances to affiliates.

Cash used in financing activities declined \$696.9 million compared to the prior period due to a decrease of approximately \$412 million in overall debt payments compared to prior year, a reduction in dividends paid of approximately \$250 million, and a decrease in share repurchases of \$31 million.

Critical Accounting Estimates

We prepare our financial statements in accordance with accounting principles that are generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses as well as the disclosure of contingent assets and liabilities. Management bases our estimates and judgments on historical experience and other factors that are believed to

be reasonable under the circumstances. Additionally, these estimates and judgments are discussed with our audit committee on a periodic basis. Actual results may differ from the estimates used under different assumptions or conditions. We have provided a description of all significant accounting policies in the notes to our Consolidated Financial Statements. We believe that of these significant accounting policies, the following may involve a significant level of estimation uncertainty and have had or are reasonably likely to have a material impact on our financial condition or results of operations:

Impairment of Long-lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. These events and circumstances include, but are not limited to, a current expectation that a long-lived asset will be disposed of significantly before the end of its previously estimated useful life, a significant adverse change in the extent or manner in which we use a long-lived asset or a change in its physical condition.

When such events or changes in circumstances occur, a recoverability test is performed comparing projected undiscounted cash flows from the use and eventual disposition of an asset or asset group to its carrying amount. If the projected undiscounted cash flows are less than the carrying amount, an impairment is recorded for the excess of the carrying amount over the estimate fair value, which is generally determined using discounted future cash flows. If we recognize an impairment loss, the adjusted carrying amount of the asset becomes the new cost basis. For a depreciable long-lived asset, the new cost basis will be depreciated (amortized) over the remaining estimated useful life of the asset.

We make various assumptions, including assumptions regarding future cash flows in our assessments of long-lived assets for impairment. The assumptions about future cash flows and growth rates are based on the current and long-term business plans related to the long-lived assets. Discount rate assumptions are based on an assessment of the risk inherent in the future cash flows of the long-lived assets. These assumptions require significant judgments on our part, and the conclusions that we reach could vary significantly based upon these judgments.

As of December 31, 2023, there were no indicators of impairment identified.

Asset Retirement Obligations

Our asset retirement obligations arise from SMCRA and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. Significant reclamation activities include reclaiming refuse and slurry ponds, reclaiming the pit and support acreage at surface mines, and sealing portals at deep mines. Our asset retirement obligations are initially recorded at fair value, or the amount at which the obligations could be settled in a current transaction between willing parties. This involves determining the present value of estimated future cash flows on a mine-by-mine basis based upon current permit requirements and various estimates and assumptions, including estimates of disturbed acreage, reclamation costs and assumptions regarding equipment productivity. We estimate disturbed acreage based on approved mining plans and related engineering data. Since we plan to use internal resources to perform the majority of our reclamation activities, our estimate of reclamation costs involves estimating third-party profit margins, which we base on our historical experience with contractors that perform certain types of reclamation activities. We base productivity assumptions on historical experience with the equipment that we expect to utilize in the reclamation activities. In order to determine fair value, we discount our estimates of cash flows to their present value. We base our discount rate on the rates of treasury bonds with maturities similar to expected mine lives, adjusted for our credit standing.

Accretion expense is recognized on the obligation through the expected settlement date. On at least an annual basis, we review our entire reclamation liability and make necessary adjustments for permit changes as granted by state authorities, changes in the timing and extent of reclamation activities, and revisions to cost estimates and productivity assumptions, to reflect current experience. Any difference between the recorded amount of the liability and the actual cost of reclamation will be recognized as a gain or loss when the obligation is settled. We expect our actual cost to reclaim our properties will be less than the expected cash flows used to determine the asset retirement obligation. At December 31, 2023, our balance sheet reflected asset retirement obligation liabilities of \$261.8 million, including

amounts classified as a current liability. As of December 31, 2023, we estimate the aggregate uninflated and undiscounted cost of final mine closures to be approximately \$454.4 million. Additionally, through December 31, 2023, the Company has contributed \$142.3 million to a fund to defease the long-term asset retirement obligation for its thermal asset base; this amount is recorded as “Fund for asset retirement obligations” on the Consolidated Balance Sheets. The funds will be utilized for final mine closure reclamation activities.

See the roll forward of the asset retirement obligation liability in Note 12, “Asset Retirement Obligations” to the Consolidated Financial Statements.

Employee Benefit Plans

We currently provide certain postretirement medical and life insurance coverage for eligible employees. Generally, covered employees who terminate employment after meeting eligibility requirements are eligible for postretirement coverage for themselves and their dependents. The salaried employee postretirement benefit plans are contributory, with retiree contributions adjusted periodically, and contain other cost-sharing features such as deductibles and coinsurance.

Actuarial assumptions are required to determine the amounts reported as obligations and costs related to the postretirement benefit plan. The discount rate assumption reflects the rates available on high-quality fixed-income debt instruments at year-end and is calculated in the same manner as discussed above for the pension plan.

Income Taxes

We provide for deferred income taxes related to tax attribute carryforwards and temporary differences arising from differences between the financial statement and tax basis of assets and liabilities existing at each balance sheet date using enacted tax rates expected to be in effect when the related taxes are expected to be paid or recovered. We initially recognize the effects of a tax position when it is more than 50% likely, based on the technical merits, that the position will be sustained upon examination, including resolution of the related appeals or litigation processes, if any. Our determination of whether or not a tax position has met the recognition threshold considers the facts, circumstances, and information available at the reporting date.

We assess the realizability of our deferred tax assets by analyzing all positive and negative evidence available, including but not limited to three years of pre-tax operating results, available tax planning strategies, reversal of taxable temporary differences and future taxable income. A valuation allowance is recorded against deferred tax assets if the preponderance of evidence suggests that it is not more likely than not that all or a portion of the deferred tax assets will be realized.

As of December 31, 2023, we have a valuation allowance recorded against certain state NOLs and capital losses, totaling \$82.8 million.

See Note 11, “Taxes” to the Consolidated Financial Statements, for further disclosures about income taxes.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We manage our commodity price risk for our non-trading, thermal coal sales through the use of long-term coal supply agreements, and to a limited extent, through the use of derivative instruments. Sales commitments in the metallurgical coal market are typically not long-term in nature, and we are therefore subject to fluctuations in market pricing.

Our commitments for 2024 are as follows as of December 31, 2023:

	2024	
	Tons	\$ per ton
<u>Metallurgical</u>	(in millions)	
Committed, North America Priced Coking	1.5	\$ 157.65
Committed, North America Unpriced Coking	—	
Committed, Seaborne Priced Coking	0.1	201.35
Committed, Seaborne Unpriced Coking	2.7	
Committed, Priced Thermal	0.2	28.75
Committed, Unpriced Thermal	0.3	
<u>Thermal</u>		
Committed, Priced	52.8	\$ 17.09
Committed, Unpriced	1.4	

We have exposure to price risk for supplies that are used directly or indirectly in the normal course of production, such as diesel fuel, steel, explosives and other items. We manage our risk for these items through strategic sourcing contracts in normal quantities with our suppliers. We may sell or purchase forward contracts, swaps and options in the over-the-counter market in order to manage our exposure to price risk related to these items.

We are exposed to price risk with respect to diesel fuel purchased for use in our operations. We anticipate purchasing approximately 30 to 35 million gallons of diesel fuel for use in our operations during 2024. To protect our cash flows from increases in the price of diesel fuel, we have purchased heating oil call options. At December 31, 2023, we had protected the price of expected diesel fuel purchases for 2024 with approximately 24 million gallons of heating oil call options with an average strike price of \$2.96 per gallon. These positions are not designated as hedges for accounting purposes, and therefore, changes in the fair value are recorded immediately to earnings.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The Consolidated Financial Statements and consolidated financial statement schedule of Arch Resources, Inc. and subsidiaries are included in this Annual Report on Form 10-K beginning on page F-1.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES.

We performed an evaluation under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2023, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended. Based on that evaluation, our management, including our chief executive officer and chief financial officer, concluded that the disclosure controls and procedures were effective as of such date. There were

no changes in our internal control over financial reporting during the fiscal quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

We incorporate by reference the opinion of independent registered public accounting firm and management's report on internal control over financial reporting included within the Financial Statement section of this Annual Report on Form 10-K.

ITEM 9B. OTHER INFORMATION.

During the three months ended December 31, 2023, no director or officer of the Company adopted, modified or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408 of Regulation S-K. However, in Part II, Item 5 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2023, the table containing Rule 10b5-1 trading arrangements included an incorrect number of shares for John W. Lorson. The "Total Shares to be Sold" for Mr. Lorson should have stated "Up to 2,715".

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Except for the disclosures contained in Part I of this report under the caption “Information about our Executive Officers,” the information required under this item is incorporated herein by reference to “Director Biographies,” “Corporate Governance Practices” and, if applicable, “Delinquent Section 16(a) Reports” in our Proxy Statement for the 2024 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days after the close of our fiscal year.

ITEM 11. EXECUTIVE COMPENSATION.

The information required under this item is incorporated herein by reference to “Executive Compensation,” “Director Compensation,” “Compensation Committee Interlocks and Insider Participation” and “Personnel and Compensation Committee Report” in our Proxy Statement for the 2024 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days after the close of our fiscal year.

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

The information required under this item is incorporated herein by reference to “Equity Compensation Plan Information,” “Security Ownership of Directors and Executive Officers” and “Security Ownership of Certain Beneficial Owners” in our Proxy Statement for the 2024 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days after the close of our fiscal year.

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

The information required under this item is incorporated herein by reference to “Certain Relationships and Related Transactions” and “Director Independence” in our Proxy Statement for the 2024 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days after the close of our fiscal year.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required under this item is incorporated herein by reference to “Fees Paid to Auditors” in our Proxy Statement for the 2024 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days after the close of our fiscal year.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

Financial Statements

Reference is made to the index set forth on page F-1 of this report.

Financial Statement Schedules

The following financial statement schedule of Arch Resources, Inc. is at the page indicated:

<u>Schedule</u>	<u>Page</u>
Valuation and Qualifying Accounts	<u>F-49</u>

All other financial statement schedules listed under SEC rules but not included in this report are omitted because they are not applicable or the required information is provided in the notes to our Consolidated Financial Statements.

Exhibits

Reference is made to the Exhibit Index on the following page.

ITEM 16. FORM 10-K SUMMARY.

None.

Exhibits to be included in 10-K

Description

- 2.1 Debtors' Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code (incorporated by reference to Exhibit 2.1 of Arch Resources' Current Report on Form 8-K filed on September 15, 2016).
- 2.2 Order Confirming Debtors' Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code on September 13, 2016 (incorporated by reference to Exhibit 2.2 of Arch Resources' Current Report on Form 8-K filed on September 15, 2016).
- 3.1 Restated Certificate of Incorporation of Arch Resources, Inc. (incorporated by reference to Exhibit 3.2 of Arch Resources' Current Report on Form 8-K filed on May 15, 2020).
- 3.2 Amended and Restated Bylaws of Arch Resources, Inc. (incorporated by reference to Exhibit 3.1 of Arch Resources' Current Report on Form 8-K filed on December 16, 2022).
- 4.1 Form of specimen Class A Common Stock certificate (incorporated by reference to Exhibit 4.1 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 4.2 Form of specimen Class B Common Stock certificate (incorporated by reference to Exhibit 4.2 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 4.3 Form of specimen Series A Warrant certificate (incorporated by reference to Exhibit A of Exhibit 10.5 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 4.4 Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (incorporated by reference to Exhibit 4.4 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2019).
- 4.5 Indenture, dated as of November 3, 2020, between Arch Resources, Inc. and UMB Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 of Arch Resources' Current Report on Form 8-K filed on November 4, 2020).
- 4.6 Form of certificate representing the 5.25% Convertible Senior Notes due 2025 (incorporated by reference to Exhibit A of Exhibit 4.1 of Arch Resources' Current Report on Form 8-K filed on November 4, 2020).
- 10.1 Credit Agreement, dated as of February 8, 2024, among Arch Resources, Inc. as borrower, the guarantors party thereto, the lenders from time to time party thereto and PNC Bank, National Association, in its capacity as administrative agent.
- 10.2 Credit Agreement, dated as of April 27, 2017, among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on May 2, 2017).
- 10.3 First Amendment to Credit Agreement dated November 19, 2018 by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.5 to Arch Resources' Annual Report on Form 10-K for the year ended 2018).
- 10.4 Waiver Letter Agreement and Second Amendment to Credit Agreement dated June 17, 2020 by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.6 of Arch Resources' Quarterly Report on Form 10-Q for the period ended
- 10.5 Third Amendment to Credit Agreement dated September 30, 2020, by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and collateral agent (incorporated by reference to Exhibit 10.7 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2020).
- 10.6 Fourth Amendment to Credit Agreement dated May 27, 2021, by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.08 of Arch Resources' Quarterly Report on Form 10-Q for the period ended June 30, 2021).

- 10.7 Fifth Amendment to Credit Agreement dated August 3, 2022, by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.9 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2022).
- 10.8 Sixth Amendment to Credit Agreement dated February 8, 2024, by and among Arch Resources, Inc. and certain of its subsidiaries, as borrowers, the lenders from time to time party thereto and Regions Bank, in its capacities as administrative agent and as collateral agent.
- 10.9 Third Amended and Restated Receivables Purchase Agreement, dated October 5, 2016, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as initial servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.2 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 10.10 First Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of April 27, 2017, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.2 of Arch Resources' Current Report on Form 8-K filed on May 2, 2017).
- 10.11 Second Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of August 27, 2018, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.7 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2018).
- 10.12 Third Amendment to Third Amended and Restated Receivables Purchase Agreement, dated as of May 14, 2019, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.9 of Arch Resources' Quarterly Report on Form 10-Q for the period ended June 30, 2019).
- 10.13 Fourth Amendment to Third Amended and Restated Receivables Purchase Agreement, dated September 30, 2020, among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.12 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2020).
- 10.14 Fifth Amendment to Third Amended and Restated Receivables Purchase Agreement dated as of December 4, 2020 among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.13 of Arch Resources' Quarterly Report on Form 10-Q for the period ended March 31, 2021).
- 10.15 Sixth Amendment to Third Amended and Restated Receivables Purchase Agreement dated as of October 8, 2021 among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.15 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2021).
- 10.16 Seventh Amendment to Third Amended and Restated Receivables Purchase Agreement dated August 3, 2022 among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers (incorporated by reference to Exhibit 10.17 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2022).
- 10.17 Eighth Amendment to Third Amended and Restated Receivables Purchase Agreement dated February 8, 2024 among Arch Receivable Company, LLC, as seller, Arch Coal Sales Company, Inc., as servicer, PNC Bank, National Association as administrator and issuer of letters of credit thereunder and the other parties party thereto, as securitization purchasers.

- 10.18 Second Amended and Restated Purchase and Sale Agreement among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.3 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 10.19 First Amendment to the Second Amended and Restated Purchase and Sale Agreement, dated as of December 21, 2016, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.7 of Arch Resources' Quarterly Report on Form 10-Q filed for the period ended September 30, 2017).
- 10.20 Second Amendment to the Second Amended and Restated Purchase and Sale Agreement, dated as of April 27, 2017, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.3 of Arch Resources' Current Report on Form 8-K filed on May 2, 2017).
- 10.21 Third Amendment to Second Amended and Restated Purchase and Sale Agreement, dated as of September 14, 2017, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.16 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2020).
- 10.22 Fourth Amendment to Second Amended and Restated Purchase and Sale Agreement, dated as of December 13, 2019, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.17 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2020).
- 10.23 Fifth Amendment and Waiver to Second Amended and Restated Purchase and Sale Agreement dated June 17, 2020, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.18 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2020).
- 10.24 Sixth Amendment to Second Amended and Restated Purchase and Sale Agreement dated December 31, 2020, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.19 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2020).
- 10.25 Seventh Amendment to Second Amended and Restated Purchase and Sale Agreement dated March 13, 2023, among Arch Resources, Inc. and certain subsidiaries of Arch Resources, Inc., as originators (incorporated by reference to Exhibit 10.25 of Arch Resources' Quarterly Report on Form 10-Q for the period ended on March 31, 2023).
- 10.26 Second Amended and Restated Sale and Contribution Agreement between Arch Resources, Inc., as the transferor, and Arch Receivable Company, LLC (incorporated by reference to Exhibit 10.4 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 10.27 First Amendment to the Second Amended and Restated Sale and Contribution Agreement, dated as of April 27, 2017, between Arch Resources, Inc., as the transferor, and Arch Receivable Company, LLC (incorporated by reference to Exhibit 10.4 of Arch Resources' Current Report on Form 8-K filed on May 2, 2017).
- 10.28 Warrant Agreement, dated as of October 5, 2016, between Arch Resources, Inc. and American Stock Transfer & Trust Company, LLC, as Warrant Agent (incorporated by reference to Exhibit 10.5 of Arch Resources' Current Report on Form 8-K filed on October 11, 2016).
- 10.29 Indemnification Agreement between Arch Resources, Inc. and the directors and officers of Arch Resources, Inc. and its subsidiaries (form incorporated by reference to Exhibit 10.28 of Arch Resources' Annual Report on Form 10-K for the year ended 2022).
- 10.30 Registration Rights Agreement between Arch Resources, Inc. and Monarch Alternative Capital LP and certain other affiliated funds (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on November 21, 2016).
- 10.31 Coal Lease Agreement dated as of March 31, 1992, among Allegheny Land Company, as lessee, and UAC and Phoenix Coal Corporation, as lessors, and related guarantee (incorporated by reference to the Current Report on Form 8-K filed by Ashland Coal, Inc. on April 6, 1992).
- 10.32 Federal Coal Lease dated as of January 24, 1996 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated by reference to Exhibit 10.20 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 1998).

- 10.33 Federal Coal Lease dated as of November 1, 1967 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated by reference to Exhibit 10.21 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 1998).
- 10.34 Federal Coal Lease effective as of May 1, 1995 between the U.S. Department of the Interior and Mountain Coal Company (incorporated by reference to Exhibit 10.22 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 1998).
- 10.35 Federal Coal Lease dated as of January 1, 1999 between the Department of the Interior and Ark Land Company (incorporated by reference to Exhibit 10.23 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 1998).
- 10.36 Federal Coal Lease effective as of March 1, 2005 by and between the United States of America and Ark Land LT, Inc. covering the tract of land known as "Little Thunder" in Campbell County, Wyoming (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Arch Resources on February 10, 2005).
- 10.37 Modified Coal Lease (WYW71692) executed January 1, 2003 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as "North Rochelle" in Campbell County, Wyoming (incorporated by reference to Exhibit 10.24 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2004).
- 10.38 Coal Lease (WYW127221) executed January 1, 1998 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as "North Roundup" in Campbell County, Wyoming (incorporated by reference to Exhibit 10.25 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2004).
- 10.39* Letter Agreement dated October 25, 2023 by and between Arch Resources, Inc. and John W. Eaves (incorporated by reference to Exhibit 10.39 of Arch Resources' Quarterly Report on Form 10-Q for the period ended September 30, 2023).
- 10.40* Form of Employment Agreement for Executive Officers of Arch Resources, Inc. (incorporated by reference to Exhibit 10.4 of Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2011).
- 10.41* Arch Resources, Inc. Deferred Compensation Plan (incorporated by reference to Exhibit 10.26 to Arch Resources' Annual Report on Form 10-K for the year ended December 31, 2014).
- 10.42 Arch Resources, Inc. Outside Directors' Deferred Compensation Plan (incorporated by reference to Exhibit 10.4 of Arch Resources' Current Report on Form 8-K filed on December 12, 2008).
- 10.43* Arch Resources, Inc. Supplemental Retirement Plan (as amended on December 5, 2008) (incorporated by reference to Exhibit 10.2 to Arch Resources' Current Report on Form 8-K filed on December 12, 2008).
- 10.44* Arch Resources, Inc. 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 99.1 to Arch Resources' Registration Statement on Form S-8 filed on November 1, 2016).
- 10.45* Form of Restricted Stock Unit Contract (Time-Based Vesting) (incorporated by reference to Exhibit 10.1 to Arch Resources' Current Report on Form 8-K filed on November 30, 2016).
- 10.46* Form of Restricted Stock Unit Contract (Performance-Based Vesting) (incorporated by reference to Exhibit 10.2 to Arch Resources' Current Report on Form 8-K filed on November 30, 2016).
- 10.47 Stock Repurchase Agreement dated September 13, 2017, among Arch Resources, Inc. and Monarch Alternative Solutions Master Fund Ltd, Monarch Capital Master Partners III LP, MCP Holdings Master LP, Monarch Debt Recovery Master Fund Ltd and P Monarch Recovery Ltd. (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on September 19, 2017).
- 10.48 Stock Repurchase Agreement dated December 8, 2017, among Arch Resources, Inc. and Monarch Alternative Solutions Master Fund Ltd, Monarch Capital Master Partners III LP, MCP Holdings Master LP and Monarch Debt Recovery Master Fund Ltd. (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on December 11, 2017).
- 10.49 Form of Confirmation of Base Capped Call Transaction (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on November 4, 2020).
- 10.50 Form of Exchange Agreement (incorporated by reference to Exhibit 10.1 of Arch Resources' Current Report on Form 8-K filed on May 23, 2022).
- 21.1 Subsidiaries of the registrant.

- 23.1 Consent of Ernst & Young LLP.
- 23.2 Consent of Weir International, Inc.
- 23.3 Consent of Marshall Miller & Associates, Inc.
- 24.1 Power of Attorney.
- 31.1 Rule 13a-14(a)/15d-14(a) Certification of Paul A. Lang.
- 31.2 Rule 13a-14(a)/15d-14(a) Certification of Matthew C. Giljum.
- 32.1** Section 1350 Certification of Paul A. Lang.
- 32.2** Section 1350 Certification of Matthew C. Giljum.
- 95 Mine Safety Disclosure Exhibit.
- 96.1 Technical Report Summary for Leer Mine – S-K 1300 Report. (incorporated by reference to Exhibit 96.1 to Arch Resources’ Annual Report on Form 10-K for the year ended December 31, 2021.)
- 96.2 Technical Report Summary for Leer South Mine – S-K 1300 Report.
- 96.3 Technical Report Summary for Black Thunder Mine – S-K 1300 Report. (incorporated by reference to Exhibit 96.3 to Arch Resources’ Annual Report on Form 10-K for the year ended December 31, 2021.)
- 97.1 Arch Resources, Inc. Amended and Restated Compensation Recoupment Policy effective October 2, 2023.
- 101 The following financial statements from the Company’s Annual Report on Form 10-K for the year ended December 31, 2023, formatted in Inline XBRL: (1) Consolidated Statements of Operations, (2) Consolidated Statements of Comprehensive Income (Loss), (3) Consolidated Balance Sheets, (4) Consolidated Statements of Cash Flows, (5) Consolidated Statements of Stockholders’ Equity and (6) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags.
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Denotes a management contract or compensatory plan or arrangement.

** Furnished herein

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.

Arch Resources, Inc.

/s/ Paul A. Lang

Paul A. Lang

Chief Executive Officer, Director

February 15, 2024

Signatures	Capacity	Date
<u>/s/ Paul A. Lang</u> Paul A. Lang	Chief Executive Officer, Director (Principal Executive Officer)	February 15, 2024
<u>/s/ Matthew C. Giljum</u> Matthew C. Giljum	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 15, 2024
<u>/s/ John W. Lorson</u> John W. Lorson	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 15, 2024
* <u>John W. Eaves</u>	Executive Chairman	February 15, 2024
* <u>Pamela R. Butcher</u>	Director	February 15, 2024
* <u>James N. Chapman</u>	Director	February 15, 2024
* <u>Patrick A. Kriegshauser</u>	Director	February 15, 2024
* <u>Richard A. Navarre</u>	Director	February 15, 2024
* <u>Holly Keller Koepfel</u>	Director	February 15, 2024
* <u>Molly P. Zhang</u>	Director	February 15, 2024
*By <u>/s/ Rosemary L. Klein</u> Rosemary L. Klein, <i>Attorney-in-Fact</i>		

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Arch Resources, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Arch Resources, Inc. and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated income statements, and statements of comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes and the financial statement schedule listed in the Index at Item 15 (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, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, 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, 2023, 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 February 15, 2024, 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 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 account or disclosures to which it relates.

Asset Retirement Obligation (ARO) Liability

Description of Critical Audit Matter

At December 31, 2023, the Company's asset retirement obligations totaled \$261.8 million. As discussed in Note 2 and Note 12 of the consolidated financial statements, the Company's obligations associated with the retirement of long-lived assets are recognized at fair value at the time the 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. The Company reviews its asset retirement obligations at least annually and makes necessary adjustments for permit changes as granted by state authorities and for revisions of estimates of the timing and extent of reclamation activities and cost estimates.

Management's estimate involves a high degree of subjectivity and auditing the significant assumptions utilized by management in estimating the fair value of the liability requires judgement. 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 estimates of disturbed acreage, reclamation costs and assumptions regarding equipment productivity.

How we addressed the Matter in our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of the controls over the Company's accounting for asset retirement obligations, including controls over management's review of the significant assumptions described above.

We assessed the work of the Company's engineering specialists in identifying asset retirement obligation activities against legislative requirements and assessing their timing and likely cost. We compared the Company's methodology to calculate the asset retirement obligations with industry practice and our understanding of the business. We evaluated management's assumptions by validating the underlying inputs within the calculations and recosting studies, including those listed above. We involved a specialist to assist in our evaluation of the accuracy of management's assumptions within the Company's asset retirement obligation estimate including reviewing mine closure regulatory requirements, mine plans and engineering drawings for consistency with permit requirements and conducting observations of mining and reclamation areas.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1997.

St. Louis, Missouri

February 15, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Arch Resources, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Arch Resources, Inc. and subsidiaries internal control over financial reporting as of December 31, 2023, 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, Arch Resources, Inc and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, 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 consolidated balance sheets of the Company as of December 31, 2023 and 2022, the related consolidated income statements, and statements of comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2023, and the related notes and financial statement schedule listed in the Index at Item 15, and our report dated February 15, 2024 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. 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

St. Louis, Missouri
February 15, 2024

REPORT OF MANAGEMENT

The management of Arch Resources, Inc. and subsidiaries (the “Company”) is responsible for the preparation of the consolidated financial statements and related financial information in this annual report. The financial statements are prepared in accordance with accounting principles generally accepted in the United States and necessarily include some amounts that are based on management’s informed estimates and judgments, with appropriate consideration given to materiality.

The Company maintains a system of internal accounting controls designed to provide reasonable assurance that financial records are reliable for purposes of preparing financial statements and that assets are properly accounted for and safeguarded. The concept of reasonable assurance is based on the recognition that the cost of a system of internal accounting controls should not exceed the value of the benefits derived. The Company has a professional staff of internal auditors who monitor compliance with and assess the effectiveness of the system of internal accounting controls.

The Audit Committee of the Board of Directors, comprised of independent directors, meets regularly with management, the internal auditors, and the independent auditors to discuss matters relating to financial reporting, internal accounting control, and the nature, extent and results of the audit effort. The independent auditors and internal auditors have full and free access to the Audit Committee, with and without management present.

MANAGEMENT’S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Arch Resources, Inc. and subsidiaries (the “Company”) is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f). Our internal control over financial reporting is a process designed under the supervision of our principal executive officer and principal financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Because of its inherent limitations, internal control over financial reporting may not detect or prevent misstatements. Projections of any evaluation of the 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 processes may deteriorate.

Under the supervision and with the participation of the Company’s management, including its principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting as of December 31, 2023 based on the criteria set forth in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its evaluation, management concluded that the Company’s internal control over financial reporting is effective as of December 31, 2023.

The Company’s independent registered public accounting firm, Ernst & Young LLP, has issued an attestation report on the Company’s internal control over financial reporting as of December 31, 2023.

Arch Resources, Inc. and Subsidiaries
Consolidated Income Statements
(in thousands, except per share data)

	<u>Year Ended December 31, 2023</u>	<u>Year Ended December 31, 2022</u>	<u>Year Ended December 31, 2021</u>
Revenues	\$ 3,145,843	\$ 3,724,593	\$ 2,208,042
Costs, expenses and other operating			
Cost of sales (exclusive of items shown separately below)	2,341,956	2,338,863	1,579,836
Depreciation, depletion and amortization	146,418	133,300	120,327
Accretion on asset retirement obligations	21,170	17,721	21,748
Change in fair value of coal derivatives, net	1,572	1,274	(2,392)
Selling, general and administrative expenses	98,871	105,355	92,342
Loss on divestitures	—	—	24,225
Other operating (income) expense, net	(10,598)	18,669	4,826
	<u>2,599,389</u>	<u>2,615,182</u>	<u>1,840,912</u>
Income from operations	546,454	1,109,411	367,130
Interest income (expense), net			
Interest expense	(14,821)	(20,461)	(23,972)
Interest and investment income	17,259	7,299	628
	<u>2,438</u>	<u>(13,162)</u>	<u>(23,344)</u>
Income before nonoperating expenses	548,892	1,096,249	343,786
Nonoperating expense			
Non-service related pension and postretirement benefit credits (costs)	3,786	(2,841)	(4,339)
Net loss resulting from early retirement of debt	(1,126)	(14,420)	—
	<u>2,660</u>	<u>(17,261)</u>	<u>(4,339)</u>
Income before income taxes	551,552	1,078,988	339,447
Provision for (benefit from) income taxes	87,514	(251,926)	1,874
Net income	<u>\$ 464,038</u>	<u>\$ 1,330,914</u>	<u>\$ 337,573</u>
Net income per common share			
Basic earnings per share	<u>\$ 25.45</u>	<u>\$ 77.67</u>	<u>\$ 22.04</u>
Diluted earnings per share	<u>\$ 24.20</u>	<u>\$ 63.88</u>	<u>\$ 19.20</u>
Weighted average shares outstanding			
Basic weighted average shares outstanding	<u>18,233</u>	<u>17,136</u>	<u>15,318</u>
Diluted weighted average shares outstanding	<u>19,183</u>	<u>20,985</u>	<u>17,579</u>

The accompanying notes are an integral part of the consolidated financial statements.

Arch Resources, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income
(in thousands)

	<u>Year Ended December 31, 2023</u>	<u>Year Ended December 31, 2022</u>	<u>Year Ended December 31, 2021</u>
Net income	\$ 464,038	\$ 1,330,914	\$ 337,573
Derivative instruments			
Comprehensive income before tax	—	1,763	2,128
Provision for income taxes	—	—	—
	—	1,763	2,128
Pension, postretirement and other post-employment benefits			
Comprehensive (loss) income before tax	(24,364)	57,930	47,562
Provision for (benefit from) income taxes	1,662	(12,548)	—
	(22,702)	45,382	47,562
Available-for-sale securities			
Comprehensive income before tax	39	161	169
Provision for (benefit from) income taxes	16	(35)	—
	55	126	169
Total other comprehensive (loss) income	(22,647)	47,271	49,859
Total comprehensive income	<u>\$ 441,391</u>	<u>\$ 1,378,185</u>	<u>\$ 387,432</u>

The accompanying notes are an integral part of the consolidated financial statements.

Arch Resources, Inc. and Subsidiaries
Consolidated Balance Sheets
(in thousands, except per share data)

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 287,807	\$ 236,059
Short-term investments	32,724	36,993
Restricted cash	1,100	1,100
Trade accounts receivable (net of \$0 allowance at December 31, 2023 and December 31, 2022)	273,522	236,999
Other receivables	13,700	18,301
Inventories	244,261	223,015
Other current assets	64,653	71,384
Total current assets	<u>917,767</u>	<u>823,851</u>
Property, plant and equipment		
Coal lands and mineral rights	402,387	406,085
Plant and equipment	1,099,511	968,420
Deferred mine development	509,637	475,037
	<u>2,011,535</u>	<u>1,849,542</u>
Less accumulated depreciation, depletion and amortization	<u>(782,644)</u>	<u>(662,514)</u>
Property, plant and equipment, net	<u>1,228,891</u>	<u>1,187,028</u>
Other assets		
Deferred income taxes	124,024	209,470
Equity investments	22,815	17,267
Fund for asset retirement obligations	142,266	135,993
Other noncurrent assets	48,410	59,499
Total other assets	<u>337,515</u>	<u>422,229</u>
Total assets	<u>\$ 2,484,173</u>	<u>\$ 2,433,108</u>
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 205,001	\$ 211,848
Accrued expenses and other current liabilities	127,617	157,043
Current maturities of debt	35,343	57,988
Total current liabilities	<u>367,961</u>	<u>426,879</u>
Long-term debt	105,252	116,288
Asset retirement obligations	255,740	235,736
Accrued pension benefits	878	1,101
Accrued postretirement benefits other than pension	47,494	49,674
Accrued workers' compensation	154,650	155,756
Other noncurrent liabilities	72,742	82,094
Total liabilities	<u>1,004,717</u>	<u>1,067,528</u>
Stockholders' equity		
Common stock, \$0.01 par value, authorized 300,000 shares, issued 30,557 and 28,761 shares at December 31, 2023 and December 31, 2022, respectively	306	288
Paid-in capital	720,029	724,660
Retained earnings	1,830,018	1,565,374
Treasury stock, 12,197 and 11,207 shares at December 31, 2023 and December 31, 2022, respectively, at cost	(1,109,679)	(986,171)
Accumulated other comprehensive income	38,782	61,429
Total stockholders' equity	<u>1,479,456</u>	<u>1,365,580</u>
Total liabilities and stockholders' equity	<u>\$ 2,484,173</u>	<u>\$ 2,433,108</u>

The accompanying notes are an integral part of the consolidated financial statements.

Arch Resources, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating activities			
Net income	\$ 464,038	\$ 1,330,914	\$ 337,573
Adjustments to reconcile to cash from operating activities:			
Depreciation, depletion and amortization	146,418	133,300	120,327
Accretion on asset retirement obligations	21,170	17,721	21,748
Deferred income taxes	87,091	(222,023)	8
Employee stock-based compensation expense	25,443	27,383	20,539
Amortization relating to financing activities	1,751	2,459	6,549
(Gain) loss on disposals and divestitures, net	(731)	(997)	23,276
Reclamation work completed	(21,456)	(13,720)	(39,047)
Contribution to fund for asset retirement obligations	(6,273)	(115,993)	(20,000)
Changes in:			
Receivables	(31,763)	77,274	(212,950)
Inventories	(21,246)	(66,281)	(30,726)
Accounts payable, accrued expenses and other current liabilities	(31,323)	84,947	45,547
Income taxes, net	(938)	(30,507)	1,820
Coal derivative assets and liabilities, including margin account	1,572	1,274	(3,553)
Asset retirement obligations	3,441	(1,193)	(13,697)
Pension, postretirement and other postemployment benefits	(10,434)	(25,537)	4,571
Other	8,614	10,519	(23,701)
Cash provided by operating activities	635,374	1,209,540	238,284
Investing activities			
Capital expenditures	(176,037)	(172,728)	(245,440)
Minimum royalty payments	(1,175)	(1,069)	(1,186)
Proceeds from disposals and divestitures	4,055	1,972	21,228
Purchases of short-term investments	(35,412)	(39,731)	—
Proceeds from sales of short-term investments	40,292	17,337	87,486
Investments in and advances to affiliates, net	(17,345)	(9,575)	(3,303)
Cash used in investing activities	(185,622)	(203,794)	(141,215)
Financing activities			
Payments on term loan due 2024	(3,000)	(273,788)	(7,895)
Proceeds from equipment financing	—	—	19,438
Proceeds from tax exempt bonds	—	—	44,985
Payments on convertible debt	(58,430)	(208,130)	—
Net payments on other debt	(18,943)	(11,235)	(11,195)
Debt financing costs	—	(1,035)	(2,057)
Purchases of treasury stock	(125,508)	(156,790)	—
Dividends paid	(206,125)	(456,392)	(3,830)
Payments for taxes related to net share settlement of equity awards	(30,240)	(7,052)	(4,840)
Proceeds from warrants exercised	44,242	19,540	1,175
Cash (used in) provided by financing activities	(398,004)	(1,094,882)	35,781
Increase (decrease) in cash and cash equivalents, including restricted cash	51,748	(89,136)	132,850
Cash and cash equivalents, including restricted cash, beginning of period	\$ 237,159	\$ 326,295	193,445
Cash and cash equivalents, including restricted cash, end of period	\$ 288,907	\$ 237,159	\$ 326,295
Cash and cash equivalents, including restricted cash, end of period			
SUPPLEMENTAL CASH FLOW INFORMATION			
Cash and cash equivalents	\$ 287,807	\$ 236,059	\$ 325,194
Restricted Cash	1,100	1,100	1,101
Cash paid during the period for interest	\$ 10,466	\$ 18,820	\$ 31,568

The accompanying notes are an integral part of the consolidated financial statements.

Arch Resources, Inc. and Subsidiaries
Consolidated Statements of Stockholders' Equity
Three Years Ended December 31, 2023

	<u>Common Stock</u>	<u>Paid-In Capital</u>	<u>Treasury Stock, at Cost</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Income (Loss)</u>	<u>Total</u>
	(In thousands, except per share data)					
BALANCE AT DECEMBER 31, 2020	\$ 253	\$ 767,484	\$ (827,381)	\$ 378,906	\$ (35,701)	\$ 283,561
Dividends on common shares	—	—	—	(4,001)	—	(4,001)
Issuance of 157,609 shares of common stock under long-term incentive plan	2	—	—	—	—	2
Employee stock-based compensation	—	20,539	—	—	—	20,539
Common stock withheld related to net share settlement of equity awards	—	(4,842)	—	—	—	(4,842)
Warrants exercised	—	1,175	—	—	—	1,175
Total comprehensive income	—	—	—	337,573	\$ 49,859	387,432
BALANCE AT DECEMBER 31, 2021	\$ 255	\$ 784,356	\$ (827,381)	\$ 712,478	\$ 14,158	\$ 683,866
Cumulative effect of accounting change on convertible debt	—	(39,239)	—	6,718	—	(32,521)
Dividends on common shares	—	—	—	(456,459)	—	(456,459)
Dividend equivalents earned on RSU grants	—	826	—	(28,277)	—	(27,451)
Purchase of 1,118,457 shares of common stock under share repurchase program	—	—	(158,790)	—	—	(158,790)
Employee stock-based compensation	—	27,383	—	—	—	27,383
Cash paid for convertible debt repurchased	—	(61,124)	—	—	—	(61,124)
Issuance of 92,314 shares of common stock under long-term incentive plan	1	—	—	—	—	1
Issuance of 2,636,660 shares of common stock for convertible debt exchanged	26	(32)	—	—	—	(6)
Common stock withheld related to net share settlement of equity awards	—	(7,052)	—	—	—	(7,052)
Issuance of 561,561 shares of common stock for warrants exercised	6	19,542	—	—	—	19,548
Total comprehensive income	—	—	—	1,330,914	\$ 47,271	1,378,185
BALANCE AT DECEMBER 31, 2022	\$ 288	\$ 724,660	\$ (986,171)	\$ 1,565,374	\$ 61,429	\$ 1,365,580
Dividends on common shares	—	—	—	(192,471)	—	(192,471)
Dividend equivalents earned on RSU grants	—	428	—	(6,923)	—	(6,495)
Issuance of 311,506 shares of common stock under long-term incentive plan	3	(3)	—	—	—	—
Purchase of 989,792 shares of common stock under share repurchase program	—	—	(123,508)	—	—	(123,508)
Employee stock-based compensation	—	25,443	—	—	—	25,443
Cash paid for convertible debt repurchased	—	(44,486)	—	—	—	(44,486)
Common stock withheld related to net share settlement of equity awards	—	(30,240)	—	—	—	(30,240)
Issuance of 1,484,226 shares of common stock for warrants exercised	15	44,227	—	—	—	44,242
Total comprehensive income	—	—	—	464,038	\$ (22,647)	441,391
BALANCE AT DECEMBER 31, 2023	<u>\$ 306</u>	<u>\$ 720,029</u>	<u>\$ (1,109,679)</u>	<u>\$ 1,830,018</u>	<u>\$ 38,782</u>	<u>\$ 1,479,456</u>

Arch Resources, Inc. and Subsidiaries
Notes to Consolidated Financial Statements

1. Basis of Presentation

The accompanying consolidated financial statements include the accounts of Arch Resources, Inc. (“Arch Resources”) and its subsidiaries and controlled entities (the “Company”). Unless the context indicates otherwise, the terms “Arch” and the “Company” are used interchangeably in this Annual Report on Form 10-K. The Company’s primary business is the production of metallurgical and thermal coal from underground and surface mines located throughout the United States, for sale to steel producers, utility companies, and industrial accounts both in the United States and around the world. The Company currently operates mining complexes in West Virginia, Wyoming and Colorado. All subsidiaries are wholly-owned. Intercompany transactions and accounts have been eliminated in consolidation.

2. Accounting Policies

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for financial reporting and U.S. Securities and Exchange Commission regulations.

Accounting Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and revenues and expenses in the accompanying consolidated financial statements and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents are stated at cost. Cash equivalents consist of highly-liquid investments with an original maturity of three months or less when purchased and investments in commercial paper which the Company classifies as cash and cash equivalents.

Restricted Cash

Amounts included in restricted cash represent required deposits for a performance bid bond for a potential customer for \$1.1 million as of both December 31, 2023 and 2022, respectively.

Accounts Receivable

Accounts receivable are recorded at amounts that are expected to be collected, based on past collection history, the economic environment and specified risks identified in the receivables portfolio.

Inventories

Coal and supplies inventories are valued at the lower of average cost or market. Coal inventory costs include labor, supplies, equipment costs, transportation costs incurred prior to the transfer of title to customers and operating overhead. The costs of removing overburden, called stripping costs, incurred during the production phase of the mine are considered variable production costs and are included in the cost of the coal extracted during the period the stripping costs are incurred.

Investments and Membership Interests in Joint Ventures

Investments and membership interests in joint ventures are accounted for under the equity method of accounting if the Company has the ability to exercise significant influence, but not control, over the entity. The Company's share of the entity's income or loss is reflected in "Other operating (income) expense, net" in the Consolidated Income Statements. Information about investment activity is provided in Note 7, "Equity Method Investments and Membership Interests in Joint Ventures" to the Consolidated Financial Statements.

Investments in debt securities are classified as available-for-sale and are recorded at their fair values. Unrealized gains and losses on these investments are recorded in other comprehensive income or loss. A decline in the value of an investment that is considered other-than-temporary would be recognized in operating expenses.

Exploration Costs

Costs to acquire permits for exploration activities are capitalized. Drilling and other costs related to locating coal deposits and evaluating the economic viability of such deposits are expensed as incurred.

Prepaid Royalties

Leased mineral rights are often acquired through royalty payments. When royalty payments represent prepayments recoupable against royalties owed on future revenues from the underlying coal, they are recorded as a prepaid asset, with amounts expected to be recouped within one year classified as current. When coal from these leases is sold, the royalties owed are recouped against the prepayment and charged to cost of sales. An impairment charge is recognized for prepaid royalties that are not expected to be recouped.

Property, Plant and Equipment

Plant and Equipment

Plant and equipment were recorded at fair value at emergence during fresh start accounting; subsequent purchases of property, plant and equipment have been recorded at cost. Interest costs incurred during the construction period for major asset additions are capitalized. The Company did not capitalize interest costs during the years ended December 31, 2023, and 2022, respectively. Expenditures that extend the useful lives of existing plant and equipment or increase the productivity of the asset are capitalized. The cost of maintenance and repairs that do not extend the useful life or increase the productivity of the asset is expensed as incurred.

Preparation plants and loadouts are depreciated using the units-of-production method over the estimated recoverable reserves, subject to a minimum level of depreciation. Other plant and equipment are depreciated principally using the straight-line method over the estimated useful lives of the assets, limited by the remaining life of the mine. The useful lives of mining equipment, including longwalls, draglines and shovels, range from 1 to 16 years. The useful lives of buildings and leasehold improvements generally range from 5 to 20 years.

Deferred Mine Development

Costs of developing new mines or significantly expanding the capacity of existing mines are capitalized and amortized using the units-of-production method over the estimated recoverable reserves that are associated with the property being benefited. Costs may include construction permits and licenses; mine design; construction of access roads, shafts, slopes and main entries; and removing overburden to access reserves in a new pit. Additionally, deferred mine development includes the asset cost associated with asset retirement obligations. Coal sales revenue related to incidental production during the development phase is recorded as coal sales revenue with an offset to cost of coal sales based on the estimated cost per ton sold for the mine when the asset is in place for its intended use.

Coal Lands and Mineral Rights

Rights to coal reserves may be acquired directly through governmental or private entities. A significant portion of the Company's coal reserves are controlled through leasing arrangements. Lease agreements are generally long-term in nature (original terms range from 10 to 50 years), and substantially all of the leases contain provisions that allow for automatic extension of the lease term providing certain requirements are met. Leases of mineral reserves and related land leases are exempt from the provisions of the leasing standard.

The net book value of the Company's coal interests was \$215.6 million and \$239.4 million at December 31, 2023 and 2022, respectively. Payments to acquire royalty lease agreements and lease bonus payments are capitalized as a cost of the underlying mineral reserves and depleted over the life of proven and probable reserves. Coal lease rights are depleted using the units-of-production method, and the rights are assumed to have no residual value.

The Company currently does not have any future lease bonus payments.

Depreciation, depletion and amortization

The depreciation, depletion and amortization related to long-lived assets is reflected in the Consolidated Income Statements as a separate line item. No depreciation, depletion or amortization are included in any other operating cost categories.

Impairment

If facts and circumstances suggest that the carrying value of a long-lived asset or asset group may not be recoverable, the asset or asset group is reviewed for potential impairment. If this review indicates that the carrying amount of the asset will not be recoverable through projected undiscounted cash flows generated by the asset and its related asset group over its remaining life, then an impairment loss is recognized by reducing the carrying value of the asset to its fair value. The Company may, under certain circumstances, idle mining operations in response to market conditions or other factors. Because an idling is not a permanent closure, it is not considered an automatic indicator of impairment.

Deferred Financing Costs

The Company capitalizes costs incurred in connection with new borrowings, the establishment or enhancement of credit facilities and the issuance of debt securities. These costs are amortized as an adjustment to interest expense over the life of the borrowing or term of the credit facility using the effective interest method. Debt issuance costs related to a recognized liability are presented in the balance sheet as a direct reduction from the carrying amount of that liability whereas debt issuance costs related to a credit facility with no balance outstanding are shown as an asset. The unamortized balance of deferred financing costs shown as an asset was \$1.0 million at December 31, 2023, with \$0.6 million classified as current; the unamortized balance of deferred financing costs shown as an asset at December 31, 2022 was \$1.6 million with \$0.6 million classified as current. The current amounts are classified within "Other current assets" and the noncurrent amounts are classified within "Other noncurrent assets." For information on the unamortized balance of deferred financing fees related to outstanding debt, see Note 10, "Debt and Financing Arrangements" to the Consolidated Financial Statements.

Revenue Recognition

Revenues include sales to customers of coal produced at Company operations and coal purchased from third parties. The Company recognizes revenue at the time risk of loss passes to the customer at contracted amounts. Transportation costs are included in cost of sales and amounts billed by the Company to its customers for transportation are included in revenues. Control of the goods may transfer and revenue may be recognized before, during or subsequent to the period in which final average pricing is determined. For all metallurgical coal sales under average pricing contracts where pricing is not finalized when revenue is recognized, revenue is recorded based on estimated consideration to be received at the date of the sale with reference to metallurgical coal price assessments.

Other Operating (Income) Expense, net

Other operating (income) expense, net in the accompanying Consolidated Income Statements reflects income and expense from sources other than physical coal sales, including: contract settlements; royalties earned from properties leased to third parties; income from equity investments (Note 7, “Equity Method Investments and Membership Interests in Joint Ventures”); non-material gains and losses from divestitures and dispositions of assets; and realized gains and losses on derivatives that do not qualify for hedge accounting and are not held for trading purposes (Note 8, “Derivatives”); and land management expenses.

Asset Retirement Obligations

The Company’s legal obligations associated with the retirement of long-lived assets are recognized at fair value at the time the obligations are incurred. Accretion expense is recognized through the expected settlement date of the obligation. Obligations are incurred at the time development of a mine commences for underground and surface mines or construction begins for support facilities, refuse areas and slurry ponds. The obligation’s fair value is 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. Upon initial recognition of a liability, a corresponding amount is capitalized as a component of the carrying value of the related long-lived asset.

The Company reviews its asset retirement obligation at least annually and makes necessary adjustments for permit changes as granted by state authorities and for revisions of estimates of the amount and timing of costs. For ongoing operations, adjustments to the liability result in an adjustment to the corresponding asset. For idle operations, adjustments to the liability are recognized as income or expense in the period the adjustment is recorded. Any difference between the recorded obligation and the actual cost of reclamation is recorded in profit or loss in the period the obligation is settled. See additional discussion in Note 12, “Asset Retirement Obligations” to the Consolidated Financial Statements.

Loss Contingencies

The Company accrues for cost related to contingencies when a loss is probable and the amount is reasonably determinable. Disclosure of contingencies is included in the financial statements when it is at least reasonably possible that a material loss or an additional material loss in excess of amounts already accrued may be incurred. The amount accrued represents the Company’s best estimate of the loss, or, if no best estimate within a range of outcomes exists, the minimum amount in the range.

Derivative Instruments

The Company generally utilizes derivative instruments to manage exposures to commodity prices and interest rate risk on long-term debt. Derivative financial instruments are recognized on the balance sheet at fair value. Certain coal contracts may meet the definition of a derivative instrument, but because they provide for the physical purchase or sale of coal in quantities expected to be used or sold by the Company over a reasonable period in the normal course of business, they are not recognized on the balance sheet.

See Note 8, “Derivatives” to the Consolidated Financial Statements for further disclosures related to the Company’s derivative instruments.

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly hypothetical transaction between market participants at a given measurement date. Valuation techniques used must maximize the use of observable inputs and minimize the use of unobservable inputs. See Note 13, “Fair Value Measurements” to the Consolidated Financial Statements for further disclosures related to the Company’s recurring fair value estimates.

Income Taxes

Deferred income taxes are provided for temporary differences arising from differences between the financial statement and tax basis of assets and liabilities existing at each balance sheet date using enacted tax rates anticipated to be in effect when the related taxes are expected to be paid or recovered. A valuation allowance is established if it is more likely than not that a deferred tax asset will not be realized. Management reassesses the ability to realize its deferred tax assets annually in the fourth quarter or when circumstances indicate that the ability to realize deferred tax assets has changed. In determining the need for a valuation allowance, the Company considers projected realization of tax benefits based on expected levels of future taxable income, available tax planning strategies and the reversal of temporary differences. As it relates to changes in accumulated other comprehensive income (loss), the Company’s policy is to release tax effects from accumulated other comprehensive income (loss) when the underlying components affect earnings.

Benefits from tax positions that are uncertain are not recognized unless the Company concludes that it is more likely than not that the position would be sustained in a dispute with taxing authorities, should the dispute be taken to the court of last resort. The Company would measure any such benefit at the largest amount of benefit that is greater than 50% likely of being realized upon settlement with taxing authorities.

See Note 11, “Taxes” to the Consolidated Financial Statements for further disclosures about income taxes.

Benefit Plans

In February 2022, the Board of Directors approved the termination of the Company’s Cash Balance Pension Plan. The Company has executed plan amendments regarding the termination and filed an Application for Determination for Terminating Pension Plan with the Internal Revenue Service (“IRS”), which was approved by the IRS during the first quarter of 2023. The Company also prepared and filed appropriate notices and documents related to the Pension Plan’s termination and wind-down with the Pension Benefit Guaranty Corporation (“PBGC”). To complete the termination of the plan, the Company made a \$3.2 million cash contribution into the plan in order to complete lump sum payments and to purchase annuity contracts for plan participants. An immaterial gain was recognized on the plan termination, which is reflected in the Consolidated Income Statements line item “Non-service related pension and postretirement benefits credits (costs)”. The Company no longer administers or pays the retirement benefits of the Company’s Cash Balance Pension Plan going forward.

Stock-Based Compensation

The compensation cost of all stock-based awards is determined based on the grant-date fair value of the award, and is recognized over the requisite service period. The grant-date fair value of restricted stock awards with a market condition is determined using a Monte Carlo simulation. Compensation cost for an award with performance conditions is accrued if it is probable that the conditions will be met. The Company accounts for forfeitures as they occur. See further discussion in Note 15, “Stock-Based Compensation and Other Incentive Plans” to the Consolidated Financial Statements.

Recently Adopted Accounting Guidance

In August 2020, the FASB issued ASU 2020-06, Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40)—Accounting for Convertible

Instruments and Contracts in an Entity's Own Equity. ASU 2020-06 reduces the number of accounting models for convertible debt instruments. Additionally, ASU 2020-06 amends the diluted earnings per share calculation for convertible instruments by requiring the use of the if-converted method. The if-converted method assumes the conversion of convertible instruments occurs at the beginning of the reporting period and diluted weighted average shares outstanding includes the common shares issuable upon conversion of the convertible instruments. ASU 2020-06 is effective for public business entities, for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. The Company adopted ASU 2020-06 on January 1, 2022 under the modified retrospective approach.

Upon issuance of the Company's \$155.3 million principal amount of 5.25% convertible senior notes due 2025 (the "Convertible Notes" or "Convertible Debt") in November 2020, the Company bifurcated the debt and equity components of the Convertible Notes to long-term debt and additional paid-in capital in its consolidated balance sheet. The amount recorded to additional paid-in capital represented a debt discount that was being amortized to interest expense over the life of the Convertible Notes. As part of the adoption of ASU 2020-06, the Company (i) reversed the equity component recorded to additional paid-in capital of \$39.2 million, (ii) recorded a cumulative effect of the adoption of ASU 2020-06 of \$6.7 million to retained earnings, representing a reversal of the debt discount that was amortized to interest expense, and (iii) recorded an offsetting increase in debt. See Note 10, "Debt and Financing Arrangements" for additional information.

Additionally, upon adoption of ASU 2020-06, the treasury stock method utilized by the Company to calculate earnings per share through December 31, 2021 is no longer permitted. Accordingly, the Company has transitioned to the if-converted method utilizing the modified retrospective approach. For the year ended December 31, 2022, under the previous treasury stock method, the diluted earnings per share would have been approximately \$65.28. As a result of the adoption of ASU 2020-06, diluted earnings per share decreased by \$1.40 for the year ended December 31, 2022. During 2023, the Company repurchased the remaining Convertible Notes with a principal amount of \$13.2 million for aggregate consideration consisting of \$58.4 million in cash.

Recently Adopted Accounting Guidance Not Yet Effective

In November 2023, the FASB issued ASU 2023-07 Segment Reporting – Improving Reportable Segment Disclosures (Topic 280). The update is intended to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant expenses. The ASU requires disclosure to include significant segment expenses that are regularly provided to the chief operating decision maker (CODM), a description of other segment items by reportable segment, and any additional measures of a segment's profit or loss used by the CODM when deciding how to allocate resources. The ASU also requires all annual disclosures currently required by Topic 280 to be included in interim periods. The update is effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted and requires retrospective application to all prior periods presented in the financial statements. The Company is currently assessing the timing and impact of adopting the updated provisions.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which includes amendments that further enhance income tax disclosures, primarily through standardization and disaggregation of rate reconciliation categories and income taxes paid by jurisdiction. The amendments are effective for the Company's annual periods beginning June 1, 2025, with early adoption permitted, and should be applied either prospectively or retrospectively. The Company is currently evaluating the ASU to determine its impact on the Company's disclosures.

3. Accumulated Other Comprehensive Income (Loss)

The following items are included in accumulated other comprehensive income:

	<u>Derivative Instruments</u>	<u>Pension, Postretirement and Other Post- Employment Benefits</u>	<u>Available-for- Sale Securities</u>	<u>Accumulated Other Comprehensive Income (loss)</u>
	(In thousands)			
January 1, 2022	\$ (1,763)	\$ 16,103	\$ (182)	\$ 14,158
Unrealized gains (losses)	223	61,041	(21)	61,243
Amounts reclassified from accumulated other comprehensive income (loss)	1,540	(3,111)	182	(1,389)
Tax effect	—	(12,548)	(35)	(12,583)
Balances at December 31, 2022	<u>\$ —</u>	<u>\$ 61,485</u>	<u>\$ (56)</u>	<u>\$ 61,429</u>
Unrealized (losses) gains	—	(8,506)	9	(8,497)
Amounts reclassified from accumulated other comprehensive income (loss)	—	(15,858)	30	(15,828)
Tax effect	—	1,662	16	1,678
Balances at December 31, 2023	<u><u>\$ —</u></u>	<u><u>\$ 38,783</u></u>	<u><u>\$ (1)</u></u>	<u><u>\$ 38,782</u></u>

The following amounts were reclassified out of accumulated other comprehensive income (loss) during the respective periods:

Details About AOCI Components	December 31, 2023	December 31, 2022	Line Item in the Condensed Consolidated Income Statements
Interest rate hedges	\$ —	\$ (112)	Interest expense
Interest rate hedges (ineffective portion)	—	(1,428)	Net loss resulting from early retirement of debt
	—	—	Provision for income taxes
	<u>\$ —</u>	<u>\$ (1,540)</u>	Net of tax
Pension, postretirement and other post-employment benefits			
Amortization of actuarial gains, net ¹	\$ 11,208	\$ 2,193	Non-service related pension and postretirement benefit credits (costs)
Amortization of prior service credits	98	147	Non-service related pension and postretirement benefit credits
Pension Termination/Settlement	4,552	771	Non-service related pension and postretirement benefit credits (costs)
	<u>\$ 15,858</u>	<u>\$ 3,111</u>	Total before tax
	<u>(1,662)</u>	<u>(674)</u>	Provision for income taxes
	<u>\$ 14,196</u>	<u>\$ 2,437</u>	Net of tax
Available-for-sale securities ²	\$ (30)	\$ (182)	Interest and investment income
	16	39	Provision for income taxes
	<u>\$ (14)</u>	<u>\$ (143)</u>	Net of tax

¹ Production-related benefits and workers' compensation costs are included in costs of sales.

² The gains and losses on sales of available-for-sale-securities are determined on a specific identification basis.

4. Divestitures

In November 2021, the Company sold its 49.5% ownership in Knight Hawk Holdings, LLC (Knight Hawk") to CBR, LLC. The Company received total proceeds of \$38 million which consisted of \$20 million received in the fourth quarter of 2021 and a three year note receivable for \$18 million with monthly payments of \$0.5 million. The sale resulted in a non-cash loss of \$24.2 million that was recorded in "Loss on divestitures" in the year ended December 31, 2021.

5. Inventories

Inventories consist of the following:

	December 31, 2023	December 31, 2022
(In thousands)		
Coal	\$ 99,174	\$ 96,954
Repair parts and supplies	145,087	126,061
	<u>\$ 244,261</u>	<u>\$ 223,015</u>

The repair parts and supplies are stated net of an allowance for slow-moving and obsolete inventories of \$1.6 million at December 31, 2023 and \$2.4 million at December 31, 2022.

6. Investments in Available-for-Sale Securities

The Company has invested in marketable debt securities, primarily highly liquid U.S. Treasury securities and investment grade corporate bonds. These investments are held in the custody of a major financial institution. These securities are classified as available-for-sale securities and, accordingly, the unrealized gains and losses are recorded through other comprehensive income.

The Company's investments in available-for-sale marketable securities are as follows:

December 31, 2023					
	Cost Basis	Gross Unrealized		Allowance for - Credit Losses	Fair Value
		Gains	Losses		
(In thousands)					
Available-for-sale:					
U.S. government and agency securities	\$ 28,764	\$ 14	\$ (5)	\$ —	\$ 28,773
Corporate notes and bonds	3,951	1	(1)	—	3,951
Total Investments	<u>\$ 32,715</u>	<u>\$ 15</u>	<u>\$ (6)</u>	<u>\$ —</u>	<u>\$ 32,724</u>

December 31, 2022					
	Cost Basis	Gross Unrealized		Allowance for - Credit Losses	Fair Value
		Gains	Losses		
(In thousands)					
Available-for-sale:					
U.S. government and agency securities	\$ 28,325	\$ 1	\$ (25)	\$ —	\$ 28,301
Corporate notes and bonds	8,689	20	(17)	—	8,692
Total Investments	<u>\$ 37,014</u>	<u>\$ 21</u>	<u>\$ (42)</u>	<u>\$ —</u>	<u>\$ 36,993</u>

The aggregate fair value of investments with unrealized losses that had been owned for less than a year was \$2.2 million and \$22.6 million at December 31, 2023 and 2022, respectively. The aggregate fair value of investments with unrealized losses that have been owned for over a year was \$2.3 million and \$0.0 million at December 31, 2023 and 2022, respectively.

The debt securities outstanding at December 31, 2023 have maturity dates ranging through the first quarter of 2025. The Company classifies its investments as current based on the nature of the investments and their availability to provide cash for use in current operations, if needed.

7. Equity Method Investments and Membership Interests in Joint Ventures

The Company accounts for its investments and membership interests in joint ventures under the equity method of accounting if the Company has the ability to exercise significant influence, but not control, over the entity. Equity method investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investments may not be recoverable.

Below are the equity method investments reflected in the consolidated balance sheets:

(In thousands)	<u>DTA</u>
December 31, 2021	\$ 15,403
Advances to affiliates, net	9,575
Equity in comprehensive loss	<u>(7,711)</u>
December 31, 2022	\$ 17,267
Advances to affiliates, net	17,345
Equity in comprehensive loss	<u>(11,797)</u>
December 31, 2023	<u>\$ 22,815</u>

The Company holds a 35% general partnership interest in Dominion Terminal Associates LLP (“DTA”), which is accounted for under the equity method. DTA operates a ground storage-to-vessel coal transloading facility in Newport News, Virginia for use by the partners. Under the terms of a throughput and handling agreement with DTA, each partner is charged its share of cash operating and debt-service costs in exchange for the right to use the facility’s loading capacity and is required to make periodic cash advances to DTA to fund such costs.

The Company is not required to make any future contingent payments related to development financing for its equity investee.

8. Derivatives

Diesel fuel price risk management

The Company is exposed to price risk with respect to diesel fuel purchased for use in its operations. The Company anticipates purchasing approximately 30 to 35 million gallons of diesel fuel for use in its operations during 2024. To protect the Company’s cash flows from increases in the price of diesel fuel, the Company has purchased heating oil call options. At December 31, 2023, the Company had protected the price of expected diesel fuel purchases for 2024 with approximately 24 million gallons of heating oil call options with an average strike price of \$2.96 per gallon. These positions are not designated as hedges for accounting purposes, and therefore, changes in the fair value are recorded immediately to earnings.

Coal risk management positions

The Company may sell or purchase forward contracts, swaps and options in the over-the-counter coal market in order to manage its exposure to coal prices. The Company has exposure to the risk of fluctuating coal prices related to forecasted sales or purchases of coal or to the risk of changes in the fair value of a fixed price physical sales contract. Certain derivative contracts may be designated as hedges of these risks.

At December 31, 2023, the Company held approximately 7,000 tons of coal derivatives for risk management purposes that are expected to settle in 2024.

Tabular derivatives disclosures

The Company has master netting agreements with all of its counterparties which allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. Such netting arrangements reduce the Company's credit exposure related to these counterparties. For classification purposes, the Company records the net fair value of all the positions with a given counterparty as a net asset or liability in the Consolidated Balance Sheets. The amounts shown in the table below represent the fair value position of individual contracts, and not the net position presented in the accompanying Consolidated Balance Sheets.

The fair value and location of derivatives reflected in the accompanying Consolidated Balance Sheets are as follows:

Fair Value of Derivatives (In thousands)	December 31, 2023		December 31, 2022	
	Asset Derivative	Liability Derivative	Asset Derivative	Liability Derivative
Derivatives Not Designated as Hedging Instruments				
Heating oil -- diesel purchases	998	—	1,300	—
Coal -- risk management	—	(165)	1,407	—
Total	\$ 998	\$ (165)	\$ 2,707	\$ —
Total derivatives	\$ 998	\$ (165)	\$ 2,707	\$ —
Effect of counterparty netting	—	—	—	—
Net derivatives as classified in the balance sheets	\$ 998	\$ (165)	\$ 833	\$ 2,707

Fair Value of Derivatives (In thousands)		December 31, 2023	December 31, 2022
Net derivatives as reflected on the balance sheets (in thousands)			
Heating Oil and coal	Other current assets	\$ 998	\$ 2,707
	Accrued expenses and other current liabilities	(165)	—
Coal		<u>\$ 833</u>	<u>\$ 2,707</u>

The Company had a current asset representing cash collateral posted to a margin account for derivative positions primarily related to coal derivatives of \$0.6 million at December 31, 2023. At December 31, 2022, the current open derivative positions were non-margined. This amount is not included with the derivatives presented in the table above and is included in "other current assets" in the accompanying Consolidated Balance Sheets.

The effects of derivatives on measures of financial performance are as follows:

Derivatives Not Designated as Hedging Instruments (in thousands)

For the noted periods,

	Gain (Loss) Recognized		
	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Coal trading— realized and unrealized	(3)\$ —	\$ —	\$ —
Coal risk management— unrealized	(3) (1,572)	(1,274)	2,392
Natural gas trading — realized and unrealized	(3) —	—	—
Change in fair value of coal derivatives and coal trading activities, net total	\$ (1,572)	\$ (1,274)	\$ 2,392
Coal risk management — realized	(4)\$ 6,254	\$ (42,068)	\$ (27,464)
Heating oil — diesel purchases	(4)\$ (4,079)	\$ 8,309	\$ —

Location in Consolidated Statements of Operations:

- (1) — Revenues
- (2) — Cost of sales
- (3) — Change in fair value of coal derivatives, net
- (4) — Other operating income, net

9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	December 31, 2023	December 31, 2022
	(In thousands)	
Payroll and employee benefits	\$ 37,259	\$ 61,836
Taxes other than income taxes	51,155	53,105
Interest	2,395	2,511
Workers' compensation	18,724	17,584
Asset retirement obligations	6,089	8,632
Other	11,995	13,375
	<u>\$ 127,617</u>	<u>\$ 157,043</u>

10. Debt and Financing Arrangements

	December 31, 2023	December 31, 2022
	(In thousands)	
Term loan due 2024 (\$3.5 million face value)	\$ 3,502	\$ 6,502
Tax Exempt Bonds (\$98.1 million face value)	98,075	98,075
Convertible Debt	—	13,156
Other	40,529	59,472
Debt issuance costs	(1,511)	(2,929)
	<u>140,595</u>	<u>174,276</u>
Less: current maturities of debt	<u>35,343</u>	<u>57,988</u>
Long-term debt	<u>\$ 105,252</u>	<u>\$ 116,288</u>

Term Loan Facility

In 2017, the Company entered into a senior secured term loan credit agreement in an aggregate principal amount of \$300 million (the “Term Loan Debt Facility”) with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the other financial institutions from time to time party thereto (collectively, the “Lenders”). The Term Loan Debt Facility was issued at 99.50% of the face amount and will mature on March 7, 2024. The term loans provided under the Term Loan Debt Facility (the “Term Loans”) are subject to quarterly principal amortization payments in an amount equal to \$0.8 million. The interest rate on the Term Loan Debt Facility is, at the option of Arch Resources, either (i) LIBOR plus an applicable margin of 2.75%, subject to a 1.00% LIBOR floor, or (ii) a base rate plus an applicable margin of 1.75%.

The Term Loan Debt Facility is guaranteed by all existing and future wholly owned domestic subsidiaries of the Company (collectively, the “Subsidiary Guarantors” and, together with Arch Resources, the “Loan Parties”), subject to customary exceptions, and is secured by first priority security interests on substantially all assets of the Loan Parties, including 100% of the voting equity interests of directly owned domestic subsidiaries and 65% of the voting equity interests of directly owned foreign subsidiaries, subject to customary exceptions.

The Company has the right to prepay Term Loans at any time and from time to time in whole or in part without premium or penalty, upon written notice, except that any prepayment of Term Loans that bear interest at the LIBOR Rate other than at the end of the applicable interest periods therefor shall be made with reimbursement for any funding losses and redeployment costs of the Lenders resulting therefrom.

The Term Loan Debt Facility is subject to certain usual and customary mandatory prepayment events, including 100% of net cash proceeds of (i) debt issuances (other than debt permitted to be incurred under the terms of the New Term Loan Debt Facility) and (ii) non-ordinary course asset sales or dispositions, subject to customary thresholds, exceptions and reinvestment rights.

The Term Loan Debt Facility contains customary affirmative covenants and representations.

The Term Loan Debt Facility also contains customary negative covenants, which, among other things, and subject to certain exceptions, include restrictions on (i) indebtedness, (ii) liens, (iii) liquidations, mergers, consolidations and acquisitions, (iv) disposition of assets or subsidiaries, (v) affiliate transactions, (vi) creation or ownership of certain subsidiaries, partnerships and joint ventures, (vii) continuation of or change in business, (viii) restricted payments, (ix) prepayment of subordinated and junior lien indebtedness, (x) restrictions in agreements on dividends, intercompany loans and granting liens on the collateral, (xi) loans and investments, (xii) sale and leaseback transactions, (xiii) changes in organizational documents and fiscal year and (xiv) transactions with respect to bonding subsidiaries. The Term Loan Debt Facility does not contain any financial maintenance covenant.

The Term Loan Debt Facility contains customary events of default, subject to customary thresholds and exceptions, including, among other things, (i) nonpayment of principal and nonpayment of interest and fees, (ii) a material inaccuracy of a representation or warranty at the time made, (iii) a failure to comply with any covenant, subject to customary grace periods in the case of certain affirmative covenants, (iv) cross-events of default to indebtedness of at least \$50 million, (v) cross-events of default to surety, reclamation or similar bonds securing obligations with an aggregate face amount of at least \$50 million, (vi) uninsured judgments in excess of \$50 million, (vii) any loan document shall cease to be a legal, valid and binding agreement, (viii) uninsured losses or proceedings against assets with a value in excess of \$50 million, (ix) certain ERISA events, (x) a change of control or (xi) bankruptcy or insolvency proceedings relating to the Company or any material subsidiary of the Company.

During the year ended December 31, 2022, the Company repaid \$273.8 million of the Term Loan leaving a remaining balance of \$6.5 million. The remaining balance of \$6.5 million was left as certain terms and conditions governing the Term Loan are incorporated into the Company’s outstanding indebtedness. As a result of the repayment, the Company recorded \$4.1 million in “net loss resulting from early retirement of debt” during the year ended December 31, 2022 in the accompanying Consolidated Income Statements relating to deferred financing fees, original issue

discount, and the ineffective portion of an interest rate swap designated as a cashflow hedge, partially offset by gains on repurchases of the Term Loans.

On February 8, 2024, the Company entered into a new senior secured term loan credit agreement in the principal amount of \$20.0 million. The new term loan requires quarterly principal amortization payments of \$3.3 million and matures on June 30, 2025. The loan is guaranteed by substantially all of the domestic subsidiaries of the Company. Additionally, the loan is secured by substantially all of the assets of the Company and the guarantors, subject to customary exceptions (including an exclusion for owned and leased real property). The proceeds from the new term loan were used to pay off the \$3.5 million balance of the existing term loan debt facility.

Accounts Receivable Securitization Facility

On August 3, 2022, the Company amended and extended its existing trade accounts receivable securitization facility provided to Arch Receivable Company, LLC, a special-purpose entity that is a wholly owned subsidiary of Arch Resources (“Arch Receivable”) (the “Securitization Facility”), which supports the issuance of letters of credit and requests for cash advances. The amendment to the Securitization Facility increased the size of the facility from \$110 million to \$150 million of borrowing capacity and extended the maturity date to August 1, 2025.

Under the Securitization Facility, Arch Receivable, Arch Resources and certain of Arch Resources’ subsidiaries party to the Securitization Facility have granted to the administrator of the Securitization Facility a first priority security interest in eligible trade accounts receivable generated by such parties from the sale of coal and all proceeds thereof. As of December 31, 2023, letters of credit totaling \$50.2 million were outstanding under the facility with \$99.8 million available for borrowings.

Inventory-Based Revolving Credit Facility

On August 3, 2022, Arch Resources amended the senior secured inventory-based revolving credit facility in an aggregate principal amount of \$50 million (the “Inventory Facility”) with Regions Bank (“Regions”) as administrative agent and collateral agent, as lender and swingline lender and as letter of credit issuer. Availability under the Inventory Facility is subject to a borrowing base consisting of (i) 85% of the net orderly liquidation value of eligible coal inventory, plus (ii) the lesser of (x) 85% of the net orderly liquidation value of eligible parts and supplies inventory and (y) 35% of the amount determined pursuant to clause (i), plus (iii) 100% of Arch Resources’ Eligible Cash (defined in the Inventory Facility), subject to reduction for reserves imposed by Regions. The amendment of the Inventory Facility extended the maturity of the facility to August 3, 2025.

Revolving loan borrowings under the Inventory Facility bear interest at a per annum rate equal to, at the option of Arch Resources, either the base rate or the Term Secured Overnight Financing Rate (“SOFR”) plus, in each case, a margin ranging from 2.25% to 3.50% (in the case of Term SOFR loans) subject to a 0.75% floor, and 1.25% to 2.50% (in the case of base rate loans) determined using a Liquidity-based grid. Letters of credit under the Inventory Facility are subject to a fee in an amount equal to the applicable margin for Term SOFR loans, plus customary fronting and issuance fees.

All existing and future direct and indirect domestic subsidiaries of Arch Resources, subject to customary exceptions, will either constitute co-borrowers under or guarantors of the Inventory Facility (collectively with Arch Resources, the “Loan Parties”). The Inventory Facility is secured by first priority security interests in the ABL Priority Collateral (defined in the Inventory Facility) of the Loan Parties and second priority security interests in substantially all other assets of the Loan Parties, subject to customary exceptions (including an exception for the collateral that secures the Securitization Facility).

Arch Resources has the right to prepay borrowings under the Inventory Facility at any time and from time to time in whole or in part without premium or penalty, upon written notice, except that any prepayment of such borrowings that bear interest at the Term SOFR rate other than at the end of the applicable interest periods therefore shall be made with reimbursement for any funding losses and redeployment costs of the Lender resulting therefrom.

The Inventory Facility is subject to certain usual and customary mandatory prepayment events, including non-ordinary course asset sales or dispositions, subject to customary thresholds, exceptions (including exceptions for required prepayments under Arch Resources' term loan facility) and reinvestment rights.

The Inventory Facility contains certain customary affirmative and negative covenants; events of default, subject to customary thresholds and exceptions; and representations, including certain cash management and reporting requirements that are customary for asset-based credit facilities. The Inventory Facility also includes a requirement to maintain Liquidity equal to or exceeding \$100 million at all times. As of December 31, 2023, letters of credit totaling \$26.2 million were outstanding under the facility with \$23.8 million available for borrowings.

Equipment Financing

On March 4, 2020, the Company entered into an equipment financing arrangement accounted for as debt. The Company received \$53.6 million in exchange for conveying an interest in certain equipment in operation at its Leer Mine and entered into a master lease arrangement for that equipment. The financing arrangement contains customary terms and events of default and provides for 48 monthly payments with an average interest rate of 6.34% maturing on March 4, 2024. Upon maturity, all interests in the subject equipment will revert back to the Company.

On July 29, 2021, the Company entered into an additional equipment financing arrangement accounted for as debt. The Company received \$23.5 million in exchange for conveying an interest in certain equipment in operation at its Powder River Basin operations and entered into a master lease arrangement for that equipment. The financing arrangement contains customary terms and events of default and provides for 42 monthly payments with an average implied interest rate of 7.35% maturing on February 1, 2025. Upon maturity, the Company will have the option to purchase the equipment.

Tax Exempt Bonds

On July 2, 2020, the West Virginia Economic Development Authority (the "Issuer") issued \$53.1 million aggregate principal amount of Solid Waste Disposal Facility Revenue Bonds (Arch Resources Project), Series 2020 (the "2020 Tax Exempt Bonds") pursuant to an Indenture of Trust dated as of June 1, 2020 (as amended to date, the "Indenture of Trust") between the Issuer and Citibank, N.A., as trustee (the "Trustee"). On March 4, 2021, the Issuer issued an additional \$45.0 million of Series 2021 Tax Exempt Bonds (the "2021 Tax Exempt Bonds" and together with the 2020 Tax Exempt Bonds, the "Tax Exempt Bonds"). The proceeds of the Tax Exempt Bonds were loaned to the Company pursuant to a Loan Agreement dated as of June 1, as supplemented by a First Amendment to Loan Agreement dated as of March 1, 2021 (collectively, the "Loan Agreement"), each between the Issuer and the Company. The Tax Exempt Bonds are payable solely from payments to be made by the Company under the Loan Agreement as evidenced by a Note from the Company to the Trustee. The proceeds of the Tax Exempt Bonds were used to finance certain costs of the acquisition, construction, reconstruction, and equipping of solid waste disposal facilities at the Company's Leer South development, and for capitalized interest and certain costs related to issuance of the Tax Exempt Bonds.

The Tax Exempt Bonds bear interest payable each January 1 and July 1, and have a final maturity of July 1, 2045; however, the Tax Exempt Bonds are subject to mandatory tender on July 1, 2025 at a purchase price equal to 100% of the principal amount of the Tax Exempt Bonds, plus accrued interest to July 1, 2025. The 2020 Tax Exempt Bonds and 2021 Tax Exempt Bonds bear interest of 5% and 4.125%, respectively.

The Tax Exempt Bonds are subject to redemption (i) in whole or in part at any time on or after January 1, 2025 at the option of the Issuer, upon the Company's direction at a redemption price of par, plus interest accrued to the redemption date; and (ii) at par plus interest accrued to the redemption date from certain excess Tax Exempt Bonds proceeds as further described in the Indenture of Trust.

The Company's obligations under the Loan Agreement are (i) except as otherwise described below, secured by first priority liens on and security interests in substantially all of the Company's and Subsidiary Guarantors' real property and other assets, subject to certain customary exceptions and permitted liens, and in any event excluding accounts receivable and inventory; and (ii) jointly and severally guaranteed by the Subsidiary Guarantors, subject to customary exceptions.

The collateral securing the Company's obligations under the Loan Agreement is substantially the same as the collateral securing the obligations under the Term Loan Debt Facility other than with respect to variances in certain real property collateral. The real property securing the Company's obligations under the Loan Agreement includes a subset of the real property collateral securing the obligations under the Term Loan Debt Facility and includes only mortgages on substantially all of the Company's revenue generating real property and assets.

The Loan Agreement contains certain affirmative covenants and representations, including but not limited to: (i) maintenance of a rating on the Tax Exempt Bonds; (ii) maintenance of proper books of records and accounts; (iii) agreement to add additional guarantors to guarantee the obligations under the Loan Agreement in certain circumstances; (iv) procurement of customary insurance; and (v) preservation of legal existence and certain rights, franchises, licenses and permits. The Loan Agreement also contains certain customary negative covenants, which, among other things, and subject to certain exceptions, include restrictions on (i) release of collateral securing the Company's obligations under the Loan Agreement; (ii) mergers and consolidations and disposition of assets, and (iii) restrictions on actions that may jeopardize the tax-exempt status of the Tax Exempt Bonds.

The Loan Agreement contains customary events of default, subject to customary thresholds and exceptions, including, among other things: (i) nonpayment of principal, purchase price, interest and other fees (subject to certain cure periods); (ii) bankruptcy or insolvency proceedings relating to us; (iii) material inaccuracy of a representation or warranty at the time made; (iv) cross-events of default to indebtedness of at least \$50 million; and (v) cross defaults to the Indenture of Trust, the guaranty related to the Tax Exempt Bonds or any related security documents.

Convertible Debt

On November 3, 2020, the Company issued \$155.3 million in aggregate principal amount of 5.25% convertible senior notes due 2025 ("Convertible Notes" or "Convertible Debt"). The net proceeds from the issuance of the Convertible Notes, after deducting offering related costs of \$5.1 million and cost of a "Capped Call Transaction" as defined below of \$17.5 million, were approximately \$132.7 million.

During the year ended December 31, 2022, the Company entered into exchange and repurchase agreements for \$142.1 million principal amount of the Convertible Notes for aggregate consideration consisting of \$208.1 million in cash and approximately 2.6 million shares of Arch Resources common stock. In connection with the exchanges and repurchases, the Company recognized a total loss of \$10.3 million which includes inducement premium payments of \$5.0 million, unamortized deferred financing fees of \$3.8 million and professional fees of \$1.5 million. This amount is included as "Net loss resulting from early retirement of debt" in the accompanying Consolidated Income Statements.

During the first half of 2023, the Company repurchased the remaining Convertible Notes with a principal amount of \$13.2 million for aggregate consideration consisting of \$58.4 million in cash. In connection with the repurchase, the Company recognized a loss of \$1.1 million. This amount is included as "Net loss resulting from early retirement of debt" in the accompanying Consolidated Income Statements.

Total interest expense related to the Convertible Debt for the year ended December 31, 2023 was less than \$0.1 million and December 31, 2022 was \$4.7 million, which was related to the contractual interest coupon of \$4.1 million and \$0.6 million of amortization of deferred financing fees.

Capped Call Transactions

In connection with the offering of the Convertible Notes, the Company entered into privately negotiated convertible note hedge transactions (collectively, the “Capped Call Transactions”). The Capped Call Transactions cover, subject to customary anti-dilution adjustments, the number of shares of the Company’s common stock that initially underlie the Convertible Notes.

The Capped Call Transactions are expected generally to reduce the potential dilution and/or offset any cash payments the Company is required to make in excess of the principal amount due upon conversion of the Convertible Notes in the event that the market price of the Company’s common stock is greater than the strike price of the Capped Call Transactions, which was initially \$37.325 per share and the initial cap price was \$52.255 per share. The initial call and cap prices are subject to adjustments under the terms of the underlying capped call agreements, including for various transactions such as the payment of dividends. The number of shares underlying the Capped Call Transactions at inception was 4.2 million.

The cap price of the Capped Call Transactions was initially \$52.2550 per share, which represented a premium of 75% over the last reported sale price of the Company’s common stock on October 29, 2020. The cost of the Capped Call Transactions was approximately \$17.5 million with a maturity date of November 15, 2025.

As of December 31, 2023, the Capped Call Transactions remain outstanding and have an intrinsic value of \$62.1 million. If the Company were to be unwind the capped call, it could be done in either shares or cash.

The Capped Call Transactions are separate transactions, in each case entered into between the Company and the respective Option Counterparty, and were not part of the terms of the Convertible Notes. Holders of the Convertible Notes do not have any rights with respect to the Capped Call Transactions. Additionally, the cost of the Capped Call Transactions is not expected to be tax deductible as the Company did not elect to integrate the Capped Call Transactions into the notes for tax purposes. As the Capped Call Transactions meet certain accounting criteria, they were classified as equity and are not accounted for as derivatives.

Debt Maturities

The contractual maturities of debt as of December 31, 2023 are as follows:

Year	(In thousands)
2024	\$ 36,268
2025	105,838
2026	—
2027	—
2028	—
Thereafter	—
	<u>\$ 142,106</u>

Financing Costs

The Company paid financing costs of \$0.0 million, \$1.0 million and \$2.1 million during the years ended December 31, 2023, 2022 and 2021, respectively.

11. Taxes

Significant components of the provision for (benefit from) income taxes are as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
(In thousands)			
Current:			
Federal	\$ 106	\$ (30,107)	\$ 1,525
State	317	204	342
Total current	\$ 423	\$ (29,903)	\$ 1,867
Deferred:			
Federal	\$ 85,002	\$ (209,130)	\$ 7
State	2,089	(12,893)	—
Total deferred	\$ 87,091	\$ (222,023)	\$ 7
Provision for (benefit from) income taxes	<u>\$ 87,514</u>	<u>\$ (251,926)</u>	<u>\$ 1,874</u>

A reconciliation of the statutory federal income tax provision (benefit) at the statutory rate to the actual provision for (benefit from) income taxes follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Income tax provision at statutory rate	\$ 115,826	\$ 226,587	\$ 71,284
Percentage depletion and other permanent items	(30,585)	(52,647)	(29,392)
State taxes, net of effect of federal taxes	2,725	2,988	16,490
Change in valuation allowance	(879)	(420,688)	(69,603)
Other, net	427	(8,166)	13,095
Provision for (benefit from) income taxes	<u>\$ 87,514</u>	<u>\$ (251,926)</u>	<u>\$ 1,874</u>

Significant components of the Company's deferred tax assets and liabilities that result from carryforwards and temporary differences between the financial statement basis and tax basis of assets and liabilities are summarized as follows:

	December 31, 2023	December 31, 2022
(In thousands)		
Deferred tax assets:		
Tax loss carryforwards	\$ 157,648	\$ 219,302
Tax credit carryforwards	1,584	1,656
Investment in partnerships	24,933	39,999
Other	28,070	38,362
Gross deferred tax assets	\$ 212,235	\$ 299,319
Valuation allowance	(82,825)	(83,704)
Total deferred tax assets	\$ 129,410	\$ 215,615
Deferred tax liabilities:		
Plant and equipment	1,075	1,245
Convertible Notes	—	75
Other	4,311	4,825
Total deferred tax liabilities	<u>\$ 5,386</u>	<u>\$ 6,145</u>
Net deferred tax asset	<u>\$ 124,024</u>	<u>\$ 209,470</u>

The Company provides for deferred income taxes for temporary differences arising from differences between the financial statement and tax basis of assets and liabilities existing at each balance sheet date using enacted tax rates expected to be in effect when the related taxes are expected to be paid or recovered.

The Company assesses the need for a valuation allowance against its deferred tax assets (including temporary differences and tax attributes) through a review of all available positive and negative evidence. On the basis of this assessment for the year ended December 31, 2022, the Company determined that it is more likely than not that the net deferred tax assets would be realized, except for certain state NOLs and capital loss carryforwards, and released the valuation allowance that was recorded against the Company's net deferred tax assets. As of December 31, 2023, the Company continues to carry a valuation allowance against certain state NOLs and capital loss carryforwards.

At December 31, 2023, the Company has gross NOL carryforwards for federal income tax purposes of \$319.3 million. Of these carryforwards, approximately \$46.6 million will expire, if not utilized, starting in 2037. The remaining carryforwards have no expiration, however, they can only be used to offset 80% of U.S. federal taxable income.

The ability to use the NOLs in existence immediately prior to emergence from bankruptcy in 2016 has been limited by the "ownership change" under Section 382 of the Internal Revenue Code (the "Code") that occurred as a result of such emergence (the "Emergence Ownership Change"). NOLs generated after the Emergence Ownership Change are generally not subject to limitations resulting from the Emergence Ownership Change.

On August 16, 2022, the Inflation Reduction Act of 2022 ("IRA") was signed into law. This legislation introduces a 15% corporate alternative minimum tax among its key tax provisions. The IRA is effective for years beginning after December 31, 2022. The Company did not experience any related material impact in the current year. The Company will continue to evaluate the effects of IRA on future periods, however, does not anticipate any material impact.

A reconciliation of the beginning and ending amounts of gross unrecognized tax benefits follows:

	<u>(In thousands)</u>
Balance at December 31, 2020	\$ 48,116
Additions based on tax positions to the current year	3,467
Additions for tax positions related to the prior year	3,931
Reductions for tax positions of prior years	(2,868)
Reductions as a result of lapses in the statute of limitations	<u>(3,683)</u>
Balance at December 31, 2021	48,963
Additions for tax positions related to the current year	5,446
Additions for tax positions related to the prior year	768
Reductions for tax positions of prior years	(125)
Reductions as a result of lapses in the statute of limitations	<u>(36,988)</u>
Balance at December 31, 2022	18,064
Additions based on tax positions related to the current year	3,019
Additions for tax positions related to the prior year	731
Increases for tax positions of prior years	1,485
Reductions as a result of lapses in the statute of limitations	<u>(2,732)</u>
Balance at December 31, 2023	<u>\$ 20,567</u>

If recognized, the entire amount of the gross unrecognized tax benefits at December 31, 2023 would affect the effective tax rate. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense. The Company had no accrued interest and penalties at December 31, 2023 and 2022, respectively. In the next 12 months, no gross unrecognized tax benefits are expected to be reduced due to the expiration of the statute of limitations.

The Company is subject to U.S. federal income tax as well as income tax in multiple state jurisdictions. The tax years 2016 through 2022 remain open to examination for U.S. federal income tax matters and 2002 through 2022 remain open to examination for various state income tax matters.

12. Asset Retirement Obligations

The Company's asset retirement obligations arise from the Federal Surface Mining Control and Reclamation Act of 1977 and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. The required reclamation activities to be performed are outlined in the Company's mining permits. These activities include reclaiming the pit and support acreage at surface mines, sealing portals at underground mines, reclaiming refuse areas and slurry ponds and water treatment.

The following table describes the changes to the Company's asset retirement obligation liability:

	Year Ended December 31, 2023	Year Ended December 31, 2022
(In thousands)		
Balance at beginning of period (including current portion)	\$ 244,368	\$ 214,453
Accretion expense	21,170	17,721
Adjustments to the liability from changes in estimates	17,747	25,914
Reclamation work completed	(21,456)	(13,720)
Balance at period end	\$ 261,829	\$ 244,368
Current portion included in accrued expenses	(6,089)	(8,632)
Noncurrent liability	<u>\$ 255,740</u>	<u>\$ 235,736</u>

As of December 31, 2023, the Company had \$455.7 million in reclamation surety bonds outstanding and posted \$0.6 million in cash as collateral; this amount is recorded within "Noncurrent assets" on the Consolidated Balance Sheets. Additionally, through December 31, 2023, the Company has contributed \$142.3 million to a fund that will serve to defease the long-term asset retirement obligation for its thermal asset base; this amount is recorded as "Fund for asset retirement obligations" on the Consolidated Balance Sheets.

13. Fair Value Measurements

The hierarchy of fair value measurements assigns a level to fair value measurements based on the inputs used in the respective valuation techniques. The levels of the hierarchy, as defined below, give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs.

- Level 1 is defined as observable inputs such as quoted prices in active markets for identical assets. Level 1 assets include U.S. Treasury securities, and coal swaps and futures that are submitted for clearing on the New York Mercantile Exchange.
- Level 2 is defined as observable inputs other than Level 1 prices. These include quoted prices for similar assets or liabilities in an active market, quoted prices for identical assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The Company's Level 2 assets and liabilities include U.S. government agency securities, coal commodity contracts and interest rate swaps with fair values derived from quoted prices in over-the-counter markets or from prices received from direct broker quotes.
- Level 3 is defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions. These include the Company's commodity option contracts (heating oil) valued using modeling techniques, such as Black-Scholes, that require the use of inputs, particularly volatility, that are rarely observable. Changes in the unobservable inputs would not have had a significant impact on the reported Level 3 fair values at December 31, 2023 and 2022.

The table below sets forth, by level, the Company's financial assets and liabilities that are recorded at fair value in the accompanying consolidated balance sheet:

	December 31, 2023			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Assets:				
Investments in marketable securities	\$ 32,724	\$ 28,773	\$ 3,951	\$ —
Derivatives	998	—	—	998
Fund for asset retirement obligations	142,266	142,266	—	—
Total assets	<u>\$ 175,988</u>	<u>\$ 171,039</u>	<u>\$ 3,951</u>	<u>\$ 998</u>
Liabilities:				
Derivatives	<u>\$ 165</u>	<u>\$ —</u>	<u>\$ 165</u>	<u>\$ —</u>

	Fair Value at December 31, 2022			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Assets:				
Investments in marketable securities	\$ 36,993	\$ 28,301	\$ 8,692	\$ —
Derivatives	3,955	—	2,655	1,300
Fund for asset retirement obligations	135,993	135,993	—	—
Total assets	<u>\$ 176,941</u>	<u>\$ 164,294</u>	<u>\$ 11,347</u>	<u>\$ 1,300</u>
Liabilities:				
Derivatives	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The Company's contracts with its counterparties allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. For classification purposes, the Company records the net fair value of all the positions with these counterparties as a net asset or liability. Each level in the table above displays the underlying contracts according to their classification in the accompanying Consolidated Balance Sheet, based on this counterparty netting.

The following table summarizes the change in the fair values of financial instruments categorized as Level 3.

(In thousands)	2023	2022
Balance, beginning of period	\$ 1,300	\$ 1,219
Realized and unrealized gains (losses) recognized in earnings, net	(4,192)	7,019
Purchases	5,400	4,673
Settlements	(1,510)	(11,611)
Ending balance	<u>\$ 998</u>	<u>\$ 1,300</u>

Net unrealized losses of \$2.6 million were recognized during the year ended December 31, 2023 related to Level 3 financial instruments held on December 31, 2023.

Cash and Cash Equivalents

At December 31, 2023 and 2022, the carrying amounts of cash and cash equivalents approximate their fair value.

Fair Value of Long-Term Debt

At December 31, 2023 and 2022, the fair value of the Company's debt, including amounts classified as current, was \$142.1 million and \$223.0 million, respectively. Fair values are based upon observed prices in an active market, when available, or from valuation models using market information, which fall into Level 2 in the fair value hierarchy.

14. Capital Stock

Dividends

The Company declared and paid cash dividends per share during the periods presented below (inclusive of dividends related to restricted stock units):

2023:	Dividends per share	Amount (in thousands)
1st quarter	\$ 3.11	\$ 66,902
2nd quarter	2.45	45,011
3rd quarter	3.97	71,877
4th quarter	1.13	22,335
Total cash dividends declared and paid	<u>\$ 10.66</u>	<u>\$ 206,125</u>

2022:	Dividends per share	Amount (in thousands)
1st quarter	\$ 0.25	\$ 3,851
2nd quarter	8.11	150,716
3rd quarter	6.00	110,071
4th quarter	10.75	191,754
Total cash dividends declared and paid	<u>\$ 25.11</u>	<u>\$ 456,392</u>

As of December 31, 2023, \$792.1 million has been returned as dividends inclusive of the announced dividend on February 15, 2024.

Future dividend declarations will be subject to ongoing Board review and authorization will be based on a number of factors, including business and market conditions, the Company's future financial performance and other capital priorities.

Share Repurchase Program

During the second quarter of 2022, the Board of Directors increased the remaining outstanding authorization for share repurchases to \$500 million. The timing of any future share repurchases, and the ultimate number of shares of common stock to be purchased, will depend on a number of factors, including business and market conditions, future financial performance, and other capital priorities. The shares will be acquired in the open market or through private transactions in accordance with Securities and Exchange Commission requirements. The share repurchase program has no termination date, but may be amended, suspended or discontinued at any time and does not commit the Company to repurchase shares of its common stock. The actual number and value of the shares to be purchased will depend on the performance of the Company's stock price and other market conditions.

On August 16, 2022, the Inflation Reduction Act of 2022 ("IRA") was signed into law. This legislation introduces a 1% excise tax on stock repurchases among its key tax provisions. The IRA is effective for years beginning after December 31, 2022.

During 2023, the Company repurchased 989,792 shares at an average price of \$124.78 for an aggregate purchase price of approximately \$123.5 million. As of December 31, 2023, the Company had repurchased 12,196,627 shares at an average share price of \$90.98 per share for an aggregate purchase price of approximately \$1,109.7 million since inception of the stock repurchase program, and the remaining authorized amount for stock repurchases under this program is approximately \$217.7 million.

Outstanding Warrants

In October 2016, the Company emerged from Chapter 11 which became known as the “Effective Date”. On the Effective Date, the Company entered into a warrant agreement (the “Warrant Agreement”) with American Stock Transfer & Trust Company, LLC as warrant agent and, pursuant to the terms of the Plan, issued warrants (“Warrants”) to purchase up to an aggregate of 1,914,856 shares of Class A Common Stock, par value \$0.01 per share, of Arch Resources (the “Class A Common Stock”) to certain holders of claims in the Chapter 11 case. Each Warrant expired on October 5, 2023, and was initially exercisable for one share of Class A Common Stock at an initial exercise price of \$57.00 per share. The Warrants were exercisable by a holder paying the exercise price in cash or on a cashless basis, at the election of the holder. The Warrants contained anti-dilution adjustments for stock splits, reverse stock splits, stock dividends, dividends and distributions of cash, other securities or other property, spin-offs and tender and exchange offers by Arch Resources or its subsidiaries to purchase Class A Common Stock at above-market prices.

During 2023, holders of warrants exercised 1,248,226 of the warrants. On October 5, 2023, the remaining warrants expired. There were no warrants outstanding at December 31, 2023.

As provided in ASC 825-20, “Financial Instruments,” the warrants are considered equity because they can only be physically settled in Company shares, can be settled in unregistered shares, the Company has adequate authorized shares to settle the outstanding warrants and each warrant is fixed in terms of settlement to one share of Company stock subject only to remote contingency adjustment factors designed to assure the relative value in terms of shares remains fixed.

15. Stock-Based Compensation and Other Incentive Plans

Under the Company’s 2016 Omnibus Incentive Plan (the “Incentive Plan”), 3.0 million shares of the Company’s common stock were reserved for awards to officers and other selected key management employees of the Company. The Incentive Plan provides the Board of Directors with the flexibility to grant stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance stock or units, phantom stock awards and rights to acquire stock through purchase under a stock purchase program (“Awards”). Awards the Board of Directors elects to pay out in cash do not impact the shares authorized in the Incentive Plan. Shares available for award under the plan were 1.5 million at December 31, 2023.

Restricted Stock Unit Awards

The Company may issue restricted stock and restricted stock units, which require no payment from the employee. Restricted stock cliff-vests at various dates and restricted stock units either vest ratably over or vest at the end of the award’s stated vesting period. Compensation expense is based on the fair value on the grant date and is recorded ratably over the vesting period utilizing the straight-line recognition method. Upon vesting, the employee receives cash compensation equal to the amount of dividends that would have been paid on the underlying shares.

During 2023, the Company granted both time and performance-based awards. The time-based awards vest ratably over a three-year period whereas the performance-based awards vest at the end of three years. The time-based awards’ grant date fair value was determined based on the stock price at the date of grant. The performance-based awards’ grant date fair value was determined using a Black-Scholes Monte Carlo simulation. An historical volatility of 67% was selected for the performance-based award based on comparator companies, and the three-year risk-free rate was derived

from yields on U.S. Government bonds. Information regarding the restricted stock units activity and weighted average grant-date fair value follows:

	Time Based Awards		Performance Based Awards	
	Restricted Stock Units	Weighted Average Grant-Date Fair Value	Restricted Stock Units	Weighted Average Grant-Date Fair Value
(Shares in thousands)				
Outstanding at January 1, 2023	359	\$ 74.14	407	\$ 74.68
Granted & Reinvested	57	136.55	221	95.83
Forfeited/Canceled	(1)	98.82	(1)	145.11
Vested	(186)	70.56	(324)	48.45
Unvested outstanding at December 31, 2023	229	\$ 92.41	303	\$ 117.85

The Company recognized expense related to restricted stock units of \$25.4 million, \$27.4 million and \$20.5 million for the years ended December 31, 2023, 2022 and 2021, respectively. As of December 31, 2023, there was \$24.5 million of unrecognized share-based compensation expense which is expected to be recognized over a weighted-average period of approximately two years.

16. Workers' Compensation Expense

The Company is liable under the Federal Mine Safety and Health Act of 1969, as subsequently amended, to provide for pneumoconiosis (occupational disease) benefits to eligible employees, former employees and dependents. The Company currently provides for federal claims principally through a self-insurance program. The Company is also liable under various state workers' compensation statutes for occupational disease benefits. The occupational disease benefit obligation represents the present value of the actuarially computed present and future liabilities for such benefits over the employees' applicable years of service.

In October 2019, the Company filed an application with the Office of Workers' Compensation Programs ("OWCP") within the Department of Labor for reauthorization to self-insure federal black lung benefits. In February 2020, the Company received a reply from the OWCP confirming its status to remain self-insured contingent upon posting additional collateral of \$71.1 million within 30 days of receipt of the letter. The Company is currently appealing the ruling from the OWCP and has received an extension to self-insure during the appeal process.

On January 18, 2023, the OWCP proposed revisions to regulations under the Black Lung Benefits Act governing authorization of self-insurers. The revisions seek to codify the practice of basing a self-insured operator's security requirement on an actuarial assessment of its total present and future black lung liability. A material change to the regulations is the requirements that all self-insured operators must post security equal to 120% of their projected black lung liabilities.

The proposed regulations were posted to the Federal Register on January 19, 2023 with written comments to be accepted within 60 days of this date. A subsequent extended comment period expired on April 19, 2023; however, the final regulations have not yet been published.

If the above regulation is codified into law, the Company will be required to post additional collateral to maintain its self-insured status. The Company is evaluating alternatives to self-insurance, including the purchase of commercial insurance to cover these claims. Additionally, the Company is assessing the availability of surety bond capacity within the markets, additional sources of liquidity, and other items to satisfy the proposed regulations.

In addition, the Company is liable for workers' compensation benefits for traumatic injuries which are calculated using actuarially-based loss rates, loss development factors and discounted based on a risk-free rate of 4.55%. Traumatic workers' compensation claims are insured with varying retentions/deductibles, or through state-sponsored workers' compensation programs.

Workers' compensation expense consists of the following components:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Self-insured occupational disease benefits:			
Service cost	\$ 3,974	\$ 5,991	\$ 7,796
Interest cost ⁽¹⁾	6,041	4,610	4,439
Net amortization ⁽¹⁾	(965)	628	2,363
Total occupational disease	\$ 9,050	\$ 11,229	\$ 14,598
Traumatic injury claims and assessments	277	(3,783)	3,925
Total workers' compensation expense	\$ 9,327	\$ 7,446	\$ 18,523

- (1) In accordance with the adoption of ASU 2017-07, "Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," these costs are recorded within Nonoperating expenses in the Consolidated Income Statements on the line item "Non-service related pension and postretirement benefit credits (costs)."

The table below reconciles changes in the occupational disease liability for the respective period.

(In thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022
Beginning of period	\$ 120,008	\$ 167,585
Service cost	3,974	5,991
Interest cost	6,041	4,610
Actuarial loss (gain)	10,721	(48,859)
Benefit and administrative payments	(11,526)	(9,319)
	\$ 129,218	\$ 120,008

The following table provides the assumptions used to determine the projected occupational disease obligation:

(Percentages)	Year Ended December 31, 2023	Year Ended December 31, 2022
Discount rate	5.01	5.21

The lower discount rate increased obligations by \$3.2 million.

Summarized below is information about the amounts recognized in the accompanying Consolidated Balance Sheets for workers' compensation benefits:

(In thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022
Occupational disease costs	\$ 129,218	\$ 120,008
Traumatic and other workers' compensation claims	44,156	53,332
Total obligations	173,374	173,340
Less amount included in accrued expenses	18,724	17,584
Noncurrent obligations	\$ 154,650	\$ 155,756

As of December 31, 2023, the Company had \$124.2 million in surety bonds, letters of credit and cash outstanding to secure workers' compensation obligations.

As of December 31, 2023, the Company’s recorded liabilities include \$6.9 million of obligations that are reimbursable under various insurance policies purchased by the Company. These insurance receivables are recorded in the balance sheet line items “Other receivables” and “Other noncurrent assets” for \$0.4 million and \$6.5 million, respectively.

The following represents expected future payments:

Year	(In thousands)
2024	\$ 12,837
2025	13,634
2026	13,750
2027	14,186
2028	14,564
Next 5 years	79,731
	<u>\$ 148,702</u>

17. Employee Benefit Plans

Defined Benefit Pension and Other Postretirement Benefit Plans

The Company provides funded and unfunded non-contributory defined benefit pension plans covering certain of its salaried and hourly employees. Benefits are generally based on the employee’s age and compensation. The Company funds the plans in an amount not less than the minimum statutory funding requirements or more than the maximum amount that can be deducted for U.S. federal income tax purposes.

The Company also currently provides certain postretirement medical and life insurance coverage for eligible employees. Generally, covered employees who terminate employment after meeting eligibility requirements are eligible for postretirement coverage for themselves and their dependents. The Company offers a subsidy to eligible retirees based on age and years of service at retirement and contain other cost-sharing features such as deductibles and coinsurance. The Company’s current funding policy is to fund the cost of all postretirement benefits as they are paid.

On January 1, 2015, the Company’s cash balance and excess plans were amended to freeze new service credits for any new or active employees.

In February 2022, the Board of Directors approved the termination of the Company’s Cash Balance Pension Plan. The Company has executed plan amendments regarding the termination and filed an Application for Determination for Terminating Pension Plan with the Internal Revenue Service (“IRS”), which was approved by the IRS during the first quarter of 2023. The Company also prepared and filed appropriate notices and documents related to the Pension Plan’s termination and wind-down with the Pension Benefit Guaranty Corporation (“PBGC”). To complete the termination of the plan, the Company made a \$3.2 million cash contribution into the plan in order to complete lump sum payments and to purchase annuity contracts for plan participants. An immaterial gain was recognized on the plan termination, which is reflected in the Consolidated Incomes Statements line item “Non-service related pension and postretirement benefits credits (costs)”. The Company no longer administers or pays the retirement benefits of the Cash Balance Pension Plan.

Obligations and Funded Status.

Summaries of the changes in the benefit obligations, plan assets and funded status of the plans are as follows:

	Pension Benefits		Other Postretirement Benefits	
	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2023	Year Ended December 31, 2022
(In thousands)				
CHANGE IN BENEFIT OBLIGATIONS				
Benefit obligations at beginning of period	\$ 122,430	\$ 169,976	\$ 54,514	\$ 79,245
Service cost	—	—	231	282
Interest cost	4,108	5,264	2,694	2,006
Settlement gain	(1,586)	(771)	—	—
Plan Settlements	(124,382)	—	—	—
Benefits paid	(4,652)	(22,164)	(3,858)	(4,834)
Other-primarily actuarial gain	5,070	(29,875)	(2,227)	(22,185)
Benefit obligations at end of period	<u>\$ 988</u>	<u>\$ 122,430</u>	<u>\$ 51,354</u>	<u>\$ 54,514</u>
CHANGE IN PLAN ASSETS				
Value of plan assets at beginning of period	\$ 121,127	\$ 177,499	\$ —	\$ —
Actual return on plan assets	4,625	(34,325)	—	—
Employer contributions	3,282	117	3,858	4,834
Plan Settlements	(124,382)	—	—	—
Benefits paid	(4,652)	(22,164)	(3,858)	(4,834)
Value of plan assets at end of period	<u>\$ —</u>	<u>\$ 121,127</u>	<u>\$ —</u>	<u>\$ —</u>
Accrued benefit net obligation	<u>\$ (988)</u>	<u>\$ (1,303)</u>	<u>\$ (51,354)</u>	<u>\$ (54,514)</u>
ITEMS NOT YET RECOGNIZED AS A COMPONENT OF NET PERIODIC BENEFIT COST				
Prior service credit	\$ —	\$ 945	\$ —	\$ —
Accumulated gain	1,150	5,164	32,871	40,334
	<u>\$ 1,150</u>	<u>\$ 6,109</u>	<u>\$ 32,871</u>	<u>\$ 40,334</u>
BALANCE SHEET AMOUNTS				
Noncurrent asset	\$ —	\$ —	\$ —	\$ —
Current liability	(110)	(202)	(3,860)	(4,840)
Noncurrent liability	(878)	(1,101)	(47,494)	(49,674)
	<u>\$ (988)</u>	<u>\$ (1,303)</u>	<u>\$ (51,354)</u>	<u>\$ (54,514)</u>

Pension Benefits

The accumulated benefit obligation for all pension plans was \$1.0 million and \$122.4 million at December 31, 2023 and 2022, respectively. The termination of the Company's Cash Balance Pension Plan significantly impacted the benefit obligation.

The weighted-average interest credit rate for the cash balance pension plan was 4.25% at December 31, 2022.

Other Postretirement Benefits

Significant gains and losses affecting the benefit obligations included:

- the lower discount rate increased plan obligations by \$1.0 million;
- the claims cost assumptions were updated decreasing plan obligations by \$0.9 million; and
- updated census data resulted in a decrease of plan obligations in the amount of \$1.4 million.

Components of Net Periodic Benefit Cost. The following table details the components of pension and postretirement benefit costs (credits):

	Pension Benefits			Other Postretirement Benefits		
	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
(In thousands)						
Service cost	\$ —	\$ —	\$ —	\$ 231	\$ 282	\$ 341
Interest cost ⁽¹⁾	4,108	5,264	4,334	2,694	2,006	2,113
Settlements/Terminations ⁽¹⁾	(1,586)	(771)	(1,768)	—	—	—
Expected return on plan assets ⁽¹⁾	(4,048)	(6,173)	(7,245)	—	—	—
Amortization of prior service credits ⁽¹⁾	(98)	(147)	(128)	—	—	—
Amortization of other actuarial losses (gains) ⁽¹⁾	(553)	(313)	(62)	(9,690)	(2,508)	—
Net benefit cost (credit)	<u>\$ (2,177)</u>	<u>\$ (2,140)</u>	<u>\$ (4,869)</u>	<u>\$ (6,765)</u>	<u>\$ (220)</u>	<u>\$ 2,454</u>

(1) In accordance with the adoption of ASU 2017-07, “Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,” these costs are recorded within Nonoperating expenses in the Consolidated Income Statements on the line item “Non-service related pension and postretirement benefit credits (costs).”

The differences generated from changes in assumed discount rates and returns on plan assets are amortized into earnings over the remaining service attribution periods of the employees using the corridor method.

Assumptions. The following table provides the assumptions used to determine the actuarial present value of projected benefit obligations for the respective periods.

	Year Ended December 31, 2023	Year Ended December 31, 2022
(Percentages)		
Pension Benefits		
Discount rate	4.89	5.20/5.15
Other Postretirement Benefits		
Discount rate	4.94	5.19

The following table provides the weighted average assumptions used to determine net periodic benefit cost for the respective periods.

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
(Percentages)			
Pension Benefits			
Discount rate	5.20	4.47	2.50
Expected return on plan assets	4.20	4.06	4.30
Other Postretirement Benefits			
Discount rate	5.19	2.63	2.17

The discount rates used in 2023, 2022 and 2021 were reevaluated during the year for settlements. The obligations are remeasured at an updated discount rate that impacts the benefit cost recognized subsequent to the remeasurement.

As of December 31, 2023, there are no pension plan assets. For December 31, 2022, the Company established the expected long-term rate of return at the beginning of each fiscal year based upon historical returns and projected returns on the underlying mix of invested assets. The Company utilized modern portfolio theory modeling techniques in the development of its return assumptions. This technique projects rates of return that can be generated through various asset allocations that lie within the risk tolerance set forth by members of the Company's retirement committee. The risk assessment provides a link between a pension plan's risk capacity, management's willingness to accept investment risk and the asset allocation process, which ultimately leads to the return generated by the invested assets.

The health care cost trend rate assumed for 2024 is 7.37% and is expected to reach an ultimate trend rate of 4.0% by 2048.

The Company's pension plan assets at December 31, 2023 and 2022, respectively, are categorized below according to the fair value hierarchy as defined in Note 13, "Fair Value Measurements":

	<u>Total</u>		<u>Level 1</u>		<u>Level 2</u>		<u>Level 3</u>	
	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>
	(In thousands)							
Fixed income securities:								
U.S. government securities ^(A)	\$ —	\$ 37,148	\$ —	\$ 34,143	\$ —	\$ 3,005	\$ —	\$ —
Non-U.S. government securities ^(B)	—	2,340	—	—	—	2,340	—	—
Corporate fixed income ^(C)	—	41,286	—	—	—	41,286	—	—
State and local government securities ^(D)	—	2,504	—	—	—	2,504	—	—
Other investments^(E)	—	15,616	—	—	—	15,616	—	—
Total	<u>\$ —</u>	<u>\$ 98,894</u>	<u>\$ —</u>	<u>\$ 34,143</u>	<u>\$ —</u>	<u>\$ 64,751</u>	<u>\$ —</u>	<u>\$ —</u>
Assets at net asset value^(F)	—	22,233						
	<u>\$ —</u>	<u>\$ 121,127</u>						

- (A) U.S. government securities includes agency and treasury debt. These investments are valued using dealer quotes in an active market.
- (B) Non-U.S. government securities includes debt securities issued by foreign governments and are valued utilizing a price spread basis valuation technique with observable sources from investment dealers and research vendors.
- (C) Corporate fixed income is primarily comprised of corporate bonds and certain corporate asset-backed securities that are denominated in the U.S. dollar and are investment-grade securities. These investments are valued using dealer quotes.
- (D) State and local government securities include different U.S. state and local municipal bonds and asset backed securities, these investments are valued utilizing a market approach that includes various valuation techniques and sources such as value generation models, broker quotes, benchmark yields and securities, reported trades, issuer trades and/or other applicable data.
- (E) Other investments include cash, forward contracts, derivative instruments, credit default swaps, interest rate swaps and mutual funds. Investments in interest rate swaps are valued utilizing a market approach that includes various valuation techniques and sources such as value generation models, broker quotes in active and non-active markets, benchmark yields and securities, reported trades, issuer trades and/or other applicable data. Forward contracts and derivative instruments are valued at their exchange listed price or broker quote in an active market. The mutual funds are valued at the net asset value per share multiplied by the number of shares held as of the measurement date and are traded on listed exchanges.
- (F) Investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy in accordance with Accounting Standards Update 2015-07. These investments are primarily mutual funds that are highly liquid with no restrictions on ability to redeem the funds into cash.

Cash Flows. The Company expects to make no contributions to the pension plans in 2024.

The following represents expected future benefit payments from the plan:

	Pension Benefits	Other Postretirement Benefits
	(In thousands)	
2024	\$ 109	\$ 4,699
2025	106	4,645
2026	103	4,564
2027	99	4,493
2028	95	4,381
Next 5 years	393	19,208
	<u>\$ 905</u>	<u>\$ 41,990</u>

Other Plans

The Company sponsors savings plans which were established to assist eligible employees in providing for their future retirement needs. The Company's expense, representing its contributions to the plans, was \$20.5 million, \$18.7 million, and \$16.8 million for the years ended December 31, 2023, 2022, and 2021, respectively.

18. Earnings Per Common Share

The Company computes basic net income per share using the weighted average number of common shares outstanding during the period. Diluted net income per share is computed using the weighted average number of common shares and the effect of potentially dilutive securities outstanding during the period. Potentially dilutive securities may consist of warrants, restricted stock units or other contingently issuable shares and convertible debt. The dilutive effect of outstanding warrants, restricted stock units is reflected in diluted earnings per share by application of the treasury stock method whereas the Convertible Debt uses the if-converted method.

The following table provides the basis for basic and diluted EPS by reconciling the numerators and denominators of the computations:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
(In Thousands)			
Net income attributable to common shares	\$ 464,038	\$ 1,330,914	\$ 337,573
Adjustment of interest expense attributable to convertible notes	108	4,726	-
Adjustment for inducement payments	-	4,914	-
Diluted net income attributable to common shareholders	<u>\$ 464,146</u>	<u>\$ 1,340,554</u>	<u>\$ 337,573</u>
Weighted average shares outstanding:			
Basic weighted average shares outstanding	18,233	17,136	15,318
Effect of dilutive securities	866	1,730	654
Convertible Notes	84	2,119	1,607
Diluted weighted average shares outstanding	<u>19,183</u>	<u>20,985</u>	<u>17,579</u>

19. Leases

The Company has operating and finance leases for mining equipment, office equipment and office space with remaining lease terms ranging from less than one year to approximately three years. Some of these leases include both

lease and non-lease components which are accounted for as a single lease component as the Company has elected the practical expedient to combine these components for all leases. As most of the leases do not provide an implicit rate, the Company calculated the Right-of-use (“ROU”) assets and lease liabilities using its’ secured incremental borrowing rate at the lease commencement date.

As of December 31, 2023 and December 31, 2022, the Company had the following ROU assets and lease liabilities within the Company’s Consolidated Balance Sheets:

		December 31, 2023	December 31, 2022
Assets	Balance Sheet Classification		
Operating lease right-of-use assets	Other noncurrent assets	\$ 9,626	\$ 12,106
Financing lease right-of-use assets	Other noncurrent assets	1,621	2,918
Total Lease Assets		<u>\$ 11,247</u>	<u>\$ 15,024</u>
Liabilities	Balance Sheet Classification		
Financing lease liabilities - current	Accrued expenses and other current liabilities	\$ 1,041	\$ 977
Operating lease liabilities - current	Accrued expenses and other current liabilities	2,789	2,722
Financing lease liabilities - long-term	Other noncurrent liabilities	2,079	3,121
Operating lease liabilities - long-term	Other noncurrent liabilities	7,351	9,993
		<u>\$ 13,260</u>	<u>\$ 16,813</u>

Weighted average remaining lease term in years			
Operating leases		3.32	4.14
Finance leases		1.25	2.25
Weighted average discount rate			
Operating leases		5.5%	5.5%
Finance leases		6.4%	6.4%

Information related to leases was as follows:

	Year Ended December 31,	
	<u>2023</u>	<u>2022</u>
	(In thousands)	
Operating lease information:		
Operating lease cost	\$ 3,263	\$ 3,323
Operating cash flows from operating leases	3,356	3,389
Financing lease information:		
Financing lease cost	\$ 1,572	\$ 1,572
Operating cash flows from financing leases	1,210	1,210

Future minimum lease payments under non-cancellable leases as of December 31, 2023 were as follows:

Year	Operating Leases	Finance Leases
	(In thousands)	
2024	\$ 3,281	\$ 1,210
2025	3,266	2,111
2026	3,080	—
2027	1,533	—
2028	—	—
Thereafter	—	—
Total minimum lease payments	\$ 11,160	\$ 3,321
Less imputed interest	(1,020)	(201)
Total lease liabilities	\$ 10,140	\$ 3,120

Rental expense, including amounts related to these operating leases and other shorter-term arrangements, amounted to \$12.8 million in 2023, \$10.4 million in 2022 and \$8.1 million in 2021.

Royalties are paid to lessors either as a fixed price per ton or as a percentage of the gross selling price of the mined coal. Royalties under the majority of the Company's significant leases are paid on the percentage of gross selling price basis. Royalty expense, including production royalties, was \$177.1 million in 2023, \$189.7 million in 2022, and \$127.8 million in 2021.

As of December 31, 2023, certain of the Company's lease obligations were secured by outstanding surety bonds totaling \$40.4 million.

20. Risk Concentrations

Credit Risk and Major Customers

The Company has a formal written credit policy that establishes procedures to determine creditworthiness and credit limits for trade customers and counterparties in the over-the-counter coal market. Generally, credit is extended based on an evaluation of the customer's financial condition. Collateral is not generally required, unless credit cannot be established. Credit losses are provided for in the financial statements and historically have been minimal.

The Company markets its thermal coal principally to domestic and foreign electric utilities and its metallurgical coal to domestic and foreign steel producers. As of December 31, 2023 and 2022, accounts receivable from sales of thermal coal of \$67.2 million and \$94.1 million, respectively, represented 25% and 40% of total trade receivables at each date. As of December 31, 2023 and 2022, accounts receivable from sales of metallurgical-quality coal of \$206.3 million and \$142.9 million, respectively, represented 75% and 60% of total trade receivables at each date.

The Company uses shipping destination as the basis for attributing revenue to individual countries. Because title may transfer on brokered transactions at a point that does not reflect the end usage point, they are reflected as exports,

and attributed to an end delivery point if that knowledge is known to the Company. The Company's foreign revenues by geographical location are as follows:

(In thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Europe	\$ 696,975	\$ 939,955	\$ 592,702
Asia	935,158	1,210,855	446,724
Central and South America	136,423	160,642	109,613
Africa	4,971	—	—
Total	<u>\$ 1,773,527</u>	<u>\$ 2,311,452</u>	<u>\$ 1,149,039</u>

The Company is committed under long-term contracts to supply thermal coal that meets certain quality requirements at specified prices. These prices are generally adjusted based on market indices. Quantities sold under some of these contracts may vary from year to year within certain limits at the option of the customer based on their requirements. The Company sold approximately 75 million tons of coal in 2023. Approximately 75% of this tonnage (representing approximately 46% of the Company's revenues) was sold under long-term contracts (contracts having a term of greater than one year). Long-term contracts range in remaining life from one to four years.

Third-party sources of coal

The Company purchases coal from third parties that it sells to customers. Factors beyond the Company's control could affect the availability of coal purchased by the Company. Disruptions in the quantities of coal purchased by the Company could impair its ability to fill customer orders or require it to purchase coal from other sources at prevailing market prices in order to satisfy those orders.

Transportation

The Company depends upon barge, rail, truck and belt transportation systems to deliver coal to its customers. Disruption of these transportation services due to weather-related problems, mechanical difficulties, strikes, lockouts, bottlenecks, and other events could temporarily impair the Company's ability to supply coal to its customers. In the past, disruptions in rail service have resulted in missed shipments and production interruptions.

21. Revenue Recognition

ASC 606-10-50-5 requires that entities disclose disaggregated revenue information in categories (such as type of good or service, geography, market, type of contract, etc.) that depict how the nature, amount, timing, and uncertainty of revenue and cash flow are affected by economic factors. ASC 606-10-55-89 explains that the extent to which an entity's revenue is disaggregated depends on the facts and circumstances that pertain to the entity's contracts with customers and that some entities may need to use more than one type of category to meet the objective for disaggregating revenue.

In general, the Company's business segmentation is aligned according to the nature and economic characteristics of its coal and customer relationships and provides meaningful disaggregation of each segment's results. The Company has further disaggregated revenue between North America and Seaborne revenues which depicts the pricing and contract differences between the two. North America revenue is characterized by contracts with a term of one year or longer and

typically the pricing is fixed; whereas Seaborne revenue generally is derived by spot or short-term contracts with an indexed based pricing mechanism.

	<u>MET</u>	<u>Thermal</u>	<u>Corporate, Other and Eliminations</u>	<u>Consolidated</u>
	(in thousands)			
Year Ended December 31, 2023				
North America revenues	\$ 342,070	\$ 1,030,246	\$ —	\$ 1,372,316
Seaborne revenues	1,550,256	223,271	—	1,773,527
Total revenues	<u>\$ 1,892,326</u>	<u>\$ 1,253,517</u>	<u>\$ —</u>	<u>\$ 3,145,843</u>
Year Ended December 31, 2022				
North America revenues	\$ 232,831	\$ 1,180,310	\$ —	\$ 1,413,141
Seaborne revenues	1,924,879	386,573	—	2,311,452
Total revenues	<u>\$ 2,157,710</u>	<u>\$ 1,566,883</u>	<u>\$ —</u>	<u>\$ 3,724,593</u>
Year Ended December 31, 2021				
North America revenues	\$ 163,833	\$ 893,741	\$ 1,429	\$ 1,059,003
Seaborne revenues	985,300	163,739	—	1,149,039
Total revenues	<u>\$ 1,149,133</u>	<u>\$ 1,057,480</u>	<u>\$ 1,429</u>	<u>\$ 2,208,042</u>

As of December 31, 2023, the Company has outstanding performance obligations for approximately 59.3 million tons of coal for 2024, representing 54.3 million tons of fixed price contracts and 5.0 million tons of variable price contracts. Additionally, the Company has outstanding performance obligations of approximately 59.7 million tons in periods beyond 2024, comprised of 58.9 million tons of fixed price contracts and 0.8 million tons of variable price contracts.

22. Commitments and Contingencies

The Company accrues for cost related to contingencies when a loss is probable and the amount is reasonably determinable. Disclosure of contingencies is included in the financial statements when it is at least reasonably possible that a material loss or an additional material loss in excess of amounts already accrued may be incurred.

The Company is a party to numerous claims and lawsuits with respect to various matters. As of December 31, 2023 and 2022, the Company had accrued \$0.0 million and \$2.0 million, respectively, for all legal matters, all classified as current. The ultimate resolution of any such legal matter could result in outcomes which may be materially different from amounts the Company has accrued for such matters. The Company believes it has recorded adequate reserves for these matters.

In the normal course of business, the Company is a party to certain financial instruments with off-balance sheet risk, such as bank letters of credit, performance or surety bonds, and other guarantees and indemnities related to the obligations of affiliated entities which are not reflected in the Company's Consolidated Balance Sheets. However, the underlying liabilities that they secure, such as asset retirement obligations, workers' compensation liabilities, and other obligations, are reflected in the Company's Consolidated Balance Sheets. As of December 31, 2023, the Company had outstanding surety bonds with a face amount of \$552.5 million to secure various obligations and commitments and \$76.4 million of letters of credit under its Securitization and Inventory Facilities used to collateralize certain obligations. The Company had posted \$5.6 million in cash collateral related to various obligations; this amount is recorded within "Other noncurrent assets" on the Consolidated Balance Sheets.

As of December 31, 2023, the Company's reclamation-related obligations of \$261.8 million were supported by surety bonds of \$455.7 million; and the Company has posted \$0.6 million in cash collateral related to reclamation surety bonds. This amount is recorded within "Other noncurrent assets" on the Consolidated Balance Sheets. Additionally, through December 31, 2023, the Company has contributed \$142.3 million to a fund that will serve to defease the long-term asset retirement obligation for its thermal asset base; this amount is recorded as "Fund for asset retirement obligations" on the Consolidated Balance Sheets. The funds will be utilized for final mine closure reclamation activities.

The Company has unconditional purchase obligations relating to purchases of materials and supplies and capital commitments, other than reserve acquisitions, and is also a party to transportation capacity commitments. The future commitments under these agreements total \$221.2 million in 2024, and is immaterial thereafter.

23. Segment Information

The Company's reportable business segments are based on two distinct lines of business, metallurgical and thermal, and may include a number of mine complexes. The Company manages its coal sales by market and coal quality, not by individual mining complex. Geology, coal transportation routes to customers, and regulatory environments also have a significant impact on the Company's marketing and operations management. Mining operations are evaluated based on Adjusted EBITDA, per-ton cash operating costs (defined as including all mining costs except depreciation, depletion, amortization, accretion on asset retirement obligations, and pass-through transportation expenses, divided by segment tons sold), and on other non-financial measures, such as safety and environmental performance. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDA are significant in understanding and assessing the Company's financial condition. Therefore, Adjusted EBITDA should not be considered in isolation, nor as an alternative to net income (loss), income (loss) from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. The Company uses Adjusted EBITDA to measure the operating performance of its segments and allocate resources to the segments. Furthermore, analogous measures are used by industry analysts and investors to evaluate the Company's operating performance. Investors should be aware that the Company's presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The Company reports its results of operations primarily through the following reportable segments: Metallurgical (MET) segment, containing the Company's metallurgical operations in West Virginia, and the Thermal segment containing the Company's thermal operations in Wyoming and Colorado.

In November of 2021, the Company sold its equity investment Knight Hawk Holdings, LLC, which had been part of its Corporate, Other and Eliminations grouping. For further information on the sale of Knight Hawk Holdings, LLC, please see Note 4, "Divestitures" to the Consolidated Financial Statements.

Reporting segment results for the years ended December 31, 2023, 2022 and 2021 are presented below. The Corporate, Other, and Eliminations grouping includes these charges: idle operations; change in fair value of coal

derivatives, net; corporate overhead; land management activities; other support functions; and the elimination of intercompany transactions.

(In thousands)	MET	Thermal	Corporate, Other and Eliminations	Consolidated
Year Ended December 31, 2023				
Revenues	\$ 1,892,326	\$ 1,253,517	\$ —	\$ 3,145,843
Adjusted EBITDA	717,834	125,469	(129,261)	714,042
Depreciation, depletion and amortization	116,550	28,996	872	146,418
Accretion on asset retirement obligation	2,507	17,255	1,408	21,170
Total assets	1,064,510	437,776	981,887	2,484,173
Capital expenditures	141,210	33,212	1,615	176,037
Year Ended December 31, 2022				
Revenues	\$ 2,157,710	\$ 1,566,883	\$ —	\$ 3,724,593
Adjusted EBITDA	1,021,932	353,884	(115,384)	1,260,432
Depreciation, depletion and amortization	111,772	20,650	878	133,300
Accretion on asset retirement obligation	2,213	13,775	1,733	17,721
Total assets	1,058,217	381,099	993,792	2,433,108
Capital expenditures	140,031	28,578	4,119	172,728
Year Ended December 31, 2021				
Revenues	\$ 1,149,133	\$ 1,057,480	\$ 1,429	\$ 2,208,042
Adjusted EBITDA	442,830	175,709	(85,109)	533,430
Depreciation, depletion and amortization	99,171	20,231	925	120,327
Accretion on asset retirement obligation	2,030	17,675	2,043	21,748
Total assets	964,761	205,147	947,252	2,117,160
Capital expenditures	227,802	5,949	11,689	245,440

A reconciliation of segment Adjusted EBITDA to net income:

(In thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Net income	\$ 464,038	\$ 1,330,914	\$ 337,573
Provision for (benefit from) income taxes	87,514	(251,926)	1,874
Interest (income) expense, net	(2,438)	13,162	23,344
Depreciation, depletion and amortization	146,418	133,300	120,327
Accretion on asset retirement obligations	21,170	17,721	21,748
Loss on divestitures	—	—	24,225
Non-service related pension and postretirement benefit (credits) costs	(3,786)	2,841	4,339
Net loss resulting from early retirement of debt	1,126	14,420	—
Adjusted EBITDA	<u>\$ 714,042</u>	<u>\$ 1,260,432</u>	<u>\$ 533,430</u>
EBITDA from idled or otherwise disposed operations	15,986	(828)	2,469
Selling, general and administrative expenses	98,871	105,355	92,342
Other	14,404	10,857	(9,702)
Segment Adjusted EBITDA from coal operations	<u>\$ 843,303</u>	<u>\$ 1,375,816</u>	<u>\$ 618,539</u>

24. Subsequent Events

On February 15, 2024, the Company announced that its board of directors had approved a dividend of \$1.65 per share for stockholders of record on February 29, 2024, with payment date of March 15, 2024. The dividend consists of a fixed component of \$0.25 per share and a variable component of \$1.40 per share.

On February 8, 2024, the Company entered into a new senior secured term loan credit agreement in the principal amount of \$20.0 million. The new term loan requires quarterly principal amortization payments of \$3.3 million and matures on June 30, 2025. The loan is guaranteed by substantially all of the domestic subsidiaries of the Company. Additionally, the loan is secured by substantially all of the assets of the Company and the guarantors, subject to customary exceptions (including an exclusion for owned and leased real property). The proceeds from the new term loan were used to pay off the \$3.5 million balance of the existing term loan debt facility.

Schedule II

Arch Resources, Inc. and Subsidiaries

Valuation and Qualifying Accounts

	Balance at Beginning of Year	Additions (Reductions) Charged to Costs and Expenses	Charged to Other Accounts	Deductions ^(a)	Balance at End of Year
	(In thousands)				
Year Ended December 31, 2023					
Reserves deducted from asset accounts:					
Accounts receivable and other receivables	\$ 10,636	(2,200)	—	8,436	\$ —
Current assets — supplies and inventory	2,439	522	—	1,365	1,596
Deferred income taxes	83,704	(879)	—	—	82,825
Year Ended December 31, 2022					
Reserves deducted from asset accounts:					
Accounts receivable and other receivables	\$ 10,636	—	—	—	\$ 10,636
Current assets — supplies and inventory	2,249	314	—	124	2,439
Deferred income taxes	504,392	(420,688)	—	—	83,704
Year Ended December 31, 2021					
Reserves deducted from asset accounts:					
Accounts receivable and other receivables	\$ 10,636	—	—	—	\$ 10,636
Current assets — supplies and inventory	574	1,860	—	185	2,249
Deferred income taxes	573,995	(69,603)	—	—	504,392

(a) Reserves utilized, unless otherwise indicated.

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BOARD OF DIRECTORS

Pamela R. Butcher^(a)

Former Chief Executive Officer, President and Chief Operating Officer of Pilot Chemical Corp.

John W. Eaves

Executive Chair, Arch Resources, Inc.

Patrick A. Kriegshauser^(a*)

Executive Vice President and Director, ArchKey Holdings, Inc. and former Executive Vice President and Chief Financial Officer, Sachs Electric Company

Richard A. Navarre^{(b)(c*)}

Former Chief Executive Officer and President, Covia Corporation and former President and Chief Commercial Officer, Peabody Energy Corporation

James N. Chapman^{(b)(c)}

Lead Independent Director, Arch Resources, Inc. and former Non-Executive Advisory Director, SkyWorks Capital, LLC

Holly Keller Koeppel^{(b*)(c)}

Former Managing Partner and Head, Gateway Infrastructure Investments LP and former Partner and Global Co-Head, Citi Infrastructure Investors

Paul A. Lang

Chief Executive Officer, Arch Resources, Inc.

Molly P. Zhang^(a) (aka Peifang Zhang)

Former Vice President of Asset Management and Global Manufacturing Executive for Mining Systems, etc., Orica Limited and former Managing Director of SCG - Dow Group

(a) Audit Committee

(b) Environmental, Social, Governance and Nominating Committee

(c) Personnel & Compensation Committee

* Committee Chair

SENIOR OFFICERS

John W. Eaves

Executive Chair

Paul T. Demzik

Senior Vice President and Chief Commercial Officer

Matthew C. Giljum

Senior Vice President and Chief Financial Officer

Deck S. Slone

Senior Vice President, Strategy and Public Policy

Paul A. Lang

Chief Executive Officer

John T. Drexler

President

Rosemary L. Klein

Senior Vice President - Law, General Counsel and Secretary

John A. Ziegler, Jr.

Senior Vice President and Chief Administrative Officer

Common Stock

Our common stock is listed and traded on the New York Stock Exchange under the ticker symbol ARCH.

Corporate Governance Guidelines

Our board of directors has adopted corporate governance guidelines that address various matters pertaining to director selection and duties. The guidelines are published in the "Investor Center" section under "Governance" at www.archrsc.com.

Financial Information

Please direct any inquiries or requests for documents to:
Investor Relations
Arch Resources, Inc.
One CityPlace Drive, Suite 300
St. Louis, Missouri 63141
314.994.2766
www.archrsc.com

Code of Business Conduct

We operate under a code of business conduct that applies to all of our employees and our board of directors. The code is published in the "Investor Center" section under "Governance" at www.archrsc.com.

Independent Public Accounting Firm

Ernst & Young LLP
190 Carondelet Plaza, Suite 1300
St. Louis, Missouri 63105

Transfer Agent

Questions regarding shareholder records, stock transfers, stock certificates, or other stock inquiries should be directed to:
American Stock Transfer & Trust Company
6201 15th Avenue
Brooklyn, New York 11219
877.390.3073
www.amstock.com

A copy of Arch Resources, Inc.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, including financial statements and schedules thereto but not including exhibits, as filed with the Securities and Exchange Commission, will be sent to any shareholder of record on March 15, 2024 without charge upon written request addressed to:

Investor Relations
Arch Resources, Inc.
One CityPlace Drive, Suite 300
St. Louis, Missouri 63141
314.994.2766

A reasonable fee will be charged for copies of exhibits.

