

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 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, 2022

OR

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

For the transition period from _____ to _____

Commission File Number: 1-8944



CLEVELAND-CLIFFS INC.

(Exact name of registrant as specified in its charter)

Ohio	34-1464672
<i>(State or Other Jurisdiction of Incorporation or Organization)</i>	<i>(I.R.S. Employer Identification No.)</i>
200 Public Square, Cleveland, Ohio	44114-2315
<i>(Address of Principal Executive Offices)</i>	<i>(Zip Code)</i>

Registrant's telephone number, including area code: (216) 694-5700

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, par value \$0.125 per share	CLF	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, a 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

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As of June 30, 2022, the aggregate market value of the voting and non-voting common shares held by non-affiliates of the registrant, based on the closing price of \$15.37 per share as reported on the New York Stock Exchange — Composite Index, was \$7,844,058,129 (excluded from this figure are the voting shares beneficially owned by the registrant's officers and directors).

The number of shares outstanding of the registrant's common shares, par value \$0.125 per share, was 514,787,304 as of February 13, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for its 2023 annual meeting of shareholders are incorporated by reference into Part III.

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DEFINITIONS

The following abbreviations or acronyms are used in the text. References in this report to the “Company,” “we,” “us,” “our,” “Cleveland-Cliffs” and “Cliffs” are to Cleveland-Cliffs Inc. and subsidiaries, collectively. References to “\$” is to United States currency.

Abbreviation or acronym	Term
4.625% 2029 Senior Notes	4.625% Senior Guaranteed Notes due 2029 issued by Cleveland-Cliffs Inc. on February 17, 2021 in an aggregate principal amount of \$500 million
4.875% 2031 Senior Notes	4.875% Senior Guaranteed Notes due 2031 issued by Cleveland-Cliffs Inc. on February 17, 2021 in an aggregate principal amount of \$500 million
2012 Amended Equity Plan	Cliffs Natural Resources Inc. 2012 Incentive Equity Plan, as amended or amended and restated from time to time
2020 Acquisitions	The AK Steel Merger and AM USA Transaction, collectively
2021 Equity Plan	Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan
A&R 2015 Equity Plan	Cliffs Natural Resources Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan
ABL Facility	Asset-Based Revolving Credit Agreement, dated as of March 13, 2020, among Cleveland-Cliffs Inc., the lenders party thereto from time to time and Bank of America, N.A., as administrative agent, as amended as of March 27, 2020, December 9, 2020 and December 17, 2021, and as may be further amended from time to time
Adjusted EBITDA	EBITDA, excluding certain items such as EBITDA of noncontrolling interests, extinguishment of debt, acquisition-related expenses and adjustments, asset impairment and other, net
AG	Autogenous grinding
AHSS	Advanced high-strength steel
AK Steel	AK Steel Holding Corporation (n/k/a Cleveland-Cliffs Steel Holding Corporation) and its consolidated subsidiaries, including AK Steel Corporation (n/k/a Cleveland-Cliffs Steel Corporation), its direct, wholly owned subsidiary, collectively, unless stated otherwise or the context indicates otherwise
AK Steel Merger	The merger of Merger Sub with and into AK Steel, with AK Steel surviving the merger as a wholly owned subsidiary of Cleveland-Cliffs Inc., subject to the terms and conditions set forth in the Merger Agreement, consummated on March 13, 2020
AM USA Transaction	The acquisition of ArcelorMittal USA, consummated on December 9, 2020
AM USA Transaction Agreement	Transaction Agreement, dated as of September 28, 2020, by and between Cleveland-Cliffs Inc. and ArcelorMittal
AOCI	Accumulated other comprehensive income (loss)
ArcelorMittal	ArcelorMittal S.A., a company organized under the laws of Luxembourg and the former ultimate parent company of ArcelorMittal USA
ArcelorMittal USA	Substantially all of the operations of the former ArcelorMittal USA LLC, its subsidiaries and certain affiliates, and Kote and Tek, collectively
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Board	The Board of Directors of Cleveland-Cliffs Inc.
BOF	Basic oxygen furnace
CAFE	Corporate Average Fuel Economy
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CHIPS Act	Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022
Clean Water Act	Federal Water Pollution Control Act
CN	Canadian National Railway Company
Compensation Committee	Compensation and Organization Committee of the Board
COVID-19	A novel strain of coronavirus that the World Health Organization declared a global pandemic in March 2020
Directors' Plan	Cleveland-Cliffs Inc. 2021 Nonemployee Directors' Compensation Plan
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
DOE	U.S. Department of Energy
DR-grade	Direct reduction-grade
EAF	Electric arc furnace
EBITDA	Earnings before interest, taxes, depreciation and amortization
EDC	Export Development Canada
Empire	Iron ore mining property owned by Empire Iron Mining Partnership, an indirect, wholly owned subsidiary of Cliffs

Abbreviation or acronym	Term
EPA	U.S. Environmental Protection Agency
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974, as amended
EV	Electric vehicle
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
Fe	Iron
FeT	Total iron
FIP	Federal implementation plan
FPT	Ferrous Processing and Trading Company, including certain related entities
FPT Acquisition	The purchase of FPT, subject to the terms and conditions set forth in the FPT Acquisition Agreement
FPT Acquisition Agreement	Securities Purchase Agreement, dated as of October 8, 2021, by and between Cleveland-Cliffs Inc. and Anthony Soave Revocable Trust u/a/d January 14, 1987, as amended and restated
GAAP	Accounting principles generally accepted in the United States
GHG	Greenhouse gas
GOES	Grain oriented electrical steel
HAP	Hazardous air pollutant
HBI	Hot briquetted iron
Hibbing	Iron ore mining property owned by Hibbing Taconite Company, an unincorporated joint venture between subsidiaries of Cliffs and U.S. Steel
HRC	Hot-rolled coil steel
HVAC	Heating, ventilation and air conditioning equipment
IAM	International Association of Machinists and Aerospace Workers
Inflation Reduction Act	Inflation Reduction Act of 2022
Infrastructure and Jobs Act	Infrastructure Investment and Jobs Act of 2021
IRB	Industrial Revenue Bond
IRC	U.S. Internal Revenue Code of 1986, as amended
ISO	International Organization for Standardization
IT	Information technology
JSW Steel	JSW Steel (USA) Inc. and JSW Steel USA Ohio, Inc., collectively
Kote and Tek	Cleveland-Cliffs Kote L.P. and Cleveland-Cliffs Tek L.P., collectively
LIBOR	London Interbank Offered Rate
LIFO	Last-in, first-out
LoM	Life-of-mine
Long ton (lt)	2,240 pounds
Merger Sub	Pepper Merger Sub Inc., a direct, wholly owned subsidiary of Cliffs prior to the AK Steel Merger
Metric ton (mt)	2,205 pounds
Minorca	Iron ore mining property owned by Cleveland-Cliffs Minorca Mine Inc. (f/k/a ArcelorMittal Minorca Mine Inc.), an indirect, wholly owned subsidiary of Cliffs acquired in connection with the AM USA Transaction
MMBtu	Million British Thermal Units
MPCA	Minnesota Pollution Control Agency
MSHA	Mine Safety and Health Administration of the U.S. Department of Labor
NAV	Net asset value
Net ton (nt)	2,000 pounds
NOL	Net operating loss
NOES	Non-oriented electrical steel
Northshore	Iron ore mining property owned by Northshore Mining Company, a direct, wholly owned subsidiary of Cliffs
NPDES	National Pollutant Discharge Elimination System, authorized by the Clean Water Act
OPEB	Other postretirement benefits
OSHA	Occupational Safety and Health Administration of the U.S. Department of Labor

Abbreviation or acronym	Term
PHS	Press-hardened steel
Platts 62% price	Platts IODEX 62% Fe Fines CFR North China
QA/QC	Quality assurance/quality control
QP	Qualified person, within the meaning set forth in Item 1300 of Regulation S-K
RI/FS	Remedial Investigation/Feasibility Study
S&P	Standard & Poor's
SEC	U.S. Securities and Exchange Commission
Section 232	Section 232 of the Trade Expansion Act of 1962 (as amended by the Trade Act of 1974)
Securities Act	Securities Act of 1933, as amended
SLR	SLR Consulting US LLC (f/k/a SLR International Corporation)
SOFR	Secured Overnight Financing Rate
STRIPS	Separate Trading of Registered Interest and Principal of Securities
SunCoke Middletown	Middletown Coke Company, LLC, a subsidiary of SunCoke Energy, Inc.
Tilden	Iron ore mining property owned by Tilden Mining Company L.C., an indirect, wholly owned subsidiary of Cliffs
TMDL	Total maximum daily load
Tooling and Stamping	Cleveland-Cliffs Tooling and Stamping Holdings LLC (f/k/a PPHC Holdings, LLC), an indirect, wholly owned subsidiary of Cliffs, together with its subsidiaries
Topic 805	ASC Topic 805, Business Combinations
Topic 815	ASC Topic 815, Derivatives and Hedging
TSR	Total shareholder return
Tubular Components	Cleveland-Cliffs Tubular Components LLC (f/k/a AK Tube LLC), an indirect, wholly owned subsidiary of Cliffs
U.S.	United States of America
U.S. Steel	United States Steel Corporation and its subsidiaries, collectively, unless stated otherwise or the context indicates otherwise
UAW	United Auto Workers
United Taconite	Iron ore mining property owned by United Taconite LLC, an indirect, wholly owned subsidiary of Cliffs
USMCA	United States-Mexico-Canada Agreement
USW	United Steelworkers
VEBA	Voluntary employee benefit association trusts
VIE	Variable interest entity
WLT	Wet long ton

PART I

ITEM 1. BUSINESS

INTRODUCTION

We are the largest flat-rolled steel producer in North America. Founded in 1847 as a mine operator, we are also the largest manufacturer of iron ore pellets in North America. We are vertically integrated from mined raw materials, direct reduced iron, and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. We are the largest supplier of steel to the automotive industry in North America and serve a diverse range of other markets due to our comprehensive offering of flat-rolled steel products. Headquartered in Cleveland, Ohio, we employ approximately 27,000 people across our operations in the United States and Canada.

COMPETITIVE STRENGTHS

As the largest flat-rolled steel producer in North America, we benefit from having the size and scale necessary in a competitive, capital intensive business. Our sizeable operating footprint provides us with the operational leverage and flexibility to achieve competitive margins throughout the business cycle. We also have a unique vertically integrated profile from mined raw materials, direct reduced iron, and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. This positioning gives more predictable costs throughout our supply chain and more control over both our manufacturing inputs and our end product destination.

Our primary competitive strength lies within our automotive steel business. We are the largest supplier of automotive-grade steel in the U.S. Compared to other steel end markets, automotive steel is generally higher quality, more operationally and technologically intensive to produce, and requires significantly more devotion to customer service than other steel end markets. This dedication to service and the infrastructure in place to meet our automotive customers' demanding needs took decades to develop and we believe is unmatched in our industry. We have continued to invest capital and resources to meet the requirements needed to serve the automotive industry and intend to maintain our position as the industry leader going forward.

Due to its demanding nature, the automotive steel business typically generates higher through-the-cycle margins, making it a desirable end market. Over the past two years, we have been able to increase the fixed prices for our automotive contracts significantly. Demand for our automotive-grade steel is expected to increase in the coming years as a result of pent-up automotive demand arising out of supply chain issues and the replacement of older vehicles.

Our integrated footprint provides us with a significant competitive advantage in supplying automotive and other highly demanding end markets as we are able to produce a wide range of high-quality products. Our integrated facilities utilize domestic internally sourced iron ore as the primary feedstock, which allows us to produce a higher quality product with low residual content. We also operate EAF facilities, which gives us insight into their limitations. Companies that are primarily EAF producers are limited in their product range as their equipment is designed to utilize scrap as the main feedstock, which often contains high residual or impure content, such as copper, limiting their ability to meet certain high grades of steel that demand virgin iron. We also believe companies that primarily operate EAFs do not possess our breadth and depth of customer service, technical support and research and development capabilities.

Since the acquisition of our steelmaking assets, we have dedicated significant resources to maintain and upgrade our facilities and equipment. The quality of our assets gives us a unique advantage in product offerings and operational efficiencies. In 2022, we brought our facilities and equipment up to the standard required to maintain and improve the quality and reliability of our supply to the automotive industry, as well as other end markets. The necessary resources that we have invested in our footprint are expected to keep our assets at an automotive-grade quality and reliability for years to come.

Our industry leading portfolio of fixed price contracts provides us a competitive advantage as the steel industry is often viewed as volatile and subject to the market price of steel. Our fixed price contracts allowed us to achieve a higher average selling price in 2022 compared to 2021 despite the price of domestic spot HRC falling approximately \$562 per net ton during that time period. We also expect to benefit from improved fixed price contracts in 2023.

Our ability to source our primary feedstock domestically and internally is a competitive strength. This model reduces our exposure to volatile pricing and unreliable global sourcing. The ongoing conflict between Russia and Ukraine has displayed the importance of our U.S.-centric footprint, as our competitors who primarily operate EAF furnaces rely on imported pig iron to produce flat-rolled steel, the supply of which has been disrupted by that conflict. The best example is our legacy business of producing iron ore pellets, which is our primary steelmaking raw material input. By controlling our iron ore pellet supply, our primary steelmaking raw material feedstock can be secured at a stable and predictable cost and not be subject to as many factors outside of our control.

We believe we offer the most comprehensive flat-rolled steel product selection in the industry, along with several complementary products and services. A sampling of our offering includes advanced high-strength steel, hot-dipped galvanized, aluminized, galvalume, electrogalvanized, galvaneal, HRC, cold-rolled coil, plate, tinplate, GOES, NOES, stainless steels, tool and die, stamped components, rail, slab and cast ingot. Across the quality spectrum and the supply chain, our customers can frequently find the solutions they need from our product selection. Our broad range of product offerings also gives us a competitive advantage in commercial negotiations as our customers can source the majority, if not all, of their steel product needs from us.

We are currently the only producer of both electrical steels referred to as GOES and NOES in the U.S. The recently passed Infrastructure and Jobs Act in the U.S. provides funding to be used for the modernization of the electrical grid and the infrastructure needed to allow for increased EV adoption, both of which require electrical steels. As a result, with increased demand for both transformers and motors for EVs, we expect to benefit from this position in what is currently a rapidly growing market.

We are the first and the only producer of HBI in the Great Lakes region. Construction of our Toledo direct reduction plant was completed in the fourth quarter of 2020 and reached full run-rate nameplate annual capacity of 1.9 million metric tons during the middle of 2021. From this modern plant, we produce a high-quality, low-cost and low-carbon intensive HBI product that can be used in our blast furnaces as a productivity enhancer, or in our BOFs and EAFs as a premium scrap alternative. We use HBI to stretch our hot metal production, lowering carbon intensity and reliance on coke. As a result of our internal usage of HBI, coupled with our ongoing evaluation of coke use strategies, we idled our coke facility at Middletown Works during the third quarter of 2021 and permanently closed our Mountain State Carbon coke plant in the first quarter of 2022. With increasing tightness in the scrap and metallics markets combined with our own internal needs, we expect our Toledo direct reduction plant to support healthy margins for us going forward.

STRATEGY

MAXIMIZE OUR COMMERCIAL STRENGTHS

We offer a full suite of flat steel products encompassing all steps of the steel manufacturing process. We have an industry-leading market share in the automotive sector, where our portfolio of high-end products delivers a broad range of differentiated solutions for this highly sought after customer base.

As a result of our exposure to these high-end markets, we have the highest fixed price contractual volumes in our industry. Approximately 45% of our volumes are sold under these contracts. These contracts reduce volatility and allow for more predictable through-the-cycle margins. Our fixed contract values are expected to significantly improve in 2023 compared to 2022. In addition to our fixed price contracts, we anticipate having more volumes under index-linked contracts in 2023 and beyond, which should reduce our reliance on spot sales and allow us to improve our efficiency with increased volumes.

Our unique capabilities, driven by our portfolio of assets and technical expertise, give us an advantage in our flat-rolled product offering. We offer products that have superior formability, surface quality, strength and corrosion resistance for the automotive industry. We are also the only producer of GOES and NOES in the U.S. In addition, our state-of-the-art Research and Innovation Center in Middletown, Ohio gives us the ability to collaborate with our customers and create new products and develop new and efficient steel manufacturing processes. During 2022, we introduced our MOTOR-MAX™ product line of NOES for high frequency motors and generators. These unique product offerings and customer service capabilities enable us to remain the leading steel supplier to the automotive industry.

TAKE ADVANTAGE OF OUR U.S.-CENTRIC, INTERNALLY SOURCED SUPPLY CHAIN

The conflict between Russia and Ukraine has reinforced the unique advantage of our vertically integrated business model. Two-thirds of U.S. imports of pig iron, a critical raw material for flat-rolled EAFs, has historically been sourced from Russia and Ukraine. This supply remains largely disrupted, driving volatility in input costs and reducing availability for our competitors' ferrous inputs. We, on the other hand, produce our pig iron and liquid steel entirely in the U.S., supported by internally sourced iron ore and HBI and supplemented with internally sourced scrap. In addition, our internally produced pig iron is more environmentally friendly than imported pig iron, which is often made from sintered iron ore fines and with higher coke rates, for example. While competitors are forced to scramble for materials, we are able to take advantage of our vertically integrated footprint.

We began construction of our HBI plant in 2017, in part because of the uncertainty of the industry sourcing metallics from Russia and Ukraine. Russia had previously invaded the Crimea peninsula in 2014, and we saw a need for more on-shore metallics capacity in the U.S. HBI, which is a lower-carbon alternative to imported pig iron, has now become a critical component of our decarbonization strategy.

OPTIMIZE OUR FULLY-INTEGRATED STEELMAKING FOOTPRINT

We are a fully-integrated steel enterprise with the size and scale to achieve margins above industry averages for flat-rolled steel. Our focus remains on realizing our inherent cost advantage in flat-rolled steel while also lowering carbon emissions. The combination of our ferrous raw materials, including iron ore, scrap and HBI, allows us to do so relative to peers who must rely on more unpredictable and unreliable raw material sourcing strategies.

We have ample access to scrap along with internally sourced HBI. Our ability to optimize use of these raw materials in our blast furnaces and BOFs ultimately boosts liquid steel output, reduces coke needs and lowers carbon emissions from our operations. As a result of the successful operational improvements, we announced the indefinite idle of the Indiana Harbor #4 blast furnace in the first quarter of 2022. The indefinite idle reduced our operational blast furnaces from eight to seven.

We used 2022 as an opportunity to optimize our steelmaking footprint by dedicating significant resources to bring our facilities and equipment up to the standard required to maintain and improve our supply to the automotive industry. The necessary resources that we have invested in our footprint are expected to keep our assets at automotive-grade quality and reliability for years to come. With our facilities and equipment in the best shape since the acquisition of our steelmaking assets and no major investments expected until at least 2025, we are well positioned to benefit from operating efficiencies and improved capabilities in the coming years.

ADVANCE OUR PARTICIPATION IN THE GREEN ECONOMY

We are seeking to expand our customer base with the rapidly growing and desirable EV market. At this time, we believe the North American automotive industry is approaching a structural inflection point, with the adoption of electrical motors in passenger vehicles. As this market grows, it will require more advanced steel applications to meet the needs of EV producers and consumers. These features include the strength and formability of our flat-rolled steel used for battery enclosures in EVs. With our unique technical capabilities and leadership in the automotive industry, we believe we are positioned better than any other North American steelmaker to supply the steel and parts necessary to fill these needs.

We also have the right products to meet the growing demand for renewable energy as well as for the modernization of the U.S. electrical grid. We offer plate products that can be used in windmills, which we estimate contain 130 tons of steel per megawatt of electricity. In addition, panels for solar power are heavy consumers of galvanized steel, where we are a leading producer. We estimate solar panels consume 40 tons of steel per megawatt of electricity.

We are currently the sole producer of electrical steel in the U.S., which can facilitate the modernization of the U.S. electrical grid. Along with charging networks, electrical steels are also needed in the motors of EVs.

ENHANCE OUR ENVIRONMENTAL SUSTAINABILITY

Our commitment to operating our business in a more environmentally responsible manner remains constant. One of the most important issues impacting our industry, our stakeholders and our planet is climate change. In early 2021, we announced our commitment to reduce GHG emissions 25% from 2017 levels by 2030. This goal represents combined Scope 1 (direct emissions) and Scope 2 (indirect emissions from purchased electricity or other forms of energy) GHG emission reductions across all of our operations. On a per ton basis, we reduced our integrated Scope 1 and Scope 2 GHG intensity from 1.82 per metric ton of crude steel produced in 2020 to 1.67 in 2021.

We plan to achieve our GHG emissions reduction goal by focusing on actionable, commercially viable technologies and solutions while supporting research for breakthrough technologies for the primary iron and steel sector. In an effort to build on our GHG emissions reduction progress, we have continued our partnership with the DOE as part of the Better Climate Challenge initiative, which was established in December 2021. Throughout 2022, we further pursued opportunities such as carbon capture and the use of hydrogen within our facilities. Additionally, we have started forming partnerships to develop alternative energy sources - such as wind, solar and hydrogen - which will benefit our own environmental footprint while combating the global impacts of climate change.

Our future GHG emissions reductions are expected to be driven by the use of direct reduced iron in blast furnaces, the stretching of hot metal with additional scrap, driving more productivity out of fewer blast furnaces, implementing hydrogen use where possible, utilizing carbon capture, procuring more clean energy and operating with higher energy efficiency.

IMPROVE OUR FINANCIAL FLEXIBILITY

Given the cyclical nature of our business, it is important to us to be in the financial position to easily withstand economic cycles. In 2022, we demonstrated our ability to generate healthy free cash flow and use it to reduce substantial amounts of debt, return capital to shareholders through our share repurchase program and make investments to both improve and grow our business. We have also been able to take advantage of volatility in the debt markets to repurchase notes in the open market at a discount. Throughout 2022, we made open market repurchases of \$351 million aggregate principal amount of assorted series of notes at an average price of 92% of par.

We expect to have ample opportunities to reduce our debt with our own free cash flow generation in the coming years. During 2022, we reduced outstanding debt by approximately \$1.1 billion while returning \$240 million in capital to shareholders via share repurchases.

BUSINESS OPERATIONS

We have a vertically integrated portfolio, which begins at the mining stage and goes all the way through the manufacturing of steel products, including stamping, tooling and tubing. We have the unique advantage as a steel producer of being fully or partially self-sufficient with our production of raw materials for steel manufacturing, which includes iron ore pellets, HBI, scrap and coking coal. We are organized into four operating segments based on the differentiated products – Steelmaking, Tubular, Tooling and Stamping and European Operations. We primarily operate through one reportable segment – the Steelmaking segment.

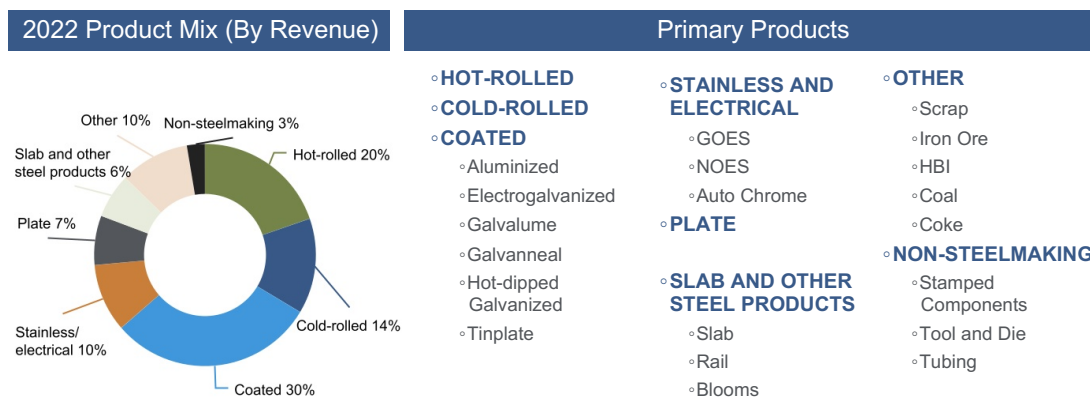
Our primary steel producing and finishing facilities are located across Illinois, Indiana, Michigan, Ohio, Pennsylvania and West Virginia. We operate 7 blast furnaces and 5 EAFs with the configured capability of producing approximately 20 million tons of raw crude steel annually. Raw crude steel is generally cast into slabs and finished based on customer specifications. Finishing is completed on site at our integrated operations or at one of our standalone finishing facilities.

Ferrous raw materials for the production of steel are internally sourced from our iron ore mines in Michigan and Minnesota, our direct reduction plant in Ohio and our scrap facilities in Florida, Michigan, Ohio, Ontario and Tennessee. We also operate a coal mining complex in West Virginia and produce coke from our facilities in Ohio, Pennsylvania and Indiana.

Our Other Businesses primarily includes the Tubular Components and Tooling and Stamping operating segments that provide customer solutions with carbon and stainless steel tubing products, advanced-engineered solutions, tool design and build, hot- and cold-stamped steel components and complex assemblies.

Refer to *Part I - Item 2. Properties* for additional information.

PRODUCTS AND MARKETS



As a fully integrated steel enterprise, we have a comprehensive portfolio of steel solutions. We primarily sell our products to customers in four broad market categories. The following table presents the percentage of our revenues to each of these markets during the year:

Market	Primary Products Sold to End Market	2022	2021
Direct automotive	Cold-rolled, galvanized, aluminized, NOES and stainless	31 %	25 %
Infrastructure and manufacturing	Hot-rolled, cold-rolled, galvanized, plate, GOES, stainless, tinplate and rail	26 %	27 %
Distributors and converters	All grades of steel	28 %	38 %
Steel producers	Slab, scrap, iron ore, HBI, coal and coke	15 %	10 %

The change in percentages of revenues to each market in 2022, compared to 2021, was driven primarily by the increase in selling prices for our fixed price contracts to the direct automotive market, lower pricing on index linked sales, lower spot sales, and the inclusion of full-year results from the FPT Acquisition.

We sell our products principally to customers in North America. Approximately 45% of our flat-rolled steel shipments are sold under fixed base price contracts. These contracts are typically one year in duration and expire at various times throughout the year. Some of these contracts have a surcharge mechanism that passes through certain changes in input costs. A certain portion of our flat-rolled steel shipments are sold based on the spot market at prevailing market prices or under contracts that involve variable pricing that is tied to an independently published steel index.

AUTOMOTIVE MARKET

We specialize in manufacturing difficult-to-produce and high-quality steel products with demanding delivery performance and first-class customer technical support. Through our collaborative relationships with automotive producers, we develop breakthrough steel solutions that help our customers meet their product requirements. The quality of our steel is appealing to end users because of its strength, surface quality, and formability. EAF producers' equipment is designed to utilize scrap as their main feedstock, which often contains high residual or impure content, limiting their product capabilities. The exacting requirements for servicing the automotive market generally allows for higher selling prices for products sold to that market than for the commodity types of steel sold to other markets.

The largest end user for our steel products is the automotive industry in North America, which makes light vehicle production a key driver of demand. During 2022, North American light vehicle production was 14.3 million units, up from 13.0 million units in both 2020 and 2021. While production improved from the prior year, it remained below the prior ten-year average of approximately 16.0 million units primarily due to the global semiconductor shortage, as well as other material shortages and supply chain disruptions. The long-term outlook for the automotive industry remains positive as pent-up demand remains strong, inventory levels are significantly below historical averages and the average age of vehicles on the road in the U.S. reached an all-time high during 2022.

Furthermore, during 2022, consumer demand for sport utility vehicles, trucks and crossovers continued to increase while demand for smaller sedans and compact cars declined. We benefit from intentionally targeting larger vehicle platforms to take advantage of consumer preferences, and we have focused on and have been successful in getting sourced on numerous large vehicle platforms. As a result, a significant portion of the automotive steel that we sell is used to produce these popular larger vehicles. In addition to benefiting from our exposure to consumers' strong demand for larger vehicles, these vehicles also typically contain a higher volume of steel than smaller sedans and compact cars, providing us the opportunity to sell a higher volume of our steel products.

Automotive manufacturers continue to explore opportunities to develop vehicles that are lighter in weight. We collaborate with our automotive customers and their suppliers to develop innovative solutions using our developments in light weighting, efficiency, and material strength and formability across our extensive product portfolio, in combination with our automotive stamping and tube-

making capabilities. We are also working with our customers to develop steels with greater heat resistance for exhaust systems that support new, fuel-efficient engines that run at higher temperatures. We believe we offer steel products that are stronger, less expensive, have competitive weight savings, are easier to repair and are more environmentally friendly than alternative materials.

Automotive manufacturers have also been increasing their development of EVs in order to meet the growing customer adoption of EVs. Many motors used in EVs being sold in the U.S. today are imported from foreign suppliers, but more local sourcing and manufacturing of motors is expected to occur in the future. As the only North American producer of high-efficiency NOES, which is a critical component of EV motors, we are positioned to potentially benefit from the growth of EVs going forward. During 2022, we introduced our MOTOR-MAX™ product line of NOES for high frequency motors and generators. We believe our strong foundation in electrical steels and long-standing relationships with automotive manufacturers and their suppliers will provide us with an advantage in this market as it continues to grow and mature. Likewise, the growing customer adoption of EVs may also increase demand for improvements in the electric grid to support higher demand for more extensive battery charging, which our GOES could support.

The majority of our sales to the automotive market are under annual fixed price contracts. In 2023, our selling prices to this end market will be significantly higher than 2022 as a result of favorable contract renewals.

INFRASTRUCTURE AND MANUFACTURING MARKET

We sell a variety of our steel products, including hot-rolled, cold-rolled, galvanized, plate, stainless, electrical, tinplate and rail, to the infrastructure and manufacturing market. This market includes sales to manufacturers of HVAC, appliances, power transmission and distribution transformers, storage tanks, ships and railcars, wind towers, machinery parts, heavy equipment, military armor, food preservation and railway lines. Domestic construction activity and the replacement of aging infrastructure directly affect sales of steel to this market. Nonresidential construction spending was strong in 2022 and will likely continue in 2023 supported by the Infrastructure and Jobs Act of 2021 and the CHIPS Act. The Infrastructure and Jobs Act of 2021 will likely increase demand for steel products related to renewable energy, as well as the modernization of the U.S. electrical grid. Our plate products can be used in windmills, which we estimate contain 130 metric tons of steel per megawatt of electrical generating capacity. Additionally, we estimate solar panels consume 40 metric tons of steel per megawatt of electrical generating capacity. We should also benefit from the Inflation Reduction Act, which provides a tax credit for consumers who buy new EVs, which should increase the demand for our electrical steel used in charging stations.

Sales to this end market are made under a combination of annual fixed price contracts and index-linked pricing arrangements. Our selling prices under our annual fixed price contracts will be significantly higher in 2023 compared to the prior year as a result of favorable renewals.

DISTRIBUTORS AND CONVERTERS MARKET

Virtually all of the grades of steel we produce are sold to the steel distributors and converters market. This market generally represents downstream steel service centers, which source various types of steel from us and fabricate it according to their customers' needs. Our steel is typically sold to this market on a spot basis or under contracts linked to steel pricing indices. Demand and pricing for this market can be highly dependent on a variety of factors, including global and domestic commodity steel production capacity, demand for manufactured goods, the price of scrap, the relative health of the global economy, the import and export levels of other steel producing nations, the provisions of international trade agreements and fluctuations in international currencies.

The price for domestic HRC, the most significant index in driving the revenues and profitability of our Steelmaking segment, averaged \$1,011 per net ton for 2022, compared to \$1,573 per net ton in 2021. The main decline in pricing occurred in the second half of 2022 as service centers destocked inventory, interest rate hikes drove caution on new business and pricing for metallics declined.

STEEL PRODUCERS MARKET

The steel producers market represents third-party sales to other steel producers, including those who operate blast furnaces and EAFs. It includes sales of raw materials and semi-finished and finished goods, including iron ore pellets, coal, coke, HBI, scrap, slab and other steel products.

The inclusion of full-year results for the FPT Acquisition in 2022 was the main driver in the year-over-year increase in revenues to the steel producers market. FPT is one of the largest processors of prime scrap in the country. Our expansion in scrap has continued to grow as we have leveraged our long-standing flat-rolled automotive and other customer relationships into recycling partnerships. Our steelmaking operations consume a large portion of the ferrous scrap processed by FPT. We also have third-party sales of ferrous and non-ferrous scrap.

Third-party slab sales are also a large component of sales to this market, which are primarily made under a long-term supply agreement that was initiated in connection with the closing of the AM USA Transaction.

Production from our iron ore mines is predominantly consumed by our steelmaking operations. During 2022 and 2021, we sold 3 million and 4 million long tons of iron ore products, respectively, to third parties from our share of production from our iron ore mines. The merchant portion of our iron ore pellet production is sold pursuant to long-term supply agreements and through spot contracts.

The price of busheling scrap, a necessary input for flat-rolled steel production in EAFs in the U.S., averaged \$533 per long ton during 2022, an 11% decrease from the prior year, but remained well above the historical ten-year average of approximately \$380 per long ton. We expect the price of busheling scrap to remain elevated above historical averages throughout 2023 due to the

continued decline of prime scrap generation and the growth of EAF capacity in the U.S., along with a push for expanded scrap use globally.

APPLIED TECHNOLOGY, RESEARCH AND DEVELOPMENT

The utilization of our research and development capabilities has allowed us to introduce new steel products to the marketplace. Our research and development activities provide us the ability to offer a broad range of steel products, improve existing products and processes and develop new ones. As part of our underlying strategy to maintain and improve our product, service and technical capabilities, research and innovation spend totaled \$24 million and \$17 million in 2022 and 2021, respectively.

As the largest supplier of steel to the automotive industry in North America, it is important that we maintain our world-class research and development team to expand our capabilities and bring new steel products to the marketplace. Our ongoing efforts begin at our state-of-the-art Research and Innovation Center in Middletown, Ohio, where we collaborate with our automotive customers and their suppliers to develop products that meet their needs. We have a customer technical support team that is dedicated to understanding customers' current and long-term requirements and translating them into product designs. The dedication and resources we allocate toward our research and development help us maintain our extensive product offering and provide our automotive customers with solutions to meet their steel needs. Our research and development capabilities will support us in efforts to remain the leading supplier to the automotive industry as automotive manufacturers continue to pursue EVs, lighter weight vehicles and other advancements in vehicle capabilities.

A prime example of our ability to help our customers through research and development can be seen in the support and products we offer as automotive manufacturers have started increasing their development of EVs to meet the growing consumer adoption of EVs. We are the only North American producer of high-efficiency NOES, which is a critical component of EV motors. During 2022, we introduced our MOTOR-MAX™ product line of NOES for high frequency motors and generators. We believe our strong foundation in electrical steels and long-standing relationships with automotive manufacturers and their suppliers will provide us with an advantage in this market as it continues to grow and mature.

COMPETITION

Our Steelmaking segment primarily competes with domestic and foreign producers of flat-rolled carbon, plate, tinplate, stainless, rail and electrical steel, carbon and stainless tubular products, aluminum, carbon fiber, concrete and other materials that may be used as a substitute for flat-rolled steels in manufactured products. Our Tooling and Stamping and Tubular Components businesses both compete against other niche downstream business in highly fragmented markets.

The steel industry is often viewed as volatile and is subject to the market price of steel. Market pricing can be adversely impacted from foreign competition selling steel products into the U.S. at discounts and the oversupply of steel products within the domestic market from both domestic and foreign competition. To limit our exposure to volatility from market pricing, we have structured our business to have an industry leading portion of fixed price contracts. Our fixed price contracts provide us stability on a large portion of our business when market pricing is volatile.

Price, quality, on-time delivery, customer service, technical expertise and product innovation are the primary competitive factors in the steel industry and vary in importance according to the product category and customer requirements. Steel producers that sell to the automotive market are required to meet strict and high-quality product specifications that demand strong technical capabilities, investment in capital and other resources to manage inventory, customer service and research and development. As the largest supplier of steel to the automotive industry in North America, we continue to meet all the requirements needed to serve the automotive industry and maintain our position as the industry leader going forward. Significant capital investments in equipment, technology and other resources that would effectively replicate our processes, at a likely higher cost than ours, would be required for certain competitors to meet all the demands required of the automotive industry.

The steel industry has faced limited competition from aluminum manufacturers (and, to a lesser extent, other materials) as automotive manufacturers attempt to develop vehicles that are lighter in weight. To address automotive manufacturers' light weighting needs that the aluminum industry is targeting, we have developed AHSS grades that we believe provide weight savings similar to aluminum, while being stronger, less costly, easier to repair, more sustainable and more environmentally friendly. Aluminum penetration has been primarily limited to specific automotive applications, such as outer panels and closures, rather than entire body designs. In addition, our automotive customers who continue to use steel, as opposed to aluminum and other alternative materials, are able to avoid the significant capital expenditures required to re-tool their manufacturing processes to accommodate the use of non-steel materials. We do not expect the use of aluminum in vehicles to pose a significant threat as a replacement to steel.

EAFs comprise over 70% of steel production and more than 40% of flat-rolled steel production in the U.S. The primary raw materials used by EAFs include scrap metal and ore based metallics, which have unpredictable and often volatile pricing. Additionally, the availability of these materials can be unreliable as most competition relies on imported ore based metallics. Due to recently completed and further announced flat-rolled EAF capacity additions in the U.S. and increasing focus on industry decarbonization, we expect the price of scrap to remain elevated over historical averages, providing our integrated footprint a competitive cost advantage. Companies who primarily operate EAFs also generally offer a narrower range of products than integrated steel mills and are limited in their product quality as their equipment is designed to utilize scrap as the main feedstock, which often contains high residual content, such as copper, limiting their ability to meet certain high grades of steel that demand virgin iron feedstock. We also believe companies who primarily operate EAFs often do not have the equipment capabilities to produce the product range that integrated facilities offer, nor do we believe they possess our depth of customer service, technical support, and research and innovation. The additional capacity from domestic EAF competition could displace imports as the U.S.

is still the largest net importer of steel in the world, and domestically produced steel is generally more environmentally friendly than imported steel.

Domestic steel producers can face significant competition from foreign producers. In certain instances, these foreign producers are often able to sell products in the U.S. at prices substantially lower than domestic producers. Depending on the country of origin, these reasons may include government subsidies; lower labor, raw material, energy and regulatory costs; less stringent environmental regulations; less stringent safety requirements; the maintenance of artificially low exchange rates against the U.S. dollar; and preferential trade practices in their home countries. In 2022, finished steel imports increased 11% compared to the prior year as a result of less onerous trade restrictions for certain foreign competition and, at times, a disparity between foreign and domestic prices. Imports still remain below levels seen between 2013 and 2018, which we believe is at least partially attributable to the implementation of certain trade restrictions on imported steel, including both targeted trade cases and the more broad Section 232 tariffs. Further modifications to these trade restrictions by government authorities could directly or indirectly impact import levels in the future. Import levels are also affected to varying degrees by the relative level of steel production in China and other countries, the strength of demand for steel outside the U.S., and the relative strength or weakness of the U.S. dollar against various foreign currencies. Imports of finished steel into the U.S. accounted for 24% of domestic steel market consumption in 2022.

We continue to provide significant pension and healthcare benefits to a greater number of our retirees compared to certain other domestic and foreign steel producers that do not provide such benefits to any or most of their retirees, which impacts our overall cost of production relative to certain other steelmakers. However, we have taken a number of actions to reduce pension and healthcare benefits costs, including using our size and scale to proactively renegotiate lower healthcare premiums, negotiating progressive labor agreements, transferring responsibility for healthcare benefits for various groups of retirees to VEBAs, offering voluntary lump-sum settlements to pension plan participants and lowering retiree benefit costs for salaried employees. These actions have not only reduced some of the risks associated with our pension funding obligations, but more importantly have reduced our risk exposure to performance of the financial markets, which is a principal driver of pension funding requirements. We continue to actively seek opportunities to reduce pension and healthcare benefits costs.

ENVIRONMENTAL MATTERS

Our operations are subject to various laws and regulations governing the protection of the environment. We monitor these laws and regulations, which change over time, to assess whether the changes affect our operations. We conduct our operations in a manner that is protective of public health and the environment.

Environmental matters and their management continue to be an important focus at each of our operations. From 2017 to 2021, we invested approximately \$1 billion into our Toledo direct reduction plant, which provides a low carbon intensity raw material to our steelmaking operations. The HBI produced from the plant requires less energy to produce compared to traditional feedstock and can be used in blast furnaces to reduce emissions by improving energy efficiency and reducing the amount of coke required for steel production.

In the construction and operation of our facilities, substantial costs have been and will continue to be incurred to comply with regulatory requirements and avoid undue effect on the environment. In 2022, 2021 and 2020, our capital expenditures relating to environmental matters totaled \$133 million, \$62 million and \$34 million, respectively. Our current estimate for capital expenditures for environmental improvements in 2023 is approximately \$90 million for various water treatment, air quality, dust control, tailings management and other miscellaneous environmental projects. Additionally, we expect capital expenditures for environmental improvements for each of 2024 and 2025 to be generally in line with 2023's estimated spending.

REGULATORY DEVELOPMENTS

Various governmental bodies continually promulgate new or amended laws and regulations that affect us, our customers and our suppliers in many areas, including air and water discharges, waste management and disposal, the classification of materials and products and other environmental, health and safety matters. Although we believe that our environmental policies and practices are sound and do not expect that the application of any current laws, regulations or permits would reasonably be expected to result in a material adverse effect on our business or financial condition, we cannot predict the collective potential adverse impact of the expanding body of laws and regulations. Moreover, because all domestic steel, scrap and mining producers operate under the same federal environmental regulations, we do not believe that we are more disadvantaged than our domestic competitors by our need to comply with these regulations. Some foreign competitors may benefit from less stringent environmental requirements in the countries where they produce, resulting in lower compliance costs for them and providing those foreign competitors with a cost advantage on their products.

Specifically, there are several notable proposed or potential rulemakings or activities that could have a material adverse impact on our facilities in the future depending on their ultimate outcome: climate change and GHG regulations; changes to the National Ambient Air Quality Standard for particulate matter; changes to ozone transport regulations; selenium discharge regulation; Minnesota's sulfate wild rice water quality standard; and Minnesota's mercury TMDL and mercury reduction rules.

CLIMATE CHANGE AND GREENHOUSE GAS REGULATIONS

Continued attention to issues concerning climate change, the role of human activity in affecting climate change, and potential mitigation through regulation and legislation may have a material impact on our customers and suppliers, our operations and financial results in the future. Policymakers are evaluating or developing carbon regulation at the state, regional, national and international levels. Additionally, international treaties or agreements such as the Paris Agreement may influence legislative and regulatory decisions in the U.S. Potential climate-related regulations and legislation that could impact our business include

reporting obligations, mandatory carbon reductions, carbon pricing mechanisms and trade policies, and climate-related procurement and product labeling requirements. The dynamic forward outlook for these potential regulations presents a challenge to large industrial companies to assess the long-term net impacts of carbon compliance costs on their operations. In the absence of comprehensive federal carbon legislation, numerous state, regional and federal regulatory initiatives are under development or are becoming effective, thereby creating a disjointed approach to GHG emissions control, potential carbon pricing and climate-related procurement activities. We intend to remain active in the discussions related to legislative and regulatory changes at the federal and state levels.

Our exposure on this issue includes both the direct and indirect financial risks associated with the regulation of GHG emissions, as well as potential physical risks associated with climate change adaptation. We are continuing to review the physical risks related to climate change. As an energy-intensive business, we have a broad range of GHG emissions sources, such as iron ore furnaces and kilns, mobile equipment, EAFs and integrated steelmaking facilities, among others. As such, among our most significant regulatory risks are: (1) the costs associated with on-site emissions levels (direct impacts) or the reduction thereof; and (2) indirect costs passed through to us from energy providers and other suppliers (indirect impacts).

Internationally, mechanisms to require or incentivize emissions reductions are being implemented in various countries, with differing designs and stringency, according to resources, economic structure and politics. However, some foreign competitors may benefit from less stringent climate-related requirements, providing those foreign competitors with a cost advantage on their products.

Due to the potential variety of federal, state or international carbon restriction schemes, our business and customer base could suffer negative financial impacts over time as a result of increased energy, environmental and other costs to comply with the limitations that could be imposed on GHG emissions. We believe our exposure can be reduced by numerous factors, including engaging with relevant stakeholders and policymakers on potential GHG regulation and legislation; emissions reduction opportunities, such as energy efficiency, industrial electrification, carbon capture, utilization and sequestration, renewable energy and fuel flexibility, such as hydrogen; and other efficiency-improving material inputs, products and technologies.

CHANGES TO NATIONAL AMBIENT AIR QUALITY STANDARDS FOR PARTICULATE MATTER

On January 6, 2023, the EPA proposed changes to the National Ambient Air Quality Standards for particulate matter. The proposal seeks comment on lowering the primary annual fine particulate matter (PM_{2.5}) level from 12 micrograms per cubic meter (ug/m³) of air to 9 – 10 ug/m³ while taking comment on alternative annual standard levels down to 8 ug/m³ and up to 11 ug/m³. The EPA is also proposing to retain current primary 24-hour PM_{2.5} standard of 35 ug/m³ while soliciting comments on revising the level as low as 25 ug/m³. The lower the standard, the greater potential effect on our operations across the country. We are actively engaged with various experts and trade associations to provide legal and technical comments on the proposal. The rule is expected to be finalized in 2023, after which each state will have three years to submit a State Implementation Plan to the EPA detailing how it intends to address any nonattainment areas in the state. The potential changes to air pollution control equipment or operations needed at our plants to comply with a new particulate matter standard are not known at this time, and the potential cost is not estimable but could be material.

CHANGES TO OZONE TRANSPORT REGULATIONS

In 2022, the EPA proposed to impose new standards for nitrogen oxide (an ozone precursor) on various industries (including the steel and iron ore sectors) that operate in specific states, including numerous states where we operate (Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania and West Virginia). While we participated in commenting on the proposed rule, pointing out its technical and legal flaws, a final rule is expected to be issued in the first six months of 2023 that could affect our facilities in the listed states. Since the technology originally proposed by the EPA is infeasible at our sites, any potential changes at our facilities that may be required to comply with the final rule are not known and not estimable at this time but could be material.

SELENIUM DISCHARGE REGULATION

In Michigan, our Empire and Tilden mines have implemented compliance plans to manage selenium according to applicable permit conditions. A water treatment system for both facilities is anticipated sometime before 2028. As of December 31, 2022, included within our Empire asset retirement obligation is a discounted liability of approximately \$110 million, which includes the estimated costs associated with the construction of Empire's portion of the required infrastructure and expected future operating costs of the treatment facilities. Additionally, included within our Tilden future capital plan is approximately \$20 million for the construction of Tilden's portion of the required infrastructure. We are continuing to assess and develop potential cost effective and sustainable selenium treatment technologies.

In July 2016, the EPA published new selenium fish tissue limits and lower lentic and lotic water column concentration criteria, which may someday increase the cost for treatment should the Michigan Department of Environment, Great Lakes and Energy adopt these new standards in lieu of the existing limits required by the Great Lakes Water Quality Initiative. Accordingly, we cannot reasonably estimate the timing or long-term impact of these water quality criteria on our business.

MINNESOTA'S SULFATE WILD RICE WATER QUALITY STANDARD

The Minnesota Governor established a Wild Rice Task Force by Executive Order in May 2018 that provided recommendations on wild rice restoration and regulation. The existing sulfate water quality standard for lakes and streams that contain wild rice has not been applied to any of our discharge permits or enforced historically by Minnesota. Further, the standard may be unenforceable because of legislation that prohibits the MPCA from enforcing it until the obsolete standard is updated based on modern science.

Minnesota submitted a list of impaired water revisions to the EPA in 2020. In 2021, the EPA disapproved of Minnesota's draft list and subsequently announced its proposed list of wild rice water bodies that were impaired due to sulfate under the Clean Water

Act's Section 303(d) process, which resulted in the addition of 32 waters in November 2021. At this time, it is unknown how the MPCA intends to implement requirements to address sulfate impaired waters.

For these reasons, the impact of potential obligations to address sulfate concentrations in certain water discharges from our Minnesota iron ore mining and pelletizing operations is not estimable at this time, but it could have a material adverse impact if we are required to significantly reduce sulfate in certain discharges.

MINNESOTA'S MERCURY TMDL AND MERCURY REDUCTION RULES

In September 2014, Minnesota promulgated the Mercury Air Emissions Reporting and Reduction Rules, mandating mercury air emissions reporting and reductions from certain sources, including taconite facilities. The rules apply to all of our Minnesota iron ore mining and pelletizing operations and required submittal of a Mercury Reduction Plan to the MPCA in 2018 with plan implementation requirements becoming effective on January 1, 2025. In the Mercury Reduction Plan, facilities evaluated if available control technologies could technically achieve a 72% mercury reduction rate. If available control technologies could not technically achieve a 72% mercury reduction rate, the facilities must propose alternative mercury reduction measures. One of the main tenets agreed upon for evaluating potential mercury reduction technologies during TMDL implementation and 2014 rule development proceedings was that the selected technology must meet the following "Adaptive Management Criteria": the technology must be technically feasible; must be economically feasible; must not impact pellet quality; and must not cause excessive corrosion in the indurating furnaces or air pollution control equipment.

The Mercury Reduction Plans for our Minnesota facilities were submitted to the MPCA in December 2018. The plans determined that there are currently no proven technologies to cost effectively reduce mercury emissions from taconite furnaces to achieve the targeted 72% reduction rate, while satisfying all Adaptive Management Criteria. This determination was based on detailed engineering analysis and research testing. In January 2023, MPCA responded that certain technologies may be appropriate, and MPCA requested submission of revised Mercury Reduction Plans from the facilities. Potential impacts to us are not estimable at this time because the revised Mercury Reduction Plans remain under development.

RISK AND TECHNOLOGY REVIEWS FOR TACONITE AND INTEGRATED IRON AND STEEL CATEGORIES

Under the Clean Air Act, within eight years after promulgating National Emissions Standards for Hazardous Air Pollutants in industry-specific categories, the EPA must review the standards to determine whether they continue to protect public health with an ample margin of safety and protect against adverse environment effects. In addition, the EPA is required to review and revise the standard every eight years to account for improvements in HAP control technology or methods.

The EPA has worked with the taconite and integrated iron and steel industries for years to collect data in order to recalculate the risk from HAP emissions from each category and to address whether new technologies existed in those sectors. In 2020, the EPA determined that the risk from the sources in both of those categories was acceptable and adopted new rules for both sectors in 2020. However, also in 2020, a court ruled that the EPA must address all HAPs in its National Emissions Standards for Hazardous Air Pollutants Risk and Technology Reviews. See *Louisiana Environmental Action Network, et al. v. Environmental Protection Agency and Andrew Wheeler* 955 F.3d 1088 (D.C. Cir. 2020). The EPA then reopened the rulemakings for numerous source categories, including taconite and integrated iron and steel, to confirm that all HAPs had been addressed in the updates to those rules.

In 2022, the EPA sent us information collection requests related to the emission of HAPs from taconite and integrated iron and steel sources, and we have fulfilled or are fulfilling those requests in the time prescribed by the EPA. The EPA is required by court order to issue a final rule by October 26, 2023 for the integrated iron and steel category and November 16, 2023 for the taconite category. Because the EPA has yet to propose revised rules, the impacts are not estimable at this time but could be material in future years.

OTHER GOVERNMENT LAWS AND REGULATIONS

In addition to environmental laws and regulations, we are subject to various laws and regulations around the world. For example, changes in trade regulations, including tariffs or other import or export restrictions, could lead to lower or more volatile global steel prices, impacting our profitability. In addition, health and safety regulations, including OSHA and MSHA regulations, have necessitated, and may continue to necessitate, increased operating costs or capital investments to promote a safe working environment. We are also required to comply with complex foreign and U.S. laws and regulations, which may include the Foreign Corrupt Practices Act and other anti-bribery laws, the European Union's General Data Protection Regulation and other U.S. and foreign privacy regulations, and transportation and logistics regulations. The laws and regulations noted above, as well as other applicable laws and regulations, or the manner in which they are interpreted or enforced, may require us to make material investments in the form of additional processes, training and capital, among other things. For a discussion of the risks associated with certain applicable laws and regulations, see *Part I – Item 1A, Risk Factors*.

RAW MATERIALS AND ENERGY

Our steelmaking operations require iron ore, HBI, coke, coal, ferrous and carbon and stainless scrap, chrome, nickel and zinc as primary raw materials. We also consume natural gas, electricity, industrial gases and diesel fuel at our operations. As a vertically integrated steel company, we are able to internally supply a majority of our ferrous raw materials needed for our steelmaking operations. We also attempt to reduce the risk of future supply shortages and price volatility in other ways. If multi-year contracts are available in the marketplace for those raw materials that we cannot supply internally, we may use these contracts to secure sufficient supply to satisfy our key raw material needs. When multi-year contracts are not available, or are not available on acceptable terms, we purchase the remainder of our raw material needs under annual contracts or conduct spot purchases. We

also regularly evaluate alternative sources and substitute materials. Additionally, we may hedge portions of our energy and raw materials purchases to reduce volatility and risk. We believe that we have secured, or will be able to secure, adequate supply to fulfill our raw materials and energy requirements for 2023.

The raw materials needed to produce a ton of steel will fluctuate based upon the specifications of the final steel products, the quality of raw materials and, to a lesser extent, differences among steel production equipment. For example, generally, in our integrated steelmaking facilities, we consume approximately 1.4 net tons of coal to produce one net ton of coke. The process to produce one ton of raw steel (generally defined as a carbon slab) requires approximately 1.4 net tons of iron ore pellets and/or HBI pellet equivalents, 0.3 to 0.4 net tons of coke and 0.3 net tons of steel scrap or scrap substitutes. At normal operating levels, we also consume approximately 5 to 6 MMBtu's of natural gas per net ton of raw steel produced, prior to rolling, finishing and further processing. Additionally, on average, our EAFs require 1.1 net tons of ferrous scrap, stainless scrap or scrap substitutes to produce one net ton of steel. While these estimated consumption amounts are presented to give a general sense of raw material and energy consumption used in our steel production, substantial variations may occur.

IRON ORE

We own or co-own five active iron ore mines in Minnesota and Michigan. Based on our ownership in these mines, our share of annual rated iron ore production capacity is approximately 28 million long tons, which supplies all of the iron ore needed for our steelmaking operations. Refer to *Part I - Item 2. Properties* for additional information.

HBI

Our investment into HBI production provides us access, when needed, to clean iron units in order to make advanced steel and stainless products. This access to our own production provides us flexibility and allows us to avoid the risks and carbon footprints of imported iron substitutes. Iron substitutes imported into the U.S. are traditionally sourced from regions of the world that have historically experienced greater political turmoil and have lower pollution standards than the U.S. Our investment demonstrates our raw material and company strategy in responsibly managing the risks of pricing, availability and overall carbon footprint of our critical inputs. We have an annual capacity of 1.9 million metric tons of HBI per year.

As a result of our internal usage of HBI, coupled with our ongoing evaluation of coke use strategies, we idled our coke facility at Middletown Works during the third quarter of 2021 and permanently closed our Mountain State Carbon coke plant in the first quarter of 2022.

COKE AND COAL

We own three active cokemaking facilities, including one coke plant located within our Burns Harbor facility. These facilities currently provide approximately half of the coke requirements for our steelmaking operations and have an annual rated capacity of 2.6 million net tons. Additionally, we have coke supply agreements with suppliers that provide our remaining requirements. Our purchases of coke are made under annual or multi-year agreements with periodic price adjustments.

We have annual rated metallurgical coal production capacity of 2.3 million net tons from our Princeton mine, which supplies a portion of our metallurgical coal needs. We typically purchase most of our metallurgical coal under annual fixed-price agreements. We believe there are adequate external supplies of coke and coal available at competitive market prices to meet our needs. Refer to *Part I - Item 2. Properties* for additional information.

STEEL SCRAP

We own the assets of FPT, which provide us sourcing and processing capabilities for both prime and obsolete scrap. This access is critical, because prime scrap demand is expected to grow as new flat-rolled EAF capacity is set to come online over the next five years. FPT includes 22 facilities that are primarily located in the Midwest near our steel facilities. Additionally, our access to scrap furthers our commitment to being an environmentally-friendly, low-carbon intensity steelmaker with a cleaner materials mix as we are able to better optimize productivity at our existing EAFs and BOFs.

The majority of our scrap requirements can be generated or processed from internal sources, including scrap generated at our steel production facilities. We believe that supplies of additional steel scrap to meet the needs of our steelmaking operations are readily available from outside sources at competitive market prices.

OTHER MATERIALS

We believe that supplies of chrome, nickel and zinc adequate to meet the needs of our steelmaking operations are readily available from outside sources at competitive market prices.

ENERGY

We consume a large amount of natural gas, electricity, industrial gases and diesel fuel, which are significant costs to our operations. The majority of our energy requirements are purchased from outside sources. Access to long-term, low-cost sources of energy in various forms is critically important to our operations.

Natural gas is procured for our operations utilizing a combination of long-term, annual, quarterly, monthly and spot contracts from various suppliers at market-based pricing. We believe access to low-cost and reliable sources of natural gas is available to meet our operations' requirements.

We purchase electricity for all of our operations in either regulated or deregulated markets. Due to the distinct nature of these markets, we procure electricity through either long-term or annual contracts. Some of our operations also use self-generated coke oven gas and/or blast furnace gas to produce electricity, which is an environmentally-friendly practice that also reduces our need to purchase electricity from external sources. We also closely monitor developments at the state and federal levels that could impact electricity availability or cost and incorporate such changes into our electricity supply strategy in order to maintain reliable, low-cost supply. We also are currently contracting for the increased use of renewable energy to complement our existing supply, which will reduce our emissions profile. We believe there is an adequate supply of competitively priced electricity to fulfill our requirements.

We purchase industrial gases and diesel fuel under long-term contracts with various suppliers. We believe we have access to adequate supplies of industrial gases and diesel fuel to meet our needs.

HUMAN CAPITAL

Cliffs has a long, proven history of attracting and retaining exceptional talent. We believe our employee-centric management philosophy is the key to our success. Even though many other employers are facing unprecedented labor shortages, we continued to grow during 2022.

As of December 31, 2022, we employed approximately 27,000 people, with approximately 26,000 employed in the U.S. Approximately 25,000 employees were employed at production facilities, with the balance employed in corporate support roles. The vast majority of our approximately 21,000 hourly employees were subject to collective bargaining agreements (approximately 19,000) with various labor unions.

LABOR RELATIONS

Our labor relations philosophy is a cornerstone of our talent strategy. At Cliffs, we know that maintaining strong, positive relationships with labor unions is key to our long-term growth. We recognize and respect the right of our employees to freely associate and collectively bargain, and we do not engage in harassment, intimidation or retaliation for their efforts to bargain collectively.

More than 90% of Cliffs' hourly workforce are represented by three prominent unions — USW, UAW and IAM. The hardworking men and women of Cliffs are the lifeblood of our Company. Our employees operate and maintain our facilities and are, ultimately, responsible for safely delivering a quality product internally and to our customers. Therefore, we engage with our unions as business partners, and together we have achieved a number of successes that benefit our business and our people alike.

2022 HIGHLIGHTS

- On October 12, 2022, a new 4-year labor agreement with the USW was ratified. The contract covers approximately 12,000 USW-represented employees at 13 operating locations, and is effective from September 1, 2022 through August 31, 2026.
- On September 30, 2022, a new 47-month labor agreement with the USW was ratified. The contract covers approximately 2,000 USW-represented employees at our legacy mining operations, and is effective from October 1, 2022 through August 31, 2026.
- Additionally, on June 24, 2022, a new 3-year labor agreement with the UAW was ratified. The contract covers approximately 1,100 UAW-represented employees at our Butler Works facility, and is effective June 15, 2022 through June 15, 2025.

We are proud to report we did not experience any strikes or lockouts last year. This positive partnership with our unions helps us remain competitive for talent and protects our customers and their supply chains from disruptions due to labor disagreements.

TALENT RETENTION

We believe that our future success largely depends upon our continued ability to attract and retain a highly skilled workforce. We provide our employees with competitive salaries, incentive-based bonus programs that provide above-market compensation opportunities when our Company performs well, development programs that enable continued learning and growth, and a robust benefits package that promotes well-being across all aspects of their lives, including health care, retirement planning and paid time off. In addition to these programs, we have used targeted, equity-based grants with vesting conditions to facilitate retention of key personnel. These tools have enabled us to increase the retention of key personnel, including our corporate and site leadership teams and critical technical talent.

ROBUST EMPLOYEE BENEFITS PROGRAMS

The success of our business is fundamentally connected to the well-being of our people. Accordingly, we are committed to the health, safety and wellness of our employees. We provide our employees and their families with access to a variety of innovative, flexible and convenient health and wellness programs, including benefits that provide protection and security so they can have peace of mind concerning events that may require time away from work or that impact their financial well-being; that support their physical and mental health by providing tools and resources to help them improve or maintain their health and encourage engagement in healthy behaviors; and that offer choice so they can customize their benefits to meet their needs and the needs of their families.

DIVERSITY, EQUITY AND INCLUSION

We continue to foster a culture of diversity, equity and inclusion at Cliffs. Through our OneCliffs Way of Doing Business (our Code of Business Conduct and Ethics), we outline our Core Values, which include Trust, Respect and Open Communication. To us, this means encouraging and accepting different views and supporting and advancing gender and racial diversity. Further, our OneCliffs Way of Doing Business provides that we will not make employment-related decisions nor will we discriminate based on race, color, religion, national origin, age, military or veteran status, disability, sex (including sexual orientation and gender identity), genetic information or any other characteristic protected by applicable law. We strive to make Cliffs a safe place to work for all. Harassment and/or intimidation are not tolerated anywhere in our Company, and we hope our people make a career at Cliffs doing meaningful and challenging work.

SAFETY

Safe production is our primary core value as we continue to reinforce a zero injury culture at our facilities. We constantly monitor our safety performance and make continuous improvements to effect change. Best practices and incident learnings are shared throughout the Company to ensure each facility can administer the most effective policies and procedures for enhanced workplace safety. Progress toward achieving our objectives is accomplished through a focus on proactive sustainable safety initiatives, and results are measured against established industry and Company benchmarks, including our Company-wide Total Reportable Incident Rate. During 2022, our Total Reportable Incident Rate (including contractors) was 1.36 per 200,000 hours worked.

Refer to *Exhibit 95 Mine Safety Disclosures (filed herewith)* for mine safety information required in accordance with Section 1503(a) of the Dodd-Frank Act.

AVAILABLE INFORMATION

Our headquarters are located at 200 Public Square, Suite 3300, Cleveland, Ohio 44114-2315, and our telephone number is (216) 694-5700. We are subject to the reporting requirements of the Exchange Act and its rules and regulations. The Exchange Act requires us to file reports, proxy statements and other information with the SEC.

The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC. These materials may be obtained electronically by accessing the SEC's home page at www.sec.gov.

We use our website, www.clevelandcliffs.com, as a channel for routine distribution of important information, including news releases, investor presentations and financial information. We also make available, free of charge on our website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file these documents with, or furnish them to, the SEC. In addition, our website allows investors and other interested persons to sign up to receive automatic email alerts when we post news releases and financial information on our website.

We also make available, free of charge, the charters of the Audit Committee, Strategy and Sustainability Committee, Governance and Nominating Committee, and Compensation and Organization Committee, as well as the Corporate Governance Guidelines, and the Code of Business Conduct and Ethics adopted by our Board of Directors. These documents are available through our investor relations page on our website at www.clevelandcliffs.com. The SEC filings are available by selecting "Investors" and then "SEC Filings," and corporate governance materials are available by selecting "Investors" and then "Governance" for the Board Committee Charters, the Corporate Governance Guidelines, and the Code of Business Conduct and Ethics.

References to our website or the SEC's website do not constitute incorporation by reference of the information contained on such websites, and such information is not part of this Annual Report on Form 10-K.

Copies of the above-referenced information are also available, free of charge, by calling (216) 694-5700 or upon written request to:

Cleveland-Cliffs Inc.
Investor Relations
200 Public Square, Suite 3300
Cleveland, OH 44114-2315

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Following are the names, ages and positions of the executive officers of the Company as of February 14, 2023. Unless otherwise noted, all positions indicated are or were held with Cleveland-Cliffs Inc.

Name	Age	Position(s) Held
Lourenco Goncalves	64	Chairman, President and Chief Executive Officer (August 2014 – present); and Chairman, President and Chief Executive Officer of Metals USA Holdings Corp., an American manufacturer and processor of steel and other metals (May 2006 – April 2013).
Clifford Smith	63	Executive Vice President & President, Cleveland-Cliffs Steel (September 2021 – present); Executive Vice President, Chief Operating Officer (January 2019 – September 2021); and Executive Vice President, Business Development (April 2015 – January 2019).
Keith Koci	58	Executive Vice President & President, Cleveland-Cliffs Services (September 2021 – present); Executive Vice President, Chief Financial Officer (February 2019 – September 2021); and Senior Vice President and Chief Financial Officer, Metals USA Holdings Corp. (2013 – February 2019).
Celso Goncalves	34	Executive Vice President, Chief Financial Officer (September 2021 – present); Senior Vice President, Finance & Treasurer (March 2020 – September 2021); Vice President, Treasurer (January 2018 – March 2020); and Assistant Treasurer (September 2016 – January 2018).
Terry Fedor	58	Executive Vice President, Operations (October 2022 – present); Executive Vice President, Operations, East (September 2021 – October 2022); Executive Vice President, Chief Operating Officer, Steel Mills (March 2020 – September 2021); Executive Vice President, Operations (February 2019 – March 2020); and Executive Vice President, U.S. Iron Ore (January 2014 – February 2019).
Traci Forrester	51	Executive Vice President, Environmental & Sustainability (May 2021 – present); Executive Vice President, Business Development (May 2019 – May 2021); Vice President, Deputy General Counsel & Assistant Secretary (January 2018 – May 2019); and Deputy General Counsel & Assistant Secretary (January 2017 – January 2018).
James Graham	57	Executive Vice President, Human Resources, Chief Legal and Administrative Officer & Secretary (April 2022 – present); and Executive Vice President, Chief Legal Officer & Secretary (November 2014 – April 2022).
Kimberly Floriani	40	Senior Vice President, Controller & Chief Accounting Officer (August 2021 – present); Vice President, Corporate Controller & Chief Accounting Officer (April 2020 – August 2021); and Director, Accounting & Reporting (August 2015 – April 2020).

All executive officers serve at the pleasure of the Board. There are no arrangements or understandings between any executive officer and any other person pursuant to which an executive officer was selected to be an officer of the Company. Celso Goncalves, our Executive Vice President, Chief Financial Officer, is the son of Lourenco Goncalves, our Chairman, President and Chief Executive Officer. There is no other family relationship between any of our executive officers or between any of our executive officers and any of our directors.

ITEM 1A. RISK FACTORS

An investment in our common shares or other securities is subject to risks inherent in our businesses and the industries in which we operate. Described below are certain risks and uncertainties, the occurrences of which could have a material adverse effect on us. The risks and uncertainties described below include known material risks that we face currently, but our material risks are constantly evolving and the below descriptions may not include future risks that are not presently known, that are not currently believed to be material or that are common to all businesses. Investors should not interpret the disclosure of any risk to imply that such risk has not already materialized. Although we have extensive risk management policies, practices and procedures in place that are aimed to mitigate these risks, the occurrence of these uncertainties may nevertheless impair our business operations and adversely affect the actual outcome of matters as to which forward-looking statements are made. This report is qualified in its entirety by these risk factors. Before making an investment decision, investors should consider carefully all of the risks described below together with the other information included in this report and the other reports we file with the SEC.

Management has identified several categories of material risks that we are subject to, including: (I) economic and market, (II) regulatory, (III) financial, (IV) operational, (V) sustainability and development and (VI) human capital. Although the risks are organized by these headings, and each risk is discussed separately, many are interrelated.

I. ECONOMIC AND MARKET RISKS

The volatility of commodity prices, including steel, iron ore and scrap metal, directly and indirectly affects our ability to generate revenue, maintain stable cash flows and fund our operations.

Our profitability is dependent upon the historically volatile market prices of steel, iron ore and scrap metal. We experience direct impacts of steel price fluctuations through customer sales, as well as direct and indirect impacts of iron ore and scrap metal price fluctuations through third-party sales and the impacts that fluctuations in iron ore and scrap metal prices have on steel prices. As described elsewhere in this report, the prices of steel, iron ore and scrap metal have fluctuated significantly in the recent past, which prices are unpredictable and affected by factors beyond our control, including: international demand for, and the impact of higher rates of inflation on, raw materials used in steel production; availability of scrap metal substitutes such as pig iron; commodity price speculation; rates of global economic growth, especially construction and infrastructure activity that requires significant amounts of steel; changes in the levels of economic activity in the U.S., China, India, Europe and other industrialized or developing economies, including as a result of the Russia-Ukraine conflict or otherwise; changes in China's emissions policies and environmental compliance enforcement practices; changes in the production capacity, production rate and inventory levels of other steel producers, iron ore suppliers and scrap metal processors and traders; changes in trade laws; volumes of unfairly traded imports; imposition or termination of duties, tariffs, import and export controls and other trade barriers impacting the steel and iron ore markets; climate change and other weather-related disruptions, infectious disease outbreaks, such as the COVID-19 pandemic, or natural disasters that may impact the global supply of steel, iron ore or scrap metal; and the proximity, capacity and cost of infrastructure and transportation.

Our revenues, therefore, fluctuate with the prices of the products we sell. Although we experienced generally higher average selling prices for our steel products during 2022 as compared to 2021 due to the impact of fixed price contracts and lagging price mechanisms, to the extent that commodity prices, including the HRC price, coated and other specialty steel prices, international steel prices and scrap metal prices, significantly decline for an extended period of time as they generally did during the second half of 2022, we may have to further revise our operating plans, including curtailing production, reducing operating costs and deferring capital expenditures. We also may have to record impairments on our goodwill, intangible assets, long-lived assets and/or inventory. Sustained lower prices also could cause us to further reduce existing mineral reserves if certain reserves no longer can be economically mined or processed at prevailing prices. Particularly during periods of increased inflation resulting in higher input costs as we experienced during 2022, we may be unable to decrease our costs in an amount sufficient to offset reductions in revenues and may incur losses. These events could have a material adverse effect on us.

We sell a significant portion of our steel products to the automotive market, and fluctuations or changes in the automotive market could adversely affect our business operations and financial performance.

The largest end user for our steel products is the automotive industry in North America. Beyond these direct sales to the automotive industry, we make additional sales to distributors and converters, which may ultimately resell some of that volume to the automotive market. In addition to the magnitude of our exposure to the automotive industry, we face risks arising from our relative concentration of sales to certain specific automotive manufacturers, and our sales volumes and revenues may be adversely affected if we are unable to renew our fixed-price contracts with one or more significant automotive customers or if those customers choose to move certain portions of their parts business to alternate suppliers. Automotive production and sales are cyclical and sensitive to general economic conditions and other factors, including interest rates, consumer credit, spending and preferences, and supply chain disruptions, such as the current semiconductor shortage. If automotive production and sales decline, whether due to consumers facing reduced purchasing power caused by inflation, newly higher interest rates or otherwise, our sales and shipments to the automotive market are likely to decline in a corresponding manner. Adverse impacts that we may sustain as a result include, without limitation, lower margins because of the need to sell our steel to less profitable customers and markets, higher fixed costs from lower steel production if we are unable to sell the same amount of steel to other customers and markets, and lower sales, shipments, pricing and margins generally as our competitors face similar challenges and compete vigorously in other markets that we serve. These adverse impacts could negatively affect our sales, financial results and cash flows.

Moreover, despite our position as the largest flat-rolled steel producer in North America, competition for automotive business has intensified in recent years, as steel producers and companies producing alternative materials have focused their efforts on capturing and/or expanding their market share of automotive business because of less favorable conditions in other markets for steel and other metals, including commodity products. As a result, the potential exists that we may lose market share to existing or new entrants or that automotive manufacturers will take advantage of the intense competition among potential suppliers during periodic contract renewal negotiations to pressure our pricing and margins in order to maintain or expand our market share with them, which could negatively affect our sales, financial results and cash flows.

Global steelmaking overcapacity, steel imports and oversupply of iron ore could lead to lower or more volatile global steel and iron ore prices, directly or indirectly impacting our profitability.

Significant existing global steel capacity and new or expanded production capacity in recent years could potentially cause capacity to exceed demand globally. Although certain of our U.S. competitors temporarily shut down production capacity during the COVID-19 pandemic, much of the previously idled capacity has been restarted, and certain of our competitors have announced and are moving ahead with plans to develop new steelmaking capacity in the near term. In addition, certain foreign competitors, which may have cost advantages due to being owned, controlled or subsidized by foreign governments, have substantially increased their steel production capacity in the last few years and in some instances appear to have targeted the U.S. market for imports. The risk of even greater levels of imports may continue, depending upon foreign market and economic conditions, changes in trade agreements and treaties, laws, regulations or government policies affecting trade, the ability of foreign producers to circumvent U.S. trade sanctions and policy (including in the markets for tin mill products and electrical steels), the value of the U.S. dollar relative to other currencies and other variables beyond our control. In addition, higher sustained market prices of steel and iron ore products could cause new producers to enter the market or existing producers to further expand productive capacity, which could in turn lead to lower steel prices and increasing prices of steelmaking inputs, such as scrap metal. Excess steel and iron ore supply combined with reduced global steel demand, including in China due to new or continuing COVID-19 lockdowns or otherwise, and increased foreign imports could also lead to lower steel and iron ore prices. Downward pressure on steel and/or iron ore prices could have an adverse effect on our results of operations, financial condition and profitability.

Severe financial hardship or bankruptcy of one or more of our major customers or key vendors could adversely affect our business operations and financial performance.

Sales and operations of a majority of our customers are sensitive to general economic conditions in the North American automotive, housing, construction, appliance, energy, defense and other industries. Some of our customers are highly leveraged. If there is a significant weakening of current economic conditions, whether because of operational, cyclical, supply chain or other issues, including inflationary pressures, higher interest rates or currently unanticipated adverse developments arising out of the COVID-19 pandemic, it could cause customers to reduce, delay or cancel their orders with us, impact significantly the creditworthiness of our customers and lead to other financial difficulties or even bankruptcy filings by our customers. Failure to receive payment from our customers for products that we have delivered could adversely affect our results of operations, financial condition and liquidity. The concentration of customers in a specific industry, such as the automotive industry, may increase our risk because of the likelihood that circumstances may affect multiple customers at the same time. Such events could cause us to experience lost sales or losses associated with the potential inability to collect all outstanding accounts receivable and reduced liquidity. Similarly, if our key vendors face financial hardship or need to operate in bankruptcy, as we have been experiencing with one of our major steel mill slag services providers since 2022, such vendors could experience operational disruption or even face liquidation, which could result in such vendor defaulting on its obligations to us or in our inability to secure replacement materials or services on a timely basis, or at all, or cause us to incur increased costs to do so. Such events could adversely impact our continuity of operations, financial results and cash flows.

The COVID-19 pandemic and the resulting economic volatility may continue to have an adverse impact on our businesses.

The COVID-19 pandemic is continuing to impact countries, communities, supply chains and markets, though to a generally lesser extent than during 2020-2022. Responses by individuals, governments and businesses to ever-changing developments in the COVID-19 pandemic and efforts to reduce its spread, including quarantines, travel restrictions, business closures, and mandatory stay-at-home or work-from-home orders, while largely lifted during 2022, could be reinstated in the event novel strains or new variants prove resistant to existing vaccines. We continue to be subject to risks arising out of the turbulence of the economic recovery associated with the COVID-19 pandemic, including inflationary pressures, which have generally increased the costs of our labor, raw materials, energy supplies and other production inputs, adversely impacting our results of operations and profitability. Despite our widespread vaccination efforts, we remain subject to the ongoing risk that a portion of our workforce or on-site contractors could suffer illness or otherwise be unable to perform their ordinary work functions due to adverse developments in the COVID-19 pandemic or other infectious disease outbreak. In addition, we have experienced, and may continue to experience, supply chain disruptions or operational issues with our vendors or logistics providers, as our suppliers and contractors face similar challenges related to the COVID-19 pandemic, including as a result of new or continued pandemic lockdowns in China. Because the prolonged COVID-19 pandemic and resulting economic volatility continues to evolve, we cannot predict the full extent to which our businesses, results of operations, financial condition or liquidity will ultimately be impacted. To the extent the COVID-19 pandemic adversely affects our businesses, it may also have the effect of exacerbating many of the other risks described in this "Risk Factors" section, any of which could have a material adverse effect on us.

II. REGULATORY RISKS

U.S. government actions on trade agreements and treaties, laws, regulations or policies affecting trade could lead to lower or more volatile global steel prices, impacting our profitability.

In recent years, the U.S. government has altered its approach to international trade policy, both generally and with respect to matters directly and indirectly affecting the steel industry, including by undertaking certain unilateral actions affecting trade, renegotiating existing bilateral or multilateral trade agreements, and entering into new agreements or treaties with foreign countries. For example, in March 2018, the U.S. government issued a proclamation pursuant to Section 232 imposing a 25% tariff on imported steel. These Section 232 tariffs were imposed on the basis of national security and addressed imported steel that was being unfairly traded by certain foreign competitors at artificially low prices. In retaliation against the Section 232 tariffs, the European Union subsequently imposed its own tariffs against certain steel products and other goods imported from the U.S. Following the U.S. government leadership changes resulting from the November 2020 presidential election, further changes in U.S. international trade policy have occurred and others may be forthcoming. For example, the U.S. government has agreed to modified tariff rate quota systems with each of the European Union, Japan and the United Kingdom that allow more imports from those trading partners to enter the U.S. market free of Section 232 tariffs. The U.S. government may also negotiate reductions or eliminations of Section 232 duties with other trading partners. If the Section 232 tariffs are further removed or substantially lessened, whether through legal challenge, legislation, executive action or otherwise, imports of foreign steel would likely increase and steel prices in the U.S. would likely fall, which could materially adversely affect our revenues, financial results and cash flows.

In addition, during 2020, the USMCA was implemented among the U.S., Mexico and Canada in place of the North American Free Trade Agreement. Because all of our steel manufacturing facilities are located in North America and one of our principal markets is automotive manufacturing in North America, we believe that the USMCA has the potential to positively impact our business by incentivizing automakers and other manufacturers to increase manufacturing production in North America and to use North American steel. However, it is difficult to predict the short- and long-term implications of changes in trade policy and, therefore, whether the USMCA or other new or renegotiated trade agreements, treaties, laws, regulations or policies that may be implemented by the U.S. government, or otherwise, will have a beneficial or detrimental impact on our business and our customers' and suppliers' businesses. Adverse effects could occur directly from a disruption to trade and commercial transactions and/or indirectly by adversely affecting the U.S. economy or certain sectors of the economy, impacting demand for our customers' products and, in turn, negatively affecting demand for our products. Important links of the supply chain for some of our key customers, including automotive manufacturers, could be negatively impacted by the USMCA or other new or renegotiated trade agreements, treaties, laws, regulations or policies.

While we may currently benefit from certain antidumping and countervailing duty orders, any such relief is subject to periodic reviews and challenges, which can result in revocation or modification of the orders or reduction of the duties. During 2022, the U.S. International Trade Commission reviewed and continued antidumping and countervailing duty orders covering imports from several major trading partners of some of our key products, including corrosion-resistant steel, cold-rolled steel, hot-rolled steel and cut-to-length plate. However, previously granted and currently pending petitions for trade relief, such as our recently filed trade cases seeking relief from unfairly traded tin mill products imports, may not be successful or fully effective at preventing harm from dumped and subsidized imports. Any of these actions and their direct and indirect impacts could materially adversely affect our revenues, financial results and cash flows.

We are subject to extensive governmental regulation, which imposes potential significant costs and liabilities on us. Future laws and regulations or the manner in which they are interpreted and enforced could increase these costs and liabilities or limit our ability to produce our raw materials and products.

New laws or regulations, or changes in existing laws or regulations, or the manner of their interpretation or enforcement, could increase our cost of doing business and restrict our ability to operate our businesses or execute our strategies. This includes, among other things: changes in MSHA regulations, such as respirable silica standards; reevaluation of the National Ambient Air Quality Standards, such as revised nitrogen dioxide, sulfur dioxide, lead, ozone and particulate matter criteria; changes in the interpretation of OSHA regulations, such as standards for occupational exposure to noise, certain chemicals or hazardous substances and infectious diseases; and changes in tax laws and regulations, including the possible taxation under U.S. or foreign country laws of certain income from worldwide operations, the U.S. 1% excise tax on certain corporate stock repurchases (which could increase our cost of future activity under our existing share repurchase program) and 15% corporate alternative minimum tax, both enacted as part of the Inflation Reduction Act and effective in 2023, and the 15% global minimum corporate tax under Pillar Two of the Organization for Economic Cooperation and Development's Global Anti-Base Erosion Rules, which has been adopted by the European Union requiring its Member States to implement national legislation applicable for fiscal years starting on or after December 31, 2023.

We and our operations are subject to various international, foreign, federal, state, provincial and local laws and regulations relating to protection of the environment and human health and safety, including those relating to air quality, water quality and conservation, plant, wetlands, natural resources and wildlife protection (including endangered or threatened species), reclamation, remediation and restoration of properties and related surety bonds or other financial assurances, land use, the discharge of materials into the environment, the effects that industrial operations and mining have on groundwater quality and availability, the management of electrical equipment containing polychlorinated biphenyls, and other related matters. Despite implementation of rigorous environmental protocols and management systems, we cannot be certain that we have been or will be at all times in complete compliance with all such laws and regulations. If we violate or fail to comply with these laws or regulations, we could be fined, required to cease operations, subject to criminal or civil liability, or otherwise sanctioned by regulators or barred from participating in

government contracts. In addition, federal or state regulatory agencies have the authority, under certain circumstances following significant health and safety incidents, such as fatalities, to order a mine or production facility to be temporarily or permanently closed. Compliance with the complex and extensive laws and regulations to which we are subject imposes substantial costs on us, which could increase over time because of heightened regulatory oversight, adoption of more stringent environmental, health and safety standards and greater demand for remediation services leading to shortages of equipment, supplies and labor, as well as other factors.

Specifically, there are several notable proposed or recently enacted rulemakings or activities to which we would be subject or that would further regulate and/or tax us and our customers, which may also require us or our customers to reduce or otherwise change operations significantly or incur significant additional costs, potentially limiting our ability to produce our raw materials and products, depending on their ultimate outcome. These emerging or recently enacted rules, regulations and policy guidance include, but are not limited to: trade regulations, such as the USMCA and/or other trade agreements, treaties or policies; changes in tariff policy, including with respect to the 25% tariff on certain imported steel imposed under Section 232; climate change mitigation strategies and GHG regulation; selenium discharge regulation; revisions to the sulfate wild rice water quality standard and its implementation; Minnesota's Mercury TMDL and associated federal rules governing mercury air emission reductions; the Regional Haze FIP Rule; ozone transport regulations; agency decisions related to environmental justice initiatives; revised National Ambient Air Quality Standards, particularly for ozone and particulate matter; and Superfund chemical and substance excise taxes under CERCLA, which were reinstated effective July 1, 2022 as part of the Infrastructure and Jobs Act. In addition, the Biden Administration has indicated via executive orders and in public statements that it will propose more stringent environmental regulation, in particular related to climate change. At the state level, agencies are adopting similar rules that may adversely impact us. Any new or more stringent legislation, regulations, rules, interpretations or orders, when enacted and enforced, including any related to required monitoring and reporting or reductions in, or taxes on, levels of carbon emissions, could have a material adverse effect on our business, results of operations, financial condition or profitability.

Our operations may be impacted by the recent enactment, and ongoing consideration, of significant federal and state laws and regulations relating to certain mine-related issues, such as the stability of tailings basins, mine drainage and fill activities, reclamation and safety in underground and surface mines. With respect to underground mines, for example, these laws and regulations include requirements for constructing and maintaining caches for the storage of additional self-contained self-rescuers throughout the mines; installing rescue chambers in the mines; continuous tracking of and communication with personnel in the mines; installing cable lifelines from the mine portal to all sections of the mine to assist in emergency escape; submission and approval of emergency response plans; and additional safety training. Additionally, there are requirements for the prompt reporting of accidents and increased fines and penalties for violations of these and existing regulations. These laws and regulations may cause us to incur substantial additional costs.

In addition, certain of our operations are subject to the risks of doing business abroad and we must comply with complex foreign and U.S. laws and regulations, which may include, but are not limited to, the Foreign Corrupt Practices Act and other anti-bribery laws, regulations related to import/export and trade controls, the European Union's General Data Protection Regulation and other U.S. and foreign privacy regulations, and transportation and logistics regulations. These laws and regulations may increase our costs of doing business in international jurisdictions and expose our operations and our employees to elevated risk. We require our employees, contractors and agents to comply with these and all other applicable laws and regulations, but failure to do so could result in possible administrative, civil or criminal liability and reputational harm to us and our employees.

As a supplier on federal, state and local public procurement projects, including projects that may arise out of proposed or recently enacted governmental legislation regarding infrastructure investments such as the Infrastructure Investment and Jobs Act of 2021, we may be subject to certain stringent procurement regulations that may present compliance challenges or may increase the costs of securing certain business. We may also be indirectly affected through regulatory changes that impact our customers, which in turn could reduce the quantity of our products they demand, adversely impact the terms upon which they purchase or the prices for our products they are willing to pay. Regulatory changes that impact our suppliers, such as any changes in labor or environmental standards in China, could decrease the availability of products or services they sell to us or could increase the price they demand for products or services they sell to us.

Our operations use hazardous materials and inadvertently may impact the environment, which could result in material liabilities to us.

Our operations currently use, and have in the past used, hazardous materials and substances, and we have generated, and expect to continue to generate, solid and hazardous waste. We have been, and may in the future be, subject to claims under international, foreign, federal, state, provincial and local laws and regulations for toxic torts, natural resource damages and other damages as well as for the investigation and clean-up of soil, surface water, sediments, groundwater and other natural resources and reclamation of properties. Such claims for damages, as well as investigation, remediation and reclamation requirements, have arisen and may arise in the future out of current, future or former conditions at sites that we or our acquired companies own, lease or operate, as well as sites that we or our acquired companies formerly owned, leased or operated, and at contaminated sites that are or have been owned, leased or operated by our joint venture partners. We may also have liability for contamination at third-party sites where we have sent hazardous wastes. Our liability for these claims may be strict and/or joint and several, such that we may be held responsible for more than our share of the contamination or other damages, or even for entire claims regardless of fault. We may be named as a potentially responsible party at other third-party sites in the future, and we cannot be certain that the costs associated with these additional sites will not exceed any reserves we have established or otherwise be material.

We may be unable to obtain, maintain, renew or comply with permits and licenses necessary for our operations or be required to provide additional financial assurances, which could reduce our production, cash flows, profitability and available liquidity.

We must obtain, maintain and comply with numerous permits and licenses that require approval of operational plans and impose strict conditions on various environmental, health and safety matters in connection with our steel production and processing and mining and other operations. These include permits and approvals issued by various federal, state, provincial, foreign and local agencies and regulatory bodies, with which we may not always be able to comply. The permitting rules are complex and may change over time, making our ability to comply with the applicable requirements more difficult or potentially impractical and costly, possibly precluding the continuance of ongoing operations or the development of future operations. Interpretations of rules may also change over time and may lead to requirements, such as additional financial assurances, making it costlier to comply. Moreover, despite our ongoing efforts to reduce our environmental footprint and improve the resiliency of our business model, heightened levels of regulatory oversight focused on addressing climate change and industrial activities that generate GHG emissions, such as our steelmaking, cokemaking and mining operations, could impact, delay or disrupt our ability to obtain new or renewed permits or modifications to existing permits.

In addition, the public, including special interest groups and individuals, have certain rights under various statutes and burgeoning environmental justice policies to comment upon, submit objections to, and otherwise engage in the permitting process, including bringing citizens' lawsuits to challenge such permits or activities. Accordingly, required permits may not be issued or renewed in a timely fashion or at all, or permits issued or renewed may include conditions that we cannot meet or otherwise be conditioned in ways that may restrict our ability to conduct our production, mining and processing activities efficiently or include requirements for additional financial assurances that we may not be able to provide on commercially reasonable terms or at all, which could reduce available borrowing capacity under our ABL Facility. Such conditions, restrictions or requirements could also reduce our production, cash flows or profitability.

III. FINANCIAL RISKS

Our existing and future indebtedness may limit cash flow available to invest in the ongoing needs of our businesses, which could prevent us from fulfilling our obligations under our senior notes, ABL Facility and other debt, and we may be forced to take other actions to satisfy our obligations under our debt, which may not be successful.

As of December 31, 2022, we had \$4,306 million aggregate principal amount of long-term debt outstanding, \$829 million of which was secured (excluding \$150 million of outstanding letters of credit and \$215 million of finance leases), and \$26 million of cash on our statement of consolidated financial position. As of December 31, 2022, \$2,442 million aggregate principal amount of our senior notes was outstanding. The aggregate principal amount of revolver commitments under our ABL Facility is \$4.5 billion. As of December 31, 2022, \$1,864 million was outstanding under our ABL Facility, and the principal amount of letters of credit obligations and other commitments totaled \$150 million. As of December 31, 2022, the available borrowing capacity on our ABL Facility was \$2,486 million.

A portion of our cash flow from operations is used to service debt under our senior notes and ABL Facility, reducing the availability of cash to fund capital expenditures, acquisitions or strategic development initiatives, and other general corporate purposes. The amount of cash required to service debt under our senior notes has decreased year-over-year from \$259 million in 2021 to \$193 million in 2022 due to our continued repayment of long-term debt, which savings has been partially offset by the year-over-year increase in cash from \$44 million in 2021 to \$65 million in 2022 required to service loans under our ABL Facility because of higher interest rates under recent U.S. Federal Reserve monetary policy. Although it is uncertain whether the U.S. Federal Reserve will continue to raise interest rates during 2023 and beyond, unless we are able to further reduce the amount borrowed under our ABL Facility, higher rates would increase the amount of cash we would need to allocate to servicing the interest expense on our debt.

Our ability to make scheduled payments on the principal, premium, if any, and interest on our debt, or to refinance our debt obligations, depends on our ability to generate cash in the future and our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control, as described elsewhere in this "Risk Factors" section. If we are unable to service our debt obligations, we could face substantial liquidity problems and we may be forced to reduce or delay investments and capital expenditures, or to sell assets, seek additional capital, including additional secured or unsecured debt, or restructure or refinance our debt, and we may be unable to continue as a going concern. We may be unable to consummate any proposed asset sales or recover the carrying value of these assets, and any proceeds may not be adequate to meet any debt service obligations then due. Any of these examples potentially could have a material adverse impact on our results of operations, profitability, shareholders' equity and capital structure. In addition, a failure to comply with any applicable covenants in the instruments governing our debt could result in an event of default that, if not cured or waived, would have a material adverse effect on us.

Our level of indebtedness could have further consequences, including, but not limited to, increasing our vulnerability to adverse economic or industry conditions, placing us at a competitive disadvantage compared to other businesses in the industries in which we operate that are not as leveraged and that may be better positioned to withstand economic downturns and recessionary environments, limiting our flexibility to plan for, or react to, changes in our businesses and the industries in which we operate, and requiring us to refinance all or a portion of our existing debt. We may not be able to refinance on commercially reasonable terms or at all, and any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, making it more difficult to obtain surety bonds, letters of credit or other financial assurances that may be demanded by our vendors

or regulatory agencies, particularly during periods in which credit markets are weak. In addition, our cost of financing or refinancing, access to the capital markets, and the terms under which we purchase goods and services could be adversely affected if credit ratings agencies downgrade our ratings, whether due to factors specific to our business or debt profile, a prolonged cyclical downturn in the steel, scrap metal and mining industries or macroeconomic trends (such as global or regional recessions), increases in pension and OPEB obligations, recent adverse impacts of inflation and high interest rates, or trends in credit and capital markets more generally.

A portion of our borrowing capacity and outstanding indebtedness bears interest at a variable rate based on LIBOR. According to the FCA (Financial Conduct Authority: the authority that regulates LIBOR), the IBA (ICE Benchmark Administration Limited: the entity that calculates and publishes LIBOR) will permanently cease to publish each of the LIBOR settings by June 2023. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after such end date, and there is considerable uncertainty regarding the publication or representativeness of LIBOR beyond such end date. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is seeking to replace U.S. dollar LIBOR with a newly created index, SOFR. Our ABL Facility provides a mechanism to automatically transition to a SOFR-based benchmark when all U.S. dollar LIBOR settings are no longer provided or are no longer representative. In addition, our ABL Facility includes an option for us and the agent to jointly elect to transition early to a SOFR-based benchmark, or in certain circumstances, an alternative benchmark replacement. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates. To the extent these interest rates increase, our interest expense will increase. If sources of capital for us are reduced, capital costs could increase materially. Restricted access to capital markets and/or increased borrowing costs could have an adverse effect on our results of operations, cash flows, financial condition and liquidity.

Our actual operating results may differ significantly from our guidance.

From time to time, we release guidance, including that set forth under “Management’s Discussion and Analysis of Financial Condition and Results of Operations–Outlook” in our Annual Reports on Form 10-K and our Quarterly Reports on Form 10-Q, regarding our future performance. This guidance, which consists of forward-looking statements, is prepared by our management and is qualified by, and subject to, the assumptions and the other information included in our Annual Reports on Form 10-K and our Quarterly Reports on Form 10-Q. Our guidance is not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our independent registered public accounting firm nor any other independent or outside party compiles or examines the guidance and, accordingly, no such person expresses any opinion or any other form of assurance with respect thereto.

Guidance is based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to business, economic, regulatory and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. The principal reason that we release such data is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results will vary from the guidance. Investors should also recognize that the reliability of any forecasted financial data diminishes the further in the future that the data are forecast. In light of the foregoing, investors are urged to put the guidance in context and not to place undue reliance on it. Any failure to successfully implement our operating strategy or the occurrence of any of the risks described in our Annual Reports on Form 10-K or our Quarterly Reports on Form 10-Q could cause actual operating results to differ from the guidance, and such differences may be adverse and material.

We may be subject to various lawsuits, claims, arbitrations or governmental proceedings that could result in significant expenditures.

We are from time to time subject to various lawsuits, claims, arbitrations or governmental proceedings relating to commercial and business disputes, antitrust claims, environmental matters, government investigations, occupational or personal injury claims, property damage, labor and employment matters, or suits involving legacy operations and other matters. For example, certain of our subsidiaries have been named in lawsuits claiming exposure to asbestos, many of which have been dismissed and/or settled for non-material amounts. Nevertheless, it is likely that similar types of claims will continue to be filed in the future, and we could experience material adverse judgments or incur significant costs to defend such claims or any other existing and future lawsuits, claims, arbitrations or governmental proceedings. The insurance we maintain may not be adequate to protect us in the event of significant claims.

IV. OPERATIONAL RISKS

Our operating expenses could increase significantly if the prices of raw materials, electrical power, fuel or other energy sources increase.

Our operations require significant use of energy and raw materials. Although we are fully self-sufficient in iron ore and partially self-sufficient in coke, metallurgical coal and scrap metal, we are wholly or partially dependent on third-party suppliers for certain critical raw materials and production inputs, including industrial gases, graphite electrodes, chrome, zinc, coke, metallurgical coal and scrap metal. Prices for electricity, natural gas, diesel fuel, oils and raw materials can fluctuate widely with availability and demand levels from other users, including fluctuations caused by the impact of recent inflationary pressures, supply chain constraints, the

Russia-Ukraine conflict and the COVID-19 pandemic. For example, increased electricity demand to the grid in response to physical climate-related risks, adverse or extreme weather events and electrification of the economy could adversely impact energy prices. During periods of peak usage, although some operations have contractual arrangements in place whereby they receive certain offsetting payments in exchange for electricity load reduction, supplies of energy and raw materials in general may be curtailed and we may not be able to purchase them at historical rates. A disruption in the transmission of energy, inadequate energy transmission infrastructure, or the termination of any of our energy supply contracts could interrupt our energy supply and adversely affect our operations. While we have some long-term contracts with electrical, natural gas and raw material suppliers, we are exposed to fluctuations in energy, natural gas and raw material costs that can affect our production costs. We enter into many market-based pricing supply contracts for electricity, natural gas and diesel fuel for use in our operations. Those contracts expose us to price increases in energy costs, which could cause our profitability to decrease significantly. As an example, our Toledo direct reduction plant is subject to changes in the market price of natural gas, which is a key input in the direct reduction of iron ore pellets to produce HBI, and natural gas has been experiencing elevated market pricing since the second quarter of 2022. In addition, U.S. public utilities may impose rate increases and pass through additional capital and operating cost increases to their customers related to new or pending U.S. environmental regulations or other charges that may require significant capital investment and use of cleaner fuels in the future. In particular, the recent decision of the U.S. Court of Appeals for the District of Columbia vacating and remanding the Affordable Clean Energy Rule, as well as recent executive orders from President Biden regarding the environment and climate change, indicate that new or revised regulations under the Biden Administration could result in rate increases from U.S. public utilities. Although we regularly monitor and from time to time challenge rate cases initiated by these utilities or other sources seeking to increase the amounts that our facilities have to pay for electricity, natural gas or water, there is no assurance that our challenges will be successful in reducing or eliminating proposed rate increases.

The majority of our steel shipments are sold under contracts that do not allow us to pass through all increases in raw materials, supplies and energy costs. Some of our customer contracts include variable-pricing or surcharge mechanisms allowing us to adjust the total sales price based on changes in specified raw materials, supplies and energy costs. Those adjustments, however, rarely reflect all of our underlying raw materials, supplies and energy cost changes. The scope of the adjustment may also be limited by the terms of the negotiated language, including limitations on when and to what extent the adjustment occurs. Further, as a result of recent inflationary pressures, many of our vendors have been seeking substantial price increases in order to continue providing critical goods and services, and to the extent we are required to pay relatively more for our steelmaking inputs and are unable to recognize corresponding sales price increases, we would realize lower margins on sales of our products, negatively impacting our results of operations. Our need to consume existing inventories may also delay the impact of a change in prices of raw materials or supplies. Significant changes in raw material costs may also increase the potential for inventory value write-downs in the event of a reduction in selling prices and our inability to realize the cost of the inventory. As we source a portion of our critical supplies and raw materials from China, such as refractories, electrodes, chemicals and spare parts, existing tensions or further adverse geopolitical developments between the U.S. and China triggering or exacerbating sanctions or trading restrictions could lead to us experiencing disruptions, delays or higher costs in supplying our operations. In addition, even though we are partially self-sufficient in scrap metal, if the market price of scrap metal were to experience a sustained price increase, our cost to produce steel would be adversely affected due to the higher prices we would need to pay to acquire third-party scrap metal for consumption in our operations, which would adversely affect the margins we would realize on our fixed price contracts.

Our sales and competitive position depend on transporting our products to customers at competitive rates and in a timely manner, and our ability to optimize our operational footprint depends on predictably and cost effectively moving products and raw materials internally among our facilities.

Disruption of the rail, trucking, lake and other waterway transportation services because of weather-related problems, including ice and winter weather conditions on the Great Lakes or St. Lawrence Seaway, climate change, strikes, lock-outs, driver shortages and other disruptions in the trucking industry, train crew shortages or other rail network constraints, infectious disease outbreaks or other events and lack of alternative transportation options could impair our ability to move products internally among our facilities and to supply products to our customers at competitive rates or in a timely manner and, thus, could adversely affect our operations, revenues, margins and profitability. For example, if the vessel shipping season on the Great Lakes were to be interrupted or shortened as compared to historical levels, whether due to extended winter conditions, operational failure of critical shipping locks or otherwise, our ability to transport iron ore pellets to our steel mills could be adversely affected, resulting in potential operational disruptions and reduced production volumes. Further, dredging issues and environmental changes, particularly at Great Lakes ports or along navigable rivers, could impact adversely our ability to move certain of our products or result in higher freight rates. Similarly, we depend on third-party transportation services for delivery of raw materials and other production inputs to us, and failures or delays in delivery would have an adverse effect on our ability to maintain steady-state production and processing operations to meet customer obligations.

The cost or time to implement a strategic or sustaining capital project may prove to be greater than originally anticipated.

Most of our mines and production and processing facilities have been in operation for several decades, and the equipment is aged, requiring that we continually and successfully implement extensive and costly maintenance practices, programs and upgrades, which may take longer or be more costly than expected. From time to time, we undertake capital projects in order to enhance, expand, maintain or upgrade our production, mining and processing capabilities, such as the 2022 blast furnace reline project at our Cleveland Works, or to diversify our customer base, such as our Toledo direct reduction plant. Our ability to achieve the anticipated production volumes, revenues or otherwise realize acceptable returns on capital projects that we may undertake is subject to a number of risks, many of which are beyond our control, including a variety of market, operational, permitting and labor-

related factors. Further, the cost to implement any given capital project may ultimately prove to be greater or may take more time than originally anticipated, including due to supply chain issues that may be experienced by our vendors, and the scope of a capital project may expand or otherwise be modified. Capital projects may also interrupt production capabilities, which could have an adverse effect on costs and profitability. Inability to achieve the expected results from the implementation of our capital projects, incurring unanticipated costs or delays, or the inability to meet contractual obligations could adversely affect our results of operations, future earnings and cash flow generation.

Natural or human-caused disasters, weather conditions, disruption of energy, unanticipated geological conditions, equipment failures, infectious disease outbreaks, and other unexpected events may lead our customers, our suppliers or our facilities to curtail production or shut down operations.

Operating levels within our industry and the industries of our customers and suppliers are subject to unexpected conditions and events that are beyond the industries' control. Those events, including the occurrence of an infectious disease, widespread illness or public health emergency, such as the COVID-19 pandemic, could cause industry members or their suppliers to curtail production or shut down a portion or all of their operations, which could reduce the demand for our products and adversely affect our revenues, margins and profitability. For example, the temporary production shutdowns in the automotive industry that occurred during 2020 as a result of the onset of the COVID-19 pandemic and associated reduction in demand for our products led to our decision to temporarily idle certain steelmaking facilities and iron ore mines.

Our operating levels are subject to conditions beyond our control that can delay deliveries or increase the cost of production for varying lengths of time. Factors that could cause production disruptions could include adverse weather conditions due to climate change or otherwise (such as severe winter weather, tornadoes, floods, temperature extremes and the lack of availability of process water due to drought) and natural and human-caused disasters, lack of adequate raw materials, energy or other supplies, and infectious disease outbreaks, such as the COVID-19 pandemic. Additional factors that could adversely impact production and operations at our mining facilities include tailings dam failures, pit wall failures, unanticipated geological conditions, including variations in the amount of rock and soil overlying deposits of iron ore and metallurgical coal, and processing changes.

Our mining operations, processing facilities, steelmaking and logistics operations depend on critical pieces of equipment. This equipment may, on occasion, be out of service because of unanticipated failures or unplanned outages. In the future, we may experience additional lengthy shutdowns or periods of reduced production because of equipment failures or unplanned maintenance activities. Further, remediation of any interruption in production capability may require us to make large capital expenditures that could have a negative impact on our profitability and cash flows. Our business interruption insurance may not be available to cover lost revenues associated with equipment failures or maintenance difficulties. Longer-term business disruptions could result in a loss of customers, which could adversely affect our future sales levels and revenues.

Many of our production facilities and mines are dependent on a single source for electric power, natural gas, water, industrial gases and/or certain other raw materials or supplies. A significant interruption in service from our suppliers due to production or transportation issues, workforce difficulties, terrorism or sabotage, weather conditions such as heat waves that may be attributable to climate change, natural disasters, equipment failure or any other cause could result in substantial losses that may not be fully recoverable, either from our business interruption insurance or responsible third parties.

A disruption in or failure of our IT systems, including those related to cybersecurity, could adversely affect our business operations, reputation and financial performance.

We rely on the accuracy, capacity, integrity and security of our IT systems for the operation of many of our business processes and to comply with regulatory, legal and tax requirements. While we maintain some of our critical IT systems, we are also dependent on third parties to provide important IT services relating to, among other things, off-site content hosting, operational process technology at our facilities, human resources, electronic communications and certain finance functions. Further, in connection with our recent acquisitions, we inherited certain legacy hardware and software IT systems that can be supported only by a very limited number of specialists in the market, and our increased reliance on these legacy IT systems may increase the risk of IT system disruption or failure, which could adversely affect our operations.

Despite the security measures that we have implemented, including those related to cybersecurity and data privacy, our IT systems could be breached or damaged by computer viruses, ransomware, natural or human-caused incidents or disasters, or unauthorized physical or electronic access or intrusions, any of which could result in the loss, theft or corruption of sensitive or essential business or personal information and the inability to access or control our IT systems or information. Given our status as a critical supplier of steel to U.S. business and defense interests and the U.S. government's broad support of Ukraine in defending against Russia's invasion, we may be the target of malicious cyber activities sponsored by the Russian or Chinese governments or other state actors like those described in recent threat advisories issued by the U.S. Cybersecurity & Infrastructure Security Agency. Though we have controls in place and regularly conduct employee training, we cannot provide assurance that a cyberattack will not occur or cause damage or business interruption. Furthermore, despite our efforts to audit certain critical vendors' information security controls, significant risk may remain with respect to security measures employed by third-party service providers, which may ultimately prove to be ineffective at countering threats.

Failures of our IT systems, whether caused maliciously or inadvertently, may result in the disruption of our business processes, or in the unauthorized release of sensitive, confidential, personally identifiable or otherwise protected information, or result in the corruption of data, each of which could adversely affect our businesses. For example, cybersecurity vulnerabilities could result in an interruption of the functionality of our automated manufacturing, operating, or health and safety systems, which, if compromised, could cease, threaten, delay or slow down our ability to produce or process steel or any of our other products for the duration of

such interruption or lead to unanticipated health or safety incidents, which could result in reputational harm and may adversely affect our employees, results of operations, financial condition and cash flows. In addition, any compromise of the security of our IT systems could result in a loss of confidence in our security measures and subject us to litigation, regulatory investigations and negative publicity that could adversely affect our reputation and financial condition. Our customers, suppliers and vendors may also access or store certain of our sensitive information on their IT systems, which, if breached, attacked or accessed by unauthorized persons, could likewise expose our sensitive information and adversely impact our businesses. Furthermore, as cybersecurity threats continue to evolve and become more sophisticated, we may be required to incur significant costs and invest additional resources to protect against and, if required, remediate the damage caused by such disruptions or system failures in the future. The amount of insurance coverage we maintain and require our vendors to maintain may be inadequate to cover claims or liabilities resulting from cybersecurity attacks.

The closure of an operating facility or mine entails substantial costs. If our assumptions underlying our accruals for closure costs prove to be inaccurate or we prematurely close one or more of our facilities or mines, our results of operations and financial condition would likely be adversely affected.

If faced with overcapacity in the market, regulatory challenges or other adverse conditions, we may seek to rationalize manufacturing and production assets through sales, temporary shutdowns, indefinite idles or facility closures. If we indefinitely idle or permanently close any of our facilities or mines, our production and revenues would be reduced unless we were able to increase production at our other facilities or mines in an offsetting amount, which may not be possible, and could result in customers responding negatively by taking current or future business away from us if we seek to transition production to a different facility. Alternatively, we could fail to meet customer specifications at the facilities to which products are transitioned, resulting in customer dissatisfaction or claims. To the extent an idled or closed facility formerly supplied critical inputs to our upstream production facilities, such as our recently closed Mountain State Carbon cokemaking facility, we may need to secure alternate sources for such critical inputs, the cost and availability of which may be uncertain.

The closure of a steelmaking or other operating facility or mining operation involves significant closure costs, including reclamation and other environmental costs, the costs of terminating long-term obligations, including customer, energy and transportation contracts and equipment and real property leases, costs associated with the altered tax profile of an idled or closed facility, and certain accounting charges, including asset impairment and accelerated depreciation. In addition, a permanent facility or mine closure could accelerate and significantly increase employment legacy costs, including our expense and funding costs for pension and OPEB obligations and multiemployer pension withdrawal liabilities. For example, a number of employees would be eligible for immediate retirement under special eligibility rules that apply upon a steelmaking facility or mine closure. All employees eligible for immediate retirement under the pension plans at the time of the permanent closure also could be eligible for OPEB, thereby accelerating our obligation to provide these benefits. Certain closures would precipitate a pension closure liability significantly greater than an ongoing operation liability and may trigger certain severance liability obligations. In addition, we are party to several joint ventures relating to iron ore mining, downstream steel processing and scrap metal recycling, and if our joint venture partners experience financial hardships or fail to perform their obligations upon closure, we may be required to assume significant additional obligations on behalf of the joint venture, including costs of environmental remediation and pension and OPEB obligations.

We base our assumptions regarding the life of our mines on detailed studies we perform from time to time, but those studies and assumptions are subject to uncertainties and estimates that may not be accurate. We recognize the costs of reclaiming open pits, stockpiles, tailings ponds, roads and other mining support areas based on the estimated mining life of our properties. If our assumptions underlying our accruals for closure costs, including reclamation and other environmental costs, prove to be inaccurate or insufficient, or our liability in any particular year is greater than currently anticipated, our results of operations and financial condition could be adversely affected. In addition, if we were to significantly reduce the estimated life of any of our mines, the mine closure costs would be applied to a shorter period of production, which would increase costs per ton produced and could adversely affect our results of operations and financial condition.

We incur certain costs when production capacity is idled, as well as increased costs to resume production at previously idled facilities.

Our decisions concerning which facilities to operate and at what production levels are made based in part upon our customers' orders for products, as well as the quality, performance capabilities and cost of our operations. During depressed market conditions, we may concentrate production at certain facilities and not operate others in response to customer demand or other reasons, and as a result we may incur idle costs that could offset our anticipated savings from not operating the idled facility. For example, due to increased scrap usage and reduced demand for iron ore pellets in our steelmaking operations, our Northshore mining and pelletizing facility has been temporarily idled since mid-2022, and we have continued to incur certain fixed costs at that facility during the idle period. We cannot predict whether our operations will experience additional similar or dissimilar disruptions in the future. When we restart idled facilities, we incur certain costs to replenish inventories, prepare the previously idled facilities for operation, perform the required repair and maintenance activities, and prepare employees to return to work safely and resume production responsibilities. The amount of any such costs could be significant, depending on a variety of factors, such as the period of idle time, necessary repairs and available employees, and is difficult to project.

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, properties 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, tailings basin breaches, 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 or maintain high deductibles 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 or subject to substantial deductibles, could have a material adverse effect on our financial condition and cash flows. In addition, the potential increase in extreme weather events due to climate change or otherwise may adversely impact our access to cost effective insurance in the future. 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.

V. SUSTAINABILITY AND DEVELOPMENT RISKS

As our customers, competitors and investors seek to reduce their carbon footprint, transition toward carbon neutrality and enhance the sustainability of their respective businesses, we face increased financial, regulatory, legal and reputational risks and potential loss of business opportunities because our operations utilize carbon-based energy sources and produce GHG emissions.

As described in detail in *Part I - Item 1, Business - Environmental Matters - Regulatory Developments - Climate Change and GHG Regulations* above, because our operations use carbon-based energy and produce GHG emissions, we are subject to a number of risks relating to decarbonization initiatives being undertaken by regulators and other stakeholders as part of global efforts to address the potential impacts of climate change. For example, as part of climate change mitigation strategies, federal, state or local governmental authorities may introduce mandatory carbon pricing obligations, carbon emissions limitations, carbon taxes or carbon trading mechanisms, any of which could impose significant costs on our operations, including causing us to incur higher energy and supplier costs, invest in costly and potentially unproven emissions control or reduction technologies, and engage in more intensive environmental monitoring and reporting efforts. In addition, complying with current or future international treaties and federal, state or local laws or regulations concerning climate change and GHG emissions could negatively impact our ability, and that of our customers and suppliers, to compete with companies located in areas not subject to or not complying with such constraints. We may also face more limited access to, or increased costs of, capital to the extent financial institutions and investors increase expectations relating to lowering GHG emissions or reduce investments in carbon-intensive businesses or industries. Further, increased pressure from customers or other business partners seeking to reduce their indirect carbon footprints and achieve certain overall decarbonization targets, including by sourcing a larger percentage of steel products from recycled steel, could result in the potential loss of business opportunities if we are unable to meet their carbon, GHG emissions or sustainability expectations, or if we are perceived to have higher GHG intensity than our competition.

In addition, as part of our decarbonization strategy, we are investigating and from time to time may consider investments in or other relationships with various renewable and clean energy initiatives. For example, we have recently been engaging in various discussions with other companies, universities and national research laboratories with the goal of leveraging potential funding available under the DOE's Regional Clean Hydrogen Hubs Funding Opportunity Announcement to develop and implement clean hydrogen solutions for our industrial applications in place of carbon-based natural gas. We have also been engaging with renewable energy developers on clean energy projects, including the recently announced 200-megawatt Headwaters III Wind Farm being proposed for construction in Indiana. While we are pursuing these energy-related projects with the aim of contributing to a greener power grid and lowering our GHG emissions in alignment with our announced target of a 25% reduction from 2017 levels by 2030, there are no guarantees that sufficient funding or the necessary advanced technology will be available to complete any of these projects under currently anticipated timeframes or at all. In addition, we may not be successful in achieving our current or any future short, medium or long-term GHG emissions reduction goals, including any net-zero or near-zero goals, due to adverse changes in business conditions over time, unanticipated financial challenges, operational improvement efforts like carbon capture and sequestration projects at certain of our facilities that may not be as successful as originally forecasted, or regulatory developments arising after such goals were initially announced.

In order to maintain consistent operational performance and foster growth in our businesses, we must maintain our social license to operate with our stakeholders.

Maintaining a strong reputation and consistent operational, environmental and safety track records is vital in order to continue to foster business growth and maintain our permission to operate. As stakeholders' sustainability expectations increase and regulatory requirements continue to evolve, maintaining our social license to operate becomes increasingly important. Our ability to maintain our reputation and strong operating track record could be threatened, including by challenges relating to the integration of our recent acquisitions or by circumstances outside of our control, such as disasters caused or suffered by other companies in the steel and mining industries. Our social license to operate could also be adversely affected and claims have been and could continue to be made against us to the extent that environmental factors negatively impact local communities, such as air emissions, discharges to water, dust, odors, noise and other factors that are inherent in industrial activities like our steelmaking, cokemaking, scrap metal processing and mining operations, even if such activities are conducted in accordance with legal, regulatory and permit requirements. If we are not able to respond effectively to these and other challenges to our social license to operate, our reputation could be damaged significantly. Damage to our reputation or third-party claims initiated in response to our ongoing activities could adversely affect our continuity of operations, current and prospective business relationships, and ability to foster growth projects.

We rely on estimates of our recoverable mineral reserves, which is complex due to geological characteristics of the properties and the number of assumptions made.

We regularly evaluate, and engage third-party QPs to review and validate, our mineral reserves based on revenues and costs and update them as required in accordance with SEC regulations. Estimates of mineral reserves and future net cash flows necessarily depend upon a number of variable factors and assumptions, some of which are beyond our control, such as production capacity, effects of governmental regulations, future prices for minerals we mine, future industry conditions and operating costs, severance and excise taxes, development costs, and costs of extraction and reclamation. Estimating the quantity and grade of mineral reserves requires us to determine the size, shape and depth of our mineralized bodies by analyzing geological data, such as samplings of drill holes, and a QP to review and validate our determinations. Estimated mineral reserves could be affected by future industry conditions, future changes in the SEC's mining property disclosure requirements, variation in geological conditions and ongoing mine planning. Actual volume and grade of reserves recovered, production rates, revenues on third-party sales and expenditures with respect to our reserves will likely vary from estimates, and if such variances are material, our sales and profitability could be adversely affected.

Defects in title or loss of any access rights or leasehold interests in our mining properties could limit our ability to mine these properties or result in significant unanticipated costs.

Many of our operations are conducted on properties we lease, license or as to which we have easements or other possessory interests. We generally do not maintain title insurance on our properties, and certain of our land access arrangements were negotiated many years ago and have not been updated. Any title defect, inability to negotiate future access rights required by our mine plans, or the loss of any lease, license, easement or other possessory interest for any mining property could adversely affect our ability to mine any associated reserves. In addition, from time to time the rights of third parties for competing uses of adjacent, overlying or underlying lands, such as for roads, easements, public facilities or other mining activities, may result in disputes and affect our ability to operate as planned if our title is not superior or mutually acceptable arrangements cannot be negotiated. Any challenge to or inability to establish our title or access could delay the exploration and development of some reserves, resources, deposits or surface rights, cause us to incur unanticipated costs, and could ultimately result in the loss of some or all of our interest in those properties. In the event we lose reserves, resources, deposits or surface rights, we may be required to shut down or significantly alter impacted mining operations, thereby affecting future production, internal supply patterns, revenues and cash flows.

VI. HUMAN CAPITAL RISKS

We depend on our senior management team and other key employees, and the loss of these employees could adversely affect our businesses.

Our success depends in part on our ability to attract, retain, develop and motivate our senior management and key employees. Achieving this objective may be difficult due to a variety of factors, including fluctuations in the global economic and industry conditions, competitors' hiring practices, cost reduction activities, and the effectiveness of our compensation programs. Competition for qualified personnel can be intense. We must continue to recruit, retain, develop and motivate our senior management and key personnel in order to maintain our businesses and support our projects. A loss of senior management and key personnel could prevent us from capitalizing on business opportunities, and our operating results could be adversely affected.

Our profitability could be adversely affected if we fail to maintain satisfactory labor relations.

Our production is dependent upon the efforts of our employees. We are party to labor agreements with various labor unions that represent employees at the vast majority of our operations. Such labor agreements are negotiated periodically, and, therefore, we are subject to the risk that these agreements may not be able to be renewed on reasonably satisfactory terms. It is difficult to predict what issues may arise as part of the collective bargaining process, and whether negotiations concerning these issues will be successful. Due to union activities or other employee actions, we could experience labor disputes, work stoppages or other disruptions in our production that could affect us adversely. While we successfully negotiated all ten of our labor agreements that expired in 2022 covering over 15,000 represented employees, we have three labor agreements that will expire in 2023 and three labor agreements that will expire in 2024, and the outcomes of those labor negotiations are uncertain. If we enter into a new labor agreement with any union that significantly increases our labor costs relative to our competitors or fail to come to an agreement upon expiry, our ability to compete or continuity of production may be materially and adversely affected.

Our expenditures for pension and OPEB obligations could be materially higher than we have predicted if our underlying assumptions differ from actual outcomes, there are regulatory changes or other multiemployer contributors fail to perform their obligations that relate to employee pension plans.

We provide defined benefit pension plans, defined contribution and OPEB to certain eligible union and non-union employees. Our pension and OPEB expenses and our required contributions to our pension and OPEB plans are affected directly by the value of plan assets, the projected and actual rate of return on plan assets, and the actuarial assumptions we use to measure our defined benefit pension plan obligations, including the rate at which future obligations are discounted. We cannot predict whether changing market or economic conditions, regulatory changes or other factors will increase our pension and OPEB expenses or our funding obligations, diverting funds we would otherwise apply to other uses.

We have calculated our unfunded pension and OPEB obligations based on a number of assumptions. If our assumptions do not materialize as expected, cash expenditures and costs that we incur could be materially higher. Moreover, we cannot be certain that

regulatory changes will not increase our obligations to provide these or additional benefits. These obligations also may increase substantially in the event of adverse medical cost trends or unexpected rates of early retirement, particularly for bargaining unit retirees. In addition, changes in the laws governing pensions could also materially adversely affect our costs and ability to meet our pension obligations.

We also contribute to certain multiemployer pension plans, including the Steelworkers' Pension Trust, for which we are one of the largest contributing employers. If other contributors were to default on their obligations to contribute to any such plans, we could become liable for additional unfunded contributions to the plans.

In addition, some of the transactions in which we previously sold or otherwise disposed of our non-core assets included provisions transferring certain pension and other liabilities to the purchasers or acquirers of those assets. While we believe that all such transfers were completed properly and are legally binding, if the purchaser fails to fulfill its obligations, we may be at risk that a court, arbitrator or regulatory body could disagree and determine that we remain responsible for pension and other liabilities that we intended to and did transfer.

We may encounter labor shortages for critical operational positions, which could adversely affect our ability to produce our products.

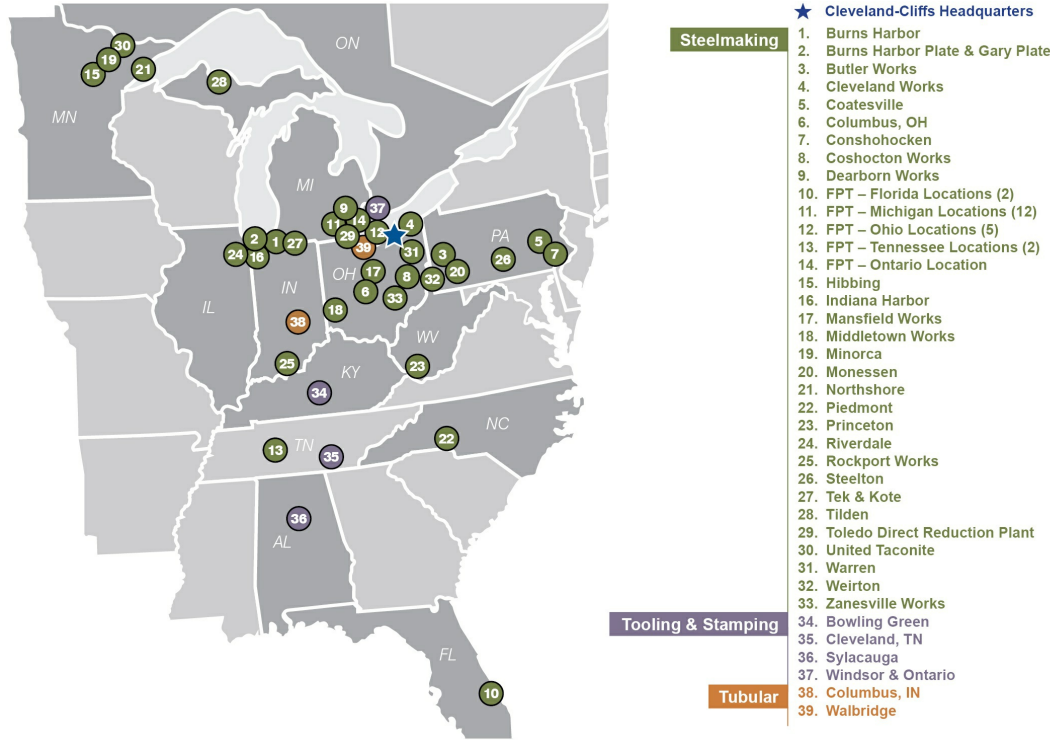
We are predicting a long-term shortage of skilled workers in heavy industry, such as electricians, and in certain highly specialized IT roles, and competition for available workers limits our ability to attract and retain employees as well as engage third-party contractors. Due to the advanced age of much of our workforce, we may face potential labor shortages caused by senior employee attrition or otherwise, resulting in the loss of these experienced workers' specialized institutional knowledge of our legacy businesses and systems, and we may have difficulty replacing them at competitive wages or at all.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have no unresolved comments from the SEC.

ITEM 2. PROPERTIES

The following map shows the locations of our operations and corporate headquarters as of December 31, 2022:



CORPORATE OFFICES

We lease our corporate headquarters in Cleveland, Ohio. We also have leased office space in West Chester, Ohio; Chicago, Illinois; and Detroit, Michigan. We own office space located in Burns Harbor, Indiana and our Research and Innovation Center located in Middletown, Ohio.

STEELMAKING

Location (Tons in millions)	State	Raw Material									
		Iron Ore	Capacity (t)	HBI	Capacity (mt)	Coke	Capacity (nt)	Coal	Capacity (nt)	Scrap	Capacity (mt)
Hibbing Taconite	MN	●	7.0								
Minorca	MN	●	3.0								
Northshore	MN	●	5.0								
Tilden	MI	●	7.0								
United Taconite	MN	●	6.0								
Toledo HBI	OH			●	1.9						
Burns Harbor (Coke)	IN					●	1.8				
Monessen	PA					●	0.3				
Warren	OH					●	0.5				
Princeton	WV							●	2.3		
FPT	Multiple									●	N/A

Location		Raw Steel			Processing and Finishing					
(Tons in millions)	State	BF-BOF	EAF	Configured Capacity (nt)	Hot-Rolled	Cold-Rolled	Coated	Stainless & Electrical	Plate	Slab & Other
Burns Harbor	IN	●		5.0	●	●	●			●
Burns Harbor Plate	IN								●	
Butler	PA		●	0.4				●		
Cleveland Works	OH	●		3.4	●	●	●			●
Coatesville	PA		●	0.2					●	●
Columbus	OH						●			
Conshohocken	PA								●	
Coshocton	OH							●		
Dearborn Works	MI	●		3.0		●	●			●
Gary Plate	IN								●	
Indiana Harbor Works	IN	●		4.0	●	●	●			●
Mansfield Works	OH		●	0.5				●		
Middletown Works	OH	●		3.0	●	●	●	●		●
Piedmont	NC								●	
Riverdale	IL	●		0.7	●					
Rockport Works	IN					●	●	●		
Steeltown	PA		●	0.3						●
Tek & Kote	IN					●	●			
Weirton	WV					●	●			
Zanesville	OH							●		

STEELMAKING AND FINISHING FACILITIES

Our primary steel producing and finishing facilities are located across Illinois, Indiana, Michigan, Ohio, Pennsylvania and West Virginia. We operate 7 blast furnaces and 5 EAFs on 9 properties. Finishing is completed on site at our integrated operations or at one of our 10 stand-alone processing and finishing facilities. In the aggregate, we have annual configured production capacity of approximately 20.5 million net tons of raw steel. During the years ended December 31, 2022 and 2021, our steelmaking facilities produced a total of 16.8 million and 18.3 million net tons of raw steel, respectively.

We indefinitely idled our Indiana Harbor #4 blast furnace in the second quarter of 2022, which had a production capacity of 2.1 million net tons of hot metal. The decision was based on the successful implementation of operational improvements, particularly the addition of significant amounts of HBI to the burden of our other blast furnaces and the maximization of scrap usage in BOFs.

We completed a reline of blast furnace #5 at Cleveland Works in the third quarter of 2022 along with other significant repairs and maintenance, such as work on the wastewater treatment plant and the onsite powerhouse. A reline is generally only performed once every 20 years.

SCRAP PROCESSING FACILITIES

Our scrap business consists of our subsidiary FPT, which has 22 locations in Michigan, Ohio, Tennessee, Florida and Ontario. These facilities are primarily located in Michigan and Ohio, which are in close proximity to our scrap consuming steel facilities. During the year ended December 31, 2022, FPT processed approximately 3 million net tons of scrap metal, of which approximately 50% of total output was prime grade.

DIRECT REDUCTION PLANT

Our direct reduction plant is located in Toledo, Ohio, is near an existing dock, and has rail access and heavy haul roads for operation logistics. We are leasing the property on which the plant is located. This plant produces a specialized high quality iron alternative to scrap and pig iron. It has annual capacity of 1.9 million metric tons of HBI per year. During the years ended December 31, 2022 and 2021, our direct reduction plant produced a total of 1.6 million and 1.4 million metric tons of HBI, respectively.

IRON ORE MINES AND PELLET PLANTS

The following information concerning our mining properties has been prepared in accordance with the requirements of subpart 1300 of Regulation S-K, which first became applicable to us for the fiscal year ended December 31, 2021. These requirements differ significantly from the previously applicable disclosure requirements of SEC Industry Guide 7. Among other differences, subpart 1300 of Regulation S-K requires us to disclose our mineral resources, in addition to our mineral reserves, as of the end of our most recently completed fiscal year both in the aggregate and for each of our individually material mining properties.

As used in this Annual Report on Form 10-K, the terms “mineral resource,” “measured mineral resource,” “indicated mineral resource,” “inferred mineral resource,” “mineral reserve,” “proven mineral reserve” and “probable mineral reserve” are defined and used in accordance with subpart 1300 of Regulation S-K. Under subpart 1300 of Regulation S-K, mineral resources may not be classified as “mineral reserves” unless the determination has been made by a QP that the mineral resources can be the basis of an

economically viable project. You are specifically cautioned not to assume that any part or all of the mineral deposits (including any mineral resources) in these categories will ever be converted into mineral reserves, as defined by the SEC.

You are cautioned that, except for that portion of mineral resources classified as mineral reserves, mineral resources do not have demonstrated economic value. Estimates of inferred mineral resources have too high of a degree of uncertainty as to their existence and may not be converted to a mineral reserve. Therefore, you are cautioned not to assume that all or any part of an inferred mineral resource exists, that it can be the basis of an economically viable project, or that it will ever be upgraded to a higher category. Likewise, you are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted to mineral reserves.

See Part I – Item 1A, Risk Factors – V. Sustainability and Development Risks - We rely on estimates of our recoverable mineral reserves, which is complex due to geological characteristics of the properties and the number of assumptions made.

The information that follows relating to the Hibbing, Minorca, Northshore, Tilden and United Taconite iron ore mines is derived, for the most part, from, and in some instances is an extract from, the Technical Report Summaries 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 Technical Report Summaries, which are filed as Exhibits 96.1 through 96.5 to this Annual Report on Form 10-K and are incorporated by reference herein.

All of our iron ore mining operations are open-pit mines. Additional development is underway as required by long-range mine plans. Drilling programs are conducted periodically to collect geologic modeling data and for refining ongoing operations.

Geologic models are developed for all mines to define the major ore and waste rock types. Computerized block models for iron ore are constructed that include all relevant geologic and metallurgical data. These are used to generate grade and tonnage estimates, followed by detailed mine design and LoM operating schedules.

We currently own or co-own and operate five production-stage iron ore mines in Michigan and Minnesota, as well as one indefinitely idled mine in Michigan. Following the AM USA Transaction, we now have an aggregate annual production capacity of approximately 28 million long tons of iron ore pellets, including our 85.3% share of the Hibbing mine production. Our iron ore mines produce from deposits located within the Biwabik and Negaunee Iron Formation, which are classified as Lake Superior type iron formations that formed under similar sedimentary conditions in shallow marine basins approximately two billion years ago. Magnetite and hematite are the predominant iron oxide ore minerals present, with lesser amounts of goethite and limonite. Quartz is the predominant waste mineral present, with lesser amounts of other chiefly iron bearing silicate and carbonate minerals. The ore minerals liberate from the waste minerals upon fine grinding.

The following represents iron ore production for the last three fiscal years:

(In millions of long tons)	Iron Ore Production		
	2022	2021	2020
Hibbing ¹	5	7	
Minorca ¹	3	3	
Northshore ²	1	5	
Tilden	6	7	
United Taconite	5	5	
Total	20	27	

¹Tonnage shown is reflective of ownership percentage during respective periods.

²In the second quarter of 2022, we temporarily idled our Northshore operations. It is anticipated that the Northshore mine will restart no earlier than the second quarter of 2023.

The following provides an overview of our iron ore properties:

All the infrastructure necessary to mine and process significant commercial quantities of iron ore is currently in place at all of our mine locations. Infrastructure items include high voltage electrical supplies, natural gas pipelines that connect to the North American distribution system, water sources, paved roads and highways, railroads for transporting crude ore and finished products, port facilities that connect to the Great Lakes, and accommodations for employees. Local and state infrastructure also includes hospitals, schools, airports, equipment suppliers, fuel suppliers, commercial laboratories and communication systems. Labor is readily available with major population centers within 25 miles of all of our properties.

All of our iron ore mining operations grant leases, licenses and easements for various purposes, including miscellaneous community land uses, utility infrastructure and other third-party uses, that encumber our properties but do not materially inhibit operations. Certain assets also serve as collateral securing obligations under our ABL Facility and our senior secured notes. We maintain the requisite state and federal permits and are in material compliance with all material permits.

HIBBING

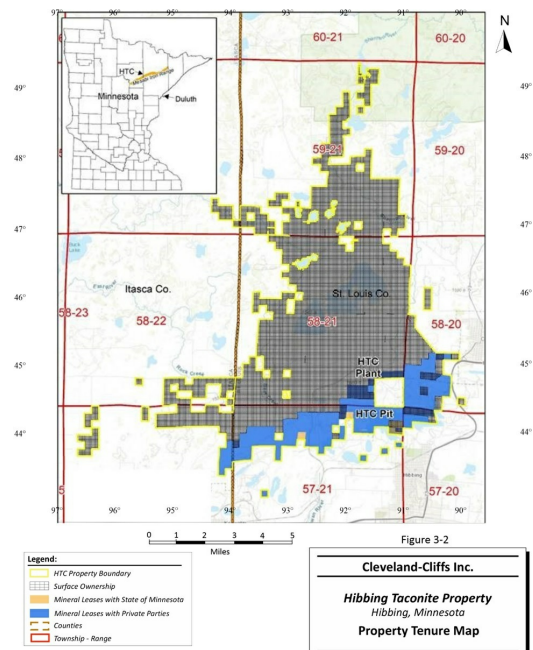
Hibbing (85.3% owned) is located immediately north of the city of Hibbing, Minnesota in the center of Minnesota's Mesabi Iron Range. The mining and processing operation is located between latitude 47°25'48" N and 47°31'48" N and longitude 93°04'54" W and 92°54'36" W.

Mining began in 1976 as a joint venture between Bethlehem Steel Corporation and Steel Company of Canada. Cliffs first became involved in the joint venture when it purchased Pickands Mather's 15% share in 1986. Prior to the AM USA Transaction, we owned 23% of Hibbing, ArcelorMittal USA had a 62.3% interest and U.S. Steel had a 14.7% interest. On December 9, 2020, as a result of the AM USA Transaction, we acquired an additional 62.3% ownership stake in the Hibbing mine and became the majority owner and mine manager.

Hibbing holds 30,670 acres of surface rights, of which 1,150 acres are associated with mineral leases. The majority of the mineral rights are leased. The property is comprised of 6,320 acres of mineral leases expiring between 2023 and 2056. Leases are maintained by making minimum prepaid royalty payments. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates.

The operation includes an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills and magnetic separation to produce a magnetite concentrate, which is then delivered to an on-site pellet plant. From the site, pellets are transported by BNSF (Burlington Northern Santa Fe, LLC) rail to a ship loading port at Superior, Wisconsin, operated by BNSF.

The book value of Hibbing's long-lived assets was \$151 million as of December 31, 2022.

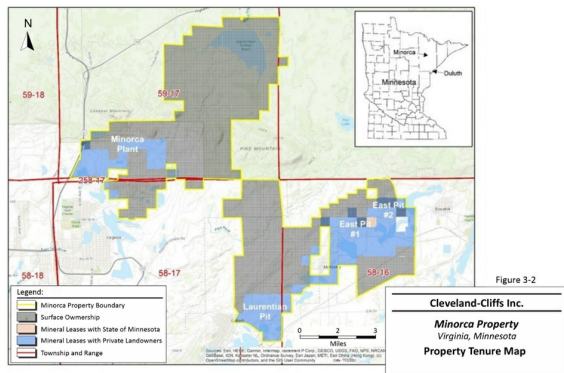


For more information, see Exhibit 96.1, the Technical Report Summary on the Hibbing Taconite Property, Minnesota, USA, prepared for the Company by the QP, SLR, with an effective date of December 31, 2021.

MINORCA

Minorca (100% owned) is located in the center of Minnesota's Mesabi Iron Range. The Laurentian Pit is located near the City of Gilbert, Minnesota at latitude 47°30'0"N and longitude 92°26'30"W, East 1 Pit is located at latitude 47°31'30"N and longitude 92°23'30"W, and East 2 Pit is located just west of the City of Biwabik at latitude 47°32'0"N and longitude 92°22'30"W. The Minorca plant is located approximately seven miles to the northeast, near the town of Virginia, Minnesota at latitude 47°33'30"N and longitude 92°31.5'30"W.

Operations commenced in 1976 as an asset of Inland Steel Company. In 1998, Ispat International purchased Inland Steel and, in 2004, merged with LNM Holdings and International Steel Group to form Mittal Steel, which in 2007 merged with Arcelor to form ArcelorMittal. Minorca has been wholly owned by Cliffs since the 2020 AM USA Transaction.



Minorca holds 13,690 acres of surface rights, of which 282 acres are associated with mineral leases. 100% of the mineral rights are leased. The property is comprised of 3,135 acres of mineral leases expiring between 2035 and 2056. Leases are maintained by making minimum prepaid royalty payments. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates.

The operation includes a concentrating and pelletizing facility, along with two open pit iron ore mines located approximately seven miles from the processing facilities. The processing operations consist of a crushing facility, a three-line concentration facility and a single-line straight grate pelletizing plant. Pellets are transported by CN rail to ports on Lake Superior.

The book value of Minorca's long-lived assets was \$214 million as of December 31, 2022.

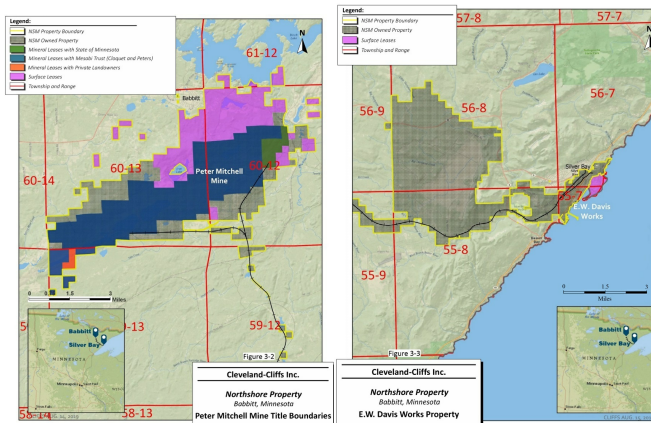
For more information, see Exhibit 96.2, Technical Report Summary on the Minorca Property, Minnesota, USA, prepared for the Company by the QP, SLR, with an effective date of December 31, 2021.

NORTHSHORE

Northshore's (100% owned) mine is located on the northeastern edge of the Mesabi Iron Range in northeastern Minnesota, approximately four miles southeast of Babbitt, Minnesota at latitude 47°40'12.15"N and longitude 91°53'1.28"W. The processing facility is approximately 41 miles to the southeast and immediately adjacent to the city of Silver Bay in Lake County, Minnesota at latitude 47°17'38.95"N and longitude 91°15'23.38"W.

Operations commenced in 1952 as an asset of the Reserve Mining Company and continued production until 1986 when Reserve Mining declared bankruptcy. Cyprus Minerals Company purchased the facilities in 1989. Cyprus subsequently sold the facilities to Cliffs in 1994.

Northshore holds 28,041 acres of surface rights, of which 8,966 acres are associated with mineral leases. 100% of the mineral rights are leased. The property is comprised of 10,356 acres of mineral leases. Some leases do not expire until the mineral reserves are exhausted while others expire between 2034 and 2075. Leases are maintained by making minimum prepaid royalty payments. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates.



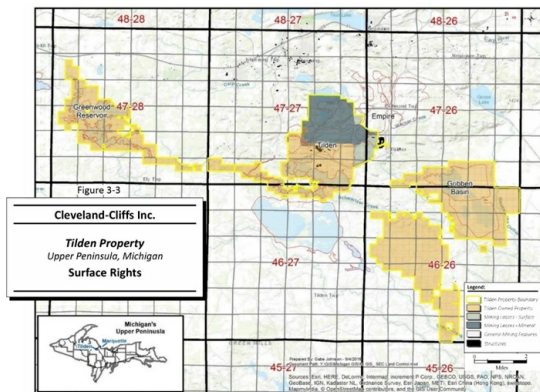
The operation includes an open pit truck and shovel mine where two stages of crushing occur before the ore is transported along a wholly owned 47-mile rail line to the plant site in Silver Bay. At the plant site, two additional stages of crushing occur before the ore is sent to the concentrator. The concentrator utilizes rod mills and magnetic separation to produce a magnetite concentrate, which is delivered to the pellet plant located on-site. The plant can produce both standard and DR-grade pellets. The plant site has its own ship loading port located on Lake Superior.

The book value of Northshore's long-lived assets was \$243 million as of December 31, 2022.

For more information, see Exhibit 96.3, Technical Report Summary on the Northshore Property, Minnesota, USA, prepared for the Company by the QP, SLR, with an effective date of December 31, 2021.

TILDEN

Tilden (100% owned) is located in Marquette County in Michigan's Upper Peninsula, on the Marquette Iron Range, approximately five miles south of the city of Ishpeming, Michigan at latitude 46° 29' N and longitude 87° 40' W.



The property commenced operations in 1974 under a partnership of Algoma Steel, Stelco, J&L Steel, Wheeling-Pittsburgh Steel, Sharon Steel, and The Cleveland-Cliffs Iron Company. The property has since been at least partially in the possession of a subsidiary of Cliffs. In 2001, Cliffs acquired Algoma Steel's 45% interest in Tilden. In 2017, Cliffs became the sole owner of Tilden.

Tilden holds 21,100 acres of surface rights and leases 2,470 acres of mineral rights expiring between 2061 and 2070. Leases are maintained by making minimum prepaid royalty payments. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates.

Operations include an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills, and floatation to produce hematite concentrates that are then supplied to the on-site pellet plant. From the site, pellets are transported by our LS&I (Lake Superior & Ishpeming Railroad Company) rail to a ship loading port at Marquette, Michigan, operated by LS&I.

The book value of Tilden's long-lived assets was \$233 million as of December 31, 2022.

For more information, see Exhibit 96.5, Technical Report Summary on the Tilden Property, Michigan, USA, prepared for the Company by the QP, SLR, with an effective date of December 31, 2021.

UNITED TACONITE

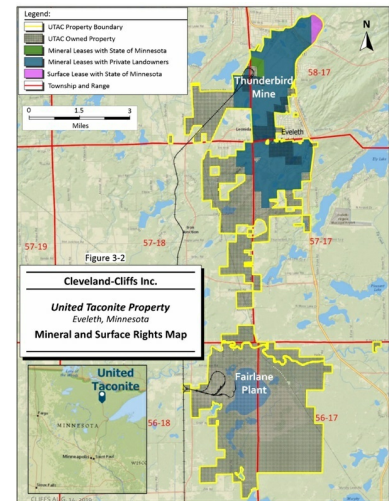
United Taconite's (100% owned) mine and offices are located on Minnesota's Mesabi Iron Range just north of Eveleth, Minnesota at latitude 47°29'1.62" N, longitude 92°32'23.69" W. The processing facilities are located approximately eight miles to the southeast.

The property commenced operations as an asset of Eveleth Taconite Company in 1965 before it was purchased by United Taconite (70% Cliffs and 30% Laiwu Steel) in December 2003. The Property has been a wholly owned subsidiary of Cliffs since 2008.

United Taconite owns 14,199 acres of surface rights, of which 703 acres are associated with mineral leases. An additional 145 acres of surface rights are leased from the State of Minnesota. We lease 100% of the mineral rights comprising of 4,908 acres expiring between 2037 and 2066, with the exception of the State of Minnesota mineral lease, which expires in 2027. Leases are maintained by making minimum prepaid royalty payments. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates.

Operations include an open pit truck and shovel mine where two stages of crushing occur before the ore is transported by rail, operated by CN, to the plant site. At the plant site an additional stage of crushing occurs before the ore is sent to the concentrator. The concentrator utilizes rod mills and magnetic separation to produce a magnetite concentrate, which is delivered to the on-site pellet plant. From the plant site, pellets are transported by CN rail to a ship loading port at Duluth, MN, operated by CN.

The book value of United Taconite's long-lived assets was \$568 million as of December 31, 2022.



For more information, see Exhibit 96.4, Technical Report Summary on the United Taconite Property, Minnesota, USA, prepared for the Company by the QP, SLR, with an effective date of December 31, 2021.

MINERAL RESOURCES

Mineral resources are defined under Item 1300 of Regulation S-K as a concentration or occurrence of material of economic interest in or 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 justifiable technical and economic conditions, is likely to, in whole or part, become economically extractable.

A detailed breakdown of the mineral resources exclusive of mineral reserves is presented in the table below. Mineral resources were defined and constrained within open-pit shells, prepared by Cliffs, and based on a US\$90.00/WLT pellet price, while meeting defined cut-off grade criteria and existing pellet specifications. All mineral resource estimates were reviewed and validated by the QP, SLR.

The following represents iron ore mineral resources, exclusive of mineral reserves, as of December 31, 2022 and 2021:

Iron Ore Mineral Resources									
(In millions of long tons)	Measured		Indicated		Measured + Indicated		Process Recovery	Inferred	
	Tonnage	% Grade	Tonnage	% Grade	Tonnage	% Grade		Tonnage	% Grade
Total Iron Ore	1,351	22.5	1,483	23.6	2,834	23.1	31%	420	32.4
Michigan	—	—	135	35.5	135	35.5	36%	350	34.7
Minnesota	1,351	22.5	1,348	22.4	2,699	22.4	31%	70	21.0
Hibbing ¹	8	19.2	1	18.7	9	19.2	25%	—	—
Minorca	484	22.9	317	22.9	801	22.9	33%	30	21.1
Northshore	767	22.1	391	22.4	1,158	22.2	26%	14	19.8
Tilden	—	—	135	35.5	135	35.5	36%	350	34.7
United Taconite	92	23.6	639	22.2	731	22.4	32%	26	21.5

¹Hibbing is reported at 85.3% based on our ownership level.

Reference point selected is the saleable tons based on the process recovery.

Process recovery may change based on the required saleable product mix and is reported as wet product percentage.

Mineral resources are estimated using the following cut-off grades: 25% FeT for Tilden hematite; 15% magnetic Fe for Northshore; 16% magnetic Fe for Minorca; 17% magnetic Fe for United Taconite; and 13% magnetic Fe for Hibbing.

Tonnage is reported in long tons equivalent to 2,240 pounds and has been rounded to the nearest 100,000.

Mineral resources are reported at a \$90.00/lt wet standard pellet price freight-on-board (FOB) Lake Superior, which is based on the mine planning model's three-year trailing average of the realized product revenue rate.

We did not have any material changes to our mineral resources during 2022. The material assumptions and criteria used for the mineral resource estimates, including but not limited to leases, permits and geotechnical pit design, are covered in more detail in Sections 11 through 13 of the respective Technical Report Summaries filed as Exhibits 96.1 through 96.5 to this Annual Report on Form 10-K.

MINERAL RESERVES

Mineral reserves are defined under Item 1300 of Regulation S-K as an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the QP, 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.

Proven mineral reserves are defined under Item 1300 of Regulation S-K as the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource. Probable mineral reserves are defined under Item 1300 of Regulation S-K as the economically mineable part of an indicated and, in some cases, a measured mineral resource. All mineral reserves are classified as proven or probable and are supported by LoM plans.

Mineral reserves are based on pricing that does not exceed the three-year trailing average index price of iron pellets adjusted to realized price. We evaluate and analyze, and engage QPs to review and verify, mineral reserves in accordance with our mineral policy and SEC requirements and then complete updated LoM plans. The table below identifies the year in which the latest updated LoM plan was completed.

Mineral reserves estimates for our iron mines are constrained by fully designed open pits developed using three-dimensional modeling techniques. These open pits incorporate design slopes, practical mining shapes and access ramps to assure the accuracy of our mineral reserve estimates. All operations' mineral reserves have been adjusted net of production through year-end 2022. All mineral reserves estimates as of December 31, 2021 were reviewed and validated by the QP, SLR.

The following represents iron ore mineral reserves as of December 31, 2022:

**Iron Ore Mineral Reserves
as of December 31, 2022**

(In millions of long tons)	Last LoM Plan Reserve Analysis	Proven		Probable		Proven & Probable		Process Recovery
		Tonnage	% Grade	Tonnage	% Grade	Tonnage	% Grade	
Total Iron Ore		593	23.8	1,665	26.5	2,258	25.8	32%
Michigan		4	35.3	500	34.7	504	34.7	37%
Minnesota		589	23.7	1,165	23.0	1,754	23.2	31%
Hibbing ¹	2021	67	18.7	8	18.7	75	18.7	26%
Minorca	2021	95	23.7	7	25.1	102	23.8	34%
Northshore	2020	299	25.3	519	24.1	818	24.6	29%
Tilden	2021	4	35.3	500	34.7	504	34.7	37%
United Taconite	2019	128	23.1	631	22.1	759	22.3	33%

¹Hibbing is reported at 85.3% based on our ownership level.

Reference point selected by the QP is the saleable tons based on the process recovery.

Process recovery may change based on the required saleable product mix and is reported as wet product percentage.

Mineral reserves are estimated using the following cut-off grades: 25% FeT for Tilden hematite; 19% magnetic Fe for Northshore; 16% magnetic Fe for Minorca; 17% magnetic Fe for United Taconite; and 13% magnetic Fe for Hibbing.

Tonnage is reported in long tons equivalent to 2,240 pounds and has been rounded to the nearest 100,000.

Mineral reserves are classified as probable if not scheduled within the first 20 years.

Mineral reserves are reported at a \$90.00/lt wet standard pellet price freight-on-board (FOB) Lake Superior, which is based on the mine planning model's three-year trailing average of the realized product revenue rate.

The material assumptions and criteria used for the mineral reserves estimates, including but not limited to leases, permits and geotechnical pit design, are covered in more detail in Sections 11 through 13 of the respective Technical Report Summaries filed as Exhibits 96.1 through 96.5 to this Annual Report on Form 10-K.

For comparison purposes, the following represents iron ore mineral reserves as of December 31, 2021:

Iron Ore Mineral Reserves as of December 31, 2021							
(In millions of long tons)	Proven		Probable		Proven & Probable		Process Recovery
	Tonnage	% Grade	Tonnage	% Grade	Tonnage	% Grade	
Total Iron Ore	638	23.6	1,682	26.6	2,320	25.8	33%
Michigan	4	35.3	516	34.7	520	34.7	37%
Minnesota	634	23.5	1,166	23.0	1,800	23.2	31%
Hibbing ¹	85	18.7	8	18.7	93	18.7	25%
Minorca	103	23.6	7	25.3	110	23.7	34%
Northshore	303	25.3	519	24.1	822	24.6	29%
Tilden	4	35.3	516	34.7	520	34.7	37%
United Taconite	143	23.1	632	22.1	775	22.3	33%

¹Hibbing is reported at 85.3% based on our ownership level.

Reference point selected by the QP is the saleable tons based on the process recovery.

Process recovery may change based on the required saleable product mix and is reported as wet product percentage.

Mineral reserves are estimated using the following cut-off grades: 25% FeT for Tilden hematite; 19% magnetic Fe for Northshore; 16% magnetic Fe for Minorca; 17% magnetic Fe for United Taconite; and 15% magnetic Fe for Hibbing.

Tonnage is reported in long tons equivalent to 2,240 pounds and has been rounded to the nearest 100,000.

Mineral Reserves are classified as probable if not scheduled within the first 20 years.

Mineral Reserves are reported at a \$90.00/lt wet standard pellet price freight-on-board (FOB) Lake Superior, which is based on the mine planning model's three-year trailing average of the realized product revenue rate.

Overall, mineral reserves estimates as of December 31, 2022, as compared to the prior-year period, decreased by 3%, which was driven by mining depletion.

INTERNAL CONTROLS DISCLOSURE

We demonstrated repeated attainment of annual production and quality targets for at least 40 years at each material iron ore mine operated by the Company. Internal controls the Company uses in its industry-standard approach to exploration and mineral resource and reserve estimation efforts are governed by its Mineral Reserve and Mineral Resource Estimation Policy and are detailed in Cliffs' minimum operating standards for Resource Estimation and Strategic Mine Planning. The controls include: confirmation of drill collar locations and drill hole traces, drill logging and sample collection and security, database verification and security, QA/QC programs, internal and third-party QP statistical analysis, third-party QP model validation, and reconciliation. Modeling and analysis of the Company's resources has been developed by Company personnel or third-party consultant SLR and reviewed by internal management and the external independent QP, SLR. Reserve estimations have been completed by Company personnel and reviewed by internal management and the QP, SLR.

Drill hole collar surveying methods have evolved with advancements in technology, moving from optical methods to global positioning system, which is currently in use. For the deposit type, all survey methods used for the collar locations are expected to provide adequate accuracy for the drill hole locations. Due to the relatively shallow depth and vertical nature of drill holes at Cliffs' Minnesota mining operations, downhole deviation surveys are typically not conducted. Drill holes pierce the generally shallow-dipping, tabular iron formation at near perpendicular angles. At the more geologically and structurally complex Tilden mine in Michigan, where drilling deeper than 500 feet is required, downhole surveys have moved from a clay-impression procedure to the gyroscopic method currently in use.

Drill core is transported directly from the drill rig to each site's core logging facility by either the drilling contractor or Cliffs' personnel. Temporary core storage is located at each site's secure logging facility. Depending on the mining operation, unused sample reserves, parts, concentrates and splits are securely stored in labeled boxes or barrels at a Cliffs laboratory facility or logging facility, or via a contracted external laboratory.

Cliffs' QA/QC programs are site-specific and range from in-development to well-developed, long standing protocols that involve formal procedures for the use of crude material standards developed from on-site material, as well as regularly inserted coarse and concentrate duplicate samples, control chart analysis and reporting. Cliffs typically uses internal and external labs for geometallurgical analyses that are accredited with ASQ/ANSI ISO-9001:2015 (American Society for Quality/American National Standards Institute) for their system of quality management. Quality sample results are monitored and enacted on where warranted. Also, Cliffs has implemented a drill campaign reporting practice to ensure results are documented, with defined and illustrated failure metrics, outcomes of investigations, comparisons with previous year's results and recommendations. The QP, SLR, reviewed Cliffs' QA/QC practices and provided recommendations for further work. Where QA/QC programs are still in

development and prior to resource estimation, Cliffs conducted data verification studies utilizing a suite of blind crude ore standards and blind duplicates from historical sample reserves within the LoM plan. Where unaccredited labs provided data used in resource estimation, check lab studies were initiated to verify analytical results. Cliffs is currently working toward aligning QA/QC protocols at each mine to the Company's current best practice.

Cliffs maintains exploration drill hole data in an externally-managed, access-controlled acquire database that is backed up online at regularly scheduled intervals to provide data redundancy and security. Certification of database integrity is accomplished by both visual and statistical inspections comparing geology, assay values and survey locations cross-referenced back to laboratory data and geologic logs. Any discrepancies identified are corrected by referring to hard-copy assay and core log information archived in Cliffs' Mine Engineering department file cabinets. Prior to modeling, a secondary validation check is completed using built-in data validation routines in the modeling software.

Cliffs performs routine drill hole database verification with every new drilling program and new block model build, including: check of unique drill hole identifications and collar coordinates; check of assay or lithology points extending past the specified maximum depth of drill hole; check of abnormal dips and azimuths of downhole drill hole surveys; check of negative, overlapping and missing intervals; and check of incorrect lithologic codes and assay values.

In 2020 and 2021, Cliffs' geologists completed data verification exercises within the LoM plan area for each mining operation. This was audited by the QP, SLR, to assess accuracy and completeness. Database values were checked against source documents including collar surveys, geologic logs and assay certificates. Data verification included collar coordinates, depth intervals of geologic units and assay samples, and results of geometallurgical analyses applied to mineral resource estimation and mine planning.

Cliffs' mineral resource estimates were validated by the QP, SLR, using standard industry techniques including statistical comparisons with composite samples and parallel nearest neighbor estimates, swath plots, as well as visual reviews in cross-section and plan. A visual review comparing blocks to drill holes for key economic variables, completed after the block modeling work, was performed to ensure general lithologic and analytical conformance. Cliffs' mining operations have demonstrated good agreement between planned and actual product produced over more than 40 years for each operation.

Cliffs classifies the mineral resources based primarily on drill hole spacing and influenced by geologic continuity, ranges of economic criteria and reconciliation. Some post-processing is undertaken to ensure spatial consistency and remove isolated and fringe blocks. The resource area for each operation is limited by a polygon and subsequent pit shell based on practical mining limits. To ensure that all mineral resource statements satisfy the "reasonable prospects for economic extraction" requirement, in the definition of the mineral resources under Item 1300 of Regulation S-K, factors significant to technical feasibility and potential economic viability are considered (e.g., ability to obtain permits and legal and land tenure considerations). Mineral resources are defined and constrained within optimized, open-pit shells, prepared by Cliffs and reviewed by the QP, SLR, and based on a US\$90.00/WLT pellet value and target pellet iron content.

Grade and tonnage reconciliations are run on current production versus modeled production, which provides insight on the accuracy of the modeled assay data versus actual production for each mining operation.

For a discussion of comprehensive risk inherent in the estimation of mineral reserves, see *Part I - Item 1A, Risk Factors - V. Sustainability and Development Risks - We rely on estimates of our recoverable mineral reserves, which is complex due to the geological characteristics of the properties and the number of assumptions made.*

COAL MINING AND COKEMAKING

Princeton is a coal mining complex located in West Virginia that specializes in surface and underground mining of metallurgical coal to produce coke and pulverized coal injection coal. We have annual rated metallurgical coal production capacity of 2.3 million net tons from our Princeton mine. In 2022, the mine produced 1.5 million net tons of coal. We own 100% of the Princeton mine, which has been operating since 1995. We own 60% of the mineral rights and lease 40% via multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. Princeton's operations consist of three open-pit surface mines, two underground mines, a preparation plant and two rail loadouts.

Our Monessen and Warren facilities produce furnace coke and related by-products in Monessen, Pennsylvania and Warren, Ohio, respectively. We also operate a cokemaking facility located within Burns Harbor. These facilities have an aggregate annual rated capacity of 2.6 million net tons. In 2022, our cokemaking facilities produced 2.1 million net tons of coke.

As a result of our internal usage of HBI, coupled with our ongoing evaluation of coke use strategies, we idled our coke facility at Middletown Works during the third quarter of 2021 and permanently closed our Mountain State Carbon coke plant in the first quarter of 2022.

OTHER BUSINESSES

Our Tubular operating segment consists of our subsidiary Tubular Components, which has plants in Walbridge, Ohio and Columbus, Indiana. The Walbridge plant operates six electric resistance welded tube mills on owned property. The Columbus plant operates five electric resistance welded tube mills and four high-speed cold saws on leased property.

Our Tooling and Stamping operating segment consists of our subsidiary Tooling and Stamping and its related companies, which provides advanced-engineered solutions, tool design and build, hot- and cold-stamped steel components and complex assemblies for the automotive market across ten plants, of which certain of these are under long-term lease agreements, in Ontario, Alabama, Kentucky and Tennessee. Its facilities feature eight large-bed, hot-stamping presses, providing 14 lines of production; 82 cold-

stamping presses ranging from 150 net tons to 3,000 net tons of pressing capacity; 18 large-bed, high-tonnage tryout presses with prove-out capabilities for new tool builds; and 151 multi-axis welding assembly cells. Our newly constructed facility in Tennessee began production in the third quarter of 2022.

Our European operating segment consists of trading companies that buy and sell steel, steel products and other materials.

ITEM 3. LEGAL PROCEEDINGS

LEGAL PROCEEDINGS RELATING TO OUR BUSINESS

JSW Steel Litigation. On June 8, 2021, JSW Steel filed a complaint against Cleveland-Cliffs Inc., AK Steel Holding Corporation (now known as Cleveland-Cliffs Steel Holding Corporation), Nucor Corporation and U.S. Steel in the United States District Court for the Southern District of Texas. JSW Steel alleges that the defendants engaged in a group boycott against JSW Steel in violation of federal and Texas antitrust laws by refusing to sell semi-finished steel slabs to JSW Steel, beginning in 2018 and continuing through the present; civil conspiracy among the defendants; and tortious interference with JSW Steel's contractual rights and business relations involving its vendors and customers. JSW Steel's allegations involve the tariffs and quotas imposed on steel imports by the U.S. government under Section 232 beginning in March 2018, which JSW Steel alleges raised the price of imported slabs, and statements made to the U.S. government related to exemption requests submitted by JSW Steel in 2018 and 2021. JSW Steel further claims that this alleged anticompetitive conduct negatively impacted JSW Steel's costs, production and revenues and prevented it from pursuing expansion plans at its Ohio and Texas facilities that would compete with the defendants. JSW Steel is seeking to hold the defendants jointly and severally liable for treble damages in an amount in excess of \$500 million and other relief. On February 17, 2022, the district court granted the defendants' Motions to Dismiss in their entirety and dismissed all of JSW's claims with prejudice. On March 16, 2022, JSW filed a notice of appeal to the United States Court of Appeals for the Fifth Circuit, and oral arguments on the appeal were held on February 6, 2023. We continue to believe the claims asserted against us are without merit, and we are vigorously defending against them.

Mesabi Metallica Adversary Proceeding. On September 7, 2017, Mesabi Metallica Company LLC (f/k/a Essar Steel Minnesota LLC) ("Mesabi Metallica") filed a complaint against Cleveland-Cliffs Inc. in the *Essar Steel Minnesota LLC and ESML Holdings Inc.* bankruptcy proceeding that is pending in the United States Bankruptcy Court, District of Delaware. Mesabi Metallica alleges tortious interference with its contractual rights and business relations involving certain vendors, suppliers and contractors, violations of federal and Minnesota antitrust laws through monopolization, attempted monopolization and restraint of trade, violation of the automatic stay, and civil conspiracy with unnamed DOE defendants. Mesabi Metallica amended its complaint to add additional defendants, including, among others, our subsidiary, Cleveland-Cliffs Minnesota Land Development Company LLC ("Cliffs Minnesota Land"), and to add additional claims, including avoidance and recovery of unauthorized post-petition transfers of real estate interests, claims disallowance, civil contempt and declaratory relief. Mesabi Metallica seeks, among other things, unspecified damages and injunctive relief. Cliffs and Cliffs Minnesota Land filed counterclaims against Mesabi Metallica, Chippewa Capital Partners ("Chippewa"), and Thomas M. Clarke ("Clarke") for tortious interference and civil conspiracy, as well as additional claims against Chippewa and Clarke for aiding and abetting tortious interference, for which we seek, among other things, damages and injunctive relief. Our counterclaim against Clarke for libel was dismissed on jurisdictional grounds. The parties filed various dispositive motions on certain of the claims, including a motion for partial summary judgment to settle a dispute over real estate transactions between Cliffs Minnesota Land and Glacier Park Iron Ore Properties LLC ("GPIOP"). A ruling in favor of Cliffs, Cliffs Minnesota Land and GPIOP was issued on July 23, 2018, finding that Mesabi Metallica's leases had terminated and upholding Cliffs' and Cliffs Minnesota Land's purchase and lease of the contested real estate interests. Mesabi Metallica filed a Motion for Leave to File an Interlocutory Appeal, which was denied on September 10, 2019. Discovery is ongoing. We believe the claims asserted against us are without merit, and we intend to continue to vigorously defend against all remaining claims in the lawsuit.

Certain Legacy Legal Proceedings Relating to our Steel Operations Certain of our acquired subsidiaries have been named as defendants, among many other named defendants, in numerous lawsuits filed since 1990 claiming injury allegedly resulting from exposure to asbestos. Similar lawsuits seeking monetary relief continue to be filed in various jurisdictions in the U.S., which cases are vigorously defended. Although predictions about the outcome of pending litigation is subject to uncertainties, based upon present knowledge, we believe it is unlikely that the resolution in the aggregate of these claims will have a material adverse effect on our consolidated results of operations, cash flows or financial condition.

LEGAL PROCEEDINGS RELATING TO ENVIRONMENTAL MATTERS

SEC regulations require us to disclose certain information about administrative or judicial proceedings involving the environment and to which a governmental authority is a party if we reasonably believe that such proceedings may result in monetary sanctions above a stated threshold. Pursuant to SEC regulations, we use a threshold of \$1 million for purposes of determining whether disclosure of any such proceedings is required. We believe that this threshold is reasonably designed to result in disclosure of any such proceedings that are material to our business or financial condition.

Information for this item relating to certain other environmental proceedings may be found under the heading *Burns Harbor Water Issues* in NOTE 20 - COMMITMENTS AND CONTINGENCIES to the consolidated financial statements in *Part II – Item 8. Financial Statements and Supplementary Data*, which information is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

We are committed to protecting the occupational health and well-being of each of our employees. Safety is one of our core values, and we strive to ensure that safe production is the first priority for all employees. Our internal objective is to achieve zero injuries and incidents across the Company by focusing on proactively identifying needed prevention activities, establishing standards and evaluating performance to mitigate any potential loss to people, equipment, production and the environment. We have implemented intensive employee training that is geared toward maintaining a high level of awareness and knowledge of safety and health issues in the work environment through the development and coordination of requisite information, skills and attitudes. We believe that through these policies, we have developed an effective safety management system.

Under the Dodd-Frank Act, each operator of a coal or other mine is required to include certain mine safety information within its periodic reports filed with the SEC. As required by the reporting requirements included in §1503(a) of the Dodd-Frank Act and Item 104 of Regulation S-K, the information concerning mine safety and health or other regulatory matters for each of our mine locations that are covered under the scope of the Dodd-Frank Act is included in Exhibit 95 of *Part IV – ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES* of this Annual Report on Form 10-K.

PART II

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

STOCK EXCHANGE INFORMATION

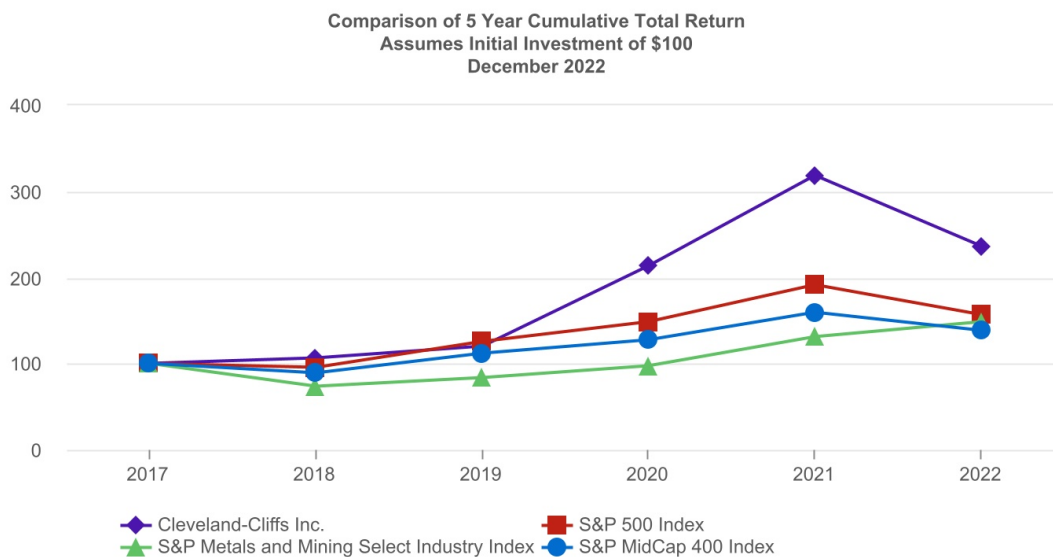
Our common shares (ticker symbol CLF) are listed on the NYSE (New York Stock Exchange).

HOLDERS

At February 13, 2023, we had 2,528 shareholders of record.

SHAREHOLDER RETURN PERFORMANCE

The following graph shows changes over the past five-year period in the value of \$100 invested in: (1) Cliffs' common shares; (2) S&P 500 Index; (3) S&P Metals and Mining Select Industry Index; and (4) S&P MidCap 400 Index. The values of each investment are based on price change plus reinvestment of all dividends reported to shareholders, based on monthly granularity.



		2017	2018	2019	2020	2021	2022
Cleveland-Cliffs Inc.	Return %	—	6.66	12.60	77.46	49.52	(26.00)
	Cumulative \$	100.00	106.66	120.09	213.12	318.65	235.81
S&P 500 Index	Return %	—	(4.39)	31.48	18.39	28.68	(18.13)
	Cumulative \$	100.00	95.61	125.70	148.81	191.48	156.77
S&P Metals and Mining Select Industry Index	Return %	—	(26.76)	14.70	15.97	34.94	13.12
	Cumulative \$	100.00	73.24	84.01	97.42	131.46	148.70
S&P MidCap 400 Index	Return %	—	(11.10)	26.17	13.65	24.73	(13.10)
	Cumulative \$	100.00	88.90	112.17	127.48	159.01	138.18

ISSUER PURCHASES OF EQUITY SECURITIES

The following table presents information with respect to repurchases by the Company of our common shares during the periods indicated:

Period	Total Number of Shares (or Units) Purchased ¹	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet be Purchased Under the Plans or Programs ²
October 1 - 31, 2022	894	\$ 19.54	—	\$ 790,302,500
November 1 - 30, 2022	28,208	28.79	—	790,302,500
December 1 - 31, 2022	2,000,054	15.06	2,000,000	760,216,700
Total	2,029,156	\$ 15.25	2,000,000	

¹ Includes 894 shares that were delivered to us in October 2022, 28,208 shares that were delivered to us in November 2022, and 54 shares that were delivered to us in December 2022 to satisfy tax withholding obligations due upon the vesting or payment of stock awards.

² On February 10, 2022, our Board of Directors authorized a program to repurchase our outstanding common shares in the open market or in privately negotiated transactions, which may include purchases pursuant to Rule 10b5-1 plans or accelerated share repurchases, up to a maximum of \$1 billion. We are not obligated to make any purchases, and the program may be suspended or discontinued at any time. The share repurchase program does not have a specific expiration date.

ITEM 6. [Reserved]

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

Management's Discussion and Analysis of Financial Condition and Results of Operations is designed to provide a reader of our financial statements with a narrative from the perspective of management on our financial condition, results of operations, liquidity and other factors that may affect our future results. The following discussion should be read in conjunction with the consolidated financial statements and related notes that appear in *Part II – Item 8. Financial Statements and Supplementary Data* of this Annual Report on Form 10-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations included in this report discusses our financial condition and results of operations as of and for the years ended December 31, 2022 and 2021. A discussion related to our financial condition and results of operations for 2021 as compared to 2020 can be found in [Part II, Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations,"](#) of our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 11, 2022.

OVERVIEW

Throughout 2022, we continued to position the Company for long-term success as we generated record revenues, executed our commercial initiatives by improving our average selling prices, revamped our operational footprint, secured multi-year labor agreements with the majority of our USW employees, displayed the unique advantage of our U.S.-centric, internally sourced feedstock and continued to improve our balance sheet.

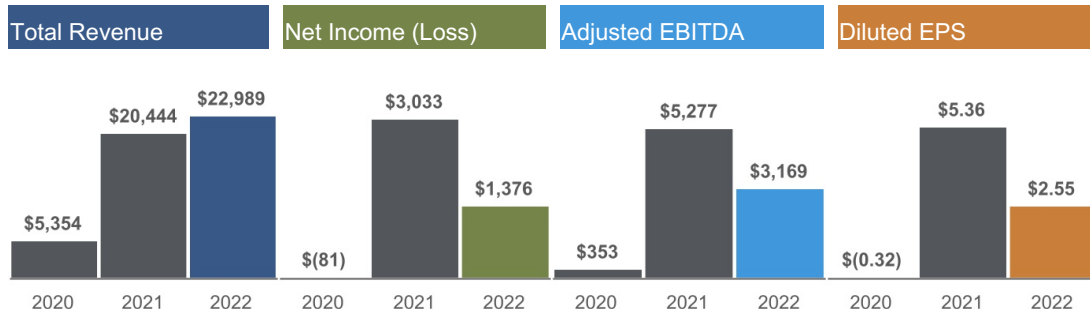
2022 HIGHLIGHTS

- Record revenues of \$23 billion
- Second-highest Adjusted EBITDA in company history (second only to 2021)
- Reduced net pension and OPEB liabilities by \$2.1 billion
- Reduced outstanding debt by \$1.1 billion, including \$351 million of open market repurchases
- Increased year-over-year average steel selling price despite significantly lower commodity flat-rolled steel pricing
- Improved commercial contracts by generating substantial increases for our fixed price contracts
- Agreed to 4-year labor agreements with the USW covering 14,000 total employees
- Completed major maintenance cycle, including the relining of the Cleveland #5 blast furnace
- Benefited from vertically integrated footprint amidst raw material shortages related to the Russian invasion of Ukraine
- Returned \$240 million in capital to shareholders through share repurchase program

- Continued progress toward our goal of reducing GHG emissions
- Celebrated 175th anniversary as a company

We also continued our best practices from both a safety and environmental standpoint. During 2022, our safety TRIR (including contractors) was 1.36 per 200,000 hours worked. Throughout 2022, we made continued progress towards our goal of reducing GHG emissions with our optimal utilization of HBI and scrap throughout our facilities, as well as more efficient power generation through recycling of off-gases. We have also formed a partnership with the DOE as part of the Better Climate Challenge initiative, as we aim to build on our GHG emission reduction progress. We continue to pursue opportunities such as carbon capture and the use of hydrogen within our facilities. Additionally, we have started forming partnerships to develop renewable energy sources - such as wind, solar and hydrogen - which will benefit our own environmental footprint while combating the global impacts of climate change.

FINANCIAL SUMMARY



See "— Non-GAAP Financial Measures" below for a reconciliation of our *Net income (loss)* to Adjusted EBITDA.

ECONOMIC OVERVIEW

Steel market conditions in 2022 were notably volatile, driven by disruptions due to the conflict between Russia and Ukraine, continued supply chain issues, significantly higher energy prices and declines in demand as a result of recessionary fears. The price for domestic HRC, the most significant index impacting our revenues and profitability, averaged \$1,011 per net ton for 2022, 36% lower than 2021, but well above the prior ten-year average of \$712 per net ton. HRC prices receded below \$700 per net ton in the fourth quarter of 2022, the lowest level since October 2020. The large decline in spot steel prices was driven by service center destocking, interest rate hikes driving caution on new business and declining metallics prices, which were driven by lower domestic steel production and excess raw material inventory. Continued automotive supply chain difficulties also limited the demand for steel from automotive manufacturers. Looking forward, we expect domestic steel demand to improve as imports have become less attractive, service centers restock inventory, automotive supply chain issues ease and incremental steel demand from the Infrastructure and Jobs Act is realized.

The recently passed CHIPS Act and Inflation Reduction Act should provide meaningful support for overall domestic steel demand in the coming years. Our extensive portfolio of products should result in increased steel demand from some of our end markets. The CHIPS Act promotes semiconductor manufacturing in the U.S., which should help support non-residential construction. Additionally, on-shoring manufacturing in the U.S. should reduce risk of supply chain issues in the future. The Inflation Reduction Act provides a tax credit for consumers who buy new EVs, which further incentivizes consumers to purchase vehicles in an environment where pent-up demand is still very strong from recent supply chain issues and low dealer inventory levels. In addition, the Inflation Reduction Act provides incentives for the use of domestic steel for investments in clean energy projects, including wind and solar projects, which consume a substantial amount of steel. Additional projects from the legislation could create incremental demand for our galvanized, GOES, NOES and other steel products. We expect to benefit from the spending related to the recently passed legislation in 2023 and beyond.

The largest market for our steel products is the automotive industry in North America, which makes light vehicle production a key driver of demand. During 2022, North American light vehicle production was approximately 14.3 million units, the highest annual production volume since 2019. While we have seen modest improvement, automotive production remains below historical levels and continues to be adversely affected by the global semiconductor shortage, as well as other material shortages and supply chain disruptions. This has caused several outages amongst light vehicle manufacturers. The long-term outlook for the automotive industry remains positive as pent-up demand is strong due to ongoing production and supply chain issues. Inventory levels have recently reached the highest level since April 2021, with 1.7 million units of gross stock at the end of 2022, but remain significantly below historical average inventory levels of 2.5 to 3.0 million units of gross stock. Additionally, the average age of cars on the road in the U.S. reached an all-time high during 2022, which should support demand as older vehicles need to be replaced. As the largest supplier of automotive-grade steel in the U.S., we expect to benefit from increased vehicle production in coming years.

The ongoing conflict between Russia and Ukraine has disrupted raw material sourcing for our EAF competitors and has further increased the volatility in their steelmaking input costs. Approximately two-thirds of all U.S. imported pig iron, an important feedstock for flat-rolled steel producing EAFs, has historically been sourced from Russia and Ukraine. Imported pig iron prices

averaged \$687 per metric ton during 2022, which is significantly above the historical average of \$440 per metric ton from September 2017 to December 2021. The recent decline from record levels in pricing is primarily due to lower domestic steel production and surplus raw material inventory as competitors purchased excess raw materials at the beginning of the conflict between Russia and Ukraine to ensure sufficient supply in a time of uncertainty. Higher than historical imported pig iron costs should continue to support a higher HRC price. Unlike other flat-rolled producers, we are not reliant on imported pig iron as we produce it in-house at our blast furnaces, using our own iron ore as the primary raw material.

The price for busheling scrap, a necessary input for flat-rolled steel production in EAFs in the U.S., averaged well above the historical ten-year average of \$380 per long ton in 2022 and 2021. The busheling price averaged \$533 per long ton in 2022 and \$602 per long ton in 2021. Pricing fell to \$350 per long ton during the fourth quarter of 2022, as domestic steel capacity utilization rates declined below 80% and competitors worked through excess raw material inventory. As prime scrap is a replacement to imported pig iron, we expect the busheling scrap price will continue to average at or above historical levels as the availability of imported pig iron from Russia and Ukraine remains disrupted. We expect the supply of busheling scrap to further tighten due to decreasing prime scrap generation from original equipment manufacturers and the growth of EAF capacity in the U.S., along with a push for expanded scrap use globally. As we are fully integrated and have primarily a blast furnace footprint, increased prices for busheling scrap in the U.S. bolster our competitive advantage, as we source the majority of our iron feedstock from our stable-cost mining and pelletizing operations in Minnesota and Michigan.

As for iron ore, the Platts 62% price averaged \$120 per metric ton in 2022, which is 23% higher than the historical ten-year average. While higher iron ore prices play a role in increased steel prices, we also directly benefit from higher iron ore prices for the portion of iron ore pellets we sell to third parties.

The U.S. Federal Reserve has pushed interest rates to the highest level in 15 years in an attempt to slow demand and reduce inflation. Though we are a firm believer that the U.S. is the most resilient manufacturing economy in the world, rising interest rates could cause a significant economic downturn and impact various end markets that we serve and overall domestic steel demand. While we believe there is strong pent-up demand for light vehicles in the U.S., automotive sales could be negatively impacted due to higher interest rates. The non-residential construction market could also see delays in construction as increased rates drive caution on new business. If continued rising rates in the U.S. result in a recession, we believe that end-user demand for steel intensive products could be negatively impacted as a recession would likely result in higher unemployment, lower wages and less disposable income for consumers.

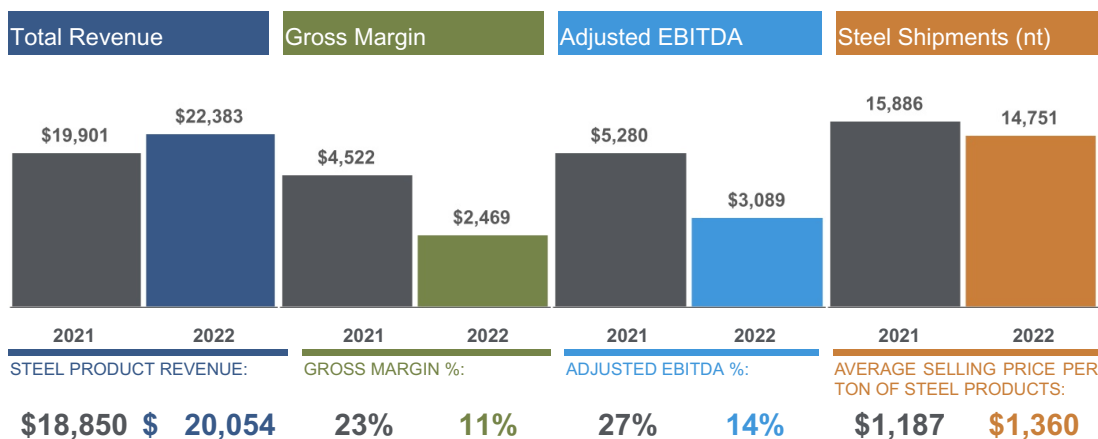
During 2022, we experienced higher costs than the prior year due to inflationary pressures on input and energy costs, as well as lower production volume and higher repair and maintenance spending. We expect to benefit from lower costs in 2023 and beyond as most inflationary items have started to ease, production volume improves, and repair and maintenance expenses normalize.

STEELMAKING RESULTS

COMPARISON OF 2022 TO 2021

The following is a summary of our Steelmaking segment results included in our consolidated financial statements for the years ended December 31, 2022 and 2021. The results for 2021 include the FPT operations subsequent to November 18, 2021 and full-year results for all other Steelmaking operations.

The following is a summary of the Steelmaking segment operating results:



REVENUE

The following tables represent our steel shipments by product and total sales by market:

(In thousands of net tons)	Year Ended December 31,				
	2022		2021		% Change
	Volume	%	Volume	%	
Steel shipments by product:					
Hot-rolled steel	4,326	29 %	4,886	31 %	(11) %
Cold-rolled steel	2,286	16 %	2,790	18 %	(18) %
Coated steel	4,730	32 %	5,056	32 %	(6) %
Stainless and electrical steel	763	5 %	674	4 %	13 %
Plate	880	6 %	1,020	6 %	(14) %
Slab and other steel products	1,766	12 %	1,460	9 %	21 %
Total steel shipments by product	14,751		15,886		(7) %

(In millions)	Year Ended December 31,				
	2022		2021		% Change
	Revenue	%	Revenue	%	
Steelmaking revenues by market:					
Direct automotive	\$ 6,661	30 %	\$ 4,726	24 %	41 %
Infrastructure and manufacturing	5,869	26 %	5,380	27 %	9 %
Distributors and converters	6,388	29 %	7,671	38 %	(17) %
Steel producers	3,465	15 %	2,124	11 %	63 %
Total steelmaking revenues by market	\$ 22,383		\$ 19,901		12 %

Revenues increased by 12% during the year ended December 31, 2022, as compared to the prior-year, primarily due to:

- An increase in the direct automotive market of \$1,935 million, or 41%, predominantly due to increases in selling prices as a result of favorable renewals of annual fixed price contracts.
- An increase in sales to the steel producers market of \$1,341 million, or 63%, which was primarily driven by the inclusion of full-year results from the FPT Acquisition.
- These increases were partially offset by a decrease in the distributors and converters market of \$1,283 million, or 17%, predominantly due to service center destocking, interest rate hikes driving caution on new business and pricing for metallics declining, which caused weaker demand from service centers for our steel products and large declines in spot steel pricing.

GROSS MARGIN

Gross margin decreased by \$2,053 million, or 45%, during the year ended December 31, 2022, as compared to the prior-year, primarily due to:

- Increased costs of production (approximately \$3.6 billion impact) driven by higher raw materials and utility costs, including natural gas, coal, coke, alloys and scrap, coupled with increased investment in maintenance and labor costs; and
- A decrease in sales volumes (approximately \$700 million impact) predominantly driven by lower shipments to the distributors and converters end market due to weaker demand.
- This was partially offset by an increase in selling prices (approximately \$2.5 billion impact) driven by favorable renewals of annual sales contracts.

ADJUSTED EBITDA

Adjusted EBITDA from our Steelmaking segment for the year ended December 31, 2022, decreased by \$2,191 million, as compared to 2021, primarily due to the decreased gross margin from our operations. Additionally, our Steelmaking Adjusted EBITDA included \$439 million and \$392 million of *Selling, general and administrative expenses* for the years ended December 31, 2022 and 2021, respectively.

CONSOLIDATED RESULTS

COMPARISON OF 2022 TO 2021

REVENUES & GROSS MARGIN

During the year ended December 31, 2022, our consolidated *Revenues* increased by \$2,545 million, compared to 2021. The increase was primarily due to the increase in the average steel product selling price of \$173 per net ton and the inclusion of full-year results from the FPT Acquisition, partially offset by the decrease of 1.1 million net tons of steel shipments from our Steelmaking segment.

During the year ended December 31, 2022, our consolidated gross margin decreased by \$2,016 million, as compared to 2021. See "— Steelmaking Results" above for further detail on our operating results.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative expenses increased by \$43 million during the year ended December 31, 2022, as compared to 2021. The increase primarily relates to the inclusion of full-year results for the FPT Acquisition in 2022. Additionally, there were increases related to salaries and benefits and external service costs, partially offset by lower incentive compensation.

MISCELLANEOUS – NET

Miscellaneous – net increased by \$30 million for the year ended December 31, 2022, as compared to 2021. The increase in miscellaneous expense was primarily due to the \$29 million asset impairment charge associated with the permanent closure of Mountain State Carbon and an increase in idle expenses. These increases were partially offset by the acquisition-related loss on equity method investment during 2021, which was not repeated in 2022.

INTEREST EXPENSE, NET

Interest expense, net decreased by \$61 million for the year ended December 31, 2022, as compared to the prior year. The decrease was primarily due to debt reduction activities during 2021 and 2022, which reduced interest expense on our senior notes. The decrease was partially offset by an increase in the ABL Facility interest expense primarily as a result of rising interest rates.

LOSS ON EXTINGUISHMENT OF DEBT

The loss on extinguishment of debt of \$75 million for the year ended December 31, 2022 primarily resulted from the redemption of all \$607 million aggregate principal amount of our outstanding 9.875% 2025 Senior Secured Notes in April 2022 and the redemption of all \$294 million aggregate principal amount of our outstanding 1.500% 2025 Convertible Senior Notes in January 2022. The losses were partially offset by the net gain on extinguishment for the repurchase of \$417 million aggregate principal amount of our outstanding IRBs and senior notes of various series.

The loss on extinguishment of debt of \$88 million for the year ended December 31, 2021 primarily resulted from the redemption of \$396 million aggregate principal amount of 5.750% 2025 Senior Notes, \$395 million aggregate principal amount of 4.875% 2024 Senior Secured Notes and \$347 million aggregate principal amount of 9.875% 2025 Senior Secured Notes.

Refer to NOTE 8 - DEBT AND CREDIT FACILITIES for further details.

INCOME TAXES

Our effective tax rate is affected by permanent items, primarily depletion. It also is affected by discrete items that may occur in any given period but are not consistent from period to period. The following represents a summary of our tax provision and corresponding effective rates:

(In millions)	Year Ended December 31,	
	2022	2021
Income tax expense	\$ (423)	\$ (773)
Effective tax rate	23 %	20 %

A reconciliation of our income tax attributable to continuing operations compared to the U.S. federal statutory rate is as follows:

(In millions)	Year Ended December 31,					
	2022		2021			
Tax at U.S. statutory rate	\$	377	21 %	\$	799	21 %
Increase (decrease) due to:						
Percentage depletion in excess of cost depletion		(49)	(3)		(99)	(3)
State taxes, net		71	4		86	2
Federal & state provision to return		27	1		(2)	—
Other items, net		(3)	—		(11)	—
Provision for income tax expense and effective income tax rate including discrete items	\$	423	23 %	\$	773	20 %

The decrease in income tax expense in 2022, as compared to the prior year, is directly related to the decrease in the pre-tax book income year-over-year.

See NOTE 11 - INCOME TAXES for further information.

CASH FLOW, LIQUIDITY AND CAPITAL RESOURCES

OVERVIEW

Our capital allocation decision-making process is focused on preserving healthy liquidity levels while maintaining the strength of our balance sheet and creating financial flexibility to manage through the cyclical demand for our products and volatility in commodity prices. We are focused on maximizing the cash generation of our operations, reducing debt, returning capital to shareholders and aligning capital investments with our strategic priorities and the requirements of our business plan, including regulatory and permission-to-operate related projects.

The following table provides a summary of our cash flows:

(In millions)	Year Ended December 31,					
	2022		2021			
Cash flows provided by (used in):						
Operating activities	\$	2,423	\$	2,785		
Investing activities		(936)		(1,379)		
Financing activities		(1,509)		(1,470)		
Net decrease in cash and cash equivalents	\$	(22)	\$	(64)		
Free cash flow ¹	\$	1,480	\$	2,080		

¹See "— Non-GAAP Financial Measures" for a reconciliation of our free cash flows.

The recent market environment has provided us opportunities to reduce our debt and return capital to shareholders with our own free cash flow generation. We also continue to look at the composition of our debt, as we are interested in both extending our average maturity length and increasing our ratio of unsecured debt to secured debt, which can be accomplished with cash provided by operating activities. During 2022, we took action in alignment with our capital allocation priorities, as follows:

- We redeemed all \$294 million in aggregate principal amount outstanding of our 1.500% 2025 Convertible Senior Notes, \$66 million aggregate principal amount outstanding of the IRBs and \$607 million remaining aggregate principal amount outstanding of our 9.875% 2025 Senior Secured Notes; and
- We repurchased \$351 million in aggregate principal amount of our outstanding senior notes of various series at an average price of 92% of par.
- Additionally, we returned capital to shareholders through our share repurchase program, repurchasing 12.5 million common shares at a cost of \$240 million in the aggregate.

These actions give us additional financial flexibility and will better prepare us to navigate more easily through potentially volatile industry conditions in the future, while also prudently reducing our common share count.

OPERATING ACTIVITIES

(In millions)	Year Ended December 31,		
	2022	2021	Variance
Net income	\$ 1,376	\$ 3,033	\$ (1,657)
Non-cash adjustments to net income	1,218	1,949	(731)
Income taxes	(22)	(136)	114
Pension and OPEB payments and contributions	(204)	(343)	139
Working capital (receivables, inventories, payables and other liabilities)	55	(1,718)	1,773
Net cash provided by operating activities	\$ 2,423	\$ 2,785	\$ (362)

The variance was driven by:

- A \$1,657 million increase in net income after adjustments for non-cash items due to lower gross margins from lower steel sales volume and higher costs. See "—Steelmaking Results" above for further detail on our operating results.
- A \$139 million decrease in payments and contributions relating to pension and OPEB plans resulting from improvements to our pension plans' funded status. The 2021 pension contributions also included \$118 million in deferred 2020 pension contributions in connection with the CARES Act.
- A \$1,773 million decrease in cash used for working capital primarily driven by lower increases in accounts receivable and inventories. In 2021, accounts receivable increased due to the unwind of the ArcelorMittal USA factoring agreement as well as rising revenue. Inventories also increased more in 2021 due to the global semiconductor shortage as well as higher raw material costs. During 2022, our inventory units declined but this was predominantly offset by higher costs.

INVESTING ACTIVITIES

(In millions)	Year Ended December 31,		
	2022	2021	Variance
Purchase of property, plant and equipment	\$ (943)	\$ (705)	\$ (238)
Acquisitions, net of cash acquired	(31)	(707)	676
Other	38	33	5
Net cash used by investing activities	\$ (936)	\$ (1,379)	\$ 443

The variance was driven by:

- A \$238 million increase in cash used for capital expenditures primarily relating to sustaining capital expenditures, including the completion of a reline of blast furnace #5 at Cleveland Works during the third quarter of 2022. Sustaining capital spend includes infrastructure, mobile equipment, fixed equipment, product quality, environmental and health and safety.
- A \$676 million decrease in cash used for acquisitions primarily relating to the FPT Acquisition made in 2021.

FINANCING ACTIVITIES

(In millions)	Year Ended December 31,		
	2022	2021	Variance
Series B Redeemable Preferred Stock redemption	\$ —	\$ (1,343)	\$ 1,343
Net repayments of debt	(1,358)	(372)	(986)
Net borrowings under credit facilities	255	73	182
Net issuance (repurchase) of common shares	(240)	322	(562)
Other	(166)	(150)	(16)
Net cash used by financing activities	\$ (1,509)	\$ (1,470)	\$ (39)

The variance was driven by:

- A \$1,343 million decrease in cash used in 2022 resulting from the Series B Redeemable Preferred Stock redemption in 2021.
- A \$804 million increase in cash used resulting from higher net repayments of debt in 2022, partially offset by increased borrowings on our ABL Facility, as compared to the prior-year.
- A \$562 million increase in cash used to repurchase 12.5 million common shares in 2022, compared to 20.0 million common shares issued in 2021.

LIQUIDITY AND CAPITAL RESOURCES

Our primary sources of liquidity are *Cash and cash equivalents*, cash generated from our operations, availability under the ABL Facility and access to capital markets. We generally maintain minimal cash balances and utilize our access to our ABL Facility to cover fluctuations in our cash requirements. Cash and cash equivalents, which totaled \$26 million as of December 31, 2022, include cash on hand and on deposit. The combination of cash and availability under our ABL Facility gives us \$2.5 billion in liquidity as of December 31, 2022. We believe our liquidity and access to capital markets will be adequate to fund our cash requirements for the next 12 months and for the foreseeable future.

The ABL Facility, which matures in March 2025, has a maximum borrowing base of \$4.5 billion, determined by applying customary advance rates to eligible accounts receivable, inventory and certain mobile equipment. The ABL Facility includes a \$555 million sublimit for the issuance of letters of credit and a \$200 million sublimit for swingline loans. As of December 31, 2022, outstanding letters of credit totaled \$150 million, which reduced availability. We issue standby letters of credit with certain financial institutions in order to support business obligations, including, but not limited to, workers' compensation, employee severance, insurance, operating agreements and environmental obligations. The ABL Facility agreement contains various financial and other covenants. As of December 31, 2022, we were in compliance with all of our ABL Facility covenants.

We have the capability to issue additional unsecured notes and, subject to the limitations set forth in our existing senior notes indentures, additional secured debt, if we elect to access the debt capital markets. However, our ability to issue additional notes could be limited by market conditions. We intend from time to time to seek to redeem or repurchase our outstanding senior notes with cash on hand, borrowings from existing credit sources or new debt financings and/or exchanges for debt or equity securities, in open market purchases, privately negotiated transactions or otherwise. Such redemptions or repurchases, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors, and the amounts involved may be material.

Refer to NOTE 8 - DEBT AND CREDIT FACILITIES for more information on our ABL Facility and debt.

MATERIAL CASH REQUIREMENTS

We have material cash requirements for known contractual obligations and commitments for the following:

CAPITAL EXPENDITURES

We anticipate total cash used for capital expenditures during the next 12 months to be between \$700 and \$750 million, which primarily consists of sustaining capital spend. With our facilities and equipment in the best shape since the acquisition, we do not expect any major investments until at least 2025.

PURCHASE OBLIGATIONS

In the normal course of business, we are a party to certain off-balance sheet arrangements that are not reflected on our Statements of Consolidated Financial Position. These arrangements include minimum "take or pay" purchase commitments, such as minimum electric power demand charges, minimum coal, diesel and natural gas purchase commitments, minimum railroad transportation commitments and minimum port facility usage commitments. Refer to NOTE 20 - COMMITMENTS AND CONTINGENCIES for further information.

DEBT

We have principal long-term debt of \$4,306 million with maturities starting in 2025. Refer to NOTE 8 - DEBT AND CREDIT FACILITIES for further information on our long-term debt and interest.

LEASE OBLIGATIONS

We have future minimum lease payments under noncancellable finance and operating leases. As of December 31, 2022, the current and long-term liabilities for our lease obligations were \$136 million and \$317 million, respectively. Refer to NOTE 12 - LEASE OBLIGATIONS for further information.

POST-RETIREMENT EMPLOYEE BENEFITS

We make both required and discretionary pension contributions. Required contributions are based on minimum funding requirements pursuant to ERISA regulations. We expect to make \$32 million in contributions in 2023. Contributions in future years can significantly change and will depend on the actual returns on assets, discount rates, government regulations, changes to employee benefits through labor agreements and other demographic factors. The cash requirements for our OPEB plans consist of VEBA contributions and direct payments from corporate assets primarily for medical and drug costs. During 2022, we negotiated favorable Medicare Advantage Prescription Drug healthcare rates, which went into effect January 1, 2023. We also paused the contribution requirement to the Cleveland-Cliffs Steel LLC VEBA plan as part of the 2022 USW labor negotiations. The reduction in retiree healthcare rates and pause on the VEBA funding requirements is expected to reduce our use of cash from \$198 million in 2022 to \$73 million in 2023. Refer to NOTE 9 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

ENVIRONMENTAL AND ASSET RETIREMENT OBLIGATIONS

Refer to NOTE 20 - COMMITMENTS AND CONTINGENCIES and NOTE 13 - ASSET RETIREMENT OBLIGATIONS for further information on our environmental and asset retirement obligations.

SHARE REPURCHASE PROGRAM

On February 10, 2022, our Board of Directors authorized a program to repurchase outstanding common shares in the open market or in privately negotiated transactions, which may include purchases pursuant to Rule 10b5-1 plans or accelerated share repurchases, up to a maximum of \$1 billion. As of December 31, 2022, there was \$760 million remaining under the authorization. We are not obligated to make any purchases and the program may be suspended or discontinued at any time. The share repurchase program does not have a specific expiration date.

NON-GAAP FINANCIAL MEASURES

ADJUSTED EBITDA

We evaluate performance on an operating segment basis, as well as a consolidated basis, based on Adjusted EBITDA, which is a non-GAAP measure. This measure is used by management, investors, lenders and other external users of our financial statements to assess our operating performance and to compare operating performance to other companies in the steel industry. In addition, management believes Adjusted EBITDA is a useful measure to assess the earnings power of the business without the impact of capital structure and can be used to assess our ability to service debt and fund future capital expenditures in the business.

The following table provides a reconciliation of our *Net income (loss)* to Adjusted EBITDA:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Net income (loss)	\$ 1,376	\$ 3,033	\$ (81)
Less:			
Interest expense, net	(276)	(337)	(238)
Income tax benefit (expense)	(423)	(773)	111
Depreciation, depletion and amortization	(1,034)	(897)	(308)
Total EBITDA	\$ 3,109	\$ 5,040	\$ 354
Less:			
EBITDA from noncontrolling interests ¹	\$ 74	\$ 75	\$ 56
Gain (loss) on extinguishment of debt	(75)	(88)	130
Acquisition-related expenses and adjustments	(1)	(197)	(148)
Asset impairment	(29)	—	—
Other, net	(29)	(27)	(37)
Total Adjusted EBITDA	\$ 3,169	\$ 5,277	\$ 353

¹EBITDA of noncontrolling interests includes the following:

Net income attributable to noncontrolling interests	\$ 41	\$ 45	\$ 41
Depreciation, depletion and amortization	33	30	15
EBITDA of noncontrolling interests	\$ 74	\$ 75	\$ 56

The following table provides a summary of our Adjusted EBITDA by segment:

(In millions)	Year Ended December 31,	
	2022	2021
Adjusted EBITDA:		
Steelmaking	\$ 3,089	\$ 5,280
Other Businesses	69	9
Corporate and eliminations	11	(12)
Total Adjusted EBITDA	\$ 3,169	\$ 5,277

FREE CASH FLOW

Free cash flow is a non-GAAP measure defined as operating cash flows less purchase of property, plant and equipment. Management believes it is an important measure to assess the cash generation available to service debt, strategic initiatives or other financing activities.

The following table provides a reconciliation of our operating cash flows to free cash flows:

(In millions)	Year Ended December 31,	
	2022	2021
Operating cash flows	\$ 2,423	\$ 2,785
Purchase of property, plant and equipment	(943)	(705)
Free cash flows	\$ 1,480	\$ 2,080

INFORMATION ABOUT OUR GUARANTORS AND THE ISSUER OF OUR GUARANTEED SECURITIES

The accompanying summarized financial information has been prepared and presented pursuant to SEC Regulation S-X, Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered," and Rule 13-01 "Financial Disclosures about Guarantors and Issuers of Guaranteed Securities and Affiliates Whose Securities Collateralized a Registrant's Securities." Certain of our subsidiaries (the "Guarantor subsidiaries") have fully and unconditionally, and jointly and severally, guaranteed the obligations under (a) the 5.875% 2027 Senior Notes, the 7.000% 2027 Senior Notes, the 4.625% 2029 Senior Notes and the 4.875% 2031 Senior Notes issued by Cleveland-Cliffs Inc. on a senior unsecured basis and (b) the 6.750% 2026 Senior Secured Notes on a senior secured basis. See NOTE 8 - DEBT AND CREDIT FACILITIES for further information.

The following presents the summarized financial information on a combined basis for Cleveland-Cliffs Inc. (parent company and issuer of the guaranteed obligations) and the Guarantor subsidiaries, collectively referred to as the obligated group. Transactions between the obligated group have been eliminated. Information for the non-Guarantor subsidiaries was excluded from the combined summarized financial information of the obligated group.

Each Guarantor subsidiary is consolidated by Cleveland-Cliffs Inc. as of December 31, 2022. Refer to [Exhibit 22](#), incorporated herein by reference, for the detailed list of entities included within the obligated group as of December 31, 2022.

The guarantee of a Guarantor subsidiary with respect to Cliffs' 6.750% 2026 Senior Secured Notes, the 5.875% 2027 Senior Notes, the 7.000% 2027 Senior Notes, the 4.625% 2029 Senior Notes and the 4.875% 2031 Senior Notes will be automatically and unconditionally released and discharged, and such Guarantor subsidiary's obligations under the guarantee and the related indentures (the "Indentures") will be automatically and unconditionally released and discharged, upon the occurrence of any of the following, along with the delivery to the trustee of an officer's certificate and an opinion of counsel, each stating that all conditions precedent provided for in the applicable Indenture relating to the release and discharge of such Guarantor subsidiary's guarantee have been complied with:

- (a) any sale, exchange, transfer or disposition of such Guarantor subsidiary (by merger, consolidation, or the sale of) or the capital stock of such Guarantor subsidiary after which the applicable Guarantor subsidiary is no longer a subsidiary of the Company or the sale of all or substantially all of such Guarantor subsidiary's assets (other than by lease), whether or not such Guarantor subsidiary is the surviving entity in such transaction, to a person which is not the Company or a subsidiary of the Company; provided that (i) such sale, exchange, transfer or disposition is made in compliance with the applicable Indenture, including the covenants regarding consolidation, merger and sale of assets and, as applicable, dispositions of assets that constitute notes collateral, and (ii) all the obligations of such Guarantor subsidiary under all debt of the Company or its subsidiaries terminate upon consummation of such transaction;
- (b) designation of any Guarantor subsidiary as an "excluded subsidiary" (as defined in the Indentures); or
- (c) defeasance or satisfaction and discharge of the Indentures.

Each entity in the summarized combined financial information follows the same accounting policies as described in the consolidated financial statements. The accompanying summarized combined financial information does not reflect investments of the obligated group in non-Guarantor subsidiaries. The financial information of the obligated group is presented on a combined basis; intercompany balances and transactions within the obligated group have been eliminated. The obligated group's amounts due from, amounts due to, and transactions with, non-Guarantor subsidiaries and related parties have been presented in separate line items.

SUMMARIZED COMBINED FINANCIAL INFORMATION OF THE ISSUER AND GUARANTOR SUBSIDIARIES

The following table is summarized combined financial information from the Statements of Condensed Consolidated Financial Position of the obligated group:

(In millions)	December 31,	
	2022	2021
Current assets	\$ 7,063	\$ 6,539
Non-current assets	9,935	12,693
Current liabilities	(3,866)	(3,222)
Non-current liabilities	(6,630)	(9,081)

The following table is summarized combined financial information from the Statements of Condensed Consolidated Operations of the obligated group:

(In millions)	Year Ended	
	December 31, 2022	
Revenues	\$	21,376
Cost of goods sold		(19,008)
Income from continuing operations		1,107
Net income		1,109
Net income attributable to Cliffs shareholders		1,109

As of December 31, 2022 and 2021, the obligated group had the following balances with non-Guarantor subsidiaries and other related parties:

(In millions)	December 31,	
	2022	2021
Balances with non-Guarantor subsidiaries:		
Accounts receivable, net	\$ 163	\$ 199
Accounts payable	(527)	(186)
Balances with other related parties:		
Accounts receivable, net	\$ 8	\$ 3
Accounts payable	(13)	(7)

Additionally, for the year ended December 31, 2022, the obligated group had *Revenues* of \$133 million and *Cost of goods sold* of \$103 million, in each case with other related parties.

MARKET RISKS

We are subject to a variety of risks, including those caused by changes in commodity prices and interest rates. We have established policies and procedures to manage such risks; however, certain risks are beyond our control.

PRICING RISKS

In the ordinary course of business, we are exposed to market risk and price fluctuations related to the sale of our products, which are impacted primarily by market prices for HRC, and the purchase of energy and raw materials used in our operations, which are impacted by market prices for electricity, natural gas, ferrous and stainless steel scrap, chrome, metallurgical coal, coke, nickel and zinc. Our strategy to address market risk has generally been to obtain competitive prices for our products and services and allow operating results to reflect market price movements dictated by supply and demand; however, we make forward physical purchases and enter into hedge contracts to manage exposure to price risk related to the purchases of certain raw materials and energy used in the production process.

Our financial results can vary for our operations as a result of fluctuations in market prices. We attempt to mitigate these risks by aligning fixed and variable components in our customer pricing contracts, supplier purchasing agreements and derivative financial instruments.

Some customer contracts have fixed-pricing terms, which increases our exposure to fluctuations in raw material and energy costs. To reduce our exposure, we enter into annual, fixed-price agreements for certain raw materials. Some of our existing multi-year raw material supply agreements have required minimum purchase quantities. Under adverse economic conditions, those minimums may exceed our needs. Absent exceptions for force majeure and other circumstances affecting the legal enforceability of the agreements, these minimum purchase requirements may compel us to purchase quantities of raw materials that could significantly exceed our anticipated needs or pay damages to the supplier for shortfalls. In these circumstances, we would attempt to negotiate agreements for new purchase quantities. There is a risk, however, that we would not be successful in reducing purchase quantities, either through negotiation or litigation. If that occurred, we would likely be required to purchase more of a particular raw material in a particular year than we need, negatively affecting our results of operations and cash flows.

Certain of our customer contracts include variable-pricing mechanisms that adjust selling prices in response to changes in the costs of certain raw materials and energy, while other of our customer contracts exclude such mechanisms. We may enter into multi-year purchase agreements for certain raw materials with similar variable-price mechanisms, allowing us to achieve natural hedges between the customer contracts and supplier purchase agreements. Therefore, in some cases, price fluctuations for energy (particularly natural gas and electricity), raw materials (such as scrap, chrome, zinc and nickel) or other commodities may be, in part, passed on to customers rather than absorbed solely by us. There is a risk, however, that the variable-price mechanisms in the sales contracts may not necessarily change in tandem with the variable-price mechanisms in our purchase agreements, negatively affecting our results of operations and cash flows.

Our strategy to address volatile natural gas rates and electricity rates includes improving efficiency in energy usage, identifying alternative providers and utilizing the lowest cost alternative fuels. If we are unable to align fixed and variable components between customer contracts and supplier purchase agreements, we use cash-settled commodity price swaps to hedge the market risk associated with the purchase of certain of our raw materials and energy requirements. Additionally, we routinely use these derivative instruments to hedge a portion of our natural gas and zinc requirements. During 2022, we initiated hedging programs for electricity and tin. Our hedging strategy is designed to protect us from excessive pricing volatility. However, since we do not typically hedge 100% of our exposure, abnormal price increases in any of these commodity markets might still negatively affect operating costs.

The following table summarizes the negative effect of a hypothetical change in the fair value of our derivative instruments outstanding as of December 31, 2022, due to a 10% and 25% change in the market price of each of the indicated commodities:

Commodity Derivative	(In millions)	
	10% Change	25% Change
Natural gas	\$ 54	\$ 136
Electricity	3	6
Tin	—	1

Any resulting changes in fair value would be recorded as adjustments to AOCI, net of income taxes, or recognized in net earnings, as appropriate. These hypothetical losses would be partially offset by the benefit of lower prices paid for the related commodities.

VALUATION OF GOODWILL AND OTHER LONG-LIVED ASSETS

GOODWILL

We assign goodwill arising from acquired companies to the reporting units that are expected to benefit from the synergies of the acquisition. Goodwill is tested on a qualitative or quantitative basis for impairment at the reporting unit level on an annual basis (October 1) and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. These events or circumstances could include a significant change in the business climate, legal factors, operating performance indicators, competition, or sale or disposition of a significant portion of a reporting unit. We have an unconditional option to bypass the qualitative test for any reporting unit in any period and proceed directly to performing the quantitative test. Should our qualitative test indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we perform a quantitative test to determine the amount of impairment, if any, to the carrying value of the reporting unit and its associated goodwill.

Application of the goodwill impairment test requires judgment, including the identification of reporting units, assignment of assets and liabilities to reporting units, assignment of goodwill to reporting units and if a quantitative assessment is deemed necessary in determination of the fair value of each reporting unit. The fair value of each reporting unit is estimated using the guideline public company method, the discounted cash flow methodology, or a combination of both, which considers forecasted cash flows discounted at an estimated weighted average cost of capital. Assessing the recoverability of our goodwill requires significant assumptions regarding the estimated future cash flows and other factors to determine the fair value of a reporting unit, including, among other things, estimates related to forecasts of future revenues, expected Adjusted EBITDA, expected capital expenditures and working capital requirements, which are based upon our long-range plan estimates. The assumptions used to calculate the fair value of a reporting unit may change from year to year based on operating results, market conditions and other factors. Changes in these assumptions could materially affect the determination of fair value for each reporting unit.

No impairment charges were identified in connection with our annual goodwill impairment test with respect to our identified reporting units. However, our Tooling and Stamping reporting unit fair value was not substantially in excess of its carrying values as of December 31, 2022. A slower than anticipated resolution of the supply chain issues related to the global semiconductor shortages that have hampered the automotive industry, higher than expected capital requirements, and/or an increase in the discount rate could result in future impairment indicators. We determined that our other identified reporting units were not at risk of failing the goodwill impairment test as of December 31, 2022.

OTHER LONG-LIVED ASSETS

Long-lived assets are reviewed for impairment upon the occurrence of events or changes in circumstances that would indicate that the carrying value of the assets may not be recoverable. Such indicators may include: a significant decline in expected future cash flows; a sustained, significant decline in market pricing; a significant adverse change in legal or environmental factors or in the business climate; changes in estimates of our recoverable reserves; and unanticipated competition. Any adverse change in these factors could have a significant impact on the recoverability of our long-lived assets and could have a material impact on our consolidated statements of operations and statements of financial position.

A comparison of each asset group's carrying value to the estimated undiscounted net future cash flows expected to result from the use of the assets, including cost of disposition, is used to determine if an asset is recoverable. Projected future cash flows reflect management's best estimate of economic and market conditions over the projected period, including growth rates in revenues and costs, and estimates of future expected changes in operating margins and capital expenditures. If the carrying value of the asset group is higher than its undiscounted net future cash flows, the asset group is measured at fair value and the difference is recorded as a reduction to the long-lived assets. We estimate fair value using a market approach, an income approach or a cost approach. For the year ended December 31, 2022, we concluded that there were no additional triggering events resulting in the need for an

impairment assessment except for the announcement of the permanent closure of Mountain State Carbon, which resulted in a \$29 million asset impairment charge.

INTEREST RATE RISK

Interest payable on our senior notes is at fixed rates. Interest payable under our ABL Facility is at a variable rate based upon the applicable base rate plus the applicable base rate margin depending on the excess availability. As of December 31, 2022, we had \$1,864 million outstanding under our ABL Facility. An increase in prevailing interest rates would increase interest expense and interest paid for any outstanding borrowings under our ABL Facility. For example, a 100 basis point change to interest rates under our ABL Facility at the December 31, 2022 borrowing level would result in a change of \$19 million to interest expense on an annual basis. For a discussion of the attendant risk, see *Part I - Item 1A, Risk Factors - III. Financial Risks - Our existing and future indebtedness may limit cash flow available to invest in the ongoing needs of our businesses, which could prevent us from fulfilling our obligations under our senior notes, ABL Facility and other debt, and we may be forced to take other actions to satisfy our obligations under our debt, which may not be successful.*

SUPPLY CONCENTRATION RISKS

Many of our operations and mines rely on one source for each of electric power and natural gas. A significant interruption or change in service or rates from our energy suppliers could materially impact our production costs, margins and profitability.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

Refer to NOTE 1 - BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES of the consolidated financial statements for a description of recent accounting pronouncements, including the respective dates of adoption and effects on results of operations and financial condition.

CRITICAL ACCOUNTING ESTIMATES

Management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with GAAP. Preparation of financial statements requires management to make assumptions, estimates and judgments that affect the reported amounts of assets, liabilities, revenues, costs and expenses, and the related disclosures of contingencies. Management bases its estimates on various assumptions and historical experience, which are believed to be reasonable; however, due to the inherent nature of estimates, actual results may differ significantly due to changed conditions or assumptions. On a regular basis, management reviews the accounting policies, assumptions, estimates and judgments to ensure that our financial statements are fairly presented in accordance with GAAP. However, because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates, and such differences could be material. Management believes that the following critical accounting estimates and judgments have a significant impact on our financial statements.

BUSINESS COMBINATIONS

Assets acquired and liabilities assumed in a business combination are recognized and measured based on their estimated fair values at the acquisition date, while the acquisition-related costs are expensed as incurred. Any excess of the purchase consideration when compared to the fair value of the net tangible and intangible assets acquired is recorded as goodwill. We engaged independent valuation specialists to assist with the determination of the fair value of assets acquired, liabilities assumed, noncontrolling interest, and goodwill, for the acquisitions. If the initial accounting for the business combination is incomplete by the end of the reporting period in which the acquisition occurs, an estimate will be recorded. Subsequent to the acquisition date, and not later than one year from the acquisition date, we will record any material adjustments to the initial estimate based on new information obtained that would have existed as of the date of the acquisition. Any adjustment that arises from information obtained that did not exist as of the date of the acquisition will be recorded in the period the adjustment arises.

VALUATION OF GOODWILL AND OTHER LONG-LIVED ASSETS

The valuation of goodwill and other long-lived assets includes various assumptions and are considered critical accounting estimates. Refer to "–Market Risks" above for additional information.

MINERAL RESERVES

We regularly evaluate, and engage QPs to review and validate, our mineral reserves and update them as required in accordance with Subpart 1300 of Regulation S-K. We perform an in-depth evaluation of our mineral reserve estimates by mine on a periodic basis, in addition to routine annual assessments. The determination of mineral reserves requires us and third-party QPs to make significant estimates and assumptions related to key inputs, including, but not limited to, (1) the determination of the size and scope of the iron ore body through technical modeling, (2) the estimates of future iron ore prices, production costs and capital expenditures, and (3) management's mine plan for the proven and probable mineral reserves. The significant estimates and assumptions could be affected by future industry conditions, geological conditions and ongoing mine planning. Additional capital and development expenditures may be required to maintain effective production capacity. Generally, as mining operations progress, haul distances increase. Alternatively, changes in economic conditions or the expected quality of mineral resources and reserves could decrease effective production capacity. Technological progress could alleviate such factors or increase capacity of mineral reserves.

We use our mineral reserve estimates, combined with our estimated annual production levels, to determine the mine closure dates utilized in recording the fair value liability for asset retirement obligations for our active operating mines. Refer to NOTE 13 - ASSET RETIREMENT OBLIGATIONS, for further information. Since the liability represents the present value of the expected future obligation, a significant change in mineral reserves or mine lives could have a substantial effect on the recorded obligation. We also utilize mineral reserves for evaluating potential impairments of goodwill and mine asset groups as they are indicative of future cash flows and in determining maximum useful lives utilized to calculate depreciation, depletion and amortization of long-lived mine assets. The consolidated asset retirement obligation balance was \$520 million as of December 31, 2022, of which \$196 million related to active iron ore mine operations. The total goodwill balance associated with our Steelmaking reportable segment was \$956 million as of December 31, 2022. The total asset balance associated with our Steelmaking reportable segment was \$18,070 million as of December 31, 2022, of which \$1,559 million related to long-lived assets associated with our combined iron ore mine asset groups. Depreciation, depletion and amortization expense for our combined iron ore mine asset groups was \$161 million for the year ended December 31, 2022. Increases or decreases in mineral reserves or mine lives could significantly affect these items.

ASSET RETIREMENT OBLIGATIONS

The accrued closure obligation is predominantly related to our indefinitely idled and closed iron ore mining operations and provides for contractual and legal obligations associated with the eventual closure of those operations. We perform an in-depth evaluation of the liability every three years in addition to our routine annual assessments. In 2020, we employed third-party specialists to assist in the evaluation. Our obligations are determined based on detailed estimates adjusted for factors that a market participant would consider (e.g., inflation, overhead and profit), which are escalated at an assumed rate of inflation to the estimated closure dates and then discounted using the current credit-adjusted risk-free interest rate. The estimate also incorporates incremental increases in the closure cost estimates and changes in estimates of mine lives for our active mine sites. The closure date for each of our active mine sites is determined based on the exhaustion date of the remaining mineral reserves, which is dependent on our estimate of mineral reserves. The estimated obligations for our active mine sites are particularly sensitive to the impact of changes in mine lives given the difference between the inflation and discount rates. The closure dates for a majority of our steelmaking facilities are indefinite, and as such, the asset retirement obligations are recorded at present values using estimated ranges of the economic lives of the underlying assets. Changes in the base estimates of legal and contractual closure costs due to changes in legal or contractual requirements, available technology, inflation, overhead or profit rates also could have a significant impact on the recorded obligations. Refer to NOTE 13 - ASSET RETIREMENT OBLIGATIONS, for further information.

ENVIRONMENTAL REMEDIATION COSTS

We have a formal policy for environmental protection and remediation. Our obligations for known environmental matters at active and closed operations have been recognized based on estimates of the cost of investigation and remediation at each facility. If the obligation can only be estimated as a range of possible amounts, with no specific amount being more likely, the minimum of the range is accrued. Management reviews its environmental remediation sites quarterly to determine if additional cost adjustments or disclosures are required. The characteristics of environmental remediation obligations, where information concerning the nature and extent of clean-up activities is not immediately available and which are subject to changes in regulatory requirements, result in a significant risk of increase to the obligations as they mature. Expected future expenditures are discounted to present value unless the amount and timing of the cash disbursements cannot be reasonably estimated.

INCOME TAXES

Our income tax expense, deferred tax assets and liabilities and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. We are subject to income taxes in the U.S. and various foreign jurisdictions. Significant judgments and estimates are required in determining the consolidated income tax expense.

Deferred income taxes arise from temporary differences between tax and financial statement recognition of revenue and expense. In evaluating our ability to recover our deferred tax assets, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. In projecting future taxable income, we begin with historical results adjusted for the results of discontinued operations and changes in accounting policies and incorporate assumptions including the amount of future state, federal and foreign pretax operating income, the reversal of temporary differences, and the implementation of feasible and prudent tax planning strategies. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

At December 31, 2022 and 2021, we had a valuation allowance of \$390 million and \$409 million, respectively, against our deferred tax assets. At December 31, 2022 and 2021, our U.S. deferred tax assets were \$48 million and \$70 million, respectively, and our foreign deferred tax assets were \$342 million and \$339 million, respectively.

Our losses in Luxembourg in recent periods represent sufficient negative evidence to require a full valuation allowance against the deferred tax assets in that jurisdiction. We intend to maintain a valuation allowance against the deferred tax assets related to these operating losses, unless and until sufficient positive evidence exists to support the realization of such assets.

Changes in tax laws and rates also could affect recorded deferred tax assets and liabilities in the future. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in various jurisdictions across our global operations. The ultimate impact of U.S. income tax reform legislation may differ from our current estimates due to changes in the interpretations and assumptions made as well as additional regulatory guidance that may be issued.

Accounting for uncertainty in income taxes recognized in the financial statements requires that a tax benefit from an uncertain tax position be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on technical merits.

We recognize tax liabilities in accordance with ASC 740, *Income Taxes*, and we adjust these liabilities when our judgment changes because of evaluation of new information not previously available. Due to the complexity of some of these uncertainties, the ultimate resolution may result in payment that is materially different from our current estimate of the tax liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which they are determined. Refer to NOTE 11 - INCOME TAXES, for further information.

EMPLOYEE RETIREMENT BENEFIT OBLIGATIONS

We sponsor various defined benefit pension plans and OPEB plans for certain current employees and retirees. For accounting purposes, we use various actuarial assumptions and methodologies to measure the plan obligations, assets and related net periodic benefit expense at the end of each year. These assumptions include discount rates, expected return on plan assets, mortality rates, rates of compensation increase, healthcare trend rates and certain demographic assumptions. Assumptions and calculations are reviewed by management and reflect our best estimates and judgment. Future changes in assumptions or differences between actual and expected can significantly impact the future funded status of our plans as well as their related net periodic benefit expense.

We believe discount rates and expected return on assets are the most critical assumptions. The discount rates used to measure plan liabilities as of the December 31 measurement date are determined individually for each plan. The discount rates are determined by matching the projected cash flows used to determine the plan liabilities to a projected yield curve of high-quality corporate bonds available at the measurement date. Discount rates for expense are calculated using the granular approach for each plan.

The expected return on plan assets are calculated on a plan-by-plan basis and take into account each plan's strategic asset allocation. The calculation of rates by asset class are based primarily on our future expected returns and take into consideration the duration of the cash flows, active management and fees. The difference between our expected return on plan assets assumptions and the actual returns are recorded in AOCI and ultimately affects future earnings in subsequent years. Although our actual returns will likely differ from our estimate on any given year, the returns over the long term are expected to match our assumptions. In 2023, our weighted average expected return on assets for pension and OPEB plans will increase from 6.87% to 7.66% and from 4.86% to 5.87%, respectively. The increase is primarily related to a shift in investment strategy and asset mix for \$2.9 billion of our pension and OPEB assets, to further align to the Company-wide investment strategy.

Cumulative actuarial gains and losses will be amortized to expense using the corridor method, where gains and losses are recognized if they exceed 10% of the greater of the fair value of plan assets or the plans' benefit obligations. The amortization period will vary by plan.

The following are sensitivities of potential further changes in these key assumptions on the estimated 2023 pension and OPEB expense and the pension and OPEB obligations as of December 31, 2022:

(In millions)	Increase (Decrease) in Expense		Increase in Benefit Obligation	
	Pension	OPEB	Pension	OPEB
Decrease discount rate 0.25%	\$ (2)	\$ 2	\$ 92	\$ 28
Decrease return on assets 1.00%	41	7	N/A	N/A

Refer to NOTE 9 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

FORWARD-LOOKING STATEMENTS

This report contains statements that constitute "forward-looking statements" within the meaning of the federal securities laws. As a general matter, forward-looking statements relate to anticipated trends and expectations rather than historical matters. Forward-looking statements are subject to uncertainties and factors relating to our operations and business environment that are difficult to predict and may be beyond our control. Such uncertainties and factors may cause actual results to differ materially from those expressed or implied by the forward-looking statements. These statements speak only as of the date of this report, and we undertake no ongoing obligation, other than that imposed by law, to update these statements. Investors are cautioned not to place undue reliance on forward-looking statements. Uncertainties and risk factors that could affect our future performance and cause results to differ from the forward-looking statements in this report include, but are not limited to:

- continued volatility of steel, iron ore and scrap metal market prices, which directly and indirectly impact the prices of the products that we sell to our customers;
- uncertainties associated with the highly competitive and cyclical steel industry and our reliance on the demand for steel from the automotive industry, which has been experiencing supply chain disruptions, such as the semiconductor shortage, and higher consumer interest rates, which could result in lower steel volumes being demanded;
- potential weaknesses and uncertainties in global economic conditions, excess global steelmaking capacity, oversupply of iron ore, prevalence of steel imports and reduced market demand, including as a result of inflationary pressures, the COVID-19 pandemic, conflicts or otherwise;

- severe financial hardship, bankruptcy, temporary or permanent shutdowns or operational challenges of one or more of our major customers, including customers in the automotive market, key suppliers or contractors, which, among other adverse effects, could disrupt our operations or lead to reduced demand for our products, increased difficulty collecting receivables, and customers and/or suppliers asserting force majeure or other reasons for not performing their contractual obligations to us;
- disruptions to our operations relating to an infectious disease outbreak or the COVID-19 pandemic, including workforce challenges and the risk that novel variants will prove resistant to existing vaccines or that new or continuing pandemic lockdowns in China will impact our ability to source certain critical supplies in a timely and predictable manner;
- risks related to U.S. government actions with respect to Section 232, the USMCA and/or other trade agreements, tariffs, treaties or policies, as well as the uncertainty of obtaining and maintaining effective antidumping and countervailing duty orders to counteract the harmful effects of unfairly traded imports;
- impacts of existing and increasing governmental regulation, including potential environmental regulations relating to climate change and carbon emissions, and related costs and liabilities, including failure to receive or maintain required operating and environmental permits, approvals, modifications or other authorizations of, or from, any governmental or regulatory authority and costs related to implementing improvements to ensure compliance with regulatory changes, including potential financial assurance requirements, and reclamation and remediation obligations;
- potential impacts to the environment or exposure to hazardous substances resulting from our operations;
- our ability to maintain adequate liquidity, our level of indebtedness and the availability of capital could limit our financial flexibility and cash flow necessary to fund working capital, planned capital expenditures, acquisitions, and other general corporate purposes or ongoing needs of our business;
- our ability to reduce our indebtedness or return capital to shareholders within the currently expected timeframes or at all;
- adverse changes in credit ratings, interest rates, foreign currency rates and tax laws, including adverse impacts as a result of the Inflation Reduction Act;
- the outcome of, and costs incurred in connection with, lawsuits, claims, arbitrations or governmental proceedings relating to commercial and business disputes, antitrust claims, environmental matters, government investigations, occupational or personal injury claims, property damage, labor and employment matters, or suits involving legacy operations and other matters;
- uncertain availability or cost, due to inflation or otherwise, of critical manufacturing equipment and spare parts;
- supply chain disruptions or changes in the cost, quality or availability of energy sources, including electricity, natural gas and diesel fuel, or critical raw materials and supplies, including iron ore, industrial gases, graphite electrodes, scrap metal, chrome, zinc, coke and metallurgical coal;
- problems or disruptions associated with transporting products to our customers, moving manufacturing inputs or products internally among our facilities, or suppliers transporting raw materials to us;
- the risk that the cost or time to implement a strategic or sustaining capital project may prove to be greater than originally anticipated;
- uncertainties associated with natural or human-caused disasters, adverse weather conditions, unanticipated geological conditions, critical equipment failures, infectious disease outbreaks, tailings dam failures and other unexpected events;
- cybersecurity incidents relating to, disruptions in, or failures of, information technology systems that are managed by us or third parties that host or have access to our data and systems, including the loss, theft or corruption of sensitive or essential business or personal information and the inability to access or control systems;
- liabilities and costs arising in connection with any business decisions to temporarily or indefinitely idle or permanently close an operating facility or mine, which could adversely impact the carrying value of associated assets and give rise to impairment charges or closure and reclamation obligations, as well as uncertainties associated with restarting any previously idled operating facility or mine;
- our level of self-insurance and our ability to obtain sufficient third-party insurance to adequately cover potential adverse events and business risks;
- uncertainties associated with our ability to meet customers' and suppliers' decarbonization goals and reduce our GHG emissions in alignment with our own announced targets;
- challenges to maintaining our social license to operate with our stakeholders, including the impacts of our operations on local communities, reputational impacts of operating in a carbon-intensive industry that produces GHG emissions, and our ability to foster a consistent operational and safety track record;
- our actual economic mineral reserves or reductions in current mineral reserve estimates, and any title defect or loss of any lease, license, easement or other possessory interest for any mining property;
- our ability to maintain satisfactory labor relations with unions and employees;

- unanticipated or higher costs associated with pension and OPEB obligations resulting from changes in the value of plan assets or contribution increases required for unfunded obligations;
- uncertain availability or cost of skilled workers to fill critical operational positions and potential labor shortages caused by experienced employee attrition or otherwise, as well as our ability to attract, hire, develop and retain key personnel;
- the amount and timing of any repurchases of our common shares; and
- potential significant deficiencies or material weaknesses in our internal control over financial reporting.

For additional factors affecting our businesses, refer to *Part I – ITEM 1A. RISK FACTORS*. You are urged to carefully consider these risk factors.

Forward-looking and other statements in this Annual Report on Form 10-K regarding our GHG reduction plans and goals are not an indication that these statements are necessarily material to investors or required to be disclosed in our filings with the SEC. In addition, historical, current and forward-looking GHG-related statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve and assumptions that are subject to change in the future.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Information regarding our market risk is presented under the caption "Market Risks," which is included in *ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS* and is incorporated by reference and made a part hereof.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

STATEMENTS OF CONSOLIDATED FINANCIAL POSITION CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

(In millions, except share information)	December 31,	
	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 26	\$ 48
Accounts receivable, net	1,960	2,154
Inventories	5,130	5,188
Other current assets	306	263
Total current assets	7,422	7,653
Non-current assets:		
Property, plant and equipment, net	9,070	9,186
Goodwill	1,130	1,116
Pension and OPEB, asset	356	223
Other non-current assets	777	797
TOTAL ASSETS	\$ 18,755	\$ 18,975
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 2,186	\$ 2,073
Accrued employment costs	429	585
Other current liabilities	934	903
Total current liabilities	3,549	3,561
Non-current liabilities:		
Long-term debt	4,249	5,238
Pension liability, non-current	473	578
OPEB liability, non-current	585	2,383
Deferred income taxes	590	112
Other non-current liabilities	1,267	1,329
TOTAL LIABILITIES	10,713	13,201
Commitments and contingencies (See Note 20)		
Equity:		
Common Shares - par value \$0.125 per share		
Authorized - 1,200,000,000 shares (2021 - 1,200,000,000 shares);		
Issued - 531,051,530 shares (2021 - 506,832,537 shares);		
Outstanding - 513,340,779 shares (2021 - 500,158,955 shares)		
	66	63
Capital in excess of par value of shares	4,871	4,892
Retained earnings (deficit)	1,334	(1)
Cost of 17,710,751 common shares in treasury (2021 -6,673,582 shares)	(310)	(82)
Accumulated other comprehensive income	1,830	618
Total Cliffs shareholders' equity	7,791	5,490
Noncontrolling interest	251	284
TOTAL EQUITY	8,042	5,774
TOTAL LIABILITIES AND EQUITY	\$ 18,755	\$ 18,975

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

STATEMENTS OF CONSOLIDATED OPERATIONS
CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

(In millions, except per share amounts)	Year Ended December 31,		
	2022	2021	2020
Revenues	\$ 22,989	\$ 20,444	\$ 5,354
Operating costs:			
Cost of goods sold	(20,471)	(15,910)	(5,102)
Selling, general and administrative expenses	(465)	(422)	(244)
Acquisition-related costs	(4)	(20)	(90)
Miscellaneous – net	(110)	(80)	(60)
Total operating costs	(21,050)	(16,432)	(5,496)
Operating income (loss)	1,939	4,012	(142)
Other income (expense):			
Interest expense, net	(276)	(337)	(238)
Gain (loss) on extinguishment of debt	(75)	(88)	130
Net periodic benefit credits other than service cost component	212	210	54
Other non-operating income (loss)	(4)	6	3
Total other expense	(143)	(209)	(51)
Income (loss) from continuing operations before income taxes	1,796	3,803	(193)
Income tax benefit (expense)	(423)	(773)	111
Income (loss) from continuing operations	1,373	3,030	(82)
Income from discontinued operations, net of tax	3	3	1
Net income (loss)	1,376	3,033	(81)
Income attributable to noncontrolling interest	(41)	(45)	(41)
Net income (loss) attributable to Cliffs shareholders	\$ 1,335	\$ 2,988	\$ (122)
Earnings (loss) per common share attributable to Cliffs shareholders - basic			
Continuing operations	\$ 2.57	\$ 5.62	\$ (0.32)
Discontinued operations	—	0.01	—
	\$ 2.57	\$ 5.63	\$ (0.32)
Earnings (loss) per common share attributable to Cliffs shareholders - diluted			
Continuing operations	\$ 2.55	\$ 5.35	\$ (0.32)
Discontinued operations	—	0.01	—
	\$ 2.55	\$ 5.36	\$ (0.32)

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

STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME
CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

(In millions)	Year Ended December 31,		
	2022	2021	2020
Net income (loss)	\$ 1,376	\$ 3,033	(81)
Other comprehensive income (loss):			
Changes in pension and OPEB, net of tax	1,298	684	181
Changes in derivative financial instruments, net of tax	(84)	69	2
Changes in foreign currency translation	(2)	(2)	3
Total other comprehensive income	1,212	751	186
Comprehensive income	2,588	3,784	105
Comprehensive income attributable to noncontrolling interests	(41)	(45)	(41)
Comprehensive income attributable to Cliffs shareholders	\$ 2,547	\$ 3,739	\$ 64

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

STATEMENTS OF CONSOLIDATED CASH FLOWS

CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

(In millions)	Year Ended December 31,		
	2022	2021	2020
OPERATING ACTIVITIES			
Net income (loss)	\$ 1,376	\$ 3,033	\$ (81)
Adjustments to reconcile net income (loss) to net cash provided (used) by operating activities:			
Depreciation, depletion and amortization	1,034	897	308
Amortization of inventory step-up	—	161	96
Deferred income taxes	90	767	(101)
Pension and OPEB credits	(132)	(103)	(23)
Loss (gain) on extinguishment of debt	75	88	(130)
Impairment of long-lived assets	29	1	—
Other	122	138	(70)
Changes in operating assets and liabilities, net of business combination:			
Receivables and other assets	177	(722)	(91)
Inventories	64	(1,370)	(146)
Income taxes	(22)	(136)	50
Pension and OPEB payments and contributions	(204)	(343)	(75)
Payables, accrued expenses and other liabilities	(186)	374	5
Net cash provided (used) by operating activities	2,423	2,785	(258)
INVESTING ACTIVITIES			
Purchase of property, plant and equipment	(943)	(705)	(525)
Acquisition of FPT, net of cash acquired	(31)	(761)	—
Acquisition of ArcelorMittal USA, net of cash acquired	—	54	(658)
Acquisition of AK Steel, net of cash acquired	—	—	(869)
Other investing activities	38	33	10
Net cash used by investing activities	(936)	(1,379)	(2,042)
FINANCING ACTIVITIES			
Series B Redeemable Preferred Stock redemption	—	(1,343)	—
Proceeds from issuance of common shares	—	322	—
Repurchase of common shares	(240)	—	—
Proceeds from issuance of debt	—	1,000	1,763
Debt issuance costs	—	(20)	(76)
Repayments of debt	(1,358)	(1,372)	(1,023)
Borrowings under credit facilities	5,749	5,962	2,060
Repayments under credit facilities	(5,494)	(5,889)	(550)
Other financing activities	(166)	(130)	(115)
Net cash provided (used) by financing activities	(1,509)	(1,470)	2,059
Net decrease in cash and cash equivalents	(22)	(64)	(241)
Cash and cash equivalents at beginning of year	48	112	353
Cash and cash equivalents at end of year	\$ 26	\$ 48	\$ 112

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

STATEMENTS OF CONSOLIDATED CHANGES IN EQUITY
CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

(In millions)	Cliffs Shareholders							Non-controlling Interest	Total
	Number of Common Shares Outstanding	Par Value of Common Shares Issued	Capital in Excess of Par Value of Shares	Retained Earnings (Deficit)	Common Shares in Treasury	AOCI (Loss)			
December 31, 2019	271	\$ 37	\$ 3,873	\$ (2,842)	\$ (391)	\$ (319)	\$ —	\$ 358	
Comprehensive income (loss)	—	—	—	(122)	—	186	41	105	
Stock and other incentive plans	2	—	(24)	—	37	—	—	13	
Acquisition of AK Steel	127	16	602	—	—	—	330	948	
Acquisition of ArcelorMittal USA	78	10	980	—	—	—	13	1,003	
Common share dividends (\$0.06 per share)	—	—	—	(25)	—	—	—	(25)	
Net distributions to noncontrolling interests	—	—	—	—	—	—	(61)	(61)	
December 31, 2020	478	\$ 63	\$ 5,431	\$ (2,989)	\$ (354)	\$ (133)	\$ 323	\$ 2,341	
Comprehensive income	—	—	—	2,988	—	751	45	3,784	
Issuance of common shares	20	—	78	—	244	—	—	322	
Stock and other incentive plans	2	—	(8)	—	28	—	—	20	
Series B Redeemable Preferred Stock redemption	—	—	(604)	—	—	—	—	(604)	
1.500% 2025 Convertible Senior Notes redemption	—	—	(5)	—	—	—	—	(5)	
Acquisition of ArcelorMittal USA - Measurement period adjustments	—	—	—	—	—	—	(22)	(22)	
Net distributions to noncontrolling interests	—	—	—	—	—	—	(62)	(62)	
December 31, 2021	500	\$ 63	\$ 4,892	\$ (1)	\$ (82)	\$ 618	\$ 284	\$ 5,774	
Comprehensive income	—	—	—	1,335	—	1,212	41	2,588	
Stock and other incentive plans	2	—	7	—	12	—	—	19	
1.500% 2025 Convertible Senior Notes redemption	24	3	(28)	—	—	—	—	(25)	
Common share repurchases	(13)	—	—	—	(240)	—	—	(240)	
Net distributions to noncontrolling interests	—	—	—	—	—	—	(74)	(74)	
December 31, 2022	513	\$ 66	\$ 4,871	\$ 1,334	\$ (310)	\$ 1,830	\$ 251	\$ 8,042	

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS CLEVELAND-CLIFFS INC. AND SUBSIDIARIES

NOTE 1 - BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

BUSINESS, CONSOLIDATION AND PRESENTATION

NATURE OF BUSINESS

We are the largest flat-rolled steel producer in North America. Founded in 1847 as a mine operator, we are also the largest manufacturer of iron ore pellets in North America. We are vertically integrated from mined raw materials, direct reduced iron and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. We are the largest supplier of steel to the automotive industry in North America and serve a diverse range of markets due to our comprehensive offering of flat-rolled steel products. Headquartered in Cleveland, Ohio, we employ approximately 27,000 people across our operations in the United States and Canada, of which approximately 19,000 were represented by labor unions under various agreements. More than 90% of our hourly workforce is represented by three prominent unions - USW, UAW and IAM.

Unless otherwise noted, discussion of our business and results of operations in this Annual Report on Form 10-K refers to our continuing operations.

BUSINESS OPERATIONS

We are organized into four operating segments based on differentiated products, Steelmaking, Tubular, Tooling and Stamping, and European Operations. We primarily operate through one reportable segment – the Steelmaking segment.

BASIS OF CONSOLIDATION

The condensed consolidated financial statements consolidate our accounts and the accounts of our wholly owned subsidiaries, all subsidiaries in which we have a controlling interest and VIEs for which we are the primary beneficiary. All intercompany transactions and balances are eliminated upon consolidation.

INVESTMENTS IN AFFILIATES

We have investments in several businesses accounted for using the equity method of accounting. These investments are included within our Steelmaking segment. We review an investment for impairment when circumstances indicate that a loss in value below its carrying amount is other than temporary.

Our investment in affiliates of \$133 million and \$128 million as of December 31, 2022 and 2021, respectively, was classified in *Other non-current assets*.

SIGNIFICANT ACCOUNTING POLICIES

We consider the following policies to be beneficial in understanding the judgments involved in the preparation of our consolidated financial statements and the uncertainties that could impact our financial condition, results of operations and cash flows. Certain prior period amounts have been reclassified to conform with the current year presentation.

USE OF ESTIMATES

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Our mineral reserves; future realizable cash flow; environmental, reclamation and closure obligations; valuation of business combinations, goodwill, long-lived assets, inventory, tax assets and post-employment, post-retirement and other employee benefit liabilities; reserves for contingencies and litigation require the use of various management estimates and assumptions. Actual results could differ from estimates. Management reviews its estimates on an ongoing basis. Changes in facts and circumstances may alter such estimates and affect the results of operations and financial position in future periods.

BUSINESS COMBINATIONS

Assets acquired and liabilities assumed in a business combination are recognized and measured based on their estimated fair values at the acquisition date, while the acquisition-related costs are expensed as incurred. Any excess of the purchase consideration when compared to the fair value of the net tangible and intangible assets acquired is recorded as goodwill. We engaged independent valuation specialists to assist with the determination of the fair value of assets acquired, liabilities assumed, noncontrolling interest, and goodwill, for the acquisitions. If the initial accounting for the business combination is incomplete by the end of the reporting period in which the acquisition occurs, an estimate will be recorded. Subsequent to the acquisition date, and not later than one year from the acquisition date, we will record any material adjustments to the initial estimate based on new information obtained that would have existed as of the date of the acquisition. Any adjustment that arises from information obtained that did not exist as of the date of the acquisition will be recorded in the period the adjustment arises.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash on hand and on deposit as well as all short-term securities held for the primary purpose of general liquidity. We routinely monitor and evaluate counterparty credit risk related to the financial institutions in which our short-term investment securities are held. Where right of offset exists, we report cash balances net.

TRADE ACCOUNTS RECEIVABLE AND ALLOWANCE FOR CREDIT LOSS

Trade accounts receivable are recorded at the point control transfers and represent the amount of consideration we expect to receive in exchange for transferred goods and do not bear interest. We establish provisions for expected lifetime losses on accounts receivable at the time a receivable is recorded based on historical experience, customer credit quality and forecasted economic conditions. We regularly review our accounts receivable balances and the allowance for credit loss and establish or adjust the allowance as necessary using the specific identification method. We evaluate the aggregation and risk characteristics of receivable pools and develop loss rates that reflect historical collections, current forecasts of future economic conditions over the time horizon we are exposed to credit risk, and payment terms or conditions that may materially affect future forecasts.

INVENTORIES

Inventories are generally stated at the lower of cost or net realizable value using average cost, excluding depreciation and amortization. Certain iron ore inventories are stated at the lower of cost or market using the LIFO method.

DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

We are exposed to certain risks related to the ongoing operations of our business, including those caused by changes in commodity prices and energy rates. We have established policies and procedures, including the use of certain derivative instruments, to manage such risks.

Derivative financial instruments are recognized as either assets or liabilities on the Statements of Consolidated Financial Position and measured at fair value. On the date a qualifying hedging instrument is executed, we designate the hedging instrument as a hedge of the variability of cash flows to be received or paid related to a forecasted transaction (cash flow hedge). We formally document all relationships between hedging instruments and hedged items, as well as our risk-management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as cash flow hedges to specific firm commitments or forecasted transactions. We also formally assess, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flows of the related hedged items. When it is determined that a derivative is not highly effective as a hedge, we discontinue hedge accounting prospectively and record all future changes in fair value in the period of the instrument's earnings or losses.

For derivative instruments that have been designated as cash flow hedges, the changes in fair value are recorded in *Accumulated other comprehensive income*. Amounts recorded in *Accumulated other comprehensive income* are reclassified to earnings or losses in the period the underlying hedged transaction affects earnings or when the underlying hedged transaction is no longer reasonably possible of occurring.

For derivative instruments that have not been designated as cash flow hedges, changes in fair value are recorded in the period of the instrument's earnings or losses.

PROPERTY, PLANT AND EQUIPMENT

Our properties are stated at cost less accumulated depreciation. Depreciation of plant and equipment is computed principally by the straight-line method based on estimated useful lives. Depreciation continues to be recognized when operations are idled temporarily. Depreciation and depletion are recorded over the following estimated useful lives:

Asset Class	Basis	Life
Land, land improvements and mineral rights		
Land and mineral rights	Units of production	Life of mine
Land improvements	Straight line	20 to 45 years
Buildings	Straight line	20 to 45 years
Equipment	Straight line/Double declining balance	3 to 45 years

GOODWILL

Goodwill represents the excess purchase price paid over the fair value of the net assets from an acquisition. Goodwill is not amortized for financial statement purposes, but it is assessed for impairment on an annual basis on October 1 (or more frequently if necessary).

OTHER INTANGIBLE ASSETS AND LIABILITIES

Intangible assets and liabilities are subject to periodic amortization on a straight-line basis over their estimated useful lives.

LEASES

We determine if an arrangement contains a lease at inception. We recognize right-of-use assets and lease liabilities associated with leases based on the present value of the future minimum lease payments over the lease term at the commencement date. Lease terms reflect options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Short-term leases (leases with an initial lease term of 12 months or less), right-of-use assets and lease liabilities are not recognized on the Statements of Consolidated Financial Position. Operating lease expense is recognized on a straight-line basis over the lease term.

ASSET IMPAIRMENT

We monitor conditions that may affect the carrying value of our long-lived tangible and intangible assets when events and circumstances indicate that the carrying value of the asset groups may not be recoverable. In order to determine if assets have been impaired, assets are grouped and tested at the lowest level for which identifiable, independent cash flows are available ("asset group"). The measurement of the impairment loss to be recognized is based on the difference between the fair value and the carrying value of the asset group. Fair value can be determined using a market approach, income approach or cost approach.

During the year ended December 31, 2022, we concluded that there were no triggering events resulting in the need for an impairment assessment except for the announcement of the permanent closure of Mountain State Carbon, which resulted in a \$29 million asset impairment charge during the year.

For the years ended December 31, 2021 and 2020, no impairment indicators were present that would indicate the carrying value of any of our asset groups may not be recoverable; as a result, no impairment assessments were required.

FAIR VALUE MEASUREMENTS

ASC Topic 820, *Fair Value Measurements and Disclosures*, establishes a three-level valuation hierarchy for classification of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. Inputs refer broadly to the assumptions that market participants would use in pricing an asset or liability. Inputs may be observable or unobservable. Observable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from independent sources. Unobservable inputs are inputs that reflect our own views about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The three-tier hierarchy of inputs is summarized below:

- Level 1 — Valuation is based upon quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 — Valuation is based upon quoted prices for similar assets and liabilities in active markets, or other inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 — Valuation is based upon other unobservable inputs that are significant to the fair value measurement.

The classification of assets and liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement in its entirety.

PENSION AND OTHER POSTRETIREMENT BENEFITS

We offer defined benefit pension plans, defined contribution pension plans and OPEB plans, primarily consisting of retiree healthcare benefits as part of our total compensation and benefits programs.

We recognize the funded or unfunded status of our pension and OPEB obligations on the Statements of Consolidated Financial Position based on the difference between the market value of plan assets and the actuarial present value of our retirement obligations on that date, on a plan-by-plan basis. If the plan assets exceed the pension and OPEB obligations, the amount of the surplus is recorded as an asset; if the pension and OPEB obligations exceed the plan assets, the amount of the underfunded obligations is recorded as a liability. Year-end balance sheet adjustments to pension and OPEB assets and obligations are recorded as *Accumulated other comprehensive income* on the Statements of Consolidated Financial Position.

The actuarial estimates of the PBO (Projected benefit obligation) and APBO (Accumulated postretirement benefit obligation) incorporate various assumptions including the discount rates, the rates of increases in compensation, healthcare cost trend rates, mortality, retirement timing and employee turnover. The discount rate is determined based on the prevailing year-end rates for high-grade corporate bonds with a duration matching the expected cash flow timing of the benefit payments from the various plans. The remaining assumptions are based on our estimates of future events by incorporating historical trends and future expectations. The amount of net periodic cost that is recorded in the Statements of Consolidated Operations consists of several components including service cost, interest cost, expected return on plan assets, and amortization of previously unrecognized amounts. Service cost represents the value of the benefits earned in the current year by the participants. Interest cost represents the cost associated with the passage of time. Certain items, such as plan amendments, gains and/or losses resulting from differences between actual and assumed results for demographic and economic factors affecting the obligations and assets of the plans, and changes in other assumptions are subject to deferred recognition for income and expense purposes. The expected return on plan assets is calculated on a plan-by-plan basis using each plan's strategic asset allocation and our expected long-term capital market return assumptions. Service costs are classified within *Cost of goods sold*, *Selling, general and administrative expenses* and *Miscellaneous – net* while the interest cost, expected return on assets, amortization of prior service costs/credits, net actuarial gain/loss, and other costs are classified within *Net periodic benefit credits other than service cost component*.

Cumulative actuarial gains and losses will be amortized to expense using the corridor method, where gains and losses are recognized if they exceed 10% of the greater of the fair value of plan assets or the plans' benefit obligations. The amortization period will vary by plan.

ASSET RETIREMENT OBLIGATIONS

An asset retirement obligation is recognized when incurred if a reasonable estimate of fair value can be made, and is initially measured at fair value. The fair value of the liability is determined as the discounted value of the expected future cash flows. The asset retirement obligation is accreted over time through periodic charges to earnings. In addition, the asset retirement cost is capitalized and amortized over the life of the related asset. Reclamation costs are adjusted periodically to reflect changes in the estimated present value resulting from the passage of time and revisions to the estimates of either the timing or amount of the reclamation costs. We review, on an annual basis, unless otherwise deemed necessary, the asset retirement obligation for each applicable operation in accordance with the provisions of *ASC Topic 410, Asset Retirement and Environmental Obligations*. We perform an in-depth evaluation of the liability every three years in addition to our routine annual assessments.

Future reclamation costs for inactive operations are accrued based on management's best estimate at the end of each period of the costs expected to be incurred at a site. Such cost estimates include, where applicable, ongoing maintenance and monitoring costs. Changes in estimates at inactive operations are reflected in earnings in the period an estimate is revised.

ENVIRONMENTAL REMEDIATION COSTS

Our operating activities are subject to various laws and regulations governing protection of the environment. We conduct our operations to protect the public health and environment and believe our operations are in compliance with applicable laws and regulations in all material respects. Our environmental liabilities, including obligations for known environmental remediation exposures, have been recognized based on the estimated cost of investigation and remediation at each site. If the cost can only be estimated as a range of possible amounts with no point in the range being more likely, the minimum of the range is accrued. Future expenditures are discounted unless the amount and timing of the cash disbursements cannot be reasonably estimated. It is possible that additional environmental obligations could be incurred, the extent of which cannot be assessed. Potential insurance recoveries have not been reflected in the determination of the liabilities.

REVENUE RECOGNITION

Sales are recognized when our performance obligations are satisfied. Generally, our performance obligations are satisfied, control of our products is transferred and revenue is recognized at a single point in time, when title transfers to our customer for product shipped according to shipping terms. Shipping and other transportation costs charged to customers are treated as fulfillment activities and are recorded in both revenue and cost of sales at the time control is transferred to the customer.

REPAIRS AND MAINTENANCE

Repairs, maintenance and replacement of components are expensed as incurred. The cost of major equipment overhauls is capitalized and depreciated over the estimated useful life, which is the period until the next scheduled overhauls. All other planned and unplanned repairs and maintenance costs are expensed when incurred.

SHARE-BASED COMPENSATION

The fair value of each performance share grant is estimated on the date of grant using a Monte Carlo simulation to forecast relative TSR performance. A correlation matrix of historical and projected stock prices was developed for both the Company and its predetermined peer group of metals and mining companies. The fair value assumes that the performance objective will be achieved. The expected term of the grant represents the time from the grant date to the end of the service period. We estimate the volatility of our common shares and that of the peer group of metals and mining companies using daily price intervals for all companies. The risk-free interest rate is the rate at the grant date on zero-coupon government bonds, with a term commensurate with the remaining performance period.

The fair value of the restricted stock units is determined based on the closing price of our common shares on the grant date.

Upon vesting of share-based compensation awards, we issue shares from treasury shares before issuing new shares. Forfeitures are recognized when they occur.

The fair value of stock options is estimated on the date of grant using a Black-Scholes model using the grant date price of our common shares, the option exercise price, the option's expected term, the volatility of our common shares, the risk-free interest rate and the dividend yield over the option's expected term.

INCOME TAXES

Income taxes are based on income for financial reporting purposes, calculated using tax rates by jurisdiction, and reflect a current tax liability or asset for the estimated taxes payable or recoverable on the current year tax return and expected annual changes in deferred taxes. Any interest or penalties on income tax are recognized as a component of *Income tax benefit (expense)*.

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized within *Net income (loss)* in the period that includes the enactment date.

We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such determination, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial results of operations.

Accounting for uncertainty in income taxes recognized in the financial statements requires that a tax benefit from an uncertain tax position be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on technical merits.

FOREIGN CURRENCY

Our financial statements are prepared with the U.S. dollar as the reporting currency, and the functional currency of all subsidiaries is the U.S. dollar, except for our European Operations for which the functional currency is the Euro.

EARNINGS PER SHARE

We present both basic and diluted EPS amounts for continuing operations and discontinued operations. Total basic EPS amounts are calculated by dividing *Net income (loss) attributable to Cliffs shareholders*, less the earnings allocated to any of our outstanding Series B Participating Redeemable Preferred Stock, by the weighted average number of common shares outstanding during the period presented.

Total diluted EPS amounts are calculated by dividing *Net income (loss) attributable to Cliffs shareholders* by the weighted average number of common shares, common share equivalents under stock plans using the treasury-stock method, common share equivalents of the Series B Participating Redeemable Preferred Stock using the if-converted method and the calculated common share equivalents in excess of the conversion rate related to our 1.500% 2025 Convertible Senior Notes using the treasury-stock method. Common share equivalents are excluded from EPS computations in the periods in which they have an anti-dilutive effect.

VARIABLE INTEREST ENTITIES

We assess whether we have a variable interest in legal entities in which we have a financial relationship and, if so, whether or not those entities are VIEs. A VIE is an entity with insufficient equity at risk for the entity to finance its activities without additional subordinated financial support or in which equity investors lack the characteristics of a controlling financial interest. If an entity is determined to be a VIE, we evaluate whether we are the primary beneficiary. The primary beneficiary analysis is a qualitative analysis based on power and economics. We conclude that we are the primary beneficiary and consolidate the VIE if we have both (i) the power to direct the activities of the VIE that most significantly influence the VIE's economic performance and (ii) the obligation to absorb losses of, or the right to receive benefits from, the VIE that could potentially be significant to the VIE.

RECENT ACCOUNTING PRONOUNCEMENTS

ISSUED AND ADOPTED

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)*. This update requires certain convertible instruments to be accounted for as a single liability measured at its amortized cost. Additionally, the update requires the use of the "if-converted" method, removing the treasury stock method, when calculating diluted shares. We utilized the modified retrospective method of adoption; using this approach, the guidance was applied to transactions outstanding as of the beginning of the fiscal year in which the amendment was adopted. On January 18, 2022, we redeemed all of our outstanding 1.500% 2025 Convertible Senior Notes; therefore, there was a de minimis impact as a result of our adoption of this update.

ISSUED AND NOT YET EFFECTIVE

In September 2022, the FASB issued ASU No. 2022-04, *Liabilities - Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations*. This guidance requires annual and interim disclosure of the key terms of outstanding supplier finance programs and a roll-forward of the related obligations. The new standard does not affect the recognition, measurement or financial statement presentation of the supplier finance program obligations. These amendments are effective for fiscal years beginning after December 15, 2022, except for the amendment on roll-forward information, which is effective for fiscal years beginning after December 15, 2023. Upon adoption, we may be required to include additional disclosures to the extent we have material supplier finance program obligations.

NOTE 2 - SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION

ALLOWANCE FOR CREDIT LOSSES

The following is a roll-forward of our allowance for credit losses associated with *Accounts receivable, net*.

(In millions)	2022	2021
Allowance for credit losses as of January 1	\$ (4)	\$ (5)
Decrease in allowance	—	1
Allowance for credit losses as of December 31	<u>\$ (4)</u>	<u>\$ (4)</u>

INVENTORIES

The following table presents the detail of our *Inventories* on the Statements of Consolidated Financial Position:

(In millions)	December 31,	
	2022	2021
Product inventories		
Finished and semi-finished goods	\$ 2,971	\$ 2,814
Raw materials	1,794	2,070
Total product inventories	4,765	4,884
Manufacturing supplies and critical spares	365	304
Inventories	<u>\$ 5,130</u>	<u>\$ 5,188</u>

The excess of current cost over LIFO cost of iron ore inventories was \$69 million and \$124 million at December 31, 2022 and 2021, respectively. As of December 31, 2022, the product inventory balance for iron ore inventories decreased, resulting in a liquidation of a LIFO layer in 2022. The effect of the inventory reduction was an increase in *Cost of goods sold* of \$36 million in the Statements of Consolidated Operations for the year ended December 31, 2022. As of December 31, 2021, the product inventory balance for iron ore inventories increased, resulting in a LIFO increment in 2021. The effect of the inventory build was an increase in *Inventories* of \$45 million on the Statements of Consolidated Financial Position for the year ended December 31, 2021.

CASH FLOW INFORMATION

A reconciliation of capital additions to cash paid for capital expenditures is as follows:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Capital additions	\$ 1,033	\$ 857	\$ 483
Less:			
Non-cash accruals	35	102	(86)
Right-of-use assets - finance leases	55	50	44
Cash paid for capital expenditures including deposits	<u>\$ 943</u>	<u>\$ 705</u>	<u>\$ 525</u>

Additionally, included within *Other investing activities* on the Statements of Consolidated Cash Flows are grant reimbursements related to governmental funded capital projects. For the years ended December 31, 2022 and 2021, grant reimbursements were \$27 million and \$2 million, respectively.

Cash payments (receipts) for interest and income taxes are as follows:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Taxes paid on income	\$ 334	\$ 166	\$ 5
Income tax refunds	(3)	(16)	(120)
Interest paid on debt obligations net of capitalized interest ¹	249	299	170

¹ Capitalized interest was \$9 million, \$6 million and \$53 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Other non-cash investing and financing activities are as follows:

(In millions)	Year Ended December 31,		
	2022	2021	2020
1.500% 2025 Convertible Senior Notes redemption	\$ 25	\$ —	\$ —
Fair value of settlement of a pre-existing relationship as part of consideration in connection with FPT Acquisition	—	(20)	—
Fair value of common shares issued as part of consideration in connection with AM USA Transaction	—	—	990
Fair value of Series B Participating Redeemable Preferred Stock issued as part of consideration in connection with AM USA Transaction	—	—	738
Fair value of settlement of a pre-existing relationship as part of consideration in connection with AM USA Transaction	—	—	237
Fair value of common shares issued as consideration in connection with AK Steel Merger	—	—	618
Fair value of equity awards assumed in connection with AK Steel Merger	—	—	4

NOTE 3 - ACQUISITIONS

In 2020, we acquired two major steelmakers, AK Steel and ArcelorMittal USA, vertically integrating our legacy iron ore business with steel production. In 2021, we also entered into the scrap business with the FPT Acquisition. We are vertically integrated from mined raw materials, direct reduced iron and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. We now have a presence across the entire steel manufacturing process, from mining to pelletizing to the development and production of finished high value steel products. The AK Steel Merger combined Cliffs, a historic producer of iron ore pellets, with AK Steel, a producer of flat-rolled carbon, stainless and electrical steel products, to create a vertically integrated producer of value-added iron ore and steel products. The AM USA Transaction transformed us into a fully-integrated steel enterprise with the size and scale to expand product offerings and improve through-the-cycle margins. The FPT Acquisition provides us a competitive advantage in sourcing prime scrap, a key raw material for our steelmaking facilities.

FPT ACQUISITION

OVERVIEW

On November 18, 2021, pursuant to the FPT Acquisition Agreement, we completed the FPT Acquisition, in which we were the acquirer. Following the FPT Acquisition, the operating results of FPT are included in our consolidated financial statements. For the period subsequent to the FPT Acquisition (November 18, 2021 through December 31, 2021), FPT generated *Revenues* of \$153 million and a loss of \$18 million included within *Net income (loss) attributable to Cliffs shareholders*, which included \$22 million related to amortization of the fair value inventory step-up.

The fair value of the total purchase consideration was determined as follows:

(In millions)	
Cash consideration:	
Cash consideration pursuant to the FPT Acquisition Agreement	\$ 778
Cash consideration paid related to IRC Section 338(h)(10)	23
Total cash consideration	801
Fair value of settlement of a pre-existing relationship	(20)
Total purchase consideration	\$ 781

We made certain elections under Section 338(h)(10) of the IRC with respect to entities acquired in connection with the FPT Acquisition that were finalized during the third quarter of 2022, which changed the final cash consideration.

VALUATION ASSUMPTION AND PURCHASE PRICE ALLOCATION

The allocation of consideration to the net tangible and intangible assets acquired and liabilities assumed in connection with the FPT Acquisition was based on estimated fair values at November 18, 2021, and was finalized during the quarter ended December 31, 2022. The following is a summary of the purchase price allocation to assets acquired and liabilities assumed in the FPT Acquisition:

(In millions)	Initial Allocation of Consideration	Measurement Period Adjustments	Final Allocation of Consideration as of December 31, 2022
Cash and cash equivalents	\$ 9	\$ —	\$ 9
Accounts receivable, net	233	2	235
Inventories	137	(2)	135
Other current assets	4	(1)	3
Property, plant and equipment	179	12	191
Other non-current assets	74	(2)	72
Accounts payable	(122)	—	(122)
Accrued employment costs	(8)	—	(8)
Other current liabilities	(9)	3	(6)
Other non-current liabilities	(21)	—	(21)
Net identifiable assets acquired	476	12	488
Goodwill	279	14	293
Total net assets acquired	<u>\$ 755</u>	<u>\$ 26</u>	<u>\$ 781</u>

The goodwill resulting from the FPT Acquisition primarily represents the incremental benefit of providing substantial access to prime scrap for our vertically integrated steelmaking business, as well as any synergistic benefits to be realized from the FPT Acquisition within our Steelmaking segment. We have \$296 million in goodwill that is deductible for tax purposes from the FPT Acquisition.

The purchase price allocated to identifiable intangible assets acquired was:

	(In millions)	Weighted Average Life (In years)
Customer relationships	\$ 13	15
Supplier relationships	29	18
Trade names and trademarks	7	15
Total identifiable intangible assets	<u>\$ 49</u>	17

Intangible assets are classified as *Other non-current assets* on the Statements of Consolidated Financial Position.

ACQUISITION OF ARCELORMITTAL USA

OVERVIEW

On December 9, 2020, pursuant to the terms of the AM USA Transaction Agreement, we purchased ArcelorMittal USA from ArcelorMittal. In connection with the closing of the AM USA Transaction, as contemplated by the terms of the AM USA Transaction Agreement, ArcelorMittal's former joint venture partner in Kote and Tek exercised its put right pursuant to the terms of the Kote and Tek joint venture agreements. As a result, we purchased all of such joint venture partner's interests in Kote and Tek. Following the closing of the AM USA Transaction, we own 100% of the interests in Kote and Tek.

We incurred acquisition-related costs, excluding severance costs, of \$3 million and \$26 million for the years ended December 31, 2021 and 2020, respectively, in connection with the AM USA Transaction, which were recorded in *Acquisition-related costs* in the Statements of Consolidated Operations.

The fair value of the total purchase consideration was determined as follows:

(In millions)

Fair value of Cliffs common shares issued	\$	990
Fair value of Cliffs Series B Participating Redeemable Preferred Stock issued		738
Fair value of settlement of a pre-existing relationship		237
Cash consideration		639
Total purchase consideration	\$	<u>2,604</u>

The fair value of Cliffs common shares issued was calculated as follows:

Number of Cliffs common shares issued		78,186,671
Closing price of Cliffs common share as of December 9, 2020	\$	12.66
Fair value of Cliffs common shares issued (in millions)	\$	<u>990</u>

The fair value of Cliffs Series B Participating Redeemable Preferred Stock issued was calculated as follows:

Number of Cliffs Series B Participating Redeemable Preferred Stock issued		583,273
Redemption price per share as of December 9, 2020	\$	1,266
Fair value of Cliffs Series B Participating Redeemable Preferred Stock issued (in millions)	\$	<u>738</u>

The fair value of the cash consideration was comprised of the following:

(In millions)

Cash consideration pursuant to the AM USA Transaction Agreement	\$	505
Cash consideration for purchase of the remaining JV partner's interest of Kote and Tek		182
Cash consideration pursuant to working capital adjustments		(48)
Total cash consideration	\$	<u>639</u>

The cash portion of the purchase price was subject to customary working capital adjustments, and the working capital adjustments were finalized during the second quarter of 2021. We made certain elections under Section 338(h)(10) of the IRC with respect to entities acquired in connection with the AM USA Transaction, which did not change the final cash consideration.

The fair value of the settlement of a pre-existing relationship was comprised of the following:

(In millions)

Accounts receivable	\$	97
Freestanding derivative asset from customer supply agreement		140
Total fair value of settlement of a pre-existing relationship	\$	<u>237</u>

VALUATION ASSUMPTION AND PURCHASE PRICE ALLOCATION

The allocation of consideration to the net tangible and intangible assets acquired and liabilities assumed in connection with the AM USA Transaction was based on estimated fair values at December 9, 2020, and was finalized during the quarter ended December 31, 2021. The following is a summary of the purchase price allocation to assets acquired and liabilities assumed in the AM USA Transaction:

(In millions)	Initial Allocation of Consideration	Measurement Period Adjustments	Final Allocation Consideration as of December 31, 2021
Cash and cash equivalents	\$ 35	\$ —	\$ 35
Accounts receivable, net	349	(3)	346
Inventories	2,115	14	2,129
Other current assets	34	2	36
Property, plant and equipment	4,017	387	4,404
Deferred income taxes	—	285	285
Other non-current assets	158	7	165
Accounts payable	(736)	8	(728)
Accrued employment costs	(271)	5	(266)
State and local taxes	(76)	—	(76)
Other current liabilities	(453)	23	(430)
Pension liability, non-current	(730)	—	(730)
OPEB liability, non-current	(2,465)	—	(2,465)
Other non-current liabilities	(598)	(171)	(769)
Noncontrolling interest	(13)	21	8
Net identifiable assets acquired	1,366	578	1,944
Goodwill	1,230	(570)	660
Total net assets acquired	\$ 2,596	\$ 8	\$ 2,604

During the period subsequent to the AM USA Transaction, we made certain measurement period adjustments to the acquired assets and liabilities assumed due to clarification of information utilized to determine fair value during the measurement period. The measurement period adjustments related to the revaluation of the Company's previously held equity method investment, which is now being consolidated post-acquisition, resulting in a loss of \$31 million, within *Miscellaneous – net* for the year ended December 31, 2021.

The goodwill resulting from the acquisition of ArcelorMittal USA primarily represents the growth opportunities in the automotive, construction, appliances, infrastructure and machinery and equipment markets, as well as any synergistic benefits to be realized from the AM USA Transaction, and was assigned to our flat steel operations within our Steelmaking segment.

ACQUISITION OF AK STEEL

OVERVIEW

On March 13, 2020, pursuant to the AK Steel Merger Agreement (Agreement and Plan of Merger, dated as of December 2, 2019, among Cleveland-Cliffs Inc., AK Steel and Merger Sub), we completed the acquisition of AK Steel, in which we were the acquirer. As a result of the AK Steel Merger, each share of AK Steel common stock issued and outstanding immediately prior to the effective time of the AK Steel Merger (other than excluded shares) was converted into the right to receive 0.400 Cliffs common shares and, if applicable, cash in lieu of any fractional Cliffs common shares.

We incurred acquisition-related costs, excluding severance costs, of \$1 million and \$26 million for the years ended December 31, 2021 and 2020, respectively, in connection with the AK Steel Merger, which were recorded in *Acquisition-related costs* in the Statements of Consolidated Operations.

The fair value of the total purchase consideration was determined as follows:

(In millions)		
Fair value of AK Steel debt	\$	914
Fair value of Cliffs common shares issued for AK Steel outstanding common stock		618
Other		3
Total purchase consideration	\$	1,535

The fair value of Cliffs common shares issued for outstanding shares of AK Steel common stock and with respect to Cliffs common shares underlying converted AK Steel equity awards that vested upon completion of the AK Steel Merger was calculated as follows:

(In millions, except per share amounts)

Number of shares of AK Steel common stock issued and outstanding	317
Exchange ratio	0.400
Shares of Cliffs common shares issued to AK Steel stockholders	127
Price per share of Cliffs common shares	\$ 4.87
Fair value of Cliffs common shares issued for outstanding AK Steel common stock	<u>\$ 618</u>

The fair value of AK Steel's debt included in the consideration was calculated as follows:

(In millions)

Credit Facility	\$ 590
7.500% Senior Secured Notes due July 2023	324
Fair value of debt included in consideration	<u>\$ 914</u>

VALUATION ASSUMPTION AND PURCHASE PRICE ALLOCATION

The allocation of consideration to the net tangible and intangible assets acquired and liabilities assumed in connection with the AK Steel Merger was based on estimated fair values at March 13, 2020, and was finalized during the quarter ended March 31, 2021. The following is a summary of the purchase price allocation to assets acquired and liabilities assumed in the AK Steel Merger:

(In millions)	Initial Allocation of Consideration	Measurement Period Adjustments	Final Allocation of Consideration as of March 31, 2021
Cash and cash equivalents	\$ 38	\$ 1	\$ 39
Accounts receivable, net	666	(2)	664
Inventories	1,563	(243)	1,320
Other current assets	68	(16)	52
Property, plant and equipment	2,184	90	2,274
Deferred income taxes	—	69	69
Other non-current assets	475	(4)	471
Accounts payable	(636)	(8)	(644)
Accrued employment costs	(94)	1	(93)
State and local taxes	(35)	4	(31)
Other current liabilities	(276)	2	(274)
Long-term debt	(1,179)	—	(1,179)
Pension liability, non-current	(473)	10	(463)
OPEB liability, non-current	(400)	(8)	(408)
Other non-current liabilities	(507)	72	(435)
Noncontrolling interest	—	(1)	(1)
Net identifiable assets acquired	1,394	(33)	1,361
Goodwill	141	33	174
Total net assets acquired	<u>\$ 1,535</u>	<u>\$ —</u>	<u>\$ 1,535</u>

During the period subsequent to the AK Steel Merger, we made certain measurement period adjustments to the acquired assets and liabilities assumed due to clarification of information utilized to determine fair value during the measurement period.

The goodwill resulting from the acquisition of AK Steel was assigned to our downstream Tubular and Tooling and Stamping operating segments. Goodwill is calculated as the excess of the purchase price over the net identifiable assets recognized and primarily represents the growth opportunities in light weighting solutions to automotive customers, as well as any synergistic benefits to be realized.

The purchase price allocated to identifiable intangible assets and liabilities acquired was:

	(In millions)	Weighted Average Life (In Years)
Intangible assets:		
Customer relationships	\$ 77	18
Developed technology	60	17
Trade names and trademarks	11	10
Total identifiable intangible assets	<u>\$ 148</u>	17
Intangible liabilities:		
Above-market supply contracts	<u>\$ (71)</u>	12

Intangible assets are classified as *Other non-current assets* on the Statements of Consolidated Financial Position. Intangible liabilities are classified as *Other non-current liabilities* on the Statements of Consolidated Financial Position.

The above-market supply contracts relate to the long-term coke and energy supply agreements with SunCoke Energy, which includes SunCoke Middletown, a consolidated VIE. Refer to NOTE 18 - VARIABLE INTEREST ENTITIES for further information.

PRO FORMA RESULTS

2020 ACQUISITIONS

The following table provides unaudited pro forma financial information, prepared in accordance with Topic 805, as if ArcelorMittal USA and AK Steel had been acquired as of January 1, 2019:

(In millions)	Year Ended December 31, 2020	
Revenues	\$	12,837
Net loss attributable to Cliffs shareholders		(520)

The unaudited pro forma financial information has been calculated after applying our accounting policies and adjusting the historical results with pro forma adjustments, net of tax, that assume the 2020 Acquisitions occurred on January 1, 2019. Significant pro forma adjustments include the following:

- The elimination of intercompany revenues between Cliffs and ArcelorMittal USA and AK Steel of \$44 million for the year ended December 31, 2020.
- The 2020 pro forma net loss was adjusted to exclude \$6 million of non-recurring inventory acquisition accounting adjustments incurred during the year ended December 31, 2020.
- The elimination of non-recurring transaction costs incurred by Cliffs, AK Steel and ArcelorMittal USA in connection with the 2020 Acquisitions were \$93 million for the year ended December 31, 2020.
- The 2020 pro forma net loss was adjusted to exclude restructuring costs of \$1,820 million of non-recurring costs incurred by ArcelorMittal USA prior to the AM USA Transaction.
- The 2020 pro forma net loss was adjusted to exclude \$140 million for the year ended December 31, 2020, for the impact of reversal of the fees charged for management, financial and legal services under the Industrial Franchise Agreement with the former parent.
- Total other pro forma adjustments included reduced expenses of \$32 million for the year ended December 31, 2020, primarily due to decreased depreciation expense and pension and OPEB expense, offset partially by increased interest and amortization expense.
- The income tax impact of pro forma transaction adjustments that affect *Net income (loss) attributable to Cliffs shareholders* at a statutory rate of 24.3% resulted in an increased benefit to *Income tax benefit (expense)* of \$170 million for the year ended December 31, 2020.

FPT ACQUISITION

The following table provides unaudited pro forma financial information, prepared in accordance with Topic 805, as if FPT had been acquired as of January 1, 2020:

(In millions)	Year Ended December 31,		
	2021		2020
Revenues	\$	21,701	\$ 13,549
Net income (loss) attributable to Cliffs shareholders		3,074	(526)

The unaudited pro forma financial information has been calculated after applying our accounting policies and adjusting the historical results with pro forma adjustments, net of tax, that assume the FPT Acquisition occurred on January 1, 2020. There were no significant pro forma adjustments for the FPT Acquisition.

The unaudited pro forma financial information does not reflect the potential realization of synergies or cost savings, nor does it reflect other costs relating to the integration of the acquired companies. This unaudited pro forma financial information should not be considered indicative of the results that would have actually occurred if the 2020 Acquisitions had been consummated on January 1, 2019, or if the FPT Acquisition had been consummated on January 1, 2020, nor are they indicative of future results.

NOTE 4 - REVENUES

We generate our revenue through product sales, in which shipping terms indicate when we have fulfilled our performance obligations and transferred control of products to our customer. Our revenue transactions consist of a single performance obligation to transfer promised goods. Our contracts with customers define the mechanism for determining the sales price, which is generally fixed upon transfer of control, but the contracts generally do not impose a specific quantity on either party. Quantities to be delivered to the customer are determined at a point near the date of delivery through purchase orders or other written instructions we receive from the customer. Spot market sales are made through purchase orders or other written instructions. We consider our performance obligation to be complete and recognize revenue when control transfers in accordance with shipping terms.

Revenue is measured as the amount of consideration we expect to receive in exchange for transferring product. We reduce the amount of revenue recognized for estimated returns and other customer credits, such as discounts and volume rebates, based on the expected value to be realized. Payment terms are consistent with terms standard to the markets we serve. Sales taxes collected from customers are excluded from revenues.

The following table represents our *Revenues* by market:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Steelmaking:			
Direct automotive	\$ 6,661	\$ 4,726	\$ 2,062
Infrastructure and manufacturing	5,869	5,380	784
Distributors and converters	6,388	7,671	696
Steel producers	3,465	2,124	1,423
Total Steelmaking	22,383	19,901	4,965
Other Businesses:			
Direct automotive	478	426	329
Infrastructure and manufacturing	52	47	34
Distributors and converters	76	70	26
Total Other Businesses	606	543	389
Total revenues	\$ 22,989	\$ 20,444	\$ 5,354

The following table represents our *Revenues* by product line:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Steelmaking:			
Hot-rolled steel	\$ 4,529	\$ 5,615	\$ 386
Cold-rolled steel	3,193	3,186	490
Coated steel	6,905	5,864	1,747
Stainless and electrical steel	2,284	1,622	868
Plate	1,651	1,316	46
Slab and other steel products	1,492	1,247	46
Other	2,329	1,051	1,382
Total steelmaking	22,383	19,901	4,965
Other Businesses:			
Other	606	543	389
Total revenues	\$ 22,989	\$ 20,444	\$ 5,354

NOTE 5 - SEGMENT REPORTING

We are vertically integrated from mined raw materials and direct reduced iron and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. We are organized into four operating segments based on our differentiated products - Steelmaking, Tubular, Tooling and Stamping, and European Operations. We have one reportable segment - Steelmaking. The operating segment results of our Tubular, Tooling and Stamping, and European Operations that do not constitute reportable segments are combined and disclosed in the Other Businesses category. Our Steelmaking segment operates as the largest flat-rolled steel producer supported by being the largest iron ore pellet producer as well as a leading prime scrap processor in North America, primarily serving the automotive, infrastructure and manufacturing, and distributors and converters markets. Our Other Businesses primarily include the operating segments that provide customer solutions with carbon and stainless steel tubing products, advanced-engineered solutions, tool design and build, hot- and cold-stamped steel components, and complex assemblies. All intersegment transactions were eliminated in consolidation.

We evaluate performance on an operating segment basis, as well as a consolidated basis, based on Adjusted EBITDA, which is a non-GAAP measure. This measure is used by management, investors, lenders and other external users of our financial statements to assess our operating performance and to compare operating performance to other companies in the steel industry. In addition, management believes Adjusted EBITDA is a useful measure to assess the earnings power of the business without the impact of capital structure and can be used to assess our ability to service debt and fund future capital expenditures in the business.

Our results by segment are as follows:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Revenues:			
Steelmaking	\$ 22,383	\$ 19,901	\$ 4,965
Other Businesses	606	543	389
Total revenues	<u>\$ 22,989</u>	<u>\$ 20,444</u>	<u>\$ 5,354</u>
Adjusted EBITDA:			
Steelmaking	\$ 3,089	\$ 5,280	\$ 316
Other Businesses	69	9	47
Eliminations ¹	11	(12)	(10)
Total Adjusted EBITDA	<u>\$ 3,169</u>	<u>\$ 5,277</u>	<u>\$ 353</u>

¹ In 2022, we began allocating Corporate *Selling, general and administrative expenses* to our operating segments. Prior periods have been adjusted to reflect this change. The Eliminations line now only includes sales between segments.

The following table provides a reconciliation of our consolidated *Net income (loss)* to total Adjusted EBITDA:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Net income (loss)	\$ 1,376	\$ 3,033	\$ (81)
Less:			
Interest expense, net	(276)	(337)	(238)
Income tax benefit (expense)	(423)	(773)	111
Depreciation, depletion and amortization	(1,034)	(897)	(308)
	<u>3,109</u>	<u>5,040</u>	<u>354</u>
Less:			
EBITDA from noncontrolling interests ¹	74	75	56
Gain (loss) on extinguishment of debt	(75)	(88)	130
Acquisition-related expenses and adjustments	(1)	(197)	(148)
Asset impairment	(29)	—	—
Other, net	(29)	(27)	(37)
Total Adjusted EBITDA	<u>\$ 3,169</u>	<u>\$ 5,277</u>	<u>\$ 353</u>

¹ EBITDA of noncontrolling interests includes the following:

Net income attributable to noncontrolling interests	\$ 41	\$ 45	\$ 41
Depreciation, depletion and amortization	33	30	15
EBITDA of noncontrolling interests	<u>\$ 74</u>	<u>\$ 75</u>	<u>\$ 56</u>

The following table summarizes our depreciation, depletion and amortization and capital additions by segment:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Depreciation, depletion and amortization:			
Steelmaking	\$ (994)	\$ (860)	\$ (281)
Other Businesses	(40)	(37)	(27)
Total depreciation, depletion and amortization	<u>\$ (1,034)</u>	<u>\$ (897)</u>	<u>\$ (308)</u>
Capital additions ¹ :			
Steelmaking	\$ 997	\$ 787	\$ 436
Other Businesses	30	52	45
Corporate	6	18	2
Total capital additions	<u>\$ 1,033</u>	<u>\$ 857</u>	<u>\$ 483</u>

¹ Refer to NOTE 2 - SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION for additional information.

The following summarizes our assets by segment:

(In millions)	December 31,	
	2022	2021
Assets:		
Steelmaking	\$ 18,070	\$ 18,326
Other Businesses	315	306
Total segment assets	<u>18,385</u>	<u>18,632</u>
Corporate/Eliminations	370	343
Total assets	<u>\$ 18,755</u>	<u>\$ 18,975</u>

Included in the consolidated financial statements are the following amounts relating to geographic location based on product destination:

(In millions)	2022	2021	2020
Revenues:			
United States	\$ 20,991	\$ 18,881	\$ 4,580
Canada	963	803	602
Other countries	1,035	760	172
Total revenues	<u>\$ 22,989</u>	<u>\$ 20,444</u>	<u>\$ 5,354</u>
Property, plant and equipment, net:			
United States	\$ 8,981	\$ 9,092	\$ 8,647
Canada	88	93	91
Other countries	1	1	5
Total property, plant and equipment, net	<u>\$ 9,070</u>	<u>\$ 9,186</u>	<u>\$ 8,743</u>

NOTE 6 - PROPERTY, PLANT AND EQUIPMENT

The following table indicates the carrying value of each of the major classes of our depreciable assets:

(In millions)	December 31,	
	2022	2021
Land, land improvements and mineral rights	\$ 1,388	\$ 1,291
Buildings	921	889
Equipment	9,289	8,709
Other	238	229
Construction in progress	552	408
Total property, plant and equipment ¹	12,388	11,526
Allowance for depreciation and depletion	(3,318)	(2,340)
Property, plant and equipment, net	<u>\$ 9,070</u>	<u>\$ 9,186</u>

¹ Includes right-of-use assets related to finance leases of \$408 million and \$411 million as of December 31, 2022 and 2021, respectively.

We recorded depreciation expense of \$988 million, \$848 million and \$298 million for the years ended December 31, 2022, 2021 and 2020, respectively. Depreciation expense for the year ended December 31, 2022 includes \$23 million of accelerated depreciation related to the decision to indefinitely idle the coke facility at Middletown Works and \$68 million of accelerated depreciation related to the indefinite idle of the Indiana Harbor #4 blast furnace.

During the year ended December 31, 2022, we announced the permanent closure of Mountain State Carbon, which resulted in a \$9 million asset impairment charge.

The net book value of the mineral and land rights are as follows:

(In millions)	December 31,	
	2022	2021
Mineral rights:		
Cost	\$ 780	\$ 780
Depletion	(225)	(187)
Net mineral rights	<u>\$ 555</u>	<u>\$ 593</u>
Land rights	<u>\$ 434</u>	<u>\$ 406</u>

We recorded depletion expense of \$38 million, \$46 million and \$8 million for the years ended December 31, 2022, 2021, and 2020, respectively.

NOTE 7 - GOODWILL AND INTANGIBLE ASSETS AND LIABILITIES

GOODWILL

The following is a summary of *Goodwill* by segment:

(In millions)	December 31,	
	2022	2021
Steelmaking	\$ 956	\$ 942
Other Businesses	174	174
Total goodwill	\$ 1,130	\$ 1,116

The increase of \$14 million in the balance of *Goodwill* in our Steelmaking segment as of December 31, 2022, compared to December 31, 2021, is due to the change in estimated identified goodwill as a result of measurement period adjustments to the purchase price allocation for the acquisition of FPT. Refer to NOTE 3 - ACQUISITIONS for further details.

INTANGIBLE ASSETS AND LIABILITIES

The following is a summary of our intangible assets and liabilities:

(In millions)	December 31, 2022			December 31, 2021		
	Gross Amount	Accumulated Amortization	Net Amount	Gross Amount	Accumulated Amortization	Net Amount
Intangible assets ¹ :						
Customer relationships	\$ 90	\$ (13)	\$ 77	\$ 95	\$ (8)	\$ 87
Developed technology	60	(10)	50	60	(6)	54
Trade names and trademarks	18	(4)	14	18	(2)	16
Mining permits	72	(27)	45	72	(26)	46
Supplier relationships	29	(1)	28	18	—	18
Total intangible assets	\$ 269	\$ (55)	\$ 214	\$ 263	\$ (42)	\$ 221
Intangible liabilities ² :						
Above-market supply contracts	\$ (71)	\$ 19	\$ (52)	\$ (71)	\$ 14	\$ (57)

¹ Intangible assets are classified as *Other non-current assets*. Amortization related to mining permits is recognized in *Cost of goods sold*. Amortization of all other intangible assets is recognized in *Selling, general and administrative expenses*.

² Intangible liabilities are classified as *Other non-current liabilities*. Amortization of all intangible liabilities is recognized in *Cost of goods sold*.

Amortization expense related to intangible assets was \$13 million and \$10 million for the years ended December 31, 2022 and 2021, respectively. Estimated future amortization expense related to intangible assets is \$13 million annually for the years 2023 through 2027.

Income from amortization related to intangible liabilities was \$5 million and \$7 million for the years ended December 31, 2022 and 2021, respectively. Estimated future amortization income related to the intangible liabilities is \$5 million annually for the years 2023 through 2027.

NOTE 8 - DEBT AND CREDIT FACILITIES

The following represents a summary of our long-term debt:

(In Millions)				
Debt Instrument	Issuer ¹	Annual Effective Interest Rate	December 31, 2022	December 31, 2021
Senior Secured Notes:				
9.875% 2025 Senior Secured Notes	Cliffs	10.57%	\$ —	\$ 607
6.750% 2026 Senior Secured Notes	Cliffs	6.99%	829	845
Senior Unsecured Notes:				
1.500% 2025 Convertible Senior Notes	Cliffs	6.26%	—	294
7.000% 2027 Senior Notes	Cliffs	9.24%	73	73
7.000% 2027 AK Senior Notes	AK Steel	9.24%	56	56
5.875% 2027 Senior Notes	Cliffs	6.49%	556	556
4.625% 2029 Senior Notes	Cliffs	4.63%	368	500
4.875% 2031 Senior Notes	Cliffs	4.88%	325	500
6.250% 2040 Senior Notes	Cliffs	6.34%	235	263
IRBs	AK Steel	Various	—	66
ABL Facility ³	Cliffs ²	Variable ³	1,864	1,609
Total debt			4,306	5,369
Unamortized discounts and issuance costs			(57)	(131)
Total long-term debt			<u>\$ 4,249</u>	<u>\$ 5,238</u>

¹ Unless otherwise noted, references in this column and throughout this NOTE 8 - DEBT AND CREDIT FACILITIES to "Cliffs" are to Cleveland-Cliffs Inc., and references to "AK Steel" are to AK Steel Corporation (n/k/a Cleveland-Cliffs Steel Corporation).

² Refers to Cleveland-Cliffs Inc. as borrower under our ABL Facility.

³ Our ABL Facility annual effective interest rate was 5.60% and 1.87%, respectively, as of December 31, 2022 and December 31, 2021.

OUTSTANDING SENIOR SECURED NOTES

The 6.750% 2026 Senior Secured Notes bear interest at a rate of 6.750% per annum, payable semi-annually in arrears on March 15 and September 15 of each year. The 6.750% 2026 Senior Secured Notes will mature on March 15, 2026.

The 6.750% 2026 Senior Secured Notes are jointly and severally and fully and unconditionally guaranteed on a senior secured basis by substantially all of our material domestic subsidiaries and are secured (subject in each case to certain exceptions and permitted liens) by (i) a first-priority lien, on substantially all of our assets and the assets of the guarantors, other than the ABL Collateral (as defined below), and (ii) a second-priority lien on the ABL Collateral, which is junior to a first-priority lien for the benefit of the lenders under our ABL Facility.

We may redeem the 6.750% 2026 Senior Secured Notes in whole or in part, at any time at our option upon not less than 30, and not more than 60, days' prior notice sent to the holders of the 6.750% 2026 Senior Secured Notes. The 6.750% 2026 Senior Secured Notes became redeemable on March 15, 2022 at a redemption price equal to 105.063% of the principal amount thereof, and decrease to 103.375% on March 15, 2023, 101.688% on March 15, 2024 and are redeemable at par beginning on March 15, 2025. In each case, we pay the redemption premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

In addition, if a change in control triggering event, as defined in the indenture, occurs with respect to the 6.750% 2026 Senior Secured Notes, we will be required to offer to purchase the notes at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to, but not including, the date of purchase.

The terms of the 6.750% 2026 Senior Secured Notes contain certain customary covenants; however, there are no financial covenants.

OUTSTANDING SENIOR UNSECURED NOTES**CLEVELAND-CLIFFS INC. UNSECURED SENIOR NOTES**

The following represents a summary of our other unsecured senior notes' maturity and interest payable due dates:

Debt Instrument	Maturity	Interest Payable (until maturity)
7.000% 2027 Senior Notes	March 15, 2027	March 15 and September 15
5.875% 2027 Senior Notes	June 1, 2027	June 1 and December 1
4.625% 2029 Senior Notes	March 1, 2029	March 1 and September 1
4.875% 2031 Senior Notes	March 1, 2031	March 1 and September 1
6.250% 2040 Senior Notes	October 1, 2040	April 1 and October 1

The senior notes are unsecured obligations and rank equally in right of payment with all our other existing and future unsecured and unsubordinated indebtedness. The 7.000% 2027 Senior Notes, 5.875% 2027 Senior Notes, 4.625% 2029 Senior Notes and 4.875% 2031 Senior Notes are guaranteed on a senior unsecured basis by our material direct and indirect wholly owned domestic subsidiaries and, therefore, are structurally senior to any of our existing and future indebtedness that is not guaranteed by such guarantors and are structurally subordinated to all existing and future indebtedness and other liabilities of our subsidiaries that do not guarantee the notes. There are no subsidiary guarantees of the interest and principal amounts for the 6.250% 2040 Senior Notes.

The 7.000% 2027 Senior Notes may be redeemed, in whole or in part, at any time at our option upon not less than 30, and not more than 60 days' prior notice sent to the holders. The 7.000% 2027 Senior Notes became redeemable on March 15, 2022 at a redemption price equal to 103.500% of the principal amount thereof, and decrease to 102.333% on March 15, 2023, 101.167% on March 15, 2024 and are redeemable at par beginning on March 15, 2025. In each case, we pay the redemption premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

The 5.875% 2027 Senior Notes became redeemable on June 1, 2022 at a redemption price equal to 102.938% of the principal amount thereof, and decrease to 101.958% on June 1, 2023, 100.979% on June 1, 2024 and are redeemable at par beginning on June 1, 2025. In each case, we pay the redemption premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

The 4.625% 2029 Senior Notes may be redeemed, in whole or in part, on not less than 10, nor more than 60, days' prior notice sent to the holders of the notes. The 4.625% 2029 Senior Notes are redeemable prior to March 1, 2024, at a redemption price equal to 100% of the principal amount thereof plus a "make-whole" premium set forth in the indenture. We may also redeem up to 35% of the aggregate principal amount of the 4.625% 2029 Senior Notes prior to March 1, 2024 at a redemption price equal to 104.625% of the principal amount thereof with the net cash proceeds of one or more equity offerings. The 4.625% 2029 Senior Notes are redeemable beginning on March 1, 2024, at a redemption price equal to 102.313% of the principal amount thereof, decreasing to 101.156% on March 1, 2025 and are redeemable at par beginning on March 1, 2026. In each case, we pay the redemption and "make-whole" premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

The 4.875% 2031 Senior Notes may be redeemed, in whole or in part, on not less than 10, nor more than 60, days' prior notice sent to the holders of the notes. The 4.875% 2031 Senior Notes are redeemable prior to March 1, 2026, at a redemption price equal to 100% of the principal amount thereof plus a "make-whole" premium set forth in the indenture. We may also redeem up to 35% of the aggregate principal amount of the 4.875% 2031 Senior Notes prior to March 1, 2026 at a redemption price equal to 104.875% of the principal amount thereof with the net cash proceeds of one or more equity offerings. The 4.875% 2031 Senior Notes are redeemable beginning on March 1, 2026, at a redemption price equal to 102.438% of the principal amount thereof, decreasing to 101.625% on March 1, 2027, 100.813% on March 1, 2028 and are redeemable at par beginning on March 1, 2029. In each case, we pay the redemption and "make-whole" premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

The 6.250% 2040 Senior Notes may be redeemed any time at our option upon not less than 30, nor more than 60, days' prior notice is sent to the holders. The 6.250% 2040 Senior Notes are redeemable at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed or (2) the sum of the present values of the remaining scheduled payments of principal and interest on the notes to be redeemed, discounted to the redemption date on a semi-annual basis at the treasury rate plus 40 basis points, plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

In addition, if a change of control triggering event, as defined in the applicable indenture, occurs with respect to the unsecured notes, we will be required to offer to purchase the notes of the applicable series at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest, if any, to, but not including, the date of purchase.

The terms of the unsecured notes contain certain customary covenants; however, there are no financial covenants.

AK STEEL CORPORATION UNSECURED SENIOR NOTES

As of December 31, 2022, AK Steel had outstanding a total of \$56 million aggregate principal amount of 7.000% 2027 AK Senior Notes. These senior notes are unsecured obligations and rank equally in right of payment with AK Steel's guarantees of Cliffs' unsecured and unsubordinated indebtedness. These notes contain no financial covenants.

The 7.000% 2027 AK Senior Notes may be redeemed, in whole or in part, at any time at our option upon not less than 30, and not more than 60, days' prior notice sent to the holders. The 7.000% 2027 AK Senior Notes became redeemable on March 15, 2022 at a redemption price equal to 103.500% of the principal amount thereof, and decrease to 102.333% on March 15, 2023, 101.167% on March 15, 2024 and are redeemable at par beginning on March 15, 2025. In each case, we pay the redemption premiums plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

ABL FACILITY

We have an ABL Facility which provides for up to \$4.5 billion in borrowings, including a \$555 million sublimit for the issuance of letters of credit and a \$200 million sublimit for swingline loans. The ABL Facility will mature upon the earlier of March 13, 2025 or 91 days prior to the maturity of certain other material debt. Availability under the ABL Facility is limited to an eligible borrowing base, as applicable, determined by applying customary advance rates to eligible accounts receivable, inventory and certain mobile equipment.

The ABL Facility and certain bank products and hedge obligations are guaranteed by certain of our existing wholly owned U.S. subsidiaries and are required to be guaranteed by certain of our future U.S. subsidiaries. Amounts outstanding under the ABL Facility are secured by (i) a first-priority security interest in the accounts receivable and other rights to payment, inventory, as-extracted collateral, certain investment property, deposit accounts, securities accounts, certain general intangibles and commercial tort claims, certain mobile equipment, commodities accounts and other related assets of ours, the other borrowers and the guarantors, and proceeds and products of each of the foregoing (collectively, the "ABL Collateral") and (ii) a second-priority security interest in substantially all of our assets and the assets of the other borrowers and the guarantors other than the ABL Collateral.

Borrowings under the ABL Facility bear interest, at our option, at a base rate or, if certain conditions are met, a LIBOR rate, in each case, plus an applicable margin. We may amend our ABL Facility to replace the LIBOR rate with one or more secured overnight financing based rates or an alternative benchmark rate, giving consideration to any evolving or then-existing convention for similar dollar denominated syndicated credit facilities for such alternative benchmarks. If we do not amend or replace the ABL Facility, the ABL Facility provides a mechanism to automatically transition to a SOFR-based benchmark when all U.S. dollar LIBOR settings are no longer provided or are no longer representative.

The ABL Facility contains customary representations and warranties and affirmative and negative covenants including, among others, covenants regarding the maintenance of certain financial ratios if certain conditions are triggered, covenants relating to financial reporting, covenants relating to the payment of dividends on, or purchase or redemption of, our capital stock, covenants relating to the incurrence or prepayment of certain debt, covenants relating to the incurrence of liens or encumbrances, covenants relating to compliance with laws, covenants relating to transactions with affiliates, covenants relating to mergers and sales of all or substantially all of our assets and limitations on changes in the nature of our business. As of December 31, 2022 and 2021, we were in compliance with the ABL Facility liquidity requirements and, therefore, the springing financial covenant requiring a minimum fixed charge coverage ratio of 1.0 to 1.0 was not applicable.

The ABL Facility provides for customary events of default, including, among other things, the event of nonpayment of principal, interest, fees or other amounts, a representation or warranty proving to have been materially incorrect when made, failure to perform or observe certain covenants within a specified period of time, a cross-default to certain material indebtedness, the bankruptcy or insolvency of the Company and certain of its subsidiaries, monetary judgment defaults of a specified amount, invalidity of any loan documentation, a change of control of the Company, and ERISA defaults resulting in liability of a specified amount. If an event of default exists (beyond any applicable grace or cure period), the administrative agent may, and at the direction of the requisite number of lenders shall, declare all amounts owing under the ABL Facility immediately due and payable, terminate such lenders' commitments to make loans under the ABL Facility and/or exercise any and all remedies and other rights under the ABL Facility. For certain events of default related to insolvency and receivership, the commitments of the lenders will be automatically terminated and all outstanding loans and other amounts will become immediately due and payable.

The following represents a summary of our borrowing capacity under the ABL Facility:

(In millions)	December 31, 2022
Available borrowing base on ABL Facility ¹	\$ 4,500
Borrowings	(1,864)
Letter of credit obligations ²	(150)
Borrowing capacity available	\$ 2,486

¹ As of December 31, 2022, the ABL Facility has a maximum available borrowing base of \$4.5 billion. The borrowing base is determined by applying customary advance rates to eligible accounts receivable, inventory and certain mobile equipment.

² We issued standby letters of credit with certain financial institutions in order to support business obligations including, but not limited to, workers' compensation, employee severance, insurance, operating agreements and environmental obligations.

DEBT EXTINGUISHMENTS - 2022

On January 18, 2022, we redeemed all of our outstanding 1.500% 2025 Convertible Senior Notes through a combination settlement, with the aggregate principal amount of \$294 million paid in cash, and 24 million common shares, with a fair value of \$499 million, delivered to noteholders in settlement of the premium due per the terms of the indenture, plus cash in respect of the accrued and unpaid interest on the 1.500% 2025 Convertible Senior Notes to, but not including, the redemption date per the terms of the indenture.

During the year ended December 31, 2022, we redeemed all \$607 million remaining aggregate principal amount outstanding of our 9.875% 2025 Senior Secured Notes and all \$66 million aggregate principal amount outstanding of the IRBs with available liquidity.

Additionally, during the year ended December 31, 2022, we repurchased \$351 million in aggregate principal amount of our outstanding senior notes of various tranches with available liquidity at an average price of 92% of par.

The following is a summary of the debt extinguished and the respective impact on extinguishment:

(In millions)	Year Ended December 31, 2022	
	Debt Extinguished	Gain (Loss) on Extinguishment
9.875% 2025 Senior Secured Notes	\$ 607	\$ (85)
6.750% 2026 Senior Secured Notes	16	(1)
1.500% 2025 Convertible Senior Notes	294	(16)
4.625% 2029 Senior Notes	132	9
4.875% 2024 Senior Secured Notes	175	13
6.250% 2040 Senior Notes	28	3
IRBs	66	2
Total	\$ 1,318	\$ (75)

DEBT MATURITIES

The following represents a summary of our debt instrument maturities based on the principal amounts outstanding at December 31, 2022 (in millions):

2023	2024	2025	2026	2027	Thereafter	Total
\$ —	\$ —	\$ 1,864	\$ 829	\$ 685	\$ 928	\$ 4,306

NOTE 9 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS

We offer defined benefit pension plans, defined contribution pension plans and OPEB plans to a significant portion of our employees and retirees. Benefits are also provided through multiemployer plans for certain union members.

DEFINED BENEFIT PENSION PLANS

The defined benefit pension plans are largely noncontributory and limited in participation. Most plans are closed to new participants with only the legacy iron ore hourly and salaried plans still open. The pension benefit calculations vary by plan but are generally based on employees' years of service and compensation or a fixed rate and years of service. Certain salaried plans calculate benefits using a cash balance formula, which earns interest credits and allocations based on a percent of pay.

OPEB PLANS

We offer postretirement health care and life insurance benefits to retirees through various funded and unfunded plans. The vast majority of our plans are closed to new participants. In lieu of retiree medical coverage, many union-represented employees receive a 401(k) contribution per hour worked to a restricted Retiree Health Care Account. Cost sharing features between the employer and retiree vary by plan and several plans include employer caps. Retiree healthcare coverage is provided through programs administered by insurance companies whose charges are based on benefits paid. Certain labor agreements require the funding of VEBAs, which, depending on funding levels, may be used to reimburse the employer for paid benefits.

USW LABOR AGREEMENTS

On September 30, 2022, a new 47-month labor agreement with the USW was ratified. The contract became effective on October 1, 2022, and covers approximately 2,000 USW-represented employees at our United Taconite, Hibbing Taconite, Tilden and Empire mines. For the affected defined benefit pension plans, we agreed to increase the pre-2023 service multiplier to \$115 and the service multiplier applicable to service beginning in 2023 to \$126 for retirements after January 1, 2023. For the affected OPEB plans, we introduced a new Medicare Advantage plan to the Medicare-eligible retirees. Effective January 1, 2023, all Medicare-eligible retirees covered under this agreement will switch to this plan. The Medicare Advantage plan will offer similar benefits to the previous healthcare plan but will have significantly lower premiums due to increased government subsidies and our successful use of scale to negotiate better healthcare rates with our vendors.

On October 12, 2022, a new 4-year labor agreement with the USW, covering 12,000 USW-represented employees at 13 operating locations, was ratified. For the affected defined benefit pension plans, we agreed to increase the pre-2023 service multiplier to \$115 and the service multiplier applicable to service beginning in 2023 to \$126 for retirements after January 1, 2023. For the affected OPEB plans, we implemented a cap on healthcare costs for employees retiring after January 1, 2026. Separate from the labor agreements, we negotiated favorable Medicare Advantage Prescription Drug healthcare rates, which will go into effect January 1, 2023. Additionally, we paused the contribution requirement to the Cleveland-Cliffs Steel LLC VEBA based on earnings for the remainder of the labor agreement with the USW, which expires in September of 2026.

Additionally, we increased our contribution rate to the Steelworkers Pension Trust by \$0.50 to \$4.00 per eligible hour with both agreements. The increase was effective November 1, 2022.

These labor agreements triggered interim remeasurements on their ratification dates. All affected plans were remeasured again at December 31, 2022.

OBLIGATIONS AND FUNDED STATUS

The following tables and information provide additional disclosures:

(In millions)

	Pension Benefits		OPEB	
	2022	2021	2022	2021
Change in benefit obligations:				
Benefit obligations — beginning of year	\$ 6,036	\$ 6,565	\$ 3,254	\$ 3,757
Service cost	45	56	35	51
Interest cost	144	103	72	74
Plan amendments	122	—	(163)	8
Actuarial gain	(1,236)	(131)	(1,781)	(456)
Benefits paid	(431)	(456)	(232)	(227)
Participant contributions	—	—	47	47
Effect of settlement	(34)	(101)	—	—
Other	—	—	1	—
Benefit obligations — end of year	\$ 4,646	\$ 6,036	\$ 1,233	\$ 3,254
Change in plan assets:				
Fair value of plan assets — beginning of year	\$ 5,606	\$ 5,332	\$ 812	\$ 783
Actual return on plan assets	(809)	668	(97)	29
Participant contributions	—	—	47	47
Employer contributions	6	163	198	180
Benefits paid	(431)	(456)	(232)	(227)
Effect of settlement	(34)	(101)	—	—
Fair value of plan assets — end of year	\$ 4,338	\$ 5,606	\$ 728	\$ 812
Funded status	\$ (308)	\$ (430)	\$ (505)	\$ (2,442)

Amounts recognized in Statements of Financial Position:

Non-current assets	\$ 195	\$ 153	\$ 161	\$ 71
Current liabilities	(30)	(5)	(81)	(130)
Non-current liabilities	(473)	(578)	(585)	(2,383)
Total amount recognized	\$ (308)	\$ (430)	\$ (505)	\$ (2,442)

Amounts recognized in accumulated other comprehensive loss (income):

Net actuarial gain	\$ (361)	\$ (286)	\$ (1,996)	\$ (392)
Prior service cost (credit)	121	5	(156)	4
Net amount recognized	\$ (240)	\$ (281)	\$ (2,152)	\$ (388)

The accumulated benefit obligation for all defined benefit pension plans was \$4,628 million and \$6,013 million at December 31, 2022 and 2021, respectively.

COMPONENTS OF NET PERIODIC BENEFIT COST (CREDIT)

(In millions)	Pension Benefits			OPEB		
	2022	2021	2020	2022	2021	2020
Service cost	\$ 45	\$ 56	\$ 23	\$ 35	\$ 51	\$ 8
Interest cost	144	103	64	72	74	19
Expected return on plan assets	(355)	(359)	(140)	(37)	(40)	(20)
Amortization:						
Net actuarial loss (gain)	13	32	27	(43)	3	3
Prior service costs (credits)	5	1	1	(3)	(2)	(2)
Settlements	(8)	(22)	(6)	—	—	—
Net periodic benefit cost (credit)	\$ (156)	\$ (189)	\$ (31)	\$ 24	\$ 86	\$ 8

For 2023, we estimate net periodic benefit cost (credit) as follows:

(In millions)	
Defined benefit pension plans	\$ (29)
OPEB plans	(130)
Total	\$ (159)

COMPONENTS OF OTHER COMPREHENSIVE LOSS (INCOME)

The following includes details on the significant actuarial losses (gains) impacting the benefit obligation and other components of other comprehensive loss (income):

(In millions)	Pension Benefits		OPEB	
	2022	2021	2022	2021
Discount rates	\$ (1,143)	\$ (224)	\$ (441)	\$ (117)
Demographic updates	(102)	76	(7)	3
Mortality	17	19	—	13
Per capita healthcare costs ¹	—	—	(1,328)	(350)
Other	(8)	(2)	(5)	(5)
Actuarial gain on benefit obligation	(1,236)	(131)	(1,781)	(456)
Actual returns on assets under (over) expected	1,165	(309)	134	11
Amortization of net actuarial gain (loss)	(13)	(32)	43	(3)
Amortization of prior service credits (costs)	(5)	(1)	3	2
Settlements	8	22	—	—
Plan amendments ²	122	—	(163)	8
Total recognized in other comprehensive loss (income)	\$ 41	\$ (451)	\$ (1,764)	\$ (438)

¹ The gain in per capita healthcare costs in 2022 relating to our OPEB plans is primarily due to the negotiation of favorable Medicare Advantage Prescription Drug healthcare rates, which will go into effect January 1, 2023. Additionally, we expanded the Medicare Advantage program to retirees on some of our other plans which added additional savings. The negotiated rates extend through 2025.

² The plan amendment loss related to our pension plans is attributable to the increase to the pre-2023 service multiplier to \$115 and the service multiplier applicable to service beginning in 2023 to \$126 for retirements after January 1, 2023. The plan amendment gain related to our OPEB plans is attributable to the implementation of a cap on healthcare costs for employees retiring after January 1, 2026 on one of our Cleveland-Cliffs Steel LLC plans as well as the extension of the Medicare Advantage offering to plans that previously didn't have the program.

CONTRIBUTIONS

We make both required and discretionary pension contributions. Required contributions are based on minimum funding requirements pursuant to ERISA regulations. Funded OPEB plans are not subject to minimum regulatory funding requirements, but rather amounts are contributed pursuant to bargaining agreements. Contributions toward unfunded OPEB plans are payments made directly from corporate assets. Company contributions and payments we expect to make in 2023, and made in 2022 and 2021 are as follows:

(In millions)	Pension Benefits ¹	OPEB		
		VEBA ²	Direct Payments	Total
2021	\$ 163	\$ 67	\$ 113	\$ 180
2022	6	85	113	198
2023 (Expected)	32	—	73	73

¹ The 2021 pension contributions include \$118 million in deferred 2020 pension contributions in connection with the CARES Act that were paid on January 4, 2021.

² Pursuant to the applicable bargaining agreements, benefits can be paid from certain VEBAs that are at least 70% funded (all VEBAs were over 70% funded at December 31, 2022). Certain agreements with plans holding VEBA assets have capped healthcare costs. For the Cleveland-Cliffs Steel LLC VEBA, we are required to make contributions based on earnings, and we may withdraw money from the VEBA plan to the extent funds are available for costs in excess of the cap. VEBA withdrawals are represented net of direct payments. There will be no further contributions to the Cleveland-Cliffs Steel LLC VEBA based on earnings for the remainder of labor agreement with the USW which expires September of 2026.

ESTIMATED FUTURE BENEFIT PAYMENTS

(In millions)	Pension Benefits	OPEB ¹
2023	\$ 502	\$ 115
2024	450	110
2025	428	103
2026	421	99
2027	410	96
2028-2032	1,826	451

¹ OPEB benefit payments are displayed net of participant contributions.

ASSUMPTIONS

The discount rates used to measure plan liabilities as of the December 31 measurement date are determined individually for each plan. The discount rates are determined by matching the projected cash flows used to determine the plan liabilities to a projected yield curve of high-quality corporate bonds available at the measurement date. Discount rates for expense are calculated using the granular approach for each plan.

Depending on the plan, we use either company-specific base mortality tables or tables issued by the Society of Actuaries. For tables issued by the Society of Actuaries, we use Pri-2012 mortality tables with adjustments for blue collar, white collar or no collar depending on the plan. Mortality is projected for all plans using Scale MP-2021 with generational projection for both years.

The following represents weighted-average assumptions used to determine benefit obligations:

	Pension Benefits				OPEB			
	December 31,				December 31,			
	2022		2021		2022		2021	
Discount rate	5.47	%	2.75	%	5.52	%	3.01	%
Interest crediting rate	5.39		5.35		N/A		N/A	
Compensation rate increase	3.00		2.52		3.00		3.00	

The following represents weighted-average assumptions used to determine net benefit cost:

	Pension Benefits			OPEB		
	December 31,			December 31,		
	2022	2021	2020	2022	2021	2020
Obligation discount rate	3.21 %	2.32 %	3.02 %	3.33 %	2.46 %	3.28 %
Service cost discount rate	3.49	2.78	3.34	3.91	3.28	3.35
Interest cost discount rate	2.75	1.64	2.53	3.01	2.04	2.51
Interest crediting rate	5.39	5.35	5.50	N/A	N/A	N/A
Expected return on plan assets	6.87	6.84	7.69	4.86	5.20	6.82
Compensation rate increase	2.74	2.54	2.56	3.00	3.00	3.00

The following represents assumed weighted-average health care cost trend rates:

	December 31,	
	2022	2021
Health care cost trend rate assumed for next year ¹	5.44 %	2.36 %
Ultimate health care cost trend rate	4.50 %	4.50 %
Year that the ultimate rate is reached	2030	2031

¹ The health care trend rate for the next year is weighted for all of our OPEB plans and factors in our Medicare Advantage Prescription Drug pricing arrangements.

PLAN ASSETS

Our investment objectives with respect to our pension and OPEB assets are to maximize investment returns within reasonable and prudent levels of risk and maintain sufficient liquidity to meet benefit obligations over the life of each plan. The asset allocations are tailored to each individual plan and are determined by analyzing each plan's duration of benefit obligations, funded status and risk profile. Our investment strategy utilizes a broad mix of equity, fixed income and alternative investments to generate returns and manage risk. Equity investments are diversified across large-cap, mid-cap and small-cap companies located in the U.S. and worldwide, with a bias towards U.S. companies. Fixed income investments primarily include corporate bonds and government debt securities, which are generally customized based on a plan's obligation duration. To enhance our diversification, we also invest in hedge funds, private equity, structured credit, real estate and absolute return fixed income.

We review investment performance, asset allocations and policy compliance on a quarterly basis. In the fourth quarter of 2022, we increased our fixed income allocation for one of our more mature pension plans, which totaled \$1.2 billion on December 31, 2022. We also transitioned \$2.9 billion of pension and OPEB assets to be managed by an external investment advisor in a delegated manner. Due to the timing of this transition, the 2023 target allocation will not match our actual December 31, 2022 asset mix, as the investment strategy will require us to start reallocating assets in the first quarter of 2023. The anticipated changes in our asset allocation will be reflected in our 2023 expected return on assets.

The expected return on plan assets are calculated on a plan-by-plan basis and take into account each plan's strategic asset allocation. The calculation of rates by asset class are based primarily on our future expected returns and take into consideration the duration of the cash flows, active management and fees.

Assets for OPEB plans include VEBA trusts pursuant to bargaining agreements that are available to fund retired employees' life insurance obligations and medical benefits. The following table reflects the actual asset allocations for pension and VEBA assets as of December 31, 2022 and 2021, as well as the 2023 weighted average target asset allocations:

Asset Category	Pension Assets			VEBA Assets		
	2023 Target Allocation	Actual Asset Allocation at December 31,		2023 Target Allocation	Actual Asset Allocation at December 31,	
		2022	2021		2022	2021
Equity securities	33.3 %	36.1 %	47.6 %	21.9 %	22.0 %	22.5 %
Fixed income	41.6	40.9	34.6	73.7	67.4	66.4
Hedge funds	9.2	2.7	2.2	2.2	1.9	1.8
Private equity	3.3	3.3	2.7	—	—	—
Structured credit	2.6	6.9	5.6	1.1	1.2	1.2
Real estate	10.0	8.2	5.6	1.1	1.7	2.1
Absolute return fixed income	—	1.9	1.7	—	5.8	6.0
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

FAIR VALUE MEASUREMENTS

Investments classified as Level 1 primarily include equity investments and fixed income mutual funds that are based on observable quoted market prices on an active exchange. Fixed income investments classified as Level 2 include U.S. Treasury STRIPS which are priced daily through a bond pricing vendor as well as corporate bonds, mortgage-backed securities and non-US bonds which have valuations based on their bid-ask spreads or quoted prices of securities with similar characteristics.

Hedge funds, private equity, structured credit and real estate investments are classified as Level 3 due to the absence of quoted market prices and inherent lack of liquidity. These investments are generally valued at estimated fair value based on financial inputs from our investment advisors, investment managers or third party appraisers.

Investment commitments are made in private equity funds and capital calls are made over the life of the funds to fund the commitments. As of December 31, 2022, remaining commitments for our private equity investments total \$117 million for our pension and OPEB plans. Committed amounts are funded from plan assets when capital calls are made.

As a practical expedient, in accordance with ASC 820-10, certain investments that are measured at fair value using the NAV per share have not been classified in the fair value hierarchy below. NAV is based on the value of the underlying assets owned by the fund, minus its liabilities, and then divided by its number of shares outstanding.

The fair value of our pension assets by asset category is as follows:

(In millions) Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		Investments Measured at Net Asset Value		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	Equity securities:									
U.S. equities	\$ 564	\$ 1,157	\$ —	\$ —	\$ —	\$ —	\$ 569	\$ 775	\$ 1,133	\$ 1,932
Global equities	328	617	—	—	—	—	106	117	434	734
Fixed income:										
U.S. government securities ¹	87	140	380	310	—	—	63	50	530	500
U.S. corporate bonds	574	502	266	371	—	—	373	503	1,213	1,376
Non U.S. and other bonds	—	—	32	66	—	—	—	—	32	66
Hedge funds	—	—	—	—	115	125	—	—	115	125
Private equity	—	—	—	—	143	151	—	—	143	151
Structured credit	—	—	—	—	298	315	—	—	298	315
Real estate	—	—	—	—	356	313	—	—	356	313
Absolute return fixed income	—	—	—	—	—	—	84	94	84	94
Total	\$ 1,553	\$ 2,416	\$ 678	\$ 747	\$ 912	\$ 904	\$ 1,195	\$ 1,539	\$ 4,338	\$ 5,606

¹ Includes cash equivalents.

The fair value of our VEBA assets by asset category is as follows:

(In millions) Asset Category	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		Investments Measured at Net Asset Value		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Equity securities:										
U.S. equities	\$ 24	\$ 26	\$ —	\$ —	\$ —	\$ —	\$ 89	\$ 103	\$ 113	\$ 129
Global equities	5	6	—	—	—	—	42	48	47	54
Fixed income:										
U.S. government securities ¹	149	111	79	80	—	—	—	—	228	191
U.S. corporate bonds	146	219	117	129	—	—	—	—	263	348
Hedge funds	—	—	—	—	14	15	—	—	14	15
Private equity	—	—	—	—	—	—	—	—	—	—
Structured credit	—	—	—	—	9	10	—	—	9	10
Real estate	—	—	—	—	12	17	—	—	12	17
Absolute return fixed income	—	—	—	—	—	—	42	48	42	48
Total	\$ 324	\$ 362	\$ 196	\$ 209	\$ 35	\$ 42	\$ 173	\$ 199	\$ 728	\$ 812

¹ Includes cash equivalents.

The following represents the fair value measurements of changes in plan assets using significant unobservable inputs (Level 3):

(In millions)	Pension Assets		VEBA Assets	
	2022	2021	2022	2021
Beginning balance — January 1	\$ 904	\$ 670	\$ 42	\$ 38
Actual return on plan assets:				
Relating to assets still held at the reporting date	(6)	124	1	6
Relating to assets sold during the period	15	8	1	—
Purchases	28	142	—	—
Sales	(29)	(40)	(9)	(2)
Acquired through business combinations	—	—	—	—
Ending balance — December 31	\$ 912	\$ 904	\$ 35	\$ 42

DEFINED CONTRIBUTION PLANS

Most employees are eligible to participate in various defined contribution plans. Certain of these plans have features with matching contributions or other Company contributions based on our financial results. Company contributions to these plans are expensed as incurred. Total expense from these plans was \$52 million, \$55 million and \$22 million in 2022, 2021 and 2020, respectively.

MULTIEMPLOYER PLANS

We contribute to multiemployer pension plans according to collective bargaining agreements that cover certain union-represented employees. The risks of participating in these multiemployer plans are different from the risks of participating in single-employer pension plans in the following respects:

- Assets contributed to a multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer stops contributing to a multiemployer plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If the multiemployer plan becomes significantly underfunded or is unable to pay its benefits, we may be required to contribute additional amounts in excess of the rate required by the collective bargaining agreements.
- If we choose to stop participating in a multiemployer plan, we may be required to pay that plan an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

Information with respect to multiemployer plans in which we participate follows:

Pension Fund	EIN/Pension Plan Number	Pension Protection Act Zone Status ¹		FIP/RP Status Pending/Implemented ²	Contributions			Surcharge Imposed ³	Expiration Date of Collective Bargaining Agreement ⁴
		2022	2021		2022	2021	2020		
					\$	\$	\$		
Steelworkers Pension Trust	23-6648508/499	Green	Green	No	\$ 93	\$ 88	\$ 14	No	4/1/2025 to 9/1/2026
IAM National Pension Fund's National Pension Plan	51-6031295/002	Red	Red	Yes	22	16	16	Yes	5/15/2023 to 6/15/2025
Other Plans ⁵					—	—	—		
Total					\$ 115	\$ 104	\$ 30		

¹ The most recent Pension Protection Act zone status available in 2022 and 2021 is for each plan's year-end at December 31, 2021 and 2020. The plan's actuary certifies the zone status. Generally, plans in the red zone are less than 65% funded, plans in the yellow zone are between 65% and 80% funded, and plans in the green zone are at least 80% funded. The IAM National Pension Fund's National Pension Plan voluntarily elected to place itself in the "Red Zone" in April 2019 and has implemented a rehabilitation plan to address its underfunded status. Additional contributions will be required as part of the rehabilitation plan until the plan exits the "Red Zone".

² The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan or a rehabilitation plan is either pending or has been implemented, as defined by ERISA.

³ The surcharge represents an additional required contribution due as a result of the critical funding status of the plan.

⁴ We are a party to six collective bargaining agreements that require contributions to the Steelworkers Pension Trust and three collective bargaining agreements that require contributions to the IAM National Pension Fund's National Pension Plan.

⁵ Plans that are not individually significant to our Company are presented in aggregate.

With the ratification of our USW labor agreements in 2022, we increased our contribution rate to the Steelworkers Pension Trust by \$0.50 to \$4.00 per eligible hour. The increase was effective November 1, 2022.

We are one of the largest contributors to the Steelworkers Pension Trust. Our contributions exceeded 5% of total combined contributions in 2022 and 2021. As of January 1, 2022 (the last date for which we have information), the Steelworkers Pension Trust had a total actuarial liability of \$6,170 million and assets with a market value of \$6,871 million, for a funded ratio of about 111%.

NOTE 10 - STOCK COMPENSATION PLANS

At December 31, 2022, we had outstanding awards under three share-based compensation plans: the 2021 Equity Plan, the A&R 2015 Equity Plan and the 2012 Amended Equity Plan. On April 28, 2021, our shareholders approved the 2021 Equity Plan, which succeeded the A&R 2015 Equity Plan and made available 26.0 million new common shares plus 2.5 million shares remaining available under the A&R 2015 Equity Plan. As of December 31, 2022, there were 25.0 million remaining shares available for grant under the 2021 Equity Plan. No additional grants were issued from the 2012 Amended Equity Plan or the A&R 2015 Equity Plan after the date of approval of the 2021 Equity Plan; however, all awards previously granted under the predecessor plans will continue in accordance with the terms of the outstanding awards.

STOCK-BASED COMPENSATION EXPENSE

The following table summarizes the total compensation expense recognized for stock-based compensation awards:

(In millions, except per share amounts)	Year Ended December 31,		
	2022	2021	2020
Cost of goods sold	\$ (5)	\$ (2)	\$ (2)
Selling, general and administrative expenses	(23)	(16)	(13)
Acquisition-related costs	—	—	(2)
Stock based compensation expense	(28)	(18)	(17)
Income tax benefit	7	4	4
Stock based compensation expense, net of tax	\$ (21)	\$ (14)	\$ (13)
Decrease in basic earnings per common share	\$ (0.04)	\$ (0.03)	\$ (0.03)
Decrease in diluted earnings per common share	\$ (0.04)	\$ (0.03)	\$ (0.03)

The total compensation cost related to outstanding awards not yet recognized is \$40 million at December 31, 2022. This expense is expected to be recognized over the remaining weighted-average period of 1.8 years.

PERFORMANCE SHARES

The following table summarizes the performance award activity:

(Shares in millions)	2022		2021		2020	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding at beginning of year	2.4	\$ 14.04	2.5	\$ 10.34	1.9	\$ 15.58
Granted	1.0	28.46	0.7	25.12	1.0	6.93
Granted - replacement awards	—	—	—	—	1.6	4.59
Distributed	(1.1)	17.04	(1.3)	11.74	(1.9)	12.23
Performance adjustment	0.5	17.84	0.6	11.93	0.5	15.63
Forfeited/canceled	(0.1)	23.74	(0.1)	11.27	(0.6)	5.70
Outstanding at end of year	2.7	\$ 18.53	2.4	\$ 14.04	2.5	\$ 10.34

On March 13, 2020, we granted 1.0 million long-term performance plan awards and 0.5 million performance shares as AK Steel replacement awards. The long-term performance plan awards are based on a three-year Adjusted EBITDA metric.

We value our performance shares using a Monte Carlo simulation on the grant date. The outstanding performance shares vest over a period of three years and are intended to be paid out in common shares. Performance is measured on the basis of relative TSR for the period and measured against the constituents of the S&P Metals and Mining ETF Index. The number of shares actually earned at the end of the three-year period will vary, based on performance, from 0% to 200% of the number of performance shares granted.

RESTRICTED STOCK UNITS

The following table summarizes the restricted stock units activity:

(Shares in millions)	2022		2021		2020	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding at beginning of year	2.1	\$ 10.31	2.1	\$ 7.12	2.1	\$ 9.10
Granted	1.0	19.41	0.7	17.45	1.0	4.87
Granted - replacement awards	—	—	—	—	0.2	4.87
Distributed	(0.6)	10.47	(0.6)	7.31	(1.1)	8.58
Forfeited/canceled	(0.1)	17.82	(0.1)	9.50	(0.1)	7.31
Outstanding at end of year	2.4	\$ 13.66	2.1	\$ 10.31	2.1	\$ 7.12

We value our restricted stock units using the closing price of our common shares on the grant date. All of the outstanding restricted stock units are subject to continued employment, are retention based, and are payable in common shares or cash in certain circumstances at a time determined by the Compensation Committee at its discretion. Most restricted stock units were granted under three-year cliff vesting terms.

STOCK OPTIONS

The following table summarizes the stock option activity:

(Shares in millions)	2022		2021		2020	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at beginning of year	1.0	\$ 12.75	2.5	\$ 11.60	0.6	\$ 10.42
Granted - replacement awards	—	—	—	—	2.0	11.86
Exercised	(0.3)	16.55	(1.5)	10.36	(0.1)	7.01
Forfeited/canceled	(0.1)	22.78	—	36.48	—	41.04
Outstanding at end of year	0.6	\$ 10.39	1.0	\$ 12.75	2.5	\$ 11.60
Exercisable at end of year	0.6	\$ 10.52	0.9	\$ 13.35	2.2	\$ 11.86

Stock options granted to date generally vest over a period from one to three years with an expiration date ten years from the date of grant. On March 13, 2020, we granted 2.0 million options as AK Steel replacement awards. The weighted average fair value of the converted options was \$0.51 per share and was calculated using the Black-Scholes option-pricing model.

The total intrinsic value of options exercised in 2022 was \$3 million and the amount in 2021 was \$13 million. For options outstanding at December 31, 2022, the weighted-average remaining contractual life was 2.6 years and the aggregate intrinsic value was \$4 million. For options exercisable at December 31, 2022, the weighted-average remaining contractual life was 2.4 years and the aggregate intrinsic value was \$4 million.

NONEMPLOYEE DIRECTORS

Our nonemployee directors are entitled to receive restricted share awards under the Directors' Plan. For 2022, 2021 and 2020, nonemployee directors were granted a specified number of restricted shares, with a value equal to \$140,000, \$120,000 and \$100,000, respectively. The number of shares is based on the closing price of our common shares on the date of the Annual Meeting. The restricted share awards issued under the Directors' Plan generally vest 12 months from the grant date. The awards are subject to any deferral election and the terms of the Directors' Plan and an award agreement.

NOTE 11 - INCOME TAXES

Income (loss) from continuing operations before income taxes includes the following components:

(In millions)	Year Ended December 31,		
	2022	2021	2020
United States	\$ 1,803	\$ 3,827	\$ (201)
Foreign	(7)	(24)	8
Total	\$ 1,796	\$ 3,803	\$ (193)

The components of the income tax provision (benefit) on continuing operations consist of the following:

(In millions)	Year Ended December 31,		
	2022	2021	2020
Current provision (benefit):			
United States federal	\$ 201	\$ 14	\$ (2)
United States state & local	131	55	—
Foreign	1	—	(1)
	<u>333</u>	<u>69</u>	<u>(3)</u>
Deferred provision (benefit):			
United States federal	117	683	(95)
United States state & local	(22)	31	(11)
Foreign	(5)	(10)	(2)
Total income tax provision (benefit) from continuing operations	<u>\$ 423</u>	<u>\$ 773</u>	<u>\$ (111)</u>

Reconciliation of our income tax attributable to continuing operations computed at the U.S. federal statutory rate is as follows:

(In millions)	2022		2021		2020	
Tax at U.S. statutory rate	\$ 377	21 %	\$ 799	21 %	\$ (41)	21 %
Increase (decrease) due to:						
Percentage depletion in excess of cost depletion	(49)	(3)	(99)	(3)	(42)	22
State taxes, net	71	4	86	2	(11)	6
Federal & state provision to return	27	1	(2)	—	—	—
Other items, net	(3)	—	(11)	—	(17)	8
Provision for income tax expense (benefit) and effective income tax rate including discrete items	<u>\$ 423</u>	<u>23 %</u>	<u>\$ 773</u>	<u>20 %</u>	<u>\$ (111)</u>	<u>57 %</u>

The decrease in income tax expense in 2022, as compared to the prior year, is directly related to the decrease in the pre-tax book income year-over-year.

The increase in income tax expense in 2021 from income tax benefit in 2020 is directly correlated to the increase in pre-tax book income year-over-year.

The components of income taxes for other than continuing operations consisted of the following:

(In millions)	2022	2021	2020
Other comprehensive income (loss):			
Pension and OPEB	\$ (425)	\$ (206)	\$ (52)
Derivative financial instruments	26	(21)	(1)
Total	<u>\$ (399)</u>	<u>\$ (227)</u>	<u>\$ (53)</u>

Significant components of our deferred tax assets and liabilities are as follows:

(In millions)	2022	2021
Deferred tax assets:		
Operating loss and other carryforwards	\$ 389	\$ 379
Pension and OPEB liabilities	244	584
Environmental	96	58
Product inventories	54	28
State and local	14	109
Lease liabilities	62	65
Other liabilities	135	136
Total deferred tax assets before valuation allowance	994	1,359
Deferred tax asset valuation allowance	(390)	(409)
Net deferred tax assets	604	950
Deferred tax liabilities:		
Investment in ventures	(195)	(191)
Lease assets	(38)	(93)
Property, plant and equipment and mineral rights	(827)	(641)
Other assets	(122)	(123)
Total deferred tax liabilities	(1,182)	(1,048)
Net deferred tax assets (liabilities)	\$ (578)	\$ (98)

We had gross domestic (including states) and foreign NOLs of \$2,278 million and \$1,444 million, respectively, at December 31, 2022. We had gross domestic (including states) and foreign NOLs of \$2,081 million and \$1,407 million, respectively, at December 31, 2021. The U.S. federal NOLs will begin to expire in 2034 and state NOLs begin to expire in 2023. The foreign NOLs begin to expire in 2035. We had gross interest expense limitation carryforwards of \$77 million and \$18 million for the years ended December 31, 2022 and 2021, respectively. This interest expense can be carried forward indefinitely.

The changes in the valuation allowance are presented below:

(In millions)	2022	2021	2020
Balance at beginning of year	\$ 409	\$ 836	\$ 441
Change in valuation allowance:			
Included in income tax benefit	(19)	(82)	(3)
Increase (decrease) from acquisitions	—	(345)	398
Balance at end of year	\$ 390	\$ 409	\$ 836

At December 31, 2022 and 2021, we have a valuation allowance recorded of \$42 million and \$339 million, respectively, related to foreign deferred tax assets, and an additional \$48 million and \$70 million, respectively, against certain state NOLs, which are expected to expire before utilization.

During 2021, we recorded a decrease to the valuation allowance of \$45 million related to the election filed with our 2020 federal tax return to waive the pre-acquisition NOLs that are limited under Section 382 of the IRC. An offsetting decrease was recorded in the NOL deferred tax asset in the same period. These amounts related to a portion of the \$398 million valuation allowance recorded during 2020 through opening balance sheet adjustments to reflect the portion of federal and state NOLs that are limited under Section 382 of the IRC acquired through the AK Steel Merger.

At December 31, 2022 and 2021, we had no cumulative undistributed earnings of foreign subsidiaries included in retained earnings. Accordingly, no provision has been made for U.S. deferred taxes related to future repatriation of earnings.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

(In millions)	2022	2021	2020
Unrecognized tax benefits balance as of January 1	\$ 35	\$ 107	\$ 29
Increases for tax positions in current year	24	4	7
Decrease due to tax positions in prior year	(1)	(66)	(4)
Lapses in statutes of limitations	—	(10)	—
Increases from acquisitions	—	—	75
Unrecognized tax benefits balance as of December 31	\$ 58	\$ 35	\$ 107

The following table presents the classification of unrecognized tax benefits on the Statements of Consolidated Financial Position:

Balance Sheet Location (In millions)	December 31,	
	2022	2021
Other current liabilities	—	\$ 1
Other non-current liabilities	58	34

If the unrecognized tax benefits were recognized, the full \$58 million would impact the effective tax rate. Interest and penalties related to unrecognized tax benefits are \$3 million for the year ended December 31, 2022. We do not expect that the amount of unrecognized benefits will change significantly within the next 12 months.

Tax years 2016 and forward remain subject to examination for the U.S., and tax years 2018 and forward remain subject to examination for Canada.

NOTE 12 - LEASE OBLIGATIONS

Our operating leases consist primarily of leases for land, office space, rail cars and storage tanks. Our finance leases consist primarily of mining equipment, an on-site coke battery and rail cars. We use our incremental borrowing rate as the discount rate to determine the present value of the lease payments, as our leases do not have readily determinable implicit discount rates. Our incremental borrowing rate is the rate of interest that we would have to borrow on a collateralized basis over a similar term and amount in a similar economic environment to pay our lease obligations. We determine the incremental borrowing rates for our leases by adjusting the local risk-free interest rate with a credit risk premium corresponding to our credit rating. From time to time, we may enter into arrangements for the construction or purchase of an asset and then enter into a financing arrangement to lease the asset. We recognize leased assets and liabilities under these arrangements when we obtain control of the asset.

Lease costs are presented below:

(In millions)	Year Ended December 31,	
	2022	2021
Operating leases	\$ 64	\$ 70
Finance leases:		
Amortization of right-of-use assets	103	94
Interest on lease liabilities	8	9
Short-term leases	160	66
Total	\$ 335	\$ 239

Other information related to leases was as follows:

(In millions)	Year Ended December 31,	
	2022	2021
Cash paid for amounts included in measurement of lease liabilities:		
Operating leases within cash flows from operating activities	\$ 62	\$ 70
Finance leases within cash flows from operating activities	\$ 8	\$ 9
Finance leases within cash flows from financing activities	\$ 96	\$ 94
Right-of-use assets obtained in exchange for new finance lease liabilities ¹	\$ 55	\$ 50
Weighted-average remaining lease term - operating leases (in years)	9	8
Weighted-average remaining lease term - finance leases (in years)	5	5
Weighted-average discount rate - operating leases	8 %	7 %
Weighted-average discount rate - finance leases	5 %	4 %

¹ Right-of-use assets obtained in acquisitions are not included in this figure.

Future minimum lease payments under noncancellable finance and operating leases as of December 31, 2022 were as follows:

(In millions)	Finance Leases		Operating Leases	
2023	\$	101	\$	56
2024		36		48
2025		32		40
2026		24		35
2027		13		30
Thereafter		63		123
Total future minimum lease payments		269		332
Less: imputed interest		54		94
Total lease payments		215		238
Less: current portion of lease liabilities		93		43
Long-term lease liabilities	\$	122	\$	195

The current and long-term portions of our finance and operating lease liabilities are included in *Other current liabilities* and *Other non-current liabilities*, respectively.

NOTE 13 - ASSET RETIREMENT OBLIGATIONS

The accrued closure obligation provides for contractual and legal obligations related to our indefinitely idled and closed operations and for the eventual closure of our active operations. The closure date for each of our active mine sites was determined based on the exhaustion date of the remaining mineral reserves, and the amortization of the related asset and accretion of the liability is recognized over the estimated mine lives. The closure date and expected timing of the capital requirements to meet our obligations for our indefinitely idled or closed mines is determined based on the unique circumstances of each property. For indefinitely idled or closed mines, the accretion of the liability is recognized over the anticipated timing of remediation. As the majority of our asset retirement obligations at our steelmaking operations have indeterminate settlement dates, asset retirement obligations have been recorded at present values using estimated ranges of the economic lives of the underlying assets.

We performed a detailed assessment of our asset retirement obligations related to our active operations most recently in 2020 in accordance with our accounting policy, which requires us to perform an in-depth evaluation of the liability every three years in addition to routine annual assessments. In 2020, we employed third-party specialists to assist in the evaluation.

The following is a summary of our asset retirement obligations:

(In millions)	December 31,	
	2022	2021
Asset retirement obligations ¹	\$ 520	\$ 449
Less: current portion	21	35
Long-term asset retirement obligations	\$ 499	\$ 414

¹ Includes \$277 million and \$293 million related to our active operations as of December 31, 2022 and 2021, respectively.

The following is a roll-forward of our asset retirement obligation liability:

(In millions)	2022	2021
Asset retirement obligation as of January 1	\$ 449	\$ 342
Increase from acquisitions	—	116
Reclassification from environmental obligations	63	—
Accretion expense	26	18
Remediation payments	(40)	(29)
Revision in estimated cash flows	22	2
Asset retirement obligation as of December 31	\$ 520	\$ 449

The increase from revision in estimated cash flows primarily relates to rising electricity costs associated with required water management systems related to closed coal mines in Pennsylvania.

NOTE 14 - FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying values of certain financial instruments (e.g. *Accounts receivable, net*, *Accounts payable* and *Other current liabilities*) approximate fair value and, therefore, have been excluded from the table below. See NOTE 15 - DERIVATIVE INSTRUMENTS AND HEDGING for information on our derivative instruments, which are accounted for at fair value on a recurring basis.

A summary of the carrying value and fair value of other financial instruments were as follows:

(In millions)	Classification	December 31, 2022		December 31, 2021	
		Carrying Value	Fair Value	Carrying Value	Fair Value
Senior notes	Level 1	\$ 2,385	\$ 2,311	\$ 3,561	\$ 3,911
IRBs	Level 1	—	—	68	66
ABL Facility - outstanding balance	Level 2	1,864	1,864	1,609	1,609
Total		\$ 4,249	\$ 4,175	\$ 5,238	\$ 5,586

The valuation of financial assets classified in Level 2 was determined using a market approach based upon quoted prices for similar assets in active markets or other inputs that were observable.

NOTE 15 - DERIVATIVE INSTRUMENTS AND HEDGING

We are exposed to fluctuations in market prices of raw materials and energy sources. We may use cash-settled commodity swaps to hedge the market risk associated with the purchase of certain of our raw materials and energy requirements. Our hedging strategy is to reduce the effect on earnings from the price volatility of these various commodity exposures, including timing differences between when we incur raw material commodity costs and when we receive sales surcharges from our customers based on those raw materials. Independent of any hedging activities, price changes in any of these commodity markets could negatively affect operating costs.

Our commodity contracts are designated as cash flow hedges for accounting purposes, and we record the gains and losses for the derivatives in *Accumulated other comprehensive income* until we reclassify them into *Cost of goods sold* when we recognize the associated underlying operating costs. Refer to NOTE 17 - ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) for further information.

Our commodity contracts are classified as Level 2 as values were determined using a market approach based upon quoted prices for similar assets in active markets or other inputs that were observable.

The following table presents the notional amount of our outstanding hedge contracts:

Commodity Contracts	Unit of Measure	Maturity Dates	Notional Amount	
			December 31,	
			2022	2021
Natural Gas	MMBtu	January 2023 - May 2025	127,790,000	92,591,000
Zinc	Metric tons	Not Applicable	—	16,092
Electricity	Megawatt hours	January 2023 - December 2023	432,043	—
Tin	Metric tons	January 2023 - December 2023	180	—

The following table presents the fair value of our cash flow hedges and the classification on the Statements of Consolidated Financial Position:

Balance Sheet Location (In millions)	December 31,	
	2022	2021
Other current assets	\$ 15	\$ 40
Other non-current assets	30	—
Other current liabilities	(87)	(10)
Other non-current liabilities	(10)	(4)

NOTE 16 - CAPITAL STOCK

SHARE REPURCHASE PROGRAM

On February 10, 2022, our Board of Directors authorized a program to repurchase outstanding common shares in the open market or in privately negotiated transactions, which may include purchases pursuant to Rule 10b5-1 plans or accelerated share repurchases, up to a maximum of \$1 billion. We are not obligated to make any purchases and the program may be suspended or

discontinued at any time. The share repurchase program does not have a specific expiration date. For the year ended December 31, 2022, we repurchased 12.5 million common shares at a cost of \$240 million in the aggregate.

1.500% 2025 CONVERTIBLE SENIOR NOTES REDEMPTION

On December 1, 2021, we issued a notice of redemption for all \$294 million in aggregate principal amount outstanding of our 1.500% 2025 Convertible Senior Notes. Our 1.500% 2025 Convertible Senior Notes were redeemed on January 18, 2022, through a combination settlement, with the aggregate principal amount of \$294 million paid in cash, and 24 million common shares, with a fair value of \$499 million, delivered to noteholders in settlement of the premium due per the terms of the indenture, plus cash in respect of the accrued and unpaid interest on the 1.500% 2025 Convertible Senior Notes to, but not including, the redemption date per the terms of the indenture.

UNDERWRITTEN PUBLIC OFFERING

On February 11, 2021, we sold 20 million of our common shares and 40 million common shares were sold by an affiliate of ArcelorMittal in an underwritten public offering. In each case, shares were sold at a price per share of \$16.12. Prior to this sale, ArcelorMittal held approximately 78 million of our common shares, which were issued as a part of the consideration in connection with the AM USA Transaction. We did not receive any proceeds from the sale of the 40 million common shares sold on behalf of ArcelorMittal. We used the net proceeds from the offering, plus cash on hand, to redeem \$322 million aggregate principal amount of our outstanding 9.875% 2025 Senior Secured Notes.

SERIES B PARTICIPATING REDEEMABLE PREFERRED STOCK REDEMPTION

We had 583,273 shares of our Series B Participating Redeemable Preferred Stock issued and outstanding as of December 31, 2020. During the third quarter of 2021, we redeemed all 583,273 shares of our Series B Participating Redeemable Preferred Stock at a redemption price of \$1.3 billion using borrowings under our ABL Facility.

AMENDMENT TO ARTICLES OF INCORPORATION

On April 29, 2021, we filed a Certificate of Amendment to our Fourth Amended Articles of Incorporation, as amended, to increase the total number of authorized common shares from 600,000,000 to 1,200,000,000.

PREFERRED STOCK

We have 3,000,000 shares of Serial Preferred Stock, Class A, without par value, authorized, of which none are issued or outstanding as of December 31, 2022. We also have 4,000,000 shares of Serial Preferred Stock, Class B, without par value, authorized, of which none are issued or outstanding as of December 31, 2022.

NOTE 17 - ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The components of *Accumulated other comprehensive income* within Cliffs shareholders' equity and related tax effects allocated to each are shown below:

(In millions)	December 31,		
	2022	2021	2020
Foreign Currency Translation			
Beginning balance	\$ 1	\$ 3	\$ —
Other comprehensive income (loss) before reclassifications	(2)	(2)	3
Ending balance	\$ (1)	\$ 1	\$ 3
Derivative Instruments			
Beginning balance	\$ 68	\$ (1)	\$ (3)
Other comprehensive income (loss) before reclassifications	146	151	(7)
Income tax	(33)	(34)	1
Other comprehensive income (loss) before reclassifications, net of tax	113	117	(6)
Losses (gains) reclassified from AOCI to net income ¹	(256)	(61)	10
Income tax expense (benefit) ²	59	13	(2)
Net losses (gains) reclassified from AOCI to net income	(197)	(48)	8
Ending balance	\$ (16)	\$ 68	\$ (1)
Pension and OPEB			
Beginning balance	\$ 549	\$ (135)	\$ (316)
Other comprehensive income before reclassifications ⁴	1,759	878	210
Income tax	(434)	(203)	(47)
Other comprehensive income before reclassifications, net of tax	1,325	675	163
Losses (gains) reclassified from AOCI to net income ³	(36)	12	23
Income tax expense (benefit) ²	9	(3)	(5)
Net losses (gains) reclassified from AOCI to net income	(27)	9	18
Ending balance	\$ 1,847	\$ 549	\$ (135)
Total AOCI Ending Balance	\$ 1,830	\$ 618	\$ (133)

¹ Amounts recognized in *Cost of goods sold* in the Statements of Consolidated Operations.

² Amounts recognized in *Income tax benefit (expense)* in the Statements of Consolidated Operations.

³ Amounts recognized in *Net periodic benefit credits other than service cost component* in the Statements of Consolidated Operations.

⁴ Refer to NOTE 9 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

NOTE 18 - VARIABLE INTEREST ENTITIES

SUNCOKE MIDDLETOWN

We purchase all the coke and electrical power generated from SunCoke Middletown's plant under long-term supply agreements and have committed to purchase all the expected production from the facility through 2032. We consolidate SunCoke Middletown as a VIE because we are the primary beneficiary despite having no ownership interest in SunCoke Middletown. SunCoke Middletown had income before income taxes of \$47 million and \$52 million for the years ended December 31, 2022 and 2021, respectively, which was included in our consolidated *Income (loss) from continuing operations before income taxes*.

The assets of the consolidated VIE can only be used to settle the obligations of the consolidated VIE and not obligations of the Company. The creditors of SunCoke Middletown do not have recourse to the assets or general credit of the Company to satisfy liabilities of the VIE. The Statements of Consolidated Financial Position includes the following amounts for SunCoke Middletown:

(In millions)	December 31,	
	2022	2021
Inventories	\$ 28	\$ 20
Property, plant and equipment, net	288	300
Accounts payable	(19)	(12)
Other assets (liabilities), net	(27)	(12)
Noncontrolling interests	(270)	(296)

NOTE 19 - EARNINGS PER SHARE

The following table summarizes the computation of basic and diluted EPS:

(In millions, except per share amounts)	Year Ended December 31,		
	2022	2021	2020
Income (loss) from continuing operations	\$ 1,373	\$ 3,030	\$ (82)
Income from continuing operations attributable to noncontrolling interest	(41)	(45)	(41)
Net income (loss) from continuing operations attributable to Cliffs shareholders	1,332	2,985	(123)
Income from discontinued operations, net of tax	3	3	1
Net income (loss) attributable to Cliffs shareholders	\$ 1,335	\$ 2,988	\$ (122)
Weighted average number of shares:			
Basic	519	498	379
Redeemable preferred shares	—	33	—
Convertible senior notes ¹	2	22	—
Employee stock plans	3	5	—
Diluted	524	558	379
Earnings (loss) per common share attributable to Cliffs common shareholders - basic:			
Continuing operations	\$ 2.57	\$ 5.62	\$ (0.32)
Discontinued operations	—	0.01	—
	\$ 2.57	\$ 5.63	\$ (0.32)
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted:			
Continuing operations	\$ 2.55	\$ 5.35	\$ (0.32)
Discontinued operations	—	0.01	—
	\$ 2.55	\$ 5.36	\$ (0.32)

¹ On January 1, 2022, we adopted 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)*. We utilized the modified retrospective method of adoption; using this approach, the guidance was applied to transactions outstanding as of the beginning of the fiscal year.

² For the year ended December 31, 2021, basic earnings per share was calculated by dividing *Net income (loss) attributable to Cliffs shareholders*, less \$187 million of earnings attributed to Series B Participating Redeemable Preferred Stock, by the weighted average number of basic common shares outstanding during the period presented.

NOTE 20 - COMMITMENTS AND CONTINGENCIES

PURCHASE COMMITMENTS

We purchase portions of the principal raw materials required for our steel manufacturing operations under annual and multi-year agreements, some of which have minimum quantity requirements. We also use large volumes of natural gas, electricity and industrial gases in our steel manufacturing operations. We negotiate most of our purchases of chrome, industrial gases and a portion of our electricity under multi-year agreements. Our purchases of coke are made under annual or multi-year agreements

with periodic price adjustments. We typically purchase coal under annual fixed-price agreements. We also purchase certain transportation services under multi-year contracts with minimum quantity requirements.

Unconditional purchase obligations, including take-or-pay agreements, are as follows (in millions):

	2023	2024	2025	2026	2027	Thereafter
\$	2,503	\$ 1,072	\$ 766	\$ 225	\$ 117	\$ 785

CONTINGENCIES

We are currently the subject of, or party to, various claims and legal proceedings incidental to our current and historical operations. These claims and legal proceedings are subject to inherent uncertainties and unfavorable rulings could occur. An unfavorable ruling could include monetary damages, additional funding requirements or an injunction. If an unfavorable ruling were to occur, there exists the possibility of a material adverse effect on our financial position and results of operations for the period in which the ruling occurs or future periods. However, based on currently available information we do not believe that any pending claims or legal proceedings will result in a material adverse effect in relation to our consolidated financial statements.

ENVIRONMENTAL CONTINGENCIES

Although we believe our operating practices have been consistent with prevailing industry standards, hazardous materials may have been released at operating sites or third-party sites in the past, including operating sites that we no longer own. If we reasonably can, we estimate potential remediation expenditures for those sites where future remediation efforts are probable based on identified conditions, regulatory requirements, or contractual obligations arising from the sale of a business or facility. For sites involving government required investigations, we typically make an estimate of potential remediation expenditures only after the investigation is complete and when we better understand the nature and scope of the remediation. In general, the material factors in these estimates include the costs associated with investigations, delineations, risk assessments, remedial work, governmental response and oversight, site monitoring, and preparation of reports to the appropriate environmental agencies.

The following is a summary of our environmental obligations:

(In millions)	December 31,	
	2022	2021
Environmental obligations	\$ 141	\$ 207
Less: current portion	23	20
Long-term environmental obligations	\$ 118	\$ 187

The decrease in environmental obligations relates to a reclassification of \$3 million from environmental to asset retirement obligations as of December 31, 2022.

We cannot predict the ultimate costs for each site with certainty because of the evolving nature of the investigation and remediation process. Rather, to estimate the probable costs, we must make certain assumptions. The most significant of these assumptions is for the nature and scope of the work that will be necessary to investigate and remediate a particular site and the cost of that work. Other significant assumptions include the cleanup technology that will be used, whether and to what extent any other parties will participate in paying the investigation and remediation costs, reimbursement of past response costs and future oversight costs by governmental agencies, and the reaction of the governing environmental agencies to the proposed work plans. Costs for future investigation and remediation are not discounted to their present value, unless the amount and timing of the cash disbursements are readily known. To the extent that we have been able to reasonably estimate future liabilities, we do not believe that there is a reasonable possibility that we will incur a loss or losses that exceed the amounts we accrued for the environmental matters discussed below that would, either individually or in the aggregate, have a material adverse effect on our consolidated financial condition, results of operations or cash flows. However, since we recognize amounts in the consolidated financial statements in accordance with GAAP that exclude potential losses that are not probable or that may not be currently estimable, the ultimate costs of these environmental matters may be higher than the liabilities we currently have recorded in our consolidated financial statements.

Pursuant to RCRA (Resource Conservation and Recovery Act), which governs the treatment, handling and disposal of hazardous waste, the EPA and authorized state environmental agencies may conduct inspections of RCRA-regulated facilities to identify areas where there have been releases of hazardous waste or hazardous constituents into the environment and may order the facilities to take corrective action to remediate such releases. Likewise, the EPA or the states may require closure or post-closure care of residual, industrial and hazardous waste management units. Environmental regulators have the authority to inspect all of our facilities. While we cannot predict the future actions of these regulators, it is possible that they may identify conditions in future inspections of these facilities that they believe require corrective action.

Pursuant to CERCLA, the EPA and state environmental authorities have conducted site investigations at some of our facilities and other third-party facilities, portions of which previously may have been used for disposal of materials that are currently regulated. The results of these investigations are still pending, and we could be directed to spend funds for remedial activities at the former disposal areas. Because of the uncertain status of these investigations, however, we cannot reasonably predict whether or when such spending might be required or its magnitude.

BURNS HARBOR WATER ISSUES

In August 2019, ArcelorMittal Burns Harbor LLC (n/k/a Cleveland-Cliffs Burns Harbor LLC) suffered a loss of the blast furnace cooling water recycle system, which led to the discharge of cyanide and ammonia in excess of the Burns Harbor plant's NPDES permit limits. Since that time, the facility has taken numerous steps to prevent recurrence and maintain compliance with its NPDES permit. We engaged in settlement discussions with the U.S. Department of Justice, the EPA and the State of Indiana to resolve any alleged violations of environmental laws or regulations arising out of the August 2019 event. Later stages of the settlement discussions included the Environmental Law and Policy Center (ELPC) and Hoosier Environmental Council (HEC), which had filed a lawsuit on December 20, 2019 in the U.S. District Court for the Northern District of Indiana alleging violations resulting from the August 2019 event and other Clean Water Act claims. On February 14, 2022, the United States and the State of Indiana filed a complaint and a proposed consent decree, and on April 21, 2022, the United States, with the consent of all of the parties, filed a motion seeking final approval of the consent decree from the court. The consent decree was approved by the court with an effective date of May 6, 2022. The consent decree requires specified enhancements to the mill's wastewater treatment systems and required us to pay a \$3 million civil penalty, along with other terms and conditions. Other parties to the consent decree include the United States, the State of Indiana, ELPC and HEC. The ELPC/HEC civil litigation was dismissed with prejudice on May 12, 2022. In addition, ArcelorMittal Burns Harbor LLC was served with a subpoena on December 5, 2019, from the United States District Court for the Northern District of Indiana, relating to the August 2019 event and has responded to the subpoena requests, including follow-up requests. With the resolution of monetary sanctions and injunctive relief requirements under the consent decree, we do not believe that the costs to resolve any other third-party claims, including potential natural resource damages claims, that may arise out of the August 2019 event are likely to have, individually or in the aggregate, a material adverse effect on our consolidated financial condition, results of operations or cash flows.

In addition to the foregoing matters, we are or may be involved in proceedings with various regulatory authorities that may require us to pay fines, comply with more rigorous standards or other requirements or incur capital and operating expenses for environmental compliance. We believe that the ultimate disposition of any such proceedings will not have, individually or in the aggregate, a material adverse effect on our consolidated financial condition, results of operations or cash flows.

TAX MATTERS

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for anticipated tax audit issues based on our estimate of whether, and the extent to which, additional taxes will be due. If we ultimately determine that payment of these amounts is unnecessary, we reverse the liability and recognize a tax benefit during the period in which we determine that the liability is no longer necessary. We also recognize tax benefits to the extent that it is more likely than not that our positions will be sustained when challenged by the taxing authorities. To the extent we prevail in matters for which liabilities have been established, or are required to pay amounts in excess of our liabilities, our effective tax rate in a given period could be materially affected. An unfavorable tax settlement would require use of our cash and result in an increase in our effective tax rate in the year of resolution. A favorable tax settlement would be recognized as a reduction in our effective tax rate in the year of resolution. Refer to NOTE 11 - INCOME TAXES for further information.

OTHER CONTINGENCIES

In addition to the matters discussed above, there are various pending and potential claims against us and our subsidiaries involving product liability, personal injury, commercial, employee benefits and other matters arising in the ordinary course of business. Because of the considerable uncertainties that exist for any claim, it is difficult to reliably or accurately estimate what the amount of a loss would be if a claimant prevails. If material assumptions or factual understandings we rely on to evaluate exposure for these contingencies prove to be inaccurate or otherwise change, we may be required to record a liability for an adverse outcome. If, however, we have reasonably evaluated potential future liabilities for all of these contingencies, including those described more specifically above, it is our opinion, unless we otherwise noted, that the ultimate liability from these contingencies, individually or in the aggregate, should not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

NOTE 21 - SUBSEQUENT EVENTS

We have evaluated subsequent events through the date of financial statement issuance.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of
Cleveland-Cliffs Inc.

OPINION ON THE FINANCIAL STATEMENTS

We have audited the accompanying statements of consolidated financial position of Cleveland-Cliffs Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related statements of consolidated operations, comprehensive income, cash flows, and changes in equity, for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also 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, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 14, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

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 critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

MINERAL RESERVES — ASSET RETIREMENT OBLIGATIONS, VALUATION OF GOODWILL AND LONG-LIVED ASSETS AND DEPRECIATION, DEPLETION AND AMORTIZATION OF PROPERTY, PLANT AND EQUIPMENT — REFER TO NOTES 5, 6, 7 AND 13 TO THE FINANCIAL STATEMENTS

Critical Audit Matter Description

Iron ore mineral reserve estimates, combined with estimated annual production levels, are used to determine the iron ore mine closure dates utilized in recording the fair value liability for asset retirement obligations for active operating iron ore mines. Since the liability represents the present value of the expected future obligation, a significant change in iron ore mineral reserves or iron ore mine lives could have a substantial effect on the recorded obligation. Iron ore mineral reserve estimates are also used in evaluating potential impairments of goodwill and iron ore mine asset groups as they are indicative of future cash flows and in determining maximum useful lives utilized to calculate depreciation, depletion and amortization of long-lived iron ore mine assets.

The Company performs an in-depth evaluation of its iron ore mineral reserve estimates by iron ore mine on a periodic basis, in addition to routine annual assessments. The determination of iron ore mineral reserves requires management, with the support of management's experts, to make significant estimates and assumptions related to key inputs including (1) the determination of the size and scope of the iron ore body through technical modeling, (2) the estimates of future iron ore prices recognizing that the price shall not exceed the three-year trailing average index price of iron ore adjusted to the Company's realized price, production costs and capital expenditures, and (3) management's mine plan for the proven and probable iron ore mineral reserves (collectively "the iron ore mineral reserve inputs"). Changes in any of the judgments or assumptions related to the iron ore mineral reserve inputs can have a significant impact with respect to the accrual for asset retirement obligations, the impairment of goodwill and long-lived asset groups and the amount of depreciation, depletion and amortization expense. The consolidated asset retirement obligation balance was \$520 million as of December 31, 2022, of which \$196 million related to active iron ore mine operations. The total goodwill balance associated with the Company's Steelmaking reportable segment was \$956 million as of December 31, 2022. The total asset balance associated with the Company's Steelmaking reportable segment was \$18,070 million as of December 31, 2022, of which \$1,559 million related to long-lived assets associated with the Company's combined iron ore mine asset groups.

Depreciation, depletion and amortization expense for the Company's combined iron ore mine asset groups was \$161 million for the year ended December 31, 2022.

Given the significant judgments and assumptions made by management to estimate iron ore mineral reserves and the sensitivity of changes to iron ore mineral reserve estimates on the Company's recorded asset retirement obligations, goodwill and long-lived asset impairment considerations and calculated depreciation, depletion and amortization expense, performing audit procedures to evaluate the reasonableness of management's judgments and estimates related to the iron ore mineral reserve inputs required a high degree of auditor judgment and an increased extent of effort.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's significant judgments and assumptions related to iron ore mineral reserve quantities and the related iron ore mine closure dates included the following, among others:

- We tested the operating effectiveness of internal controls related to the Company's estimation of iron ore mineral reserve quantities and the related iron ore mine closure dates.
- We evaluated the experience, qualifications and objectivity of management's experts, including in-house iron ore mine engineers and the third-party Qualified Person.
- For an iron ore mine subject to the Company's routine annual assessment we evaluated management's assessment by:
 - Understanding the process used by management to survey and analyze the geological and operational status of current year iron ore mine production.
 - Evaluating the historical accuracy of management's technical model as compared to actual iron ore mine production results.
 - Comparing the iron ore mine plan per the most recent Technical Report Summary, updated for current year depletion, to:
 - Presentations to the Audit Committee.
 - Asset retirement obligation valuation models, goodwill impairment analysis, information provided by asset group and depreciation, depletion and amortization expense calculations.

/s/ DELOITTE & TOUCHE LLP

Cleveland, Ohio

February 14, 2023

We have served as the Company's auditor since 2004.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our President and Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure based solely on the definition of "disclosure controls and procedures" in Rule 13a-15(e) promulgated under the Exchange Act. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As of the end of the period covered by this report, we carried out an evaluation under the supervision and with the participation of our management, including our President and Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the foregoing, our President and Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined under Rule 13a-15(f) promulgated under the Exchange Act.

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's consolidated financial statements for external purposes in accordance with generally accepted accounting principles.

Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with appropriate authorizations of management and directors of the Company; and (iii) 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 consolidated 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.

Management conducted an assessment of the Company's internal control over financial reporting as of December 31, 2022 using the framework specified in *Internal Control - Integrated Framework* (2013), published by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on such assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2022 has been audited by Deloitte & Touche LLP (PCAOB ID No. 34), an independent registered public accounting firm, as stated in their report that appears herein.

February 14, 2023

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There have been no changes in our internal control over financial reporting or in other factors that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of
Cleveland-Cliffs Inc.

OPINION ON INTERNAL CONTROL OVER FINANCIAL REPORTING

We have audited the internal control over financial reporting of Cleveland-Cliffs Inc. and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 14, 2023, expressed an unqualified opinion on those financial statements.

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/ DELOITTE & TOUCHE LLP

Cleveland, Ohio
February 14, 2023

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required to be furnished by this Item will be set forth in the definitive proxy statement for our 2023 Annual Meeting of Shareholders (the "Proxy Statement") under the headings "Board Meetings and Committees — Audit Committee", "Code of Business Conduct and Ethics", "Independence and Related Party Transactions", "Information Concerning Director Nominees" and "Delinquent Section 16(a) Reports" and is incorporated herein by reference and made a part hereof from the Proxy Statement. The information regarding executive officers required by this Item is set forth in *Part I - ITEM 1. Business* hereof under the heading "Information About Our Executive Officers", which information is incorporated herein by reference and made a part hereof.

ITEM 11. EXECUTIVE COMPENSATION

The information required to be furnished by this Item will be set forth in the Proxy Statement under the headings "Director Compensation", "Compensation Discussion and Analysis", "Compensation Committee Report", "Compensation Committee Interlocks and Insider Participation", "Compensation-Related Risk Assessment" and "Executive Compensation" and is incorporated herein by reference and made a part hereof from the Proxy Statement.

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

The information required to be furnished by this Item will be set forth in the Proxy Statement under the headings "Ownership of Equity Securities of the Company" and "Equity Compensation Plan Information" and is incorporated herein by reference and made a part hereof from the Proxy Statement.

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

The information required to be furnished by this Item will be set forth in the Proxy Statement under the heading "Independence and Related Party Transactions" and is incorporated herein by reference and made a part hereof from the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required to be furnished by this Item will be set forth in the Proxy Statement under the heading "Ratification of Independent Registered Public Accounting Firm" and is incorporated herein by reference and made a part hereof from the Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) - List of Financial Statements

The following consolidated financial statements of Cleveland-Cliffs Inc. are included at *ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA* above:

- Statements of Consolidated Financial Position - December 31, 2022 and 2021
- Statements of Consolidated Operations - Years ended December 31, 2022, 2021 and 2020
- Statements of Consolidated Comprehensive Income - Years ended December 31, 2022, 2021 and 2020
- Statements of Consolidated Cash Flows - Years ended December 31, 2022, 2021 and 2020
- Statements of Consolidated Changes in Equity - Years ended December 31, 2022, 2021 and 2020
- Notes to Consolidated Financial Statements

(a)(2) - Financial Statement Schedules

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

(a)(3) List of Exhibits

All documents referenced below have been filed pursuant to the Securities Exchange Act of 1934 by Cleveland-Cliffs Inc., file number 1-09844, unless otherwise indicated.

Exhibit Number Exhibit

Exhibit Number	Exhibit
	Articles of Incorporation and Regulations of Cleveland-Cliffs Inc.
3.1	Fourth Amended Articles of Incorporation of Cliffs, as filed with the Secretary of State of the State of Ohio on September 25, 2020 (filed as Exhibit 3.2 to Cliffs' Form 8-K on September 28, 2020 and incorporated herein by reference).
3.2	Certificate of Amendment to Fourth Amended Articles of Incorporation of Cliffs, as filed with the Secretary of State of the State of Ohio on December 7, 2020 (filed as Exhibit 3.1 to Cliffs' Form 8-K on December 9, 2020 and incorporated herein by reference).
3.3	Certificate of Amendment to Fourth Amended Articles of Incorporation of Cliffs, as amended, as filed with the Secretary of State of the State of Ohio on April 29, 2021 (filed as Exhibit 3.1 to Cliffs' Form 8-K on April 30, 2021 and incorporated herein by reference).
3.4	Regulations of Cliffs (filed as Exhibit 3.2 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
	Instruments defining rights of security holders, including indentures
4.1	Indenture, dated as of March 17, 2010, between Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.) and U.S. Bank National Association, as trustee (filed as Exhibit 4.3 to Cliffs' Registration Statement on Form S-3 (Registration No. 333-186617) on February 12, 2013 and incorporated herein by reference).
4.2	Third Supplemental Indenture, dated as of September 20, 2010, between Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.) and U.S. Bank National Association, as trustee, including Form of 6.25% Notes due 2040 (filed as Exhibit 4.4 to Cliffs' Form 8-K on September 17, 2010 and incorporated herein by reference).
4.3	Fifth Supplemental Indenture, dated as of March 31, 2011, between Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.) and U.S. Bank National Association, as trustee (filed as Exhibit 4(b) to Cliffs' Form 10-Q for the period ended June 30, 2011 and incorporated herein by reference).
4.4	Seventh Supplemental Indenture, dated as of May 7, 2013, between Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.) and U.S. Bank National Association, as trustee (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended June 30, 2013 and incorporated herein by reference).
4.5	Indenture, dated as of May 13, 2019, among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee, including Form of 5.875% Senior Notes due 2027 (filed as Exhibit 4.1 to Cliffs' Form 8-K on May 14, 2019 and incorporated herein by reference).
4.6	First Supplemental Indenture, dated as of March 13, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.4 to Cliffs' Form 10-Q for the period ended March 31, 2020 and incorporated herein by reference).

Exhibit Number Exhibit

4.7	Second Supplemental Indenture, dated as of May 22, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.6 to Cliffs' Form 10-Q for the period ended June 30, 2020 and incorporated herein by reference).
4.8	Third Supplemental Indenture, dated as of December 9, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.24 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.9	Fourth Supplemental Indenture, dated as of December 18, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.25 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.10	Fifth Supplemental Indenture, dated as of December 22, 2021, among Cleveland-Cliffs Inc., the Additional Guarantor party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.11 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
4.11	Indenture, dated as of March 13, 2020, among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent, including Form of 6.75% Senior Secured Notes due 2026 (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended March 31, 2020 and incorporated herein by reference).
4.12	First Supplemental Indenture, dated as of May 22, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent (filed as Exhibit 4.9 to Cliffs' Form 10-Q for the period ended June 30, 2020 and incorporated herein by reference).
4.13	Second Supplemental Indenture, dated as of June 19, 2020, among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent, including Form of 6.75% Senior Secured Notes due 2026 (filed as Exhibit 4.10 to Cliffs' Form 10-Q for the period ended June 30, 2020 and incorporated herein by reference).
4.14	Third Supplemental Indenture, dated as of December 9, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent (filed as Exhibit 4.29 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.15	Fourth Supplemental Indenture, dated as of December 18, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent (filed as Exhibit 4.30 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.16	Fifth Supplemental Indenture, dated as of December 22, 2021, among Cleveland-Cliffs Inc., the Additional Guarantor party thereto and U.S. Bank National Association, as trustee and first lien notes collateral agent (filed as Exhibit 4.17 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
4.17	Indenture, dated as of March 16, 2020, among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee, including Form of 7.00% Senior Notes due 2027 (filed as Exhibit 4.7 to Cliffs' Form 10-Q for the period ended March 31, 2020 and incorporated herein by reference).
4.18	First Supplemental Indenture, dated as of May 22, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.7 to Cliffs' Form 10-Q for the period ended June 30, 2020 and incorporated herein by reference).
4.19	Second Supplemental Indenture, dated as of December 9, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.38 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.20	Third Supplemental Indenture, dated as of December 18, 2020, among Cleveland-Cliffs Inc., the Additional Guarantors party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.39 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
4.21	Fourth Supplemental Indenture, dated as of December 22, 2021, among Cleveland-Cliffs Inc., the Additional Guarantor party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.22 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
4.22	Indenture, dated as of February 17, 2021, among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee, including Forms of 4.625% Senior Guaranteed Notes due 2029 and 4.875% Senior Guaranteed Notes due 2031 (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended March 31, 2021 and incorporated herein by reference).
4.23	First Supplemental Indenture, dated as of December 22, 2021, among Cleveland-Cliffs Inc., the Additional Guarantor party thereto and U.S. Bank National Association, as trustee (filed as Exhibit 4.30 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
4.24	Form of Common Share Certificate (filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended September 30, 2019 and incorporated herein by reference).
4.25	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934 (filed herewith).

Exhibit Number Exhibit

	Material contracts
10.1	* Form of Change in Control Severance Agreement (covering newly hired officers) (filed as Exhibit 10.4 to Cliffs' Form 8-K/A on September 16, 2014 and incorporated herein by reference).
10.2	* Form of 2016 Change in Control Severance Agreement (filed as Exhibit 10.1 to Cliffs' 10-Q for the period ended September 30, 2016 and incorporated herein by reference).
10.3	* Cleveland-Cliffs Inc. 2012 Non-Qualified Deferred Compensation Plan (Amended and Restated effective October 26, 2021) (filed as Exhibit 10.3 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
10.4	* Form of Director and Officer Indemnification Agreement between Cleveland-Cliffs Inc. and Directors and Officers (filed as Exhibit 10.2 to Cliffs' Form 10-Q for the period ended March 31, 2019 and incorporated herein by reference).
10.5	* Cleveland-Cliffs Inc. 2021 Nonemployee Directors' Compensation Plan (filed as Exhibit 10.2 to Cliffs' Form 8-K on April 30, 2021 and incorporated herein by reference).
10.6	*Form of Restricted Shares Agreement for Nonemployee Directors (filed as Exhibit 10.3 to Cliffs' Form 10-Q for the period ended June 30, 2021 and incorporated herein by reference).
10.7	*Form of Deferred Shares Agreement for Nonemployee Directors (filed as Exhibit 10.4 to Cliffs' Form 10-Q for the period ended June 30, 2021 and incorporated herein by reference).
10.8	* Trust Agreement No. 1 (Amended and Restated effective June 1, 1997), dated June 12, 1997, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee, with respect to the Cleveland-Cliffs Inc Supplemental Retirement Benefit Plan, Severance Pay Plan for Key Employees and certain executive agreements (filed as Exhibit 10.10 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.9	* Trust Agreement No. 1 Amendments to Exhibits, effective as of January 1, 2000, by and between Cleveland-Cliffs Inc and KeyBank National Association, as Trustee (filed as Exhibit 10.11 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.10	* First Amendment to Trust Agreement No. 1, effective September 10, 2002, by and between Cleveland-Cliffs Inc and KeyBank National Association, as Trustee (filed as Exhibit 10.12 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.11	* Second Amendment to Trust Agreement No. 1 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of December 31, 2008 (filed as Exhibit 10(y) to Cliffs' Form 10-K for the period ended December 31, 2008 and incorporated herein by reference).
10.12	* Third Amendment to Trust Agreement No. 1 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of July 28, 2014 (filed as Exhibit 10.15 to Cliffs' Form 10-K for the period ended December 31, 2014 and incorporated herein by reference).
10.13	* Amended and Restated Trust Agreement No. 2, effective as of October 15, 2002, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee, with respect to Executive Agreements and Indemnification Agreements with the Company's Directors and certain Officers, the Company's Severance Pay Plan for Key Employees, and the Retention Plan for Salaried Employees (filed as Exhibit 10.14 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.14	* Second Amendment to Amended and Restated Trust Agreement No. 2 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of December 31, 2008 (filed as Exhibit 10(aa) to Cliffs' Form 10-K for the period ended December 31, 2008 and incorporated herein by reference).
10.15	* Third Amendment to Amended and Restated Trust Agreement No. 2 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of July 28, 2014 (filed as Exhibit 10.18 to Cliffs' Form 10-K for the period ended December 31, 2014 and incorporated herein by reference).
10.16	* Trust Agreement No. 7, dated as of April 9, 1991, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee, with respect to the Cleveland-Cliffs Inc Supplemental Retirement Benefit Plan (filed as Exhibit 10.23 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.17	* First Amendment to Trust Agreement No. 7, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee, dated as of March 9, 1992 (filed as Exhibit 10.24 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.18	* Second Amendment to Trust Agreement No. 7, dated November 18, 1994, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee (filed as Exhibit 10.25 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.19	* Third Amendment to Trust Agreement No. 7, dated May 23, 1997, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee (filed as Exhibit 10.26 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).

Exhibit Number Exhibit

10.20	* Fourth Amendment to Trust Agreement No. 7, dated July 15, 1997, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee (filed as Exhibit 10.27 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.21	* Amendment to Exhibits to Trust Agreement No. 7, effective as of January 1, 2000, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee (filed as Exhibit 10.28 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.22	* Sixth Amendment to Trust Agreement No. 7 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of December 31, 2008 (filed as Exhibit 10(o) to Cliffs' Form 10-K for the period ended December 31, 2008 and incorporated herein by reference).
10.23	* Seventh Amendment to Trust Agreement No. 7 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of July 28, 2014 (filed as Exhibit 10.34 to Cliffs' Form 10-K for the period ended December 31, 2014 and incorporated herein by reference).
10.24	* Trust Agreement No. 10, dated as of November 20, 1996, by and between Cleveland-Cliffs Inc and KeyBank National Association, Trustee, with respect to the Cleveland-Cliffs Inc Nonemployee Directors' Compensation Plan (filed as Exhibit 10.36 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.25	* First Amendment to Trust Agreement No. 10 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of December 31, 2008 (filed as Exhibit 10(ww) to Cliffs' Form 10-K for the period ended February 26, 2009 and incorporated herein by reference).
10.26	* Second Amendment to Trust Agreement No. 10 between Cliffs Natural Resources Inc. (f/k/a Cleveland-Cliffs Inc) and KeyBank National Association, Trustee, entered into and effective as of July 28, 2014 (filed as Exhibit 10.45 to Cliffs' Form 10-K for the period ended December 31, 2014 and incorporated herein by reference).
10.27	* Separation and Release Agreement, by and between Maurice D. Harapiak and Cleveland-Cliffs Inc., effective April 22, 2022 (filed as Exhibit 10.1 to Cliffs' Form 10-Q for the period ended June 30, 2022 and incorporated herein by reference).
10.28	* Letter Agreement, by and between Lourenco Goncalves and Cliffs Natural Resources Inc., signed as of September 11, 2014 (filed as Exhibit 10.1 to Cliffs' Form 8-K/A on September 16, 2014 and incorporated herein by reference).
10.29	* Cleveland-Cliffs Inc and Subsidiaries Management Performance Incentive Plan Summary, effective January 1, 2004 (filed as Exhibit 10.47 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference).
10.30	* Cliffs Natural Resources Inc. 2017 Executive Management Performance Incentive Plan effective January 1, 2017 (filed as Exhibit 10.2 to Cliffs' Form 8-K on April 27, 2017 and incorporated herein by reference).
10.31	* Cliffs Natural Resources Inc. 2015 Equity and Incentive Compensation Plan (filed as Exhibit 10.1 to Cliffs' Form 8-K on May 21, 2015 and incorporated herein by reference).
10.32	* Cliffs Natural Resources Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan (filed as Exhibit 10.1 to Cliffs' Form 8-K on April 27, 2017 and incorporated herein by reference).
10.33	* Form of Cleveland-Cliffs Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan Restricted Stock Unit Award Memorandum and Restricted Stock Unit Award Agreement (filed as Exhibit 10.2 to Cliffs' Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference).
10.34	* Form of Cleveland-Cliffs Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan Performance Share Award Memorandum and Performance Share Award Agreement (filed as Exhibit 10.3 to Cliffs' Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference).
10.35	* Form of Cleveland-Cliffs Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan Cash Incentive Award Memorandum (TSR) and Cash Incentive Award Agreement (TSR) (filed as Exhibit 10.4 to Cliffs' Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference).
10.36	* Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan (filed as Exhibit 10.1 to Cliffs' Form 8-K on April 30, 2021 and incorporated herein by reference).
10.37	* Form of Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan Restricted Stock Unit Award Memorandum and Restricted Stock Unit Award Agreement (filed as Exhibit 10.1 to Cliffs' Form 10-Q for the period ended March 31, 2022 and incorporated herein by reference).
10.38	* Form of Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan Performance Share Award Memorandum (TSR) and Performance Share Award Agreement (filed as Exhibit 10.2 to Cliffs' Form 10-Q for the period ended March 31, 2022 and incorporated herein by reference).
10.39	* Form of Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan Cash Incentive Award Memorandum (TSR) and Cash Incentive Award Agreement (TSR) (filed as Exhibit 10.3 to Cliffs' Form 10-Q for the period ended March 31, 2022 and incorporated herein by reference).

Exhibit Number Exhibit

10.40	* Cleveland-Cliffs Inc. Supplemental Retirement Benefit Plan (as Amended and Restated effective October 26, 2021) (filed as Exhibit 10.40 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
10.41	Asset-Based Revolving Credit Agreement, dated as of March 13, 2020, among Cleveland-Cliffs Inc., the lenders party thereto from time to time and Bank of America, N.A., as administrative agent (filed as Exhibit 10.1 to Cliffs' Form 10-Q for the period ended March 31, 2020 and incorporated herein by reference).
10.42	First Amendment to Asset-Based Revolving Credit Agreement, dated as of March 27, 2020, among Cleveland-Cliffs Inc., the lenders party thereto from time to time and Bank of America, N.A., as administrative agent (filed as Exhibit 10.2 to Cliffs' Form 10-Q for the period ended March 31, 2020 and incorporated herein by reference).
10.43	Second Amendment to Asset-Based Revolving Credit Agreement, dated as of December 9, 2020, among Cleveland-Cliffs Inc., the lenders party thereto from time to time and Bank of America, N.A., as administrative agent (filed as Exhibit 10.42 to Cliffs' Form 10-K for the period ended December 31, 2020 and incorporated herein by reference).
10.44	Third Amendment to Asset-Based Revolving Credit Agreement, dated as of December 17, 2021, among Cleveland-Cliffs Inc., the lenders party thereto from time to time and Bank of America, N.A., as administrative agent (filed as Exhibit 10.1 to Cliffs' Form 8-K on December 23, 2021 and incorporated herein by reference).
21	Subsidiaries of the Registrant (filed herewith).
22	Schedule of the obligated group, including the parent and issuer and the subsidiary guarantors that have guaranteed the obligations under the 6.750% 2026 Senior Secured Notes, the 5.875% 2027 Senior Notes, the 7.000% 2027 Senior Notes, the 4.625% 2029 Senior Notes and the 4.875% 2031 Senior Notes issued by Cleveland-Cliffs Inc. (filed herewith).
23.1	Consent of Independent Registered Public Accounting Firm (filed herewith).
23.2	Consent of SLR Consulting US LLC (f/k/a SLR International Corporation) regarding Hibbing Taconite Property, Minnesota, USA (filed herewith).
23.3	Consent of SLR Consulting US LLC (f/k/a SLR International Corporation) regarding Minorca Property, Minnesota, USA (filed herewith).
23.4	Consent of SLR Consulting US LLC (f/k/a SLR International Corporation) regarding Northshore Property, Minnesota, USA (filed herewith).
23.5	Consent of SLR Consulting US LLC (f/k/a SLR International Corporation) regarding United Taconite Property, Minnesota, USA (filed herewith).
23.6	Consent of SLR Consulting US LLC (f/k/a SLR International Corporation) regarding Tilden Property, Michigan, USA (filed herewith).
24	Power of Attorney (filed herewith).
31.1	Certification Pursuant to 15 U.S.C. Section 7241, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, signed and dated by Lourenco Goncalves as of February 14, 2023 (filed herewith).
31.2	Certification Pursuant to 15 U.S.C. Section 7241, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, signed and dated by Celso L. Goncalves Jr. as of February 14, 2023 (filed herewith).
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed and dated by Lourenco Goncalves, Chairman, President and Chief Executive Officer of Cleveland-Cliffs Inc., as of February 14, 2023 (filed herewith).
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, signed and dated by Celso L. Goncalves Jr., Executive Vice President, Chief Financial Officer of Cleveland-Cliffs Inc., as of February 14, 2023 (filed herewith).
95	Mine Safety Disclosures (filed herewith).
96.1	Technical Report Summary on the Hibbing Taconite Property, Minnesota, USA, prepared for the Company by SLR International Corporation with an effective date of December 31, 2021 (filed as Exhibit 96.1 to Cliffs' Form 8-K on February 11, 2022 and incorporated herein by reference).
96.2	Technical Report Summary on the Minorca Property, Minnesota, USA, prepared for the Company by SLR International Corporation with an effective date of December 31, 2021 (filed as Exhibit 96.2 to Cliffs' Form 8-K on February 11, 2022 and incorporated herein by reference).
96.3	Technical Report Summary on the Northshore Property, Minnesota, USA, prepared for the Company by SLR International Corporation with an effective date of December 31, 2021 (filed as Exhibit 96.3 to Cliffs' Form 8-K on February 11, 2022 and incorporated herein by reference).
96.4	Technical Report Summary on the United Taconite Property, Minnesota, USA, prepared for the Company by SLR International Corporation with an effective date of December 31, 2021 (filed as Exhibit 96.4 to Cliffs' Form 8-K on February 11, 2022 and incorporated herein by reference).

Exhibit Number Exhibit

96.5	Technical Report Summary on the Tilden Property, Michigan, USA, prepared for the Company by SLR International Corporation with an effective date of December 31, 2021 (filed as Exhibit 96.5 to Cliffs' Form 10-K for the period ended December 31, 2021 and incorporated herein by reference).
101	The following financial information from Cleveland-Cliffs Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022 formatted in Inline XBRL (Extensible Business Reporting Language) includes: (i) the Statements of Consolidated Financial Position, (ii) the Statements of Consolidated Operations, (iii) the Statements of Consolidated Comprehensive Income, (iv) the Statements of Consolidated Cash Flows, (v) the Statements of Consolidated Changes in Equity, and (vi) Notes to the Consolidated Financial Statements.
104	The cover page from this Annual Report on Form 10-K, formatted in Inline XBRL.

*Indicates management contract or other compensatory arrangement.

ITEM 16. FORM 10-K SUMMARY

None.

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.

CLEVELAND-CLIFFS INC.

By: /s/ K. A. Floriani
Name: Kimberly A. Floriani
Title: Senior Vice President, Controller &
Chief Accounting Officer

Date: February 14, 2023

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ C. L. Goncalves</u> C. L. Goncalves	Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 14, 2023
<u>/s/ C. L. Goncalves Jr.</u> C. L. Goncalves Jr.	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	February 14, 2023
<u>/s/ K. A. Floriani</u> K. A. Floriani	Senior Vice President, Controller & Chief Accounting Officer (Principal Accounting Officer)	February 14, 2023
<u>*</u> J. T. Baldwin	Director	February 14, 2023
<u>*</u> R. P. Fisher, Jr.	Director	February 14, 2023
<u>*</u> W. K. Gerber	Director	February 14, 2023
<u>*</u> S. M. Green	Director	February 14, 2023
<u>*</u> R. S. Michael, III	Director	February 14, 2023
<u>*</u> J. L. Miller	Director	February 14, 2023
<u>*</u> G. Stoliar	Director	February 14, 2023
<u>*</u> D. C. Taylor	Director	February 14, 2023
<u>*</u> A. M. Yocum	Director	February 14, 2023

* The undersigned, by signing his name hereto, does sign and execute this Annual Report on Form 10-K pursuant to a Power of Attorney executed on behalf of the above-indicated directors of the registrant and filed herewith as Exhibit 24 on behalf of the registrant.

By: /s/ C. L. Goncalves Jr.
(C. L. Goncalves Jr., as Attorney-in-Fact)

**DESCRIPTION OF SECURITIES REGISTERED UNDER
SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

The following is a summary of the terms and provisions of the common shares, par value \$0.125 per share ("Common Shares"), of Cleveland-Cliffs Inc., an Ohio corporation (the "Company"), and is qualified by reference to the Company's articles of incorporation and regulations, which are incorporated by reference herein and attached as exhibits to the Company's most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission, and to applicable provisions of Ohio law.

Common Shares

The Company has authorized 1,200,000,000 Common Shares. The holders of Common Shares are entitled to one vote for each share on all matters upon which shareholders have the right to vote and, upon proper notice, are entitled to cumulative voting rights in the election of directors. The Common Shares do not have any preemptive rights, are not subject to redemption and do not have the benefit of any sinking fund. Holders of Common Shares are entitled to receive such dividends as the Company's directors from time to time may declare out of funds legally available therefor. Entitlement to dividends is subject to the preferences granted to other classes of securities the Company has or may have outstanding in the future. In the event of the Company's liquidation, holders of Common Shares are entitled to share in any of the Company's assets remaining after satisfaction in full of its liabilities and satisfaction of such dividend and liquidation preferences as may be possessed by the holders of other classes of securities the Company has or may have outstanding in the future.

Preferred Stock

The Company has authorized 3,000,000 shares of serial preferred stock, Class A, without par value ("Class A Preferred Stock"), and 4,000,000 shares of serial preferred stock, Class B, without par value ("Class B Preferred Stock" and, collectively with the Class A Preferred Stock, "Preferred Stock"). Under the Company's articles of incorporation, the Company's board of directors can issue, without further shareholder action, up to 3,000,000 shares of Class A Preferred Stock and up to 4,000,000 shares of Class B Preferred Stock, in each case, with such rights and restrictions as the Company's board of directors may determine, subject to any shares of Preferred Stock of the applicable class then outstanding.

In some cases, the issuance of Preferred Stock could delay, defer or prevent a change in control and make it harder to remove present management, without further action by the Company's shareholders. Under some circumstances, Preferred Stock could also decrease the amount of earnings and assets available for distribution to holders of Common Shares if the Company liquidates or dissolves and could also restrict or limit dividend payments to holders of Common Shares.

Ohio Control Share Acquisition Statute

The Ohio Control Share Acquisition Statute requires the prior authorization of the shareholders of certain corporations in order for any person to acquire, either directly or indirectly, shares of that corporation that would entitle the acquiring person to exercise or direct the exercise of 20% or more of the voting power of that corporation in the election of directors or to exceed specified other percentages of voting power. In the event an acquiring person proposes to make such an acquisition, the person is required to deliver to the corporation a statement disclosing, among other things, the number of shares owned, directly or indirectly, by the person, the range of voting power that may result from the proposed acquisition and the identity of the acquiring person. Within 10 days after receipt of this statement, the corporation must call a special meeting of shareholders to vote on the proposed acquisition. The acquiring person may complete the proposed acquisition only if the acquisition is approved by the affirmative vote of the holders of at least a majority of the voting power of all shares entitled to vote in the election of directors represented at the meeting excluding the voting power of all "interested shares." Interested shares include any shares held by the acquiring person and those held by officers and directors who are employees of the corporation as well as by certain others, including many holders commonly characterized as arbitrageurs. The Ohio Control Share Acquisition Statute does not apply to a corporation if its articles of incorporation or code of regulations state that the statute does not apply to such corporation. Neither the Company's articles of incorporation nor its regulations contain a provision opting out of this statute.

Ohio Interested Shareholder Statute

Chapter 1704 of the Ohio Revised Code prohibits certain corporations from engaging in a "chapter 1704 transaction" with an "interested shareholder" for a period of three years after the date of the transaction in which the person became an interested shareholder, unless, among other things:

- the articles of incorporation expressly provide that the corporation is not subject to the statute (the Company has not made this election); or
- the board of directors of the corporation approves the chapter 1704 transaction or the acquisition of the shares before the date the shares were acquired.

After the three-year moratorium period, the corporation may not consummate a chapter 1704 transaction unless, among other things, it is approved by the affirmative vote of the holders of at least two-thirds of the voting power in the election of directors and the holders of a majority of the voting shares, excluding all shares beneficially owned by an interested shareholder or an affiliate or associate of an interested shareholder, or the shareholders receive certain minimum consideration for their shares. A chapter 1704 transaction includes certain mergers, sales of assets, consolidations, combinations and majority share acquisitions involving an interested shareholder. An interested shareholder is defined to include, with limited exceptions, any person who, together with affiliates and associates, is the beneficial owner of a sufficient number of shares of the corporation to entitle the person, directly or indirectly, alone or with others, to exercise or direct the exercise of 10% or more of the voting power in the election of directors after taking into account all of the person's beneficially owned shares that are not then outstanding.

CLEVELAND-CLIFFS INC.
SUBSIDIARIES
AS OF DECEMBER 31, 2022

Name	Place of Incorporation or Organization
Cannon Automotive Solutions - Bowling Green, Inc.	Delaware
Cleveland-Cliffs Burns Harbor LLC	Delaware
Cleveland-Cliffs Cleveland Works LLC	Delaware
Cleveland-Cliffs Columbus LLC	Delaware
Cleveland-Cliffs FPT Services Company	Ohio
Cleveland-Cliffs Investments Inc.	Ohio
Cleveland-Cliffs Kote Inc.	Delaware
Cleveland-Cliffs Kote L.P.	Delaware
Cleveland-Cliffs Minorca Mine Inc.	Delaware
Cleveland-Cliffs Monessen Coke LLC	Delaware
Cleveland-Cliffs Plate LLC	Delaware
Cleveland-Cliffs Railways Inc.	Delaware
Cleveland-Cliffs Riverdale LLC	Delaware
Cleveland-Cliffs Services Holding Company	Ohio
Cleveland-Cliffs South Chicago & Indiana Harbor Railway Inc.	Delaware
Cleveland-Cliffs Steel Corporation	Delaware
Cleveland-Cliffs Steel Holding Corporation	Delaware
Cleveland-Cliffs Steel Holdings Inc.	Ohio
Cleveland-Cliffs Steel LLC	Delaware
Cleveland-Cliffs Steel Management Inc.	Delaware
Cleveland-Cliffs Steel Properties Inc.	Delaware
Cleveland-Cliffs Steelton LLC	Delaware
Cleveland-Cliffs Steelworks Railway Inc.	Delaware
Cleveland-Cliffs Tek Inc.	Delaware
Cleveland-Cliffs Tek Kote Acquisition Corporation	Ohio
Cleveland-Cliffs Tek L.P.	Delaware
Cleveland-Cliffs Tooling and Stamping Company	Delaware
Cleveland-Cliffs Tooling and Stamping Holdings LLC	Delaware
Cleveland-Cliffs Tubular Components LLC	Delaware
Cleveland-Cliffs Weirton LLC	Delaware
Cliffs Mining Company	Delaware
Cliffs Minnesota Mining Company	Delaware
Cliffs Steel Inc.	Ohio
Cliffs TIOP Holding, LLC	Delaware
Cliffs TIOP, Inc.	Michigan
Cliffs TIOP II, LLC	Delaware
Cliffs UTAC Holding LLC	Delaware
Ferrous Processing and Trading Company	Michigan
Fleetwood Metal Industries, LLC	Delaware
FPT Cleveland, LLC	Michigan
IronUnits LLC	Delaware
Lake Superior & Ishpeming Railroad Company	Michigan

Name	Place of Incorporation or Organization
Metallics Sales Company	Delaware
Mid-Vol Coal Sales, Inc.	West Virginia
Mountain State Carbon, LLC	Delaware
Northshore Mining Company	Delaware
Silver Bay Power Company	Delaware
SNA Carbon, LLC	Delaware
The Cleveland-Cliffs Iron Company	Ohio
Tilden Mining Company L.C.	Michigan
United Taconite LLC	Delaware

The following entities are included in the obligated group as of December 31, 2022, as defined in the Annual Report on Form 10-K of Cleveland Cliffs Inc. to which this document is being filed as an exhibit, including Cleveland-Cliffs Inc., as the parent and issuer, and the subsidiary guarantors that have guaranteed the obligations under the 6.750% 2026 Senior Secured Notes, the 5.875% 2027 Senior Notes, the 7.000% 2027 Senior Notes, the 4.625% 2029 Senior Notes and the 4.875% 2031 Senior Notes issued by Cleveland-Cliffs Inc.

Exact Name of Issuer or Guarantor Subsidiary (1) (2)	State of Incorporation or Organization	IRS Employer Identification Number
Cleveland-Cliffs Inc.	Ohio	34-1464672
Cannon Automotive Solutions - Bowling Green, Inc.	Delaware	26-0766559
Cleveland-Cliffs Burns Harbor LLC	Delaware	20-0653414
Cleveland-Cliffs Cleveland Works LLC	Delaware	04-3634649
Cleveland-Cliffs Columbus LLC	Delaware	01-0807137
Cleveland-Cliffs Investments Inc.	Ohio	31-1283531
Cleveland-Cliffs Kote Inc.	Delaware	36-3665216
Cleveland-Cliffs Kote L.P.	Delaware	36-3665288
Cleveland-Cliffs Minorca Mine Inc.	Delaware	36-2814042
Cleveland-Cliffs Monessen Coke LLC	Delaware	25-1850170
Cleveland-Cliffs Plate LLC	Delaware	20-0653500
Cleveland-Cliffs Railways Inc.	Delaware	56-2348283
Cleveland-Cliffs Riverdale LLC	Delaware	74-3062732
Cleveland-Cliffs South Chicago & Indiana Harbor Railway Inc.	Delaware	04-3634638
Cleveland-Cliffs Steel Corporation	Delaware	31-1267098
Cleveland-Cliffs Steel Holding Corporation	Delaware	31-1401455
Cleveland-Cliffs Steel Holdings Inc.	Ohio	85-4084783
Cleveland-Cliffs Steel LLC	Delaware	71-0871875
Cleveland-Cliffs Steel Management Inc.	Delaware	51-0390893
Cleveland-Cliffs Steel Properties Inc.	Delaware	51-0390894
Cleveland-Cliffs Steelton LLC	Delaware	20-0653772
Cleveland-Cliffs Steelworks Railway Inc.	Delaware	04-3634622
Cleveland-Cliffs Tek Inc.	Delaware	36-3519946
Cleveland-Cliffs Tek Kote Acquisition Corporation	Ohio	85-4304182
Cleveland-Cliffs Tek L.P.	Delaware	363525438
Cleveland-Cliffs Tooling and Stamping Company	Delaware	22-3639336
Cleveland-Cliffs Tooling and Stamping Holdings LLC	Delaware	31-1283531
Cleveland-Cliffs Tubular Components LLC	Delaware	31-1283531
Cleveland-Cliffs Weirton LLC	Delaware	56-2435202
Cliffs Mining Company	Delaware	34-1120353
Cliffs Minnesota Mining Company	Delaware	42-1609117
Cliffs Steel Inc.	Ohio	87-3972693
Cliffs TIOP Holding, LLC	Delaware	47-2182060
Cliffs TIOP, Inc.	Michigan	34-1371049
Cliffs TIOP II, LLC	Delaware	61-1857848
Cliffs UTAC Holding LLC	Delaware	26-2895214
Fleetwood Metal Industries, LLC	Delaware	98-0508950
IronUnits LLC	Delaware	34-1920747
Lake Superior & Ishpeming Railroad Company	Michigan	38-6005761
Metallics Sales Company	Delaware	84-2076079
Mid-Vol Coal Sales, Inc.	West Virginia	55-0761501
Mountain State Carbon, LLC	Delaware	31-1267098
Northshore Mining Company	Delaware	84-1116857

Exact Name of Issuer or Guarantor Subsidiary (1) (2)	State of Incorporation or Organization	IRS Employer Identification Number
Silver Bay Power Company	Delaware	84-1126359
SNA Carbon, LLC	Delaware	31-1267098
The Cleveland-Cliffs Iron Company	Ohio	34-0677332
Tilden Mining Company L.C.	Michigan	34-1804848
United Taconite LLC	Delaware	42-1609118

(1) The address and phone number of each issuer and guarantor subsidiary is c/o Cleveland-Cliffs Inc., 200 Public Square, Suite 3300, Cleveland, Ohio 44114, (216) 694-5700.

(2) Cleveland-Cliffs Inc. is the issuer, all other entities listed are guarantor subsidiaries.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in:

Registration Statement No. 333-237324 on Form S-3;

Registration Statement No. 333-184620 on Form S-8 pertaining to the Cliffs Natural Resources Inc. 2012 Incentive Equity Plan;

Registration Statement No. 333-197687 on Form S-8 pertaining to the Cliffs Natural Resources Inc. Amended and Restated 2012 Incentive Equity Plan;

Registration Statement No. 333-197688 on Form S-8 pertaining to the Cliffs Natural Resources Inc. 2014 Nonemployee Directors' Compensation Plan;

Registration Statement No. 333-204369 on Form S-8 pertaining to the Cliffs Natural Resources Inc. 2015 Equity and Incentive Compensation Plan;

Registration Statement No. 333-210954 on Form S-8 pertaining to the Cliffs Natural Resources Inc. Amended and Restated 2014 Nonemployee Directors' Compensation Plan;

Registration Statement No. 333-217506 on Form S-8 pertaining to the Cliffs Natural Resources Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan;

Registration Statement No. 333-237144 on Form S-8 pertaining to the Cliffs Natural Resources Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan;

Registration Statement No. 333-255571 on Form S-8 pertaining to the Cleveland-Cliffs Inc. 2021 Nonemployee Directors' Compensation Plan; and

Registration Statement No. 333-255572 on Form S-8 pertaining to the Cleveland-Cliffs Inc. 2021 Equity and Incentive Compensation Plan

of our reports dated February 14, 2023, relating to the financial statements of Cleveland-Cliffs Inc. and the effectiveness of Cleveland-Cliffs Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ DELOITTE & TOUCHE LLP

Cleveland, Ohio

February 14, 2023



February 13, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Cleveland-Cliffs Inc. (the “Company”)

SLR Consulting US LLC (“SLR”), in connection with the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 (the **Form 10-K**), consents to:

- the incorporation by reference by the Company and use of the technical report titled “Technical Report Summary on the Hibbing Taconite Property, Minnesota, USA” (the **“Technical Report Summary”**), with an effective date of December 31, 2021 and dated February 7, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;
- the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-237324) and Registration Statements on Form S-8 (Registration Nos. 333-255571, 333-255572, 333-237144, 333-217506, 333-210954, 333-204369, 333-197687, 333-197688 and 333-184620) (collectively, the **“Registration Statements”**);
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 10-K, the Registration Statements and the Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

SLR is responsible for authoring, and this consent pertains to, the Technical Report Summary. SLR certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

SLR Consulting US LLC (formerly SLR International Corporation)

Per:

(Signed) Richard J. Lambert

Richard J. Lambert, P.E., P.Eng.
Global Technical Director
Technical Director, Mining Advisory US



February 13, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Cleveland-Cliffs Inc. (the “Company”)

SLR Consulting US LLC (“SLR”), in connection with the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 (the “Form 10-K”), consents to:

- the incorporation by reference by the Company and use of the technical report titled “Technical Report Summary on the Minorca Property, Minnesota, USA” (the “**Technical Report Summary**”), with an effective date of December 31, 2021 and dated February 7, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;
- the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-237324) and Registration Statements on Form S-8 (Registration Nos. 333-255571, 333-255572, 333-237144, 333-217506, 333-210954, 333-204369, 333-197687, 333-197688 and 333-184620) (collectively, the “**Registration Statements**”);
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 10-K, the Registration Statements and the Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

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SLR Consulting US LLC (formerly SLR International Corporation)

Per:

(Signed) *Richard J. Lambert*

Richard J. Lambert, P.E., P.Eng.
Global Technical Director
Technical Director, Mining Advisory US



February 13, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Cleveland-Cliffs Inc. (the “Company”)

SLR Consulting US LLC (“SLR”), in connection with the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 (the **Form 10-K**), consents to:

- the incorporation by reference by the Company and use of the technical report titled “Technical Report Summary on the Northshore Property, Minnesota, USA” (the **“Technical Report Summary”**), with an effective date of December 31, 2021 and dated February 7, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;
- the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-237324) and Registration Statements on Form S-8 (Registration Nos. 333-255571, 333-255572, 333-237144, 333-217506, 333-210954, 333-204369, 333-197687, 333-197688 and 333-184620) (collectively, the **“Registration Statements”**);
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 10-K, the Registration Statements and the Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

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SLR Consulting US LLC (formerly SLR International Corporation)

Per:

(Signed) Richard J. Lambert

Richard J. Lambert, P.E., P.Eng.
Global Technical Director
Technical Director, Mining Advisory US



February 13, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Cleveland-Cliffs Inc. (the “Company”)

SLR Consulting US LLC (“SLR”), in connection with the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 (the **Form 10-K**), consents to:

- the incorporation by reference by the Company and use of the technical report titled “Technical Report Summary on the United Taconite Property, Minnesota, USA” (the **“Technical Report Summary”**), with an effective date of December 31, 2021 and dated February 7, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;
- the incorporation by reference of the Technical Report Summary into the Company’s Registration Statement on Form S-3 (Registration No. 333-237324) and Registration Statements on Form S-8 (Registration Nos. 333-255571, 333-255572, 333-237144, 333-217506, 333-210954, 333-204369, 333-197687, 333-197688 and 333-184620) (collectively, the **“Registration Statements”**);
- the use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 10-K, the Registration Statements and the Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

SLR is responsible for authoring, and this consent pertains to, the Technical Report Summary. SLR certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

SLR Consulting US LLC (formerly SLR International Corporation)

Per:

(Signed) Richard J. Lambert

Richard J. Lambert, P.E., P.Eng.
Global Technical Director
Technical Director, Mining Advisory US



February 13, 2023

CONSENT OF QUALIFIED PERSON

Re: Form 10-K of Cleveland-Cliffs Inc. (the "Company")

SLR Consulting US LLC ("SLR"), in connection with the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Form 10-K"), consents to:

- the incorporation by reference by the Company and use of the technical report titled "Technical Report Summary on the Tilden Property, Michigan, USA" (the "Technical Report Summary"), with an effective date of December 31, 2021 and dated February 7, 2022, that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission, as an exhibit to and referenced in the Form 10-K;
- the incorporation by reference of the Technical Report Summary into the Company's Registration Statement on Form S-3 (Registration No. 333-237324) and Registration Statements on Form S-8 (Registration Nos. 333-255571, 333-255572, 333-237144, 333-217506, 333-210954, 333-204369, 333-197687, 333-197688 and 333-184620) (collectively, the "Registration Statements");
- the use of and references to our name, including our status as an expert or "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the U.S. Securities and Exchange Commission), in connection with the Form 10-K, the Registration Statements and the Technical Report Summary; and
- any extracts from or a summary of the Technical Report Summary in the Form 10-K and incorporated by reference in the Registration Statements and the use of any information derived, summarized, quoted, or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of, and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K and the Registration Statements.

SLR is responsible for authoring, and this consent pertains to, the Technical Report Summary. SLR certifies that it has read the Form 10-K and that it fairly and accurately represents the information in the Technical Report Summary for which it is responsible.

SLR Consulting US LLC (formerly SLR International Corporation)

Per:

(Signed) *Richard J. Lambert*

Richard J. Lambert, P.E., P.Eng.
Global Technical Director
Technical Director, Mining Advisory US

POWER OF ATTORNEY

KNOW ALL PEOPLE BY THESE PRESENTS, that the undersigned Directors and officers of Cleveland-Cliffs Inc., an Ohio corporation ("Company"), hereby constitute and appoint C. Lourenco Goncalves, Celso L. Goncalves Jr., James D. Graham and Kimberly A. Floriani, and each of them, their true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for them and in their name, place and stead, to sign on their behalf as a Director or officer of the Company, or both, as the case may be, an Annual Report on Form 10-K pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2022, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney or attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as they might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Executed as of the 10th day of February, 2023.

/s/ C. L. Goncalves

C. L. Goncalves,
Chairman, President and Chief Executive Officer

/s/ K. A. Floriani

K. A. Floriani,
Senior Vice President, Controller & Chief Accounting Officer

/s/ R. P. Fisher, Jr.

R. P. Fisher, Jr., Director

/s/ S. M. Green

S. M. Green, Director

/s/ J. L. Miller

J. L. Miller, Director

/s/ D. C. Taylor

D. C. Taylor, Director

/s/ C. L. Goncalves Jr.

C. L. Goncalves Jr.,
Executive Vice President, Chief Financial Officer

/s/ J. T. Baldwin

J. T. Baldwin, Director

/s/ W. K. Gerber

W. K. Gerber, Director

/s/ R. S. Michael, III

R. S. Michael, III, Director

/s/ G. Stoliar

G. Stoliar, Director

/s/ A. M. Yocum

A. M. Yocum, Director

CERTIFICATION

I, Lourenco Goncalves, certify that:

1. I have reviewed this annual report on Form 10-K of Cleveland-Cliffs Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 14, 2023

By: /s/ Lourenco Goncalves
Lourenco Goncalves
Chairman, President and Chief Executive Officer

CERTIFICATION

I, Celso L. Goncalves Jr., certify that:

1. I have reviewed this annual report on Form 10-K of Cleveland-Cliffs Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 14, 2023

By: /s/ Celso L. Goncalves Jr.

Celso L. Goncalves Jr.

Executive Vice President, Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Cleveland-Cliffs Inc. (the "Company") on Form 10-K for the period ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Form 10-K"), I, Lourenco Goncalves, Chairman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

- (1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Form 10-K.

Date: February 14, 2023

By: /s/ Lourenco Goncalves

Lourenco Goncalves

Chairman, President and Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Cleveland-Cliffs Inc. (the "Company") on Form 10-K for the period ended December 31, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Form 10-K"), I, Celso L. Goncalves Jr., Executive Vice President, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

- (1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Form 10-K.

Date: February 14, 2023

By: /s/ Celso L. Goncalves Jr. _____

Celso L. Goncalves Jr.

Executive Vice President, Chief Financial Officer

MINE SAFETY DISCLOSURES

The operation of our mines located in the United States is subject to regulation by MSHA under the FMSH Act. MSHA inspects these mines on a regular basis and issues various citations and orders when it believes a violation has occurred under the FMSH Act. We present information below regarding certain mining safety and health citations that MSHA has issued with respect to our mining operations. In evaluating this information, consideration should be given to factors such as: (i) the number of citations and orders will vary depending on the size of the mine; (ii) the number of citations issued will vary from inspector to inspector and mine to mine, and (iii) citations and orders can be contested and appealed and, in that process, are often reduced in severity and amount, and are sometimes dismissed.

Under the Dodd-Frank Act, each operator of a coal or other mine is required to include certain mine safety results within its periodic reports filed with the SEC. As required by the reporting requirements included in §1503(a) of the Dodd-Frank Act, we present the following items regarding certain mining safety and health matters, for the period presented, for each of our mine locations that are covered under the scope of the Dodd-Frank Act:

- (A) The total number of violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under section 104 of the FMSH Act (30 U.S.C. 814) for which the operator received a citation from MSHA;
- (B) The total number of orders issued under section 104(b) of the FMSH Act (30 U.S.C. 814(b));
- (C) The total number of citations and orders for unwarrantable failure of the mine operator to comply with mandatory health or safety standards under section 104(d) of the FMSH Act (30 U.S.C. 814(d));
- (D) The total number of imminent danger orders issued under section 107(a) of the FMSH Act (30 U.S.C. 817(a));
- (E) The total dollar value of proposed assessments from MSHA under the FMSH Act (30 U.S.C. 801 et seq.);
- (F) Legal actions pending before the Federal Mine Safety and Health Review Commission involving such coal or other mine as of the last day of the period;
- (G) Legal actions instituted before the Federal Mine Safety and Health Review Commission involving such coal or other mine during the period; and
- (H) Legal actions resolved before the Federal Mine Safety and Health Review Commission involving such coal or other mine during the period.

During the year ended December 31, 2022, our mine locations did not receive any flagrant violations under section 110(b)(2) of the FMSH Act (30 U.S.C. 820(b)(2)) and did not receive any written notices of a pattern of violations, or the potential to have a pattern of such violations, under section 104(e) of the FMSH Act (30 U.S.C. 814(e)). In addition, there were no mining-related fatalities at any of our mine locations during this same period.

Following is a summary of the information described above for the year ended December 31, 2022:

		Year Ended December 31, 2022								
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	
Mine Name/ MSHA ID No.	Operation	Section 104 S&S Citations	Section 104(b) Orders	Section 104(d) Orders	Section 107(a) Citations & Orders	Total Dollar Value of MSHA Proposed Assessments (1)	Legal Actions Pending as of Last Day of Period	Legal Actions Instituted During Period	Legal Actions Resolved During Period	
Tilden / 2000422	Iron Ore	34	—	—	—	\$ 430,256	2 (2)	3	2	
Empire / 2001012	Iron Ore	—	—	—	—	\$ —	—	—	—	
Northshore Plant / 2100831	Iron Ore	6	—	—	—	\$ 44,860	—	5	10	
Northshore Mine / 2100209	Iron Ore	—	—	—	—	\$ 864	—	—	—	
United Taconite Plant / 2103404	Iron Ore	30	—	—	—	\$ 159,698	4 (3)	7	6	
United Taconite Mine / 2103403	Iron Ore	3	—	—	—	\$ 1,324	—	—	2	
Hibbing / 2101600	Iron Ore	5	—	—	—	\$ 32,330	1 (4)	5	5	
Minorca Mine / 2102449	Iron Ore	25	1	—	—	\$ 120,934	—	1	2	
AK Coal / North Fork / 3610041	Coal	—	—	—	—	\$ —	—	—	—	
Coal Innovations #1 / 3609406	Coal	—	—	—	—	\$ —	—	—	—	
Virginia Point No. 1 Surface Mine / 4407172	Coal	—	—	—	—	\$ 1,528	—	—	—	
Low Gap Surface Mine / 4605741	Coal	1	—	—	—	\$ 2,997	—	—	—	
Eckman Surface Mine / 4608647	Coal	—	—	—	—	\$ 1,392	—	—	—	
Redhawk Surface Mine / 4609300	Coal	—	—	—	—	\$ —	—	—	—	
Dry Branch Surface Mine / 4609395	Coal	2	1	2	—	\$ 40,563	2 (5)	2	—	
Dans Branch Surface Mine / 4609517	Coal	—	—	—	—	\$ —	—	—	—	
Eckman Loadout / 4603341	Coal	—	—	—	—	\$ —	—	—	—	
Roadfork Loadout / 4608278	Coal	—	—	—	—	\$ —	—	—	—	
Eckman Plant / 4609357	Coal	1	—	—	—	\$ 2,026	—	—	—	
Mine No. 35 / 4608131	Coal	—	—	—	—	\$ —	—	—	—	
Mine No. 39 / 4609261	Coal	37	—	—	—	\$ 33,166	1 (6)	2	5	
Mine No. 43 / 4609496	Coal	28	—	1	—	\$ 70,099	2 (7)	4	4	
Mine No. 44 / 4609523	Coal	2	—	—	—	\$ 2,154	—	—	—	

(1) Amounts included under the heading "Total Dollar Value of MSHA Proposed Assessments" are the total dollar amounts for proposed assessments received from MSHA on or before December 31, 2022.

(2) This number consists of 2 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(3) This number consists of 4 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(4) This number consists of 1 pending legal action related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(5) This number consists of 2 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(6) This number consists of 1 pending legal action related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(7) This number consists of 2 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.