CLIFFS
CLEVELAND-CLIFFS INC.

2019 Annual Report

BUILDING THE FUTURE

Toledo HBI Project

April 2018

February 2019

February 2020

Message from the CEO

Dear Fellow Shareholder,

In 2019 Cleveland-Cliffs set the stage for an enormous transformation that will keep this company thriving for the next century. Along with our second best financial performance in the past five years, we also laid the foundation of a strategy geared toward the future of clean steelmaking in the United States.

First, we made remarkable progress on the construction of our HBI plant in Toledo, Ohio. In 2017, when we exited our comfort zone and took on this project, we were well aware of the risks a project of this magnitude may trigger. We accepted that with the confidence that we would deliver, and that is exactly what happened in 2019. The construction of our HBI plant reached its most critical phase during the year, as we spent more than half of the nearly $1 billion total project cost, in preparation for a first-half 2020 start-up. On top of that, we also completed the $100 million upgrade at our Northshore pelletizing operation in Minnesota, allowing for that plant to supply DR-grade pellets to feed the needs of our HBI plant in Toledo. We look forward to adding to our portfolio an environmentally-friendly, high-performing, made in USA product that our evolving steel industry certainly needs.

Second, another major transformational change underway is our acquisition of AK Steel, announced in December of 2019. The addition of AK Steel makes Cleveland-Cliffs uniquely positioned to supply customized iron ore pellets, HBI, high-end carbon and stainless steels, and highly engineered steel parts in the United States. This long overdue and necessary transaction not only allows us to control our own destiny with our pellet supply, but also minimizes the influence of volatile commodity prices on our profitability, which negatively impacted us in 2019. As a Tier 1 supplier to the automotive industry, and with the highest automotive share of any steelmaker, the opportunities to address the fastest-growing segments of this sector are immense. We are prepared to hit the ground running when the transaction closes in March, similar to what we did when I took over Cleveland-Cliffs in 2014.

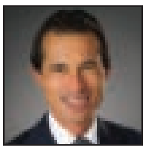
The evolution we have made since 2014 is remarkable. I took over a company that was fighting for survival, with a disjointed portfolio full of underperforming assets accumulated under a horribly misguided strategy. At that time, there was no assurance that Cleveland-Cliffs would survive, and some market and financial players were unequivocally ruling us out. **Just five years later, and with a lot of strategic and hard work applied, Cleveland-Cliffs is now about to close on a $3 billion acquisition of one of the most important names in domestic steel, as well as about to start up our brand new $1 billion HBI plant.**

On behalf of the Board of Directors, I thank our employees, the United Steelworkers, our clients and our long-term shareholders for their loyalty and support.

Lourenco Goncalves
Chairman, President and Chief Executive Officer

2019 Board of Directors

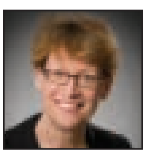
LOURENCO GONCALVES
Chairman, President and
Chief Executive Officer



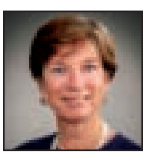
DOUGLAS C. TAYLOR
Lead Director,
Former Managing Partner
Casablanca Capital LP

JOHN T. BALDWIN
Former Chief Financial Officer
Worthington Industries

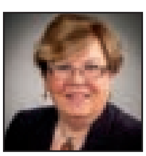
ROBERT P. FISHER, JR.
Former Managing Director
The Goldman Sachs Group, Inc.



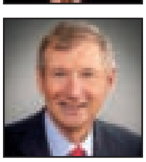
SUSAN M. GREEN
Former Deputy General Counsel
U. S. Congress Office of Compliance



M. ANN HARLAN
Former Vice President, General
Counsel and Corporate Secretary
The J.M. Smucker Company

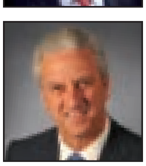


JANET MILLER
Former Chief Legal Officer and
Corporate Secretary
University Hospitals



JOSEPH A. RUTKOWSKI, JR.
Former Executive Vice President
Nucor Corporation

ERIC M. RYCHEL
Executive Vice President,
CFO and Treasurer
Aleris Corporation



MICHAEL D. SIEGAL
Executive Chairman of the Board
Olympic Steel, Inc.

GABRIEL STOLIAR
Former Executive Vice President
Vale SA

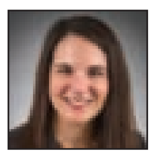
Executive Leadership

LOURENCO GONCALVES
Chairman, President and
Chief Executive Officer

CLIFFORD T. SMITH
Executive Vice President,
Chief Operating Officer

KEITH A. KOCI
Executive Vice President,
Chief Financial Officer

TERRY G. FEDOR
Executive Vice President,
Operations



TRACI L. FORRESTER
Executive Vice President,
Business Development

JAMES D. GRAHAM
Executive Vice President,
Chief Legal Officer and Secretary

MAURICE D. HARAPIAK
Executive Vice President,
Human Resources and
Chief Administration Officer

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, 2019

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

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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

As of June 28, 2019, 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 $10.67 per share as reported on the New York Stock Exchange — Composite Index, was $2,839,987,963 (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 271,441,006 as of February 18, 2020.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for its 2020 annual meeting of shareholders are incorporated by reference into Part III.

TABLE OF CONTENTS

DEFINITIONS

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

Abbreviation or acronym	Term
A&R 2015 Equity Plan	Cliffs Natural Resources Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan
ABL Facility	Amended and Restated Syndicated Facility Agreement by and among Bank of America, N.A., as Administrative Agent and Australian Security Trustee, the Lenders that are parties hereto, as the Lenders, Cleveland-Cliffs Inc., as Parent and a Borrower, and the Subsidiaries of Parent party hereto, as Borrowers dated as of March 30, 2015, and Amended and Restated as of February 28, 2018
Adjusted EBITDA	EBITDA excluding certain items such as extinguishment of debt, impacts of discontinued operations, foreign currency exchange remeasurement, severance, impairment of other long-lived assets, acquisition costs and intersegment corporate allocations of selling, general and administrative costs
AK Steel	AK Steel Holding Corporation and its consolidated subsidiaries (including AK Steel Corporation and its facilities in Ashland, Kentucky, Middletown, Ohio, and Dearborn, Michigan)
AK Steel 7.50% 2023 Notes	AK Steel Corporation’s existing 7.50% secured notes due 2023
AK Steel 7.625% 2021 Notes	AK Steel Corporation’s existing 7.625% unsecured notes due 2021
Algoma	Algoma Steel Inc. (previously, Essar Steel Algoma Inc.)
Amended 2015 Equity Plan	Cliffs Natural Resources Inc. 2015 Equity and Incentive Compensation Plan, as amended
APBO	Accumulated Postretirement Benefit Obligation
ArcelorMittal	ArcelorMittal (as the parent company of ArcelorMittal Mines Canada, ArcelorMittal USA and ArcelorMittal Dofasco GP, as well as, many other subsidiaries)
ArcelorMittal USA	ArcelorMittal USA LLC (including many of its United States affiliates, subsidiaries and representatives. References to ArcelorMittal USA comprise all such relationships unless a specific ArcelorMittal USA entity is referenced)
AMT	Alternative Minimum Tax
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Atlantic Basin pellet premium	Platts Atlantic Basin Blast Furnace 65% Fe pellet premium
Bloom Lake Group	Bloom Lake General Partner Limited and certain of its affiliates, including Cliffs Quebec Iron Mining ULC
BNSF	Burlington Northern Santa Fe, LLC
Canadian Entities	Bloom Lake Group, Wabush Group and certain other wholly-owned subsidiaries
CCAA	Companies' Creditors Arrangement Act (Canada)
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
Clean Water Act	Federal Water Pollution Control Act
CN	Canadian National Railway Company
Compensation Committee	Compensation and Organization Committee of the Board of Directors
Directors’ Plan	Cliffs Natural Resources Inc. Amended and Restated 2014 Nonemployee Directors’ Compensation Plan
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
DR-grade	Direct Reduction-grade
DRI	Direct Reduced Iron
EAF	Electric Arc Furnace
EBITDA	Earnings before interest, taxes, depreciation and amortization
Empire	Empire Iron Mining Partnership
EPA	U.S. Environmental Protection Agency
EPS	Earnings per share
ERM	Enterprise Risk Management
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
Fe	Iron
FeT	Total Iron
FIP	Federal Implementation Plan
FMSH Act	U.S. Federal Mine Safety and Health Act 1977, as amended
GAAP	Accounting principles generally accepted in the United States
GHG	Greenhouse gas
HBI	Hot Briquetted Iron
Hibbing	Hibbing Taconite Company, an unincorporated joint venture

Abbreviation or acronym	Term
Hot-rolled coil steel price	Average annual daily market price for hot-rolled coil steel
IRC	Internal Revenue Code
LIBOR	London Interbank Offered Rate
LIFO	Last-in, first-out
Long ton	2,240 pounds
LS&I	Lake Superior & Ishpeming Railroad Company
Merger	The merger of Merger Sub with and into AK Steel, with AK Steel surviving the merger as a wholly owned subsidiary of Cliffs, subject to the conditions set forth in the Merger Agreement
Merger Agreement	Agreement and Plan of Merger, dated as of December 2, 2019, among Cliffs, AK Steel and Merger Sub
Merger Sub	Pepper Merger Sub Inc., a direct, wholly owned subsidiary of Cliffs
Metric ton	2,205 pounds
MMBtu	Million British Thermal Units
MPCA	Minnesota Pollution Control Agency
MSHA	U.S. Mine Safety and Health Administration
Monitor	FTI Consulting Canada Inc.
NAAQS	National Ambient Air Quality Standards
Net ton	2,000 pounds
New ABL Facility	New asset-based revolving credit facility expected to be entered into in connection with the Merger to replace the ABL Facility
New Cliffs Secured/ Unsecured Notes	New series of secured notes and a new series of unsecured notes expected to be entered into in connection with the Merger to repurchase or redeem the AK Steel 7.50% 2023 Notes and, depending on market and other conditions, the AK Steel 7.625% 2021 Notes
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxide
Northshore	Northshore Mining Company
NYSE	New York Stock Exchange
OPEB	Other postretirement benefits
OPEB cap	Medical premium maximums
OSHA	Occupational Safety and Health Administration
PBO	Projected benefit obligation
Platts 62% price	Platts IODEX 62% Fe Fines cost and freight North China
PPI	Producer Price Indices
S&P	Standard & Poor's Rating Services, a division of Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and its successors
SEC	U.S. Securities and Exchange Commission
Securities Act	Securities Act of 1933, as amended
Silver Bay Power	Silver Bay Power Company
SIP	State Implementation Plan
SO_2	Sulfur dioxide
STRIPS	Separate Trading of Registered Interest and Principal of Securities
Tilden	Tilden Mining Company L.C.
TMDL	Total Maximum Daily Load
Topic 606	ASC Topic 606, Revenue from Contracts with Customers
Topic 815	ASC Topic 815, Derivatives and Hedging
TRIR	Total Recordable Incident Rate
TSR	Total Shareholder Return
United Taconite	United Taconite LLC
U.S.	United States of America
U.S. Steel	U.S. Steel Corporation and all subsidiaries
USW	United Steelworkers
VEBA	Voluntary Employee Benefit Association trusts
Wabush Group	Wabush Iron Co. Limited and Wabush Resources Inc., and certain of their affiliates, including Wabush Mines (an unincorporated joint venture of Wabush Iron Co. Limited and Wabush Resources Inc.), Arnaud Railway Company and Wabush Lake Railway Company
WEPC	Wisconsin Electric Power Company

PART I

Item 1. *Business*

Introduction

Founded in 1847, Cleveland-Cliffs Inc. is the largest and oldest independent iron ore mining company in the United States. We are a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. In 2020, we expect to be the sole producer of HBI in the Great Lakes region with the startup of our first production plant in Toledo, Ohio. Driven by the core values of safety, social, environmental and capital stewardship, our employees endeavor to provide all stakeholders with operating and financial transparency.

We are organized according to our differentiated products and have two reportable segments – the Mining and Pelletizing segment and the Metallics segment.

In our Mining and Pelletizing segment, we currently own or co-own four operational iron ore mines plus one indefinitely idled mine. We are currently operating one iron ore mine in Michigan and two iron ore mines in Minnesota. Additionally, we have a 23% ownership stake in a third iron ore mine in Minnesota. All four mines are currently operating at or near their respective current annual capacity. In our Metallics segment, we expect to complete construction of our HBI production plant in Toledo, Ohio and begin operations during the first half of 2020.

On December 2, 2019, we entered into the Merger Agreement, pursuant to which we have agreed to acquire AK Steel, a leading North American producer of flat-rolled carbon, stainless and electrical steel products, primarily for the automotive, infrastructure and manufacturing markets. We expect to complete the Merger in the first quarter of 2020. We believe the transaction will transform us into a best-in-class iron ore and steel producer with industry leading margins and a self-sufficiency in iron ore, along with the synergy value created from the combination of two public companies. Unless otherwise noted, discussion of our business and results of operations in this Annual Report on Form 10-K refers to our continuing operations on a stand-alone basis without giving effect to the Merger.

Protecting our Mining and Pelletizing Business

We are the market-leading iron ore producer in the U.S., supplying differentiated iron ore pellets under long-term contracts to major North American blast furnace steel producers. We have the unique advantage of being a low-cost, high-quality, iron ore pellet producer with significant transportation and logistics advantages to serve the Great Lakes steel market. The pricing structure and long-term nature of our existing contracts, along with our low-cost operating profile, position our Mining and Pelletizing segment as a strong cash flow generator in most commodity pricing environments. Since instituting our strategy in 2014 of focusing on this business, we have achieved significant accomplishments, including maximizing commercial leverage in pricing and securing sales volume certainty with steelmakers throughout the Great Lakes region, improving operating reliability by making operational improvements, realizing more predictability in cash flows, developing new demand avenues in the metallics industry, embracing the global push toward environmental stewardship and developing new pellet products to meet ever-evolving market demands.

We recognize the importance of our current strong position in the North American blast furnace steel industry, and one of our top priorities is to protect and enhance the market position of our Mining and Pelletizing business. This involves continuing to deliver high-quality, custom-made pellets that allow our customers to remain competitive in the quality, production efficiency, and environmental friendliness of their steel products. Protecting this business also involves continually evaluating opportunities to preserve our customer base, expand our production capacity and increase ore reserve life. In 2017, we achieved key accomplishments toward these goals by acquiring the remaining minority stake in our Tilden and Empire mines as well as additional real estate interests in Minnesota. In 2018, we began supplying pellets under two new customer supply agreements in the Great Lakes region. In addition, we executed the efficient exit of our Asia Pacific Iron Ore business, officially completing the divestiture of the Company's non-core iron ore assets. In 2019, we completed the upgrades at our Northshore mine to begin commercially producing DR-grade pellets.

The acquisition of AK Steel, when complete, is expected to ensure pellet volume commitments for approximately 6 million long tons of pellets, to complement our existing long-term minimum volume pellet offtake agreements with other key integrated steel producers and pellets to be consumed at our Toledo HBI production plant.

Expanding our Customer Base and Product Offering

The acquisition of AK Steel, when complete, is expected to allow us to benefit from a larger and more diverse base of customers, with less overall emphasis on commodity-linked contracts. The expansion of our customer base into the automotive industry, as well as other steel consuming manufacturers, through the acquisition of AK Steel is expected to generate more predictable earnings and cash flows due to the focus on value-added and non-commoditized products, and less exposure to volatile commodity indices. AK Steel is one of the few steel producers capable of producing the carbon and stainless steel grades critical to automotive lightweighting trends. AK Steel generally supplies more advanced steel products than EAF steelmakers, who have gained market share from other blast furnaces on less advanced commodity-grade steels. As currently configured, EAFs are largely unable to supply the highly-specified products that AK Steel primarily sells.

Although AK Steel has a different customer base compared to other blast furnace steelmakers, we cannot ignore the ongoing shift of steelmaking share in the U.S. away from our other blast furnace customers to the EAF steelmakers. Over the past 25 years, the market share of EAFs has nearly doubled. However, as EAFs have moved to higher-value steel products, they require more high-quality iron ore-based metallics instead of lower-grade scrap as raw material feedstock. As a result of this trend, one of our top strategic priorities will be to become a critical supplier of the EAF market by providing these specialized metallics.

In June 2017, we announced the planned construction of an HBI production plant in Toledo, Ohio. Over the past 32 months, we have made significant progress on the construction of this plant. During 2018, we increased the expected productive capacity of the Toledo HBI production plant from 1.6 million to 1.9 million metric tons per year based on market analysis, greater-than-expected customer demand and expansion opportunities identified during the construction process. We estimate the construction cost to be approximately $830 million plus a contingency of up to 20%, excluding capitalized interest, of which approximately $700 million was paid as of December 31, 2019. We expect that the HBI production plant, once operational, will consume approximately 2.8 million long tons of our DR-grade pellets per year. During 2019, we announced that we expect to reach commercial production ahead of schedule, in the first half of 2020.

We expect our HBI partially to replace the over 3 million metric tons of ore-based metallics that are imported into the Great Lakes region every year from Russia, Ukraine, Brazil and Venezuela, as well as the nearly 20 million metric tons of scrap used in the Great Lakes area every year. The Toledo site is in close proximity to over 20 EAFs, giving us a natural competitive freight advantage over import competitors. Not only does this production plant create another outlet for our high-margin pellets, but it also presents an attractive economic opportunity for us. As the only producer of DR-grade pellets in the Great Lakes region and with access to abundant, low-cost natural gas, we will be in a unique position to serve clients in the area and grow our customer base.

The acquisition of AK Steel, when complete, provides another potential outlet for HBI as it can also be used in integrated steel operations to increase productivity and reduce carbon footprint, allowing for more environmentally friendly steelmaking. AK Steel has used imported HBI in the past for these purposes.

Segments

Operating segments are defined as components of an enterprise for which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision-making group, to decide how to allocate resources and to assess performance. Our Company’s continuing operations are organized and managed in two business units according to our differentiated products: Mining and Pelletizing and Metallics. Until operational, expenses incurred in the Metallics segment will be recorded to *Miscellaneous - net*. Each of our business units qualifies as an operating segment with its results regularly reviewed by our chief operating decision maker. Our chief operating decision maker is our Chief Executive Officer. As of December 31, 2019, the Mining and Pelletizing segment and the Metallics segment are both reportable segments in accordance with *ASC Topic 280, Segment Reporting*.

Mining and Pelletizing Segment

We are a major producer of iron ore pellets, primarily selling production from our Mining and Pelletizing segment to integrated steel companies in the U.S. and Canada. We operate three iron ore mines: the Tilden mine in Michigan and the Northshore and United Taconite mines in Minnesota. Additionally, we have a 23% ownership stake in the Hibbing mine in Minnesota. These mines currently have an annual rated capacity of 27.4 million long tons of iron ore pellet production, representing 55% of total U.S. pellet production capacity. Based on our equity ownership in these mines, our share of the annual rated production capacity is currently 21.2 million long tons, representing 42% of total U.S. annual pellet capacity. The Empire mine located in Michigan, which historically had annual rated capacity of 5.5 million long tons, was indefinitely idled beginning in August 2016. During 2017, we acquired the remaining noncontrolling interest of the Empire and Tilden mines from ArcelorMittal USA and U.S. Steel, respectively. On August 12, 2019, our subsidiary, Cliffs Mining Company, ceased performing manager duties for the Hibbing mine and transitioned those duties to ArcelorMittal USA. Prior to this transition, we managed the Hibbing mine and our joint venture partners made required capital contributions and paid for their share of the iron ore pellets that we produced.

The following chart summarizes the estimated annual pellet production capacity and percentage of total U.S. pellet production capacity for each of the respective iron ore producers as of December 31, 2019:

U.S. Pellet

Annual Rated Capacity Tonnage

	Current Estimated Capacity (Long Tons in Millions)[1]	Percent of Total U.S. Capacity
All Cliffs' owned and co-owned mines	27.4	54.8%
Other U.S. mines		
U.S. Steel's Minnesota ore operations		
Minnesota Taconite	14.3	28.6
Keewatin Taconite	5.4	10.8
Total U.S. Steel	19.7	39.4
ArcelorMittal USA Minorca mine	2.9	5.8
Total other U.S. mines	22.6	45.2
Total U.S. mines	50.0	100.0%

[1] Empire mine was excluded from the estimated capacity calculation as it is indefinitely idled.

Our Mining and Pelletizing segment production generally is sold pursuant to long-term supply agreements. For the year ended December 31, 2019, our owned and co-owned mines produced a total of 25.7 million long tons of iron ore pellets. The 2019 production included 19.9 million long tons for our account and 5.8 million long tons on behalf of our steel company partners associated with the Hibbing mine. During 2018 and 2017, our owned and co-owned mines produced a total of 26.3 million and 25.5 million long tons, respectively.

We produce various grades of iron ore pellets, including standard, fluxed and DR-grade, generally for use in our customers' operations as part of the steelmaking process. The variation in grade of iron ore pellets results from the specific chemical and metallurgical properties of the ores at each mine, the requirements of end users' steelmaking processes and whether or not fluxstone is added in the process. Although the grade or grades of pellets currently delivered to each customer are based on that customer's preferences, which depend in part on the characteristics of the customer's steelmaking operation, in certain cases our iron ore pellets can be used interchangeably. Standard pellets require less processing, are generally the least costly pellets to produce and are called "standard" because no ground fluxstone, such as limestone or dolomite, is added to the iron ore concentrate before turning the concentrate into pellets. In the case of fluxed pellets, fluxstone is added to the concentrate, which produces pellets that can perform at higher productivity levels in the customer's specific blast furnace and will minimize the amount of fluxstone the customer may be required to add to the blast furnace. DR-grade pellets require additional processing to make a pellet that contains higher iron and lower silica content than a standard pellet. Unlike standard or fluxed pellets, DR-grade pellets are produced to be fed into a DRI facility, which then are converted into DRI or HBI.

Additionally, as the EAF steel market continues to grow in the U.S., there is an opportunity for our iron ore to serve this market by providing pellets to the alternative metallics market to produce DRI, HBI and/or pig iron. During 2019, we began commercially producing and selling DR-grade pellets to our Metallics business unit and third parties.

Each of our Mining and Pelletizing segment mines is located near the Great Lakes. The majority of our iron ore pellets are transported via railroads to loading ports for shipment via vessel to blast furnace steelmakers in North America.

Our sales are influenced by seasonal factors in the first quarter of the year as shipments and sales are restricted due to closure of the Soo Locks at Sault Ste. Marie and the Welland Canal on the Great Lakes because of winter weather. During the first quarter, we continue to produce our products, but we cannot ship most of those products via lake vessel until the conditions on the Great Lakes are navigable, which causes our first and second quarter inventory levels to rise. Our limited practice of shipping product to ports on the lower Great Lakes or to customers' facilities prior to the transfer of control has somewhat mitigated the seasonal effect on first and second quarter inventories, as shipment from this point to the customers' operations is not limited by weather-related shipping constraints. As of December 31, 2019 and December 31, 2018, under Topic 606, we had finished goods of 1.0 million long tons and 0.8 million long tons, respectively, in transit or stored at ports and customer facilities on the lower Great Lakes to service customers, for which revenue had yet to be recognized. As of December 31, 2017, under the previous accounting standard, we had finished goods of 1.5 million long tons stored at ports and customer facilities on the lower Great Lakes to service customers for which revenue had yet to be recognized. Refer to NOTE 1 - BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES for further discussion on revenue recognition.

Mining and Pelletizing Customers

Our Mining and Pelletizing segment revenues primarily are derived from sales of iron ore pellets to the North American integrated steel industry, consisting primarily of three major customers. Generally, we have multi-year supply agreements with our customers. Sales volume under these agreements largely is dependent on customer requirements, and in certain cases, we are the sole supplier of iron ore to the customer. Most agreements contain a base price that is adjusted annually using one or more adjustment factors. Factors that could result in price adjustments under our contracts include changes in the Platts 62% price, hot-rolled coil steel price, the Atlantic Basin pellet premium, published Platts international indexed freight rates and changes in specified PPI, including those for industrial commodities, fuel and steel.

During 2019, 2018 and 2017, we sold 18.6 million, 20.6 million and 18.7 million long tons of iron ore product, respectively, to third parties from our share of production from our Mining and Pelletizing segment mines. Additionally, during 2019, we had intersegment sales of 0.8 million long tons of iron ore product. Refer to *Concentration of Customers* below for additional information regarding our major customers.

Metallics Segment

In June 2017, we announced the construction of an HBI production plant in Toledo, Ohio and in April 2018, we celebrated the ground breaking for the start of construction. Over the past 32 months, we have made significant progress on the construction of this plant. HBI is a specialized high-quality iron alternative to scrap that, when used as a feedstock, allows an EAF to produce more valuable grades of steel. We expect our HBI partially to replace the over 3 million metric tons of ore-based metallics that are imported into the Great Lakes region every year from Russia, Ukraine, Brazil and Venezuela, as well as approximately 20 million metric tons of scrap used in the Great Lakes area every year.

During 2018, we increased the expected productive capacity of the Toledo HBI production plant from 1.6 million to 1.9 million metric tons per year based on market analysis, greater-than-expected customer demand and expansion opportunities identified during the construction process. We expect that the HBI production plant, once operational, will consume approximately 2.8 million long tons of DR-grade pellets per year from our Mining and Pelletizing segment. We expect to reach commercial production in the first half of 2020.

Discontinued Operations

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

Asia Pacific Iron Ore Operations

During 2018, we committed to a course of action leading to the permanent closure of the Asia Pacific Iron Ore mining operations and sold all of the assets of our Asia Pacific Iron Ore business through a series of sales to third parties. As a result of our exit, management determined that our Asia Pacific Iron Ore operating segment met the criteria to be classified as held for sale and a discontinued operation under *ASC Topic 205, Presentation of Financial Statements*.

As such, all current and historical Asia Pacific Iron Ore operating segment results are classified within discontinued operations.

Historically, the Asia Pacific Iron Ore operations served the Asian iron ore markets with direct-shipped fines and lump ore. During 2018 and 2017, we produced 2.7 million and 10.1 million metric tons, respectively, from our Asia Pacific Iron Ore operation. During 2018 and 2017, we sold 3.9 million and 9.8 million metric tons of iron ore, respectively, from our Asia Pacific Iron Ore operation.

Refer to NOTE 13 - DISCONTINUED OPERATIONS for further discussion of the Asia Pacific Iron Ore segment.

Canadian Operations

During 2015, we announced that the Bloom Lake Group and the Wabush Group commenced restructuring proceedings in Montreal, Quebec under the CCAA to address the immediate liquidity issues and to preserve and protect their assets for the benefit of all stakeholders while restructuring and/or sale options were explored.

The Bloom Lake Group and the Wabush Group filed a joint plan of compromise and arrangement that was approved by the required majorities of each unsecured creditor class and was sanctioned by the Court in June 2018. During July 2018, amendments were made to the plan to address the manner in which certain distributions under the plan would be effected and the plan was implemented. Under the terms of the amended plan, all employee claims, all claims by the Bloom Lake Group, the Wabush Group and their respective creditors against us as well as all of our claims against the Bloom Lake Group and the Wabush Group were resolved.

Expenses directly associated with the Canadian Entities are classified within discontinued operations. Refer to NOTE 13 - DISCONTINUED OPERATIONS for further discussion of the Canadian operations.

Applied Technology, Research and Development

We have been a leader in iron ore mining and processing technology since inception and have been in operation for over 170 years. We operated some of the first mines on Michigan’s Marquette Iron Range and pioneered early open-pit and underground mining methods. From the first application of electrical power in Michigan’s underground mines to the use of today’s sophisticated computers and global positioning satellite systems, we have been a leader in the application of new technology to the centuries-old business of mineral extraction.

We are also a pioneer in iron ore pelletizing with over 60 years of experience. We are able to produce customized, environmentally friendly pellets to meet each customer’s blast furnace specifications and produce both standard and fluxed pellets. Today, our engineering and technical staffs are engaged in full-time technical support of our operations, improvement of existing products and development of new products. Using our technical expertise and strong market position in the U.S. to increase our product offering, we have started producing DR-grade pellets. In recent years, we shipped DR-grade pellets, which were successfully processed in multiple DRI reactors to produce a high-quality DRI product.

With our experienced technical professionals and unsurpassed reputation for our pelletizing technology, we continue to deliver a world-class quality product to our customers. We are a pioneer in the development of emerging reduction technologies, a leader in the extraction of value from challenging resources and a front-runner in the implementation of safe and sustainable technology. Our technical experts are dedicated to excellence and deliver superior technical solutions tailored to our customer base. We are also devoted to promoting environmental sustainability in our industry, primarily evidenced with the development of our HBI facility in Toledo, Ohio. Similar to the market shift to pellets over 60 years ago, we recognize the need to serve the growing EAF market. We expect our introduction of HBI to the Great Lakes EAF market will be notable in the evolution of the steel industry.

Concentration of Customers

In 2019, 2018 and 2017, three customers individually accounted for more than 10% of our consolidated product revenue. Product revenue from those customers totaled $1.8 billion, $2.1 billion and $1.5 billion of our total consolidated product revenue in 2019, 2018 and 2017, respectively. The following represents sales revenue attributable to each of these customers as a percentage of total product sales for those years:

	Percentage Product Revenue		
Customer[1]	**2019**	2018	2017
ArcelorMittal	**50%**	57%	48%
AK Steel	**29%**	25%	29%
Algoma	**18%**	13%	11%

[1] Includes subsidiaries.

ArcelorMittal

Our pellet supply agreements with ArcelorMittal USA are based on customer requirements, except for the Indiana Harbor East facility, which is based on customer contract obligations. Currently, the parties participate in a long-term agreement, which became effective October 31, 2016, for the sale and delivery of ArcelorMittal USA's annual tonnage requirements that fall within a specific range of volume. This agreement expires at the end of December 2026. Additionally, in 2018 we entered into a multi-year agreement with ArcelorMittal Dofasco to sell and deliver a portion of its annual pellet consumption requirements.

ArcelorMittal USA is a 62.3% equity participant in Hibbing. During 2017, we acquired the 21% ownership interest of ArcelorMittal USA in Empire as part of an agreement to distribute the noncontrolling interest net assets of the mine.

In 2019, 2018 and 2017, our Mining and Pelletizing segment pellet sales to ArcelorMittal were 8.8 million, 10.1 million and 8.4 million long tons, respectively.

AK Steel

In August 2013, we entered into an agreement with AK Steel to provide iron ore pellets for use in its Middletown, Ohio and Ashland, Kentucky blast furnace facilities, the latter of which is currently idled. This contract includes minimum and maximum tonnage requirements for each year between 2014 and 2023. In 2019 and 2018, through contract amendments, we added tonnage with AK Steel above the maximum tonnage requirements specific to each contract year.

In 2015, we entered into an amended and restated agreement with AK Steel after it acquired Severstal Dearborn, LLC, under which we supply all of the Dearborn, Michigan facility's blast furnace pellet requirements through 2022, subject to specified minimum and maximum requirements in certain years.

On December 2, 2019, we entered into the Merger Agreement with AK Steel pursuant to which we will acquire all of the issued and outstanding shares of AK Steel common stock pursuant to the Merger. We expect to complete the Merger in the first quarter of 2020. Completion of the Merger is subject to various conditions, such as satisfaction or waiver of certain specified closing conditions, and it is possible that factors outside of our control could result in the Merger being completed at a later time or not at all. The Merger Agreement also contains certain termination rights that may be exercised by either us or AK Steel. We plan to complete the Merger as soon as reasonably practicable following the satisfaction of all applicable conditions.

In 2019, 2018 and 2017, our Mining and Pelletizing segment pellet sales to AK Steel were 5.5 million, 5.8 million and 5.6 million long tons, respectively.

Algoma

We have a long-term supply agreement under which we have agreed to provide a portion of the Canadian steelmaker's pellet needs through 2024. Additionally, Algoma entered into agreements with us wherein we sell additional incremental tonnage that equates to Algoma's annual iron ore pellet consumption. These agreements began in 2016 and run through December 2020.

In 2019, 2018 and 2017, our Mining and Pelletizing segment pellet sales to Algoma were 3.4 million, 3.5 million and 2.5 million long tons, respectively.

Competition

In our Mining and Pelletizing business segment, we primarily sell our product to steel producers with operations in North America. We compete directly with steel companies that own interests in iron ore mines in the United States and/or Canada, including U.S. Steel, and with major iron ore pellet exporters from Eastern Canada and Brazil.

A number of factors beyond our control affect the markets in which we sell our iron ore. Continued demand for our iron ore and the prices obtained by us primarily depend on the consumption patterns of the steel industry in the U.S., China and elsewhere around the world, as well as the availability, location, cost of transportation and competing prices.

Environment

Our mining activities are subject to various laws and regulations governing the protection of the environment. We conduct our operations in a manner that is protective of public health and the environment and believe our operations are in compliance with applicable laws and regulations in all material respects.

Environmental issues and their management continued to be an important focus at each of our operations throughout 2019. 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 2019, 2018 and 2017, our capital expenditures relating to environmental matters totaled approximately $9 million, $10 million and $21 million, respectively. It is estimated that capital expenditures for environmental improvements will total approximately $26 million in 2020 for various water treatment, air quality, dust control, tailings management, selenium management and other miscellaneous environmental projects.

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 waste discharge and disposal, the classification of materials and products, air and water discharges 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 reasonably would 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.

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: Minnesota's potential revisions to the sulfate wild rice water quality standard; evolving water quality standards for selenium and conductivity; scope of the Clean Water Act and the definition of “Waters of the United States”; Minnesota's Mercury TMDL and associated rules governing mercury air emission reductions; Climate Change and GHG Regulation; Regional Haze FIP Rule; legacy property, NO_2 and SO_2 NAAQS; and increased administrative and legislative initiatives related to financial assurance obligations for CERCLA, mining and reclamation obligations.

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 to the Governor’s Office on wild rice restoration and regulation. The existing water quality standard for wild rice has not been applied to any of our discharge permits or enforced in decades, and it may be unenforceable because of legislation and because the water bodies to which the existing standard applies have never been identified specifically in rule, nor are there criteria for identifying them. MPCA is complying with the legislation that prohibits enforcement of the water quality standard until the obsolete standard is updated based on modern science. For these reasons, the impact of the proposed wild rice water quality standard to us is not estimable at this time, but it could have an adverse material impact if we are required to significantly reduce sulfate in our discharges.

Selenium Discharge Regulation

In Michigan, Empire and Tilden have implemented compliance plans to manage selenium according to the permit conditions. Empire and Tilden submitted the first permit-required Selenium Storm Water Management Plan to the Michigan Department of Environmental, Great Lakes, and Energy ("EGLE") in December 2011 and have updated it annually as required. The Selenium Storm Water Management Plans have outlined the activities that have been undertaken to address selenium in storm water discharges from our Michigan operations including an assessment of potential impacts to surface and ground water. The remaining infrastructure needed for implementation of the storm water collection and conveyance system will likely be completed in 2020. A storm water treatment system for both facilities is anticipated sometime before 2028. As of December 31, 2019, included within our Empire asset retirement obligation is a discounted liability of approximately $88 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 $25 million for the construction of Tilden's portion of the required infrastructure. We are continuing to assess and develop cost effective and sustainable 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 EGLE 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 the water quality criteria to our business.

Mercury TMDL and Minnesota Taconite Mercury Reduction Strategy

Since the 1990’s the taconite industry has voluntarily reduced and removed mercury products and supported development of mercury emission reduction technology. While TMDL regulations are contained in the Clean Water Act, Minnesota developed in 2007 a Statewide Mercury TMDL that set an objective for 93% mercury air emission reductions from 1990 levels for sources within Minnesota. The State of Minnesota has acknowledged that approximately 90% of the mercury entering the state’s airshed is from other national and international sources.

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 rule is applicable to all of our Minnesota operations and required submittal of a Mercury Reduction Plan to the MPCA by the end of 2018 with plan implementation requirements becoming effective on January 1, 2025. In the Mercury Reduction Plan, facilities must evaluate if available control technologies can technically achieve a 72% mercury reduction rate. If available control technologies cannot 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 and are currently being reviewed by the MPCA. There is currently no proven technology to cost effectively reduce mercury emissions from taconite furnaces to the target level of 72% while satisfying all four Adaptive Management Criteria. The Mercury Reduction Plans that were submitted to MPCA include documentation that describes the results of detailed engineering analysis and research testing on potential technologies to support this determination. The results of this analysis will guide further dialogue with the MPCA. Potential impacts to us are not estimable at this time because the submitted Mercury Reduction Plans are currently being reviewed by MPCA.

Climate Change and GHG Regulation

With the complexities and uncertainties associated with the U.S. and global navigation of the climate change issue as a whole, one of our potentially significant risks for the future is mandatory carbon pricing obligations. Policymakers are in the design process of carbon regulation at the state, regional, national and international levels. The current regulatory patchwork of carbon compliance schemes presents a challenge for multi-facility entities to identify their near-term risks. Amplifying the uncertainty, the dynamic forward outlook for carbon pricing obligations presents a challenge to large industrial companies to assess the long-term net impacts of carbon compliance costs on their operations. 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, our GHG emissions inventory includes a broad range of emissions sources, such as iron ore furnaces and kilns, boilers, and diesel mining equipment, among others. As such, our most significant regulatory risks are: (1) the costs associated with on-site emissions levels (direct impacts), and (2) indirect costs passed through to us from electrical and fuel suppliers (indirect impacts).

Internationally, mechanisms to reduce emissions are being implemented in various countries, with differing designs and stringency, according to resources, economic structure and politics. The Paris Agreement to reduce global GHG emissions and limit global temperature increases to 2 degrees Celsius became effective in November 2016 with

196 signatory countries. During the Obama Administration, the U.S. became a signatory to the Paris Agreement with a pledge to reduce its GHG emissions by 26-28% from 2005 levels by 2025. In June 2017, President Trump announced that the U.S. would cease all participation in the Paris Agreement and initiate formal withdrawal proceedings which are expected to be finalized in November 2020. Continued political attention to issues concerning climate change, the role of human activity in it and potential mitigation through regulation may have a material impact on our customer base, operations and financial results in the future.

In the U.S., future federal and/or state carbon regulation potentially presents a significantly greater impact to our operations. To date, the U.S. Congress has not legislated carbon constraints. 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 control and potential carbon pricing impacts.

Due to the potential patchwork of federal, state or regional 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 would be imposed on GHG emissions. We believe our exposure can be reduced substantially by numerous factors, including currently contemplated regulatory flexibility mechanisms, such as allowance allocations, fixed process emissions exemptions, offsets and international provisions; emissions reduction opportunities, including energy efficiency, biofuels and fuel flexibility; and business opportunities associated with pursuing combined heat and power partnerships and new products, including DR-grade pellets, HBI, fluxed pellets and other efficiency-improving technologies.

We have worked proactively to develop a comprehensive, enterprise-wide GHG management strategy aimed at considering all significant aspects associated with GHG initiatives to plan effectively for and manage climate change issues, including risks and opportunities as they relate to the environment; stakeholders, including shareholders and the public; legislative and regulatory developments; operations; products and markets. Our direct Scope 1 and indirect Scope 2 GHG emissions, on a GHG-intensity basis for the Mining and Pelletizing segment, have been reduced by 16% compared to 2005 emissions with an objective to reduce the GHG intensity by 36% by the end of 2020 compared to 2005 emissions. By 2020 we expect to meet the U.S. 2015 Paris Agreement pledge of 26 to 28% GHG emissions reduction from 2005 baseline levels five years ahead of the 2025 target for both Scope 1 and Scope 2 emissions. On a mass basis, we have reduced our Scope 1 and Scope 2 GHG mass emissions at our Mining and Pelletizing segment from 2005 levels by 30% through 2018 and expect to reduce these emissions from the 2005 levels by 46% through 2020.

Regional Haze FIP Rule

In June 2005, the EPA finalized amendments to its regional haze rules. The rules require states to establish goals and emission reduction strategies for improving visibility in all Class I national parks and wilderness areas to natural background levels by 2064. Among the states with Class I areas are Michigan and Minnesota, in which we currently own mining operations. The first phase of the regional haze rule required analysis and installation of Best Available Retrofit Technology ("BART") on eligible emission sources and incorporation of BART and associated emission limits into SIPs.

EPA disapproved Minnesota's and Michigan's BART SIP for taconite furnaces and instead promulgated a Taconite Regional Haze FIP in February 2013. We petitioned the Eighth Circuit Court of Appeals for a review of the FIP, and filed a joint motion for stay of the 2013 FIP, which was granted in June 2013. We reached a settlement agreement with EPA, which was subsequently published in the Federal Register to implement components of the settlement agreement in April 2016, with an effective date of May 12, 2016. We believe the 2016 Regional Haze FIP reflects progress toward a more technically and economically feasible regional haze implementation plan. In November 2016, the Eighth Circuit Court of Appeals terminated the June 2013 stay and extended the deadlines in the original 2013 FIP. Cost estimates associated with implementation of the 2013 and 2016 FIPs are reflected in our five-year capital plan.

Due to inconsistencies in language describing the procedures for calculating NO_x emission limits between the settlement agreement and the 2016 FIP final rule, we jointly filed a Petition for Reconsideration and Petition for Judicial Review in June 2016. We have been working toward a settlement agreement with EPA to resolve the outstanding issue with the emission limit calculation method and anticipate resolution of the issue in 2020. The outcome of this proceeding is not expected to have a material adverse impact to the business.

The states have begun to evaluate remaining visibility impacts to Class I air sheds and progress against the Uniform Rate of Progress glide path, which culminates in achieving natural visibility conditions in 2064, as part of the second Regional Haze decadal review period (2018-2028). The second decadal review will examine if additional technological controls are warranted for certain sources. The states are required to submit their updated Regional Haze SIPs by July 2021. At this time, we cannot reasonably estimate the likelihood or extent of any additional emission control requirements that may arise from Minnesota or Michigan's forthcoming 2021 SIP submittal to EPA, but we will continue to monitor developments in the interim.

Former Cliffs-Dow Plant Site

We previously had a minority ownership interest in Cliffs-Dow Chemical, a joint venture that owned a charcoal production and wood chemical refining facility until the joint venture shares were sold in 1968 to a third party. The subject property was closed in 1969, and subsequent ownership passed through several parties from 1969 through 1997. Previous owners dismantled and removed most of the structures for scrap metal and the site remained idle until The Dow Chemical Company and subsidiaries of The Cleveland-Cliffs Iron Company and Georgia-Pacific Corporation reacquired the property and performed environmental mitigation on a portion of the subject property prior to selling the majority of the site to the city of Marquette, Michigan in 1997, which included property deed restrictions and environmental liability indemnification of the selling parties. We have been advised that there may be additional contamination located beyond the property boundaries of the portion sold to Marquette, Michigan that may have originated from historical operations of the wood chemical refining facility. It is reasonably likely that we and other potentially responsible parties could be requested or required to further investigate and potentially to remediate if warranted. We do not yet possess sufficient information to reasonably determine if, or the extent to which, remediation may be required or to reasonably estimate any potential cost to us.

NO_2 and SO_2 NAAQS

During the first half of 2010, EPA promulgated rules that required each state to use a combination of air quality monitoring and computer modeling to determine each state's attainment classification status against new one-hour NO_2 and SO_2 NAAQS. During the third quarter of 2011, the EPA issued guidance to the regulated community on conducting refined air quality dispersion modeling and implementing the new NO_2 and SO_2 standards. In 2012, Minnesota issued Administrative Orders ("AOs") requiring taconite facilities to conduct modeling to demonstrate compliance with the NO_2 and SO_2 NAAQS pursuant to the Taconite Regional Haze SIP Long Term Strategy ("LTS"). Compliance with the LTS modeling demonstrations was originally set for June 2017, but Minnesota has not advanced work on its 2012 AOs and is expected to remove NAAQS modeling obligations under the LTS in light of reduction in haze emissions associated with implementation of the taconite Regional Haze FIP regulations.

All of our operations in Minnesota and Michigan are expected to be in attainment for NO_2 and SO_2 NAAQS without incurring additional capital investment. While we will continue to monitor these developments and assess potential impacts, we do not anticipate further capital investments will be necessary to address NO_2 and SO_2 NAAQS requirements at this time.

Conductivity

Conductivity, the measurement of water’s ability to conduct electricity, is a surrogate parameter that generally increases as the amount of dissolved minerals in water increases. In December 2016, EPA issued a notice soliciting public comments on its draft guidance, *Field-Based Methods for Developing Aquatic Life Criteria for Specific Conductivity*. In April 2017, comments were submitted by our trade associations providing objective evidence indicating the draft methodology was scientifically flawed and unfit for promulgation. EPA confirmed in October 2019 that the 2016 draft guidance was rescinded in accordance with an August 2019 EPA memorandum regarding draft guidance documents and further expressed that EPA must update the science and subject future recommended methods or criteria for conductivity to peer-review and public comment. Adoption of the previously proposed methodology is now unlikely.

Definition of “Waters of the United States” Under the Clean Water Act

EPA and Army Corps of Engineers published a final rule in October 2019 repealing the 2015 rule that was to become effective on December 23, 2019. The next step will be for the agencies to publish a final rule that will revise the definition of “waters of the United States” which is anticipated to occur in 2020. This final rule, if similar to what was proposed in the December 2018 *Revised Definition of “Waters of the United States”* proposed rule, is not expected to have a material negative impact to our business. We are actively participating in the rulemaking and will continue assessing the potential impacts to our operations.

CERCLA 108(b)

In December 2016, EPA published a proposed amendment to CERCLA section 108(b) which is focused on developing financial assurance for managing hazardous substances in the hardrock mining industry. EPA had a court-mandated deadline for publication of the final rule by December 1, 2017. The proposed rule would have required hardrock mining facilities to calculate their level of financial responsibility based on a formula included in the rule, secure an instrument or otherwise self-insure for the calculated amount, demonstrate to EPA the proof of the security, and maintain the security until EPA releases facilities from the CERCLA 108(b) regulations. The iron mining industry notified EPA of several errors in the assumptions upon which EPA drafted the rule, including a mistaken reliance on reporting data from a wholly different industry sector. We also participated in developing industry specific and national trade association comments and advocating directly with EPA and the White House Office of Management & Budget to address this and other errors with goals of exempting iron ore mining from CERCLA 108(b) applicability and correcting other deficiencies with the proposed rule. On December 1, 2017 EPA signed a federal register notice of EPA's decision not to issue final regulations for financial responsibility requirements for the hardrock mining industry under section 108(b) of CERCLA because EPA determined that the risks associated with these facilities' operations are addressed by existing federal and state programs and regulations and modern industry practices. In 2018, several environmental groups filed a challenge to EPA's decision to not issue a final rule. This challenge was rejected in a July 2019 decision by the U.S. Court of Appeals for the District of Columbia upholding EPA's determination to not issue CERCLA financial responsibility regulations for the hardrock mining industry.

Energy

Electricity

UMERC ("Upper Michigan Energy Resources Corporation"), a subsidiary of WEPC, is the sole supplier of electric power to our Tilden mine. UMERC provides 170 megawatts of electricity to Tilden at special rates that are regulated by the Michigan Public Service Commission. During August 2016, Tilden executed a new 20-year special contract with WEPC that was subsequently assigned to UMERC. Tilden commenced receiving power under the terms of this special contract on April 1, 2019.

Minnesota Power supplies electric power to the United Taconite mine. The United Taconite mine executed a new ten-year agreement with Minnesota Power that also included Northshore's Babbitt Mine. This agreement was finalized in May 2016 and was approved by the Minnesota Public Utilities Commission in November 2016.

Silver Bay Power, a wholly-owned subsidiary with a 115 megawatt power plant that is currently economically idled, historically provided the majority of Northshore’s electrical energy requirements. In May 2016, Silver Bay Power entered into an agreement with Minnesota Power to purchase roughly half of Northshore's electricity needs from Minnesota Power through 2019. Beginning September 15, 2019, Silver Bay Power began to purchase 100% of the electricity requirements of Northshore from Minnesota Power; however, under certain circumstances the parties agreed to an interconnection agreement for Silver Bay Power to provide backup power when excess generation is necessary.

Process and Diesel Fuel

We have a long-term contract providing for the transport of natural gas on the Northern Natural Gas Pipeline for our Mining and Pelletizing segment operations. Tilden has the capability of burning natural gas, coal or, to a lesser extent, oil. Northshore has the capability to burn natural gas and oil. United Taconite has the capability to burn coal, natural gas and petroleum coke. Consistent with 2019, we expect that during 2020 our Mining and Pelletizing segment operations will utilize both natural gas and coal to heat furnaces.

In our Metallics segment, we have a long-term contract providing for the transport of natural gas on the intrastate Generation Pipeline to our HBI production plant in Toledo, Ohio. The Toledo site also has access to multiple interstate pipelines, the use of which are managed through a long-term natural gas supply agreement. The HBI production plant will utilize natural gas for its process to transform DR-grade pellets into HBI.

All of our mines utilize diesel fuel mainly for our mobile fleet. Thompson Gas supplies diesel fuel to our Northshore and United Taconite mines. Our contract with Thompson Gas expired at the end of 2019, and the parties are negotiating an extension on this supply agreement. U.S. Oil, a division of U.S. Venture Inc., supplies diesel fuel to our Tilden mine under a current long-term supply agreement for Tilden's diesel fuel needs.

Employees

Below is a summary of our employees:

	December 31,		
	2019	2018	2017
Mining and Pelletizing segment - Salaried[1]	**397**	514	503
Mining and Pelletizing segment - Hourly[1, 2]	**1,712**	2,208	2,182
Metallics segment - Salaried	**40**	26	6
Metallics segment - Hourly	**48**	—	—
Discontinued Operations - Salaried	**—**	2	79
Corporate & Support Services - Salaried	**175**	176	168
Total	**2,372**	2,926	2,938

[1] The December 31, 2018 and 2017 data includes the employees of the Hibbing mine that we managed prior to transitioning those duties to ArcelorMittal USA in August 2019.

[2] Excludes employees considered on lay-off status as a result of an indefinite or temporary idle.

Hourly employees at our Michigan and Minnesota iron ore mining operations, excluding Northshore, are represented by the USW and are covered by labor agreements between the USW and our various operating entities. These labor agreements cover approximately 1,200 active USW-represented employees at our Empire and Tilden mines in Michigan, and our United Taconite mine in Minnesota and are valid through September 30, 2022. Employees at our Northshore operations are not represented by a union and are not, therefore, covered by a collective bargaining agreement.

During August 2019, our subsidiary, Cliffs Mining Company, ceased performing manager duties for the Hibbing mine and transitioned those duties to ArcelorMittal USA. In connection with the transfer of manager duties for the Hibbing mine, Hibbing employees previously employed by Cliffs Mining Company are now employed by an ArcelorMittal USA controlled group entity.

Hourly employees at our LS&I railroads in Michigan are represented by seven unions covering approximately 100 employees. These labor agreements are covered by the Railway Labor Act and are subject to reopening for bargaining in 2020.

Salaried employees at our Mining and Pelletizing segment, Metallics segment, Corporate and Support Services are not represented by a union and are not, therefore, covered by collective bargaining agreements.

Safety

Safe production is our primary core value as we continue toward achieving a zero injury culture at our facilities. We constantly monitor our safety performance and make continuous improvements to affect change. Best practices and incident learnings are shared globally 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 sustainability initiatives, and results are measured against established industry and company benchmarks, including our company-wide Total Reportable Incident Rate ("TRIR"). During 2019, our TRIR (including contractors) was 1.11 per 200,000 man-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 Report 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, 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 "Financial Information" and then "SEC Filings," and corporate governance materials are available by selecting "Corporate Governance" for the Board Committee Charters, operational 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 20, 2020. Unless otherwise noted, all positions indicated are or were held with Cleveland-Cliffs Inc.

Name	Age	Position(s) Held
Lourenco Goncalves	62	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 T. Smith	60	Executive Vice President, Chief Operating Officer (January 2019 – present); Executive Vice President, Business Development (April 2015 – December 2018); and Executive Vice President, Seaborne Iron Ore (January 2014 – April 2015).
Keith A. Koci	55	Executive Vice President, Chief Financial Officer (February 2019 – present); and Senior Vice President and Chief Financial Officer, Metals USA Holdings Corp. (2013 – February 2019).
Terry G. Fedor	55	Executive Vice President, Operations (February 2019 – present); Executive Vice President, U.S. Iron Ore (January 2014 – January 2019); and Vice President, Operations (February 2011 – January 2014).
Traci L. Forrester	48	Executive Vice President, Business Development (May 2019 – present); Vice President (January 2018 – May 2019); Deputy General Counsel & Assistant Secretary (January 2017 – May 2019); and Assistant General Counsel (August 2013 – January 2017).
James D. Graham	54	Executive Vice President (November 2014 – present); Chief Legal Officer (March 2013 – present); Secretary (March 2014 – present); and Vice President (January 2011 – October 2014).
Maurice D. Harapiak	58	Executive Vice President, Human Resources (March 2014 – present); Chief Administration Officer (January 2018 – present); and Regional Director, Human Resources - Barrick Gold of North America, a gold mining company (November 2011 – March 2014).
R. Christopher Cebula	49	Vice President, Corporate Controller & Chief Accounting Officer (February 2017 – present); and Senior Director, Corporate Financial Planning & Analysis (April 2013 – February 2017).

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. There is no 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 to our business and our industry. Described below are certain risks and uncertainties, the occurrences of which could have a material adverse effect on us. Before making an investment decision, you should consider carefully all of the risks described below together with the other information included in this report. The risks and uncertainties described below include known material risks that we face currently. Although we have extensive risk management policies, practices and procedures aimed to mitigate these risks, uncertainties may nevertheless impair our business operation. This report is qualified in its entirety by these factors.

Our ERM function provides a framework for management's consideration of risks when making strategic, financial, operational and/or project decisions. The framework is based on ISO 31000, an internationally recognized risk management standard. Management uses a consistent methodology to identify and assess risks, determine and implement risk mitigation actions, and monitor and communicate information about the Company's most significant risks. Through these processes, we have identified seven categories of risk that we are subject to: (I) economic and market, (II) regulatory, (III) financial, (IV) operational, (V) development and sustainability, (VI) human capital and (VII) risks related to the proposed Merger. The following risk factors are presented according to these key risk categories.

I. ECONOMIC AND MARKET RISKS

Uncertainty or weaknesses in global economic conditions, reduced economic growth in China and oversupply of iron ore and excess steel or imported products could affect adversely our business.

The world price of iron ore is influenced strongly by global economic conditions, including international demand for and supply of iron ore products. In particular, the current level of international demand for raw materials used in steel production is driven largely by industrial growth in China. Uncertainty or weakness in global economic conditions, including the slowing economic growth rate in China, has resulted, and could in the future result, in decreased demand for our products and, together with oversupply of imported products, has and may continue to lead to decreased prices, resulting in lower revenue levels and decreasing margins, which have in the past and may in the future affect adversely our business and negatively impact our financial results. We are not able to predict whether the global economic conditions will improve or worsen and the impact it may have on our operations and the industry in general going forward.

The volatility of commodity prices, namely iron ore and steel, affects our ability to generate revenue, maintain stable cash flow and fund our operations, including growth and expansion projects.

Our profitability is dependent upon the price of the product that we sell to our customers and the price of the products our customers sell, namely iron ore and steel prices. The prices of iron ore and steel have fluctuated significantly in the past and are affected by factors beyond our control, including: steel inventories; changes in the productive capacity of U.S. domestic steel producers; international demand for raw materials used in steel production; 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 countries; changes in China's emissions policies and environmental compliance enforcement practices; changes in production capacity of other iron ore suppliers, especially as additional supply comes online or where there is a significant increase in imports of steel into the U.S. or Europe; changes in trade laws; imposition or termination of duties, tariffs, import and export controls and other trade barriers impacting the iron ore markets; weather-related disruptions or natural disasters that may impact the global supply of iron ore; and the proximity, capacity and cost of infrastructure and transportation.

Our earnings, therefore, may fluctuate with the prices of the product we sell and of the products our customers sell. To the extent that the prices of iron ore and steel, including the Platts 62% price, hot-rolled coil steel price, Atlantic Basin pellet premium, Platts international indexed freight rates and changes in specified PPI, including those for industrial commodities, fuel and steel, significantly decline for an extended period of time, we may have to revise our operating plans, including curtailing production, reducing operating costs and capital expenditures, and discontinuing certain exploration and development programs. We also may have to take impairments on our 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. 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.

If steelmakers use methods other than blast furnace production to produce steel or use other inputs, or if their blast furnaces shut down or otherwise reduce production, the demand for our current iron ore products may decrease.

Demand for our iron ore products in North America is largely determined by the operating rates for the blast furnaces of steel companies. However, not all finished steel is produced by blast furnaces; finished steel also may be produced by other methods that use scrap steel, pig iron, HBI and DRI. North American producers also can produce steel using imported iron ore products, which may reduce or eliminate the need for domestic iron ore. Future environmental restrictions on the use of blast furnaces in North America also may reduce our customers' use of their blast furnaces. Maintenance of blast furnaces may require substantial capital expenditures and may cause prolonged outages, which may reduce demand for our pellets. Our customers may choose not to maintain, or may not have the resources necessary to maintain, their blast furnaces. If our customers use methods to produce steel that do not use domestic iron ore pellets or if environmental or maintenance issues occur, demand for our current iron ore products may decrease, which could affect adversely our sales, margins, profitability and cash flows.

Due to economic conditions and volatility in commodity prices, or otherwise, our customers could approach us about modifying their supply agreements or fail to perform under such agreements, which could impact adversely our sales, margins, profitability and cash flows.

Although we have long-term contractual commitments for a majority of our iron ore pellet sales, uncertainty in global economic conditions may impact adversely the ability of our customers to meet their obligations to us. As a result of such market volatility, our customers could approach us about modifying their supply agreements or fail to perform under such agreements. Considering our limited base of current and potential blast furnace customers, any modifications to our sales agreements or customers' failures to perform under such agreements could impact adversely our sales, margins, profitability and cash flows. For example, certain customers in the North American integrated steel industry have experienced financial difficulties from time-to-time, including going through reorganization proceedings. A loss of sales to our existing customers could have a substantial negative impact on our sales, margins, profitability and cash flows. Other potential actions by our customers could result in additional contractual disputes and could ultimately require arbitration or litigation, either of which could be time consuming and costly. Any such disputes and/or inability to renew existing contracts on favorable terms could impact adversely our sales, margins, profitability and cash flows.

Capacity expansions and limited rationalization of supply capacity within the mining industry could lead to lower or more volatile global iron ore prices, impacting our profitability.

Global growth of iron ore demand, particularly from China, and higher iron ore prices resulted in iron ore miners expanding their production capacity in recent years to increase iron ore supply. In the past, however, moderation in demand following increases in production capacity has resulted in excess supply of iron ore, causing downward pressure on prices. A return to supply capacity expansions could lead to pricing pressure which can have an adverse impact on our sales, margins, profitability and cash flows. We do not have control over corporate strategies implemented by other iron ore producers that may result in volatility of global iron ore prices.

II. REGULATORY RISKS

We are subject to extensive governmental regulation, which imposes, and will continue to impose, 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 iron ore 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 business or execute our strategies. This includes, among other things, changes in the interpretation of MSHA regulations, such as workplace exam rules or safety around mobile equipment, changes in the interpretation of OSHA regulations, such as standards for occupational exposure to noise and certain chemicals, the possible taxation under U.S. law of certain income from discontinued foreign operations, compliance costs and enforcement under the Dodd-Frank Act, and costs associated with the Healthcare and Education Reconciliation Act of 2010 and the regulations promulgated under these Acts and any replacements or amendments thereof. In addition, our operations are subject to various federal, state and local laws and regulations for human health and safety, air quality, water pollution, plant, wetlands, natural resources and wildlife protection, reclamation and restoration of mining properties, the discharge of materials into the environment, the effects that mining has on groundwater quality, conductivity and availability, and other related matters. Compliance with numerous governmental permits and approvals is required for our operations.

We cannot be certain that we have been or will be at all times in complete compliance with such laws, regulations, permits and approvals. If we violate or fail to comply with these laws, regulations, permits or approvals, we could be fined or otherwise sanctioned by regulators. 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 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 our North American integrated steel producer customers, which may also require us or our customers to reduce or otherwise change operations significantly or incur significant additional costs, 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 United States-Mexico-Canada Agreement and/or other trade agreements, treaties or policies; Minnesota's potential revisions to the sulfate wild rice water quality standard; evolving water quality standards for selenium and conductivity; scope of the Clean Water Act and the definition of “Waters of the United States”; Minnesota's Mercury TMDL and associated rules governing mercury air emission reductions; Climate Change and GHG Regulation; Regional Haze FIP Rule; NO_2 and SO_2 NAAQS; and increased administrative and legislative initiatives related to financial assurance obligations for CERCLA, mining and reclamation obligations. Such new or more stringent legislation, regulations, interpretations or orders, when enacted and enforced, could have a material adverse effect on our business, results of operations, financial condition or profitability.

Although the numerous regulations, operating permits and our management systems mitigate potential impacts to the environment, our operations inadvertently may impact the environment or cause exposure to hazardous substances, which could result in material liabilities to us.

Our operations currently use, and have used in the past, hazardous materials, and, from time to time, we have generated solid and hazardous waste. We have been, and may in the future be, subject to claims under federal, state 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 and reclamation may arise out of current or former conditions at sites that we own, lease or operate currently, as well as sites that we or our acquired companies have owned, leased or operated, and at contaminated sites that have been owned, leased or operated by our joint venture partners. 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 are currently subject to potential liabilities relating to investigation and remediation activities at certain sites. In addition to sites currently owned, leased or operated, these include sites where we formerly conducted raw material processing or other operations, inactive sites that we currently own, predecessor sites, acquired sites, leased land sites and third-party waste disposal sites. We may be named as a potentially responsible party at other sites in the future and we cannot be certain that the costs associated with these additional sites will not be material.

We also could be subject to litigation for alleged bodily injuries arising from claimed exposure to hazardous substances allegedly used, released, or disposed of by us. In particular, we and certain of our subsidiaries were involved in various claims relating to the exposure of asbestos and silica to seamen who sailed until the mid-1980s on the Great Lakes vessels formerly owned and operated by certain of our subsidiaries. While several hundred of these claims against us had been combined in a multidistrict litigation docket and have since been dismissed and/or settled for non-material amounts, there remains a possibility that similar types of claims could be filed in the future.

Environmental impacts as a result of our operations, including exposures to hazardous substances or wastes associated with our operations, could result in costs and liabilities that could materially and adversely affect our margins, cash flow or profitability.

We may be unable to obtain and/or renew permits necessary for our operations or be required to provide additional financial assurance, which could reduce our production, cash flows, profitability and available liquidity. We also could face significant permit and approval requirements that could delay our commencement or continuation of new or existing production operations which, in turn, could affect materially our profitability and available liquidity.

Prior to commencement of mining and periodically after production begins, we must submit to and obtain approval from the appropriate regulatory authority of plans showing where and how mining and reclamation operations are to occur. These plans must include information such as the location of mining areas, stockpiles, surface waters, haul roads, tailings basins and drainage from mining operations. Any requirements imposed by any such authority may be costly and time-consuming and may delay commencement or continuation of exploration or production operations.

Mining and manufacturing companies must obtain numerous permits that impose strict conditions on various environmental and safety matters in connection with iron ore mining and production. These include permits issued by various federal, state and local agencies and regulatory bodies. The permitting rules are complex and may change over time, making our ability to comply with the applicable requirements more difficult or 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 assurance, making it costlier to comply. The public, including special interest groups and individuals, have certain rights under various statutes 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 be conditioned in a manner that may restrict our ability to conduct our mining and production activities efficiently, including the requirement for additional financial assurances that we may not be able to provide on commercially reasonable terms (or at all) and which would further limit our borrowing base under our ABL Facility. Such inefficiencies could reduce our production, cash flows, profitability or available liquidity.

III. FINANCIAL RISKS

A substantial majority of our sales are made under supply agreements with specified duration to a low number of customers that contain price-adjustment clauses that could adversely affect our profitability.

A majority of our Mining and Pelletizing sales are made under supply agreements with specified durations to a limited number of customers. For the year ended December 31, 2019, approximately 99% of our revenues from product sales and services was derived from the North American integrated steel industry, and three customers together accounted for 97% of our Mining and Pelletizing product sales revenues. Our average remaining duration of our Mining and Pelletizing contracts as of December 31, 2019 is approximately five years. Pricing under our customer contracts is adjusted by certain factors, including Platts 62% price, hot-rolled coil steel price, Atlantic Basin pellet premium, Platts international indexed freight rates and changes in specified PPI, including those for industrial commodities, fuel and steel. As a result of these and other pricing constructs contained in our customer contracts, our financial results are sensitive to changes in iron ore and steel prices.

Our existing and future indebtedness may limit cash flow available to invest in the ongoing needs of our business, which could prevent us from fulfilling our obligations under our senior notes and ABL Facility.

As of December 31, 2019, we had $2,238.0 million aggregate principal amount of long-term debt outstanding, $400.0 million of which was secured (excluding $37.9 million of outstanding letters of credit and $38.2 million of finance leases), and $352.6 million of cash on our balance sheet. As of December 31, 2019, no loans were drawn under the ABL Facility and we had total availability of $395.7 million as a result of borrowing base limitations. As of December 31, 2019, the principal amount of letters of credit obligations and other commitments totaled $37.9 million, thereby further reducing available borrowing capacity on our ABL Facility to $357.8 million.

Our existing level of indebtedness requires us to dedicate a portion of our cash flow from operations to the payment of debt service, reducing the availability of our cash flow to fund capital expenditures, acquisitions or strategic development initiatives, and other general corporate purposes. Moreover, our level of indebtedness could have further consequences, including increasing our vulnerability to adverse economic or industry conditions, limiting our ability to obtain additional financing in the future to enable us to react to changes in our business, or placing us at a competitive disadvantage compared to businesses in our industry that have less indebtedness.

Although we were successful in financing our HBI project, our indebtedness could limit our ability to obtain additional financing on acceptable terms or at all for working capital, capital expenditures, acquisitions or strategic development initiatives, and general corporate purposes. Our liquidity needs could vary significantly and may be affected by general economic conditions, industry trends and many other factors not within our control. If we are unable to generate sufficient cash flow from operations in the future to service our debt, we may be required to refinance all or a portion of our existing debt. In addition, in connection with the consummation of the Merger, we expect to incur additional debt to, among other things, retire certain of AK Steel's existing debt and enter into the New ABL Facility. See *"—VII. Risks Related to the Proposed Merger—Following completion of the proposed Merger, our debt may limit our financial flexibility."*

Any failure to comply with covenants in the instruments governing our debt could result in an event of default which, if not cured or waived, would have a material adverse effect on us.

We may not be able to generate sufficient cash to service all of our debt, and may be forced to take other actions to satisfy our obligations under our debt, which may not be successful.

Our ability to make scheduled payments on 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. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our debt.

We also have significant capital requirements, including interest payments to service our debt. If we incur significant losses in future periods, we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may consider, among other options, restructuring our debt; however, there can be no assurance that these options will be undertaken and, if so undertaken, whether these efforts would succeed.

If our cash flows and capital resources are insufficient to fund our debt service 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. 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 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 financing, particularly during periods in which credit markets are weak. Further, we may need to refinance all or a portion of our debt on or before maturity, and we may not be able to refinance any of our debt on commercially reasonable terms or at all, causing a change in our credit ratings; limiting our ability to compete with companies that are not as leveraged and that may be better positioned to withstand economic downturns; and limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industry in which we compete and general economic and market conditions. In addition, new or increased financial assurances may be demanded by our vendors or regulatory agencies that we may not be able to provide on commercially reasonable terms or at all.

Any of these examples potentially could have a material adverse impact on our results of operations, profitability, shareholders' equity and capital structure.

A court or regulatory body could find that we are responsible, in whole or in part, for liabilities we transferred to third party purchasers.

As part of our strategy to protect our core business, we have sold or otherwise disposed of several non-core assets, such as our North American Coal and Australian assets. Some of the transactions under which we sold or otherwise disposed of our non-core assets included provisions transferring certain liabilities to the purchasers or acquirers of those non-core 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 some court or regulatory body could disagree and determine that we remain responsible for liabilities we intended to and did transfer.

Our ability to collect payments from our customers depends on their creditworthiness.

Our ability to receive payment for products sold and delivered to our customers depends on the creditworthiness of our customers. Generally, we deliver our products to our customers' facilities in advance of payment for those products. Under this practice for most of our customers, title and risk of loss do not pass to the customer until we receive payment; however, there is typically a period of time in which our products, for which we have reserved title, are within our customers' control. Where we have identified credit risk with certain customers, we have put in place alternate payment terms from time to time.

Customers outside of the U.S. may be subject to pressures and uncertainties that may affect their ability to pay, including trade barriers, exchange controls, and local economic and political conditions. Downturns in the economy and disruptions in the global financial markets have affected the creditworthiness of our customers from time to time. Some of our customers are highly leveraged. If economic conditions worsen or prolonged global, national or regional economic recession conditions return, it is likely to impact significantly the creditworthiness of our customers and could, in turn, increase the risk we bear on payment default for the credit we provide to our customers and could limit our ability to collect receivables. Failure to receive payment from our customers for products that we have delivered could affect adversely our results of operations, financial condition and liquidity.

Our operating expenses could increase significantly if the price of electrical power, fuel or other energy sources increases.

Our operations require significant use of energy. Energy expenses, which are approximately 15% to 25% of our total production costs, are sensitive to changes in electricity prices and fuel prices, including diesel fuel and natural gas prices. Prices for electricity, natural gas and fuel oils can fluctuate widely with availability and demand levels from other users. During periods of peak usage, supplies of energy 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 affect adversely our operations. While we have some long-term contracts with electrical suppliers, we are exposed to fluctuations in energy costs that can affect our production costs. As an example, our United Taconite mine is subject to changes in Minnesota Power's rates, such as periodic rate changes that are reviewed and approved by the state public utilities commission in response to an application filed by Minnesota Power. We also enter into 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. In addition, U.S. public utilities may pass through additional capital and operating cost increases to their customers related to new or pending U.S. environmental regulations that may require significant capital investment and use of cleaner fuels in the future.

Changes in credit ratings issued by nationally recognized statistical rating organizations could adversely affect our cost of financing and the market price of our securities.

Credit rating agencies could downgrade our ratings due to various developments, including the Merger, factors specific to our business, a prolonged cyclical downturn in the mining or steel industry, or macroeconomic trends (such as global or regional recessions) and trends in credit and capital markets more generally. Any decline in our credit ratings may result in an increase to our cost of future financing and/or limit our access to the capital markets, which could harm our financial condition and results of operations, hinder our ability to refinance existing indebtedness on acceptable terms, have an adverse effect on the market price of our securities and may affect adversely the terms under which we purchase goods and services.

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 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 result in actual operating results being different than the guidance, and such differences may be adverse and material.

Our assets as of December 31, 2019 include a deferred tax asset, the full value of which we may not be able to realize.

We recognize deferred tax assets and liabilities based on differences between the financial statement carrying amounts and the tax basis of assets and liabilities. At December 31, 2019, the net deferred tax asset was $459.5 million, primarily related to U.S. net operating loss carryforwards. We regularly review our deferred tax assets for recoverability based on our history of earnings, expectations for future earnings and expected timing of reversals of temporary differences. Realization of deferred tax assets ultimately depends on the existence of sufficient taxable income. We believe the recorded net deferred tax asset at December 31, 2019 is fully realizable based on our expected future earnings. However, our assumptions and estimates are inherently subject to business, economic and competitive uncertainties and contingencies, many of which are beyond our control and some of which may change. As a result, we could ultimately lose a portion of our deferred tax asset related to net operating loss carryforwards due to expiration, which could have a material adverse effect on our results of operations and cash flows.

Holders of our common shares may not receive dividends on their common shares.

Holders of our common shares are entitled to receive only such dividends as our Board of Directors may from time to time declare out of funds legally available for such payments. We are incorporated in Ohio and governed by the Ohio General Corporation Law, which allows a corporation to pay dividends, in general, in an amount that cannot exceed its surplus, as determined under Ohio law. Our ability to pay dividends will be subject to our future earnings, capital requirements and financial condition, as well as our compliance with covenants and financial ratios related to existing or future indebtedness, business prospects and other factors that our Board of Directors may deem relevant. Additionally, our ABL Facility contains, and agreements governing any of our future debt (including the New ABL Facility) may contain, covenants and other restrictions that, in certain circumstances, could limit the level of dividends that we are able to pay on our common shares. Although we recently have declared cash dividends on our common shares, we are not required to declare cash dividends on our common shares and our Board of Directors may reduce, defer or eliminate our common share dividend in the future.

We rely on our joint venture partners to meet their payment obligations and we are subject to risks involving the acts or omissions of our joint venture partners.

We co-own one of our four operating Mining and Pelletizing mines with ArcelorMittal USA and U.S. Steel. One of our joint venture partners is also our customer. We cannot control the actions of our joint venture partners, and we have limited ability to control the joint venture because we hold a minority interest and no longer manage the joint venture. Accordingly, we rely on our joint venture partners to make their required capital contributions and to pay for their share of the iron ore produced. If one or both of our joint venture partners fail to perform their obligations, the remaining joint venture partners, including ourselves, may be required to assume additional material obligations, including significant capital contributions, costs of environmental remediation, and pension and OPEB obligations.

IV. OPERATIONAL RISKS

Mine closures entail substantial costs. If we prematurely close one or more of our mines, our results of operations and financial condition would likely be affected adversely.

If we prematurely close any of our mines, our production and revenues would be reduced unless we were able to increase production at our other mines in an offsetting amount, which may not be possible. The closure of a mining operation involves significant fixed closure costs, including accelerated employment legacy costs, severance-related obligations, reclamation and other environmental costs, and the costs of terminating long-term obligations, including customer, energy and transportation contracts and equipment leases. 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 property. 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 significantly and adversely affect our results of operations and financial condition.

A permanent mine closure could accelerate and significantly increase employment legacy costs, including our expense and funding costs for pension and OPEB obligations. A number of employees would be eligible for immediate retirement under special eligibility rules that apply upon a mine closure. All employees eligible for immediate retirement under the pension plans at the time of the permanent mine closure also could be eligible for OPEB, thereby accelerating our obligation to provide these benefits. Certain mine closures would precipitate a pension closure liability significantly greater than an ongoing operation liability and may trigger certain severance liability obligations.

Our sales and competitive position depend on the ability to transport our products to our customers at competitive rates and in a timely manner.

Disruption of the lake, rail and trucking 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, or other events and lack of alternative transportation options, could impair our ability to supply iron ore products to our customers at competitive rates or in a timely manner and, thus, could adversely affect our sales, margins and profitability. Further, reduced dredging and environmental changes, particularly at Great Lakes ports, could impact negatively our ability to move our iron ore products because lower water levels restrict the tonnage that vessels can haul, resulting in higher freight rates.

Natural disasters, weather conditions, disruption of energy, unanticipated geological conditions, equipment failures, 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 are subject to unexpected conditions and events that are beyond the industry's control. Those events 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 iron ore products and affect adversely our sales, margins and profitability.

Interruptions in production capabilities inevitably will increase our production costs and reduce our profitability. For example, we do not have meaningful excess capacity for current production needs, and we are not able to quickly increase production or restart production at one mine to offset an interruption in production at another mine. Additionally, restart production costs can be even higher if required to be taken during extremely cold weather conditions.

A portion of our production costs are fixed regardless of current operating levels. As noted, 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. These include weather conditions (for example, extreme winter weather, tornadoes, floods, and the lack of availability of process water due to drought) and natural and man-made disasters, tailings dam failures, pit wall failures, unanticipated geological conditions, including variations in the amount of rock and soil overlying the deposits of iron ore, variations in rock and other natural materials, and variations in geologic conditions and ore processing changes.

Our mining operations, ore processing facilities and logistics operations depend on critical pieces of equipment. This equipment may, on occasion, be out of service because of unanticipated failures. In addition, all of our mines and most of our processing facilities have been in operation for several decades, and the equipment is aged. In the future, we may experience additional lengthy shutdowns or periods of reduced production because of equipment failures. Further, remediation of any interruption in production capability may require us to make large capital expenditures that could have a negative effect on our profitability and cash flows. Our business interruption insurance would not cover all of the lost revenues associated with equipment failures. Longer-term business disruptions could result in a loss of customers, which could adversely affect our future sales levels and profitability.

Many of our mines and facilities are dependent on one source for electric power and for natural gas. A significant interruption in service from our energy suppliers due to terrorism or sabotage, weather conditions, natural disasters, 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.

We incur certain costs when production capacity is idled, including increased costs to resume production at idled facilities and costs to idle facilities.

Our decisions concerning which facilities to operate and at what capacity levels are made based upon our customers' orders for products, as well as the quality, performance capabilities and production cost of our operations. During depressed market conditions, we may concentrate production at certain facilities and not operate others in response to customer demand, and as a result we may incur idle facility costs. In 2016, for example, two of our Minnesota mines were temporarily idled for a portion of the year, and we indefinitely idled the Empire mine in Michigan in August 2016.

When we restart idled facilities, we incur certain costs to replenish inventories, prepare the previously idled facilities for operation, perform the required mine stripping, repair and maintenance activities, and prepare employees to return to work safely and to resume production responsibilities. The amount of any such costs can be material, depending on a variety of factors, such as the period of idle time, necessary repairs and available employees, and is difficult to project.

If faced with overcapacity in the iron ore market, we may seek to rationalize assets through asset sales, temporary shutdowns, indefinite idles or facility closures.

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

As noted above, our operations are generally subject to a number of hazards and risks, which could result in damage to, or destruction of, equipment, properties or facilities. The insurance that we maintain to address risks that are typical in our business may not provide adequate coverage. 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 where we determine it is most cost-effective to do so. As a result, accidents or other negative developments involving our mining, production or transportation activities could have a material adverse effect on our operations.

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

We rely on the accuracy, capacity and security of our information technology (“IT”) systems for the operations of many of our business processes and to comply with regulatory, legal and tax requirements. While we maintain some of our critical information technology systems, we are also dependent on third parties to provide important IT services relating to, among other things, operational technology at our facilities, human resources, electronic communications and certain finance functions. Despite the security measures that we have implemented, including those related to cybersecurity, our systems could be breached or damaged by computer viruses, natural or man-made incidents or disasters, or unauthorized physical or electronic access. Though we have controls in place, we cannot provide assurance that a cyber-attack will not occur. Furthermore, we may have little or no oversight 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 or otherwise protected information, or result in the corruption of data, which could adversely affect our business operations and financial performance. In addition, we may be required to incur significant costs to protect against and, if required, remediate the damage caused by such disruptions or system failures in the future.

Our profitability could be affected adversely by the failure of outside contractors and/or suppliers to perform.

We rely on outside companies to provide key services, including the design and construction of our HBI production plant in Toledo, Ohio. Additionally, we use contractors to help complete certain capital projects, such as upgrades to our existing Mining and Pelletizing facilities. A contractor's or supplier's failure to perform could affect adversely our production, sales, and our ability to fulfill customer requirements. Such failure to perform in a significant way would result in additional costs for us, which also could affect adversely our production rates, sales, results of operations and profitability.

V. DEVELOPMENT AND SUSTAINABILITY RISKS

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

We undertake strategic capital projects, such as the HBI project, in order to enhance, expand or upgrade our mining and production capabilities or diversify our customer base. Our ability to achieve the anticipated production volumes, revenues or otherwise realize acceptable returns on strategic 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 (such as a volatile pricing environment for iron ore products), operational, permitting and labor-related factors. Further, the cost to implement any given strategic capital project ultimately may prove to be greater and may take more time than originally anticipated. Inability to achieve the anticipated results from the implementation of our strategic capital projects, incurring unanticipated implementation costs or penalties, or the inability to meet contractual obligations could affect adversely our results of operations and future earnings and cash flow generation.

We continually must replace ore reserves depleted by production. Exploration activities may not result in additional discoveries.

Our ability to replenish our ore reserves is important to our long-term viability. Depleted ore reserves must be replaced by further delineation of existing ore bodies or by locating new deposits in order to maintain production levels over the long term. For example, in 2017 we made investments in our Tilden and Empire mines and in land in Minnesota to provide future potential ore reserves. Based on the economic reserve analyses performed during 2019 and 2018, we revised the mine plans for Tilden and Northshore, respectively, to add ore reserves and extend mine life. Resource exploration and development are highly speculative in nature. Exploration projects involve many risks, require substantial expenditures and may not result in the discovery of sufficient additional mineral deposits that can be mined profitably. Once a site with mineralization is discovered, it may take several years from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish recoverable proven and probable reserves and to construct mining and processing facilities. As a result, there is no assurance that current or future exploration programs will be successful, and there is a risk that depletion of reserves will not be offset by discoveries or acquisitions.

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

We regularly evaluate our iron ore reserves based on revenues and costs and update them as required in accordance with SEC Industry Guide 7. We anticipate further updating our mining properties disclosure in accordance with the SEC's Final Rule 13-10570, Modernization of Property Disclosures for Mining Registrants, which became effective February 25, 2019, and which rescinds Industry Guide 7 following a two-year transition period, which means that we will be required to comply with the new rule no later than our fiscal year beginning January 1, 2021. Estimates of 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 regulations by governmental agencies, future prices for iron ore, future industry conditions and operating costs, severance and excise taxes, development costs and costs of extraction and reclamation, all of which may vary considerably from actual results. Estimating the quantity and grade of reserves requires us to determine the size, shape and depth of our mineral bodies by analyzing geological data, such as samplings of drill holes. In addition to the geology assumptions regarding our mines, assumptions are also required to determine the economic feasibility of mining these reserves, including estimates of future commodity prices and demand, the mining methods we use, and the related costs incurred to develop and mine our reserves. For these reasons, estimates of the economically recoverable quantities of mineralized deposits attributable to any particular group of properties, classifications of such reserves based on risk of recovery and estimates of future net cash flows prepared by different engineers or by the same engineers at different times may vary substantially as the criteria change. Estimated ore reserves could be affected by future industry conditions, future changes in the SEC's mining property disclosure requirements, geological conditions and ongoing mine planning. Actual volume and grade of reserves recovered, production rates, revenues and expenditures with respect to our reserves will likely vary from estimates, and if such variances are material, our sales and profitability could be affected adversely.

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

A portion of our mining operations are conducted on properties we lease, license or as to which we have easements or other possessory interests, which we refer to as "leased properties." Consistent with industry practice, title to most of these leased properties and mineral rights are not usually verified until we make a commitment to develop a property, which may not occur until after we have obtained necessary permits and completed exploration of the leased property. In some cases, title with respect to leased properties is not verified at all because we instead rely on title information or representations and warranties provided by lessors or grantors. We do not maintain title insurance on our owned or leased properties. A title defect or the loss of any lease, license or easement for any leased mining property could affect adversely 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 and public facilities may affect our ability to operate as planned if our title is not superior or arrangements cannot be negotiated.

Any challenge to our title could delay the exploration and development of some reserves, 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 reserves or surface rights. In the event we lose reserves, deposits or surface rights, we may have to shut down or significantly alter the sequence of our mining operations, which may affect adversely our future production, revenues and cash flows. Additionally, if we lose any leasehold interests relating to any of our pellet plants or loadout facilities, we may need to find an alternative location to process our iron ore and load it for delivery to customers, which could result in significant unanticipated costs. Finally, we could incur significant liability if we inadvertently mine on property we do not own or lease.

In order to continue to foster growth in our business and maintain stability of our earnings, we must maintain our social license to operate with our stakeholders.

Maintaining a strong reputation and consistent operational and safety track record is vital in order to continue to foster growth and maintain stability in our earnings. As sustainability expectations increase and regulatory requirements continue to evolve, maintaining our social license to operate becomes increasingly important. We incorporate social license expectations in our ERM program. Our ability to maintain our reputation and strong operating track record could be threatened, including by circumstances outside of our control, such as disasters caused or suffered by other companies in our industry. 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 could affect adversely our operations and ability to foster growth projects.

Estimates and timelines relating to new development projects are uncertain and we may incur higher costs and lower economic returns than estimated.

Mining industry development projects typically require a number of years and significant expenditures before production is possible. Such projects could experience unexpected problems and delays during development, construction and/or start-up.

Our decision to develop a project typically is based on the results of feasibility studies, which estimate the anticipated economic returns of a project. The actual project profitability or economic feasibility may differ from such estimates as a result of any of the following factors, among others: changes in tonnage, grades and metallurgical characteristics of ore or other raw materials to be mined and processed; estimated future prices of the relevant product; changes in customer demand; higher construction and infrastructure costs; the quality of the data on which engineering assumptions were made; higher production costs; adverse geotechnical conditions; availability of adequate labor force; availability and cost of water and energy; availability and cost of transportation; fluctuations in inflation and currency exchange rates; availability and terms of financing; delays in obtaining environmental or other government permits or changes in laws and regulations including environmental laws and regulations; weather or severe climate impacts; and potential delays relating to social and community issues.

Our HBI project will require the commitment of substantial resources. Any unanticipated costs or delays associated with our HBI project could have a material adverse effect on our financial condition or results of operations.

Our ongoing efforts with respect to our HBI project require the commitment of substantial capital expenditures. We currently expect to incur capital expenditures through 2020 of approximately $830 million plus a contingency of up to 20%, excluding capitalized interest, on the development of the HBI production plant in Toledo, Ohio, of which approximately $700 million was paid as of December 31, 2019. Our estimated expenses may increase as personnel and equipment associated with advancing development and commercial production are added. The timely completion and successful commercial startup of the HBI project will depend in part on the following:

- maintaining required federal, state and local permits;
- completing construction work, commissioning and integration of all of the systems comprising our HBI production plant;
- negotiating sales contracts for our planned production; and
- other factors, many of which are beyond our control.

Any unanticipated costs or delays associated with our HBI project could have a material adverse effect on our financial condition or results of operations and could require us to seek additional capital, which may not be available on commercially acceptable terms or at all.

VI. HUMAN CAPITAL RISKS

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

Production in our mines and processing facilities is dependent upon the efforts of our employees. We are party to labor agreements with various labor unions that represent employees at some 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 of iron ore that could affect us adversely. The USW represents all hourly employees at United Taconite and Tilden mines. Our labor agreements with the USW were ratified in October 2018 and extended for a four-year term, effective as of October 1, 2018.

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 may be materially and adversely affected.

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

We are predicting a long-term shortage of skilled workers for the mining and metals processing industries, and competition for the available workers limits our ability to attract and retain employees as well as engage third-party contractors. As our experienced employees retire, we may have difficulty replacing them at competitive wages.

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 mine closures, or our joint venture partners fail to perform their obligations that relate to employee pension plans.

We provide defined benefit pension plans and OPEB to certain eligible union and non-union employees, including our share of expense and funding obligations with respect to our unconsolidated joint venture. 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.

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

Our success depends in part on our ability to attract 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, and motivate our senior management and key personnel in order to maintain our business 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.

VII. RISKS RELATED TO THE PROPOSED MERGER

The Merger Agreement may be terminated in accordance with its terms and the Merger may not be completed.

The Merger Agreement contains a number of conditions that must be satisfied or waived in order to complete the Merger. Those conditions include, among others:

- the adoption of the Merger Agreement by AK Steel stockholders;
- the approval by our shareholders of the Merger Agreement and the transactions contemplated by the Merger Agreement, including the issuance of our common shares in connection with the Merger;
- the receipt of required regulatory approval in Mexico;
- the absence of any governmental order or law prohibiting the consummation of the Merger;
- the accuracy of our and AK Steel's respective representations and warranties under the Merger Agreement (subject to the materiality standards set forth in the Merger Agreement);

- the performance by us and AK Steel of our respective obligations under the Merger Agreement in all material respects; and
- the absence of a material adverse effect (as described in the Merger Agreement) on us or AK Steel.

These conditions to the closing of the Merger may not be fulfilled in a timely manner or at all, and, accordingly, the Merger may be delayed or may not be completed.

In addition, if the Merger is not completed by June 30, 2020 (subject to the parties each being entitled to extend the date to September 30, 2020 and then December 31, 2020 if required antitrust approvals have not yet been obtained or there is an impediment under any antitrust law), either party may choose not to proceed with the Merger. The parties can mutually decide to terminate the Merger Agreement at any time, before or after the receipt of AK Steel stockholder approval or our shareholder approval.

Failure to complete the Merger could negatively impact the price of our common shares as well as our future business and financial results.

If the Merger is not completed for any reason, including the failure of our shareholders to approve the Merger Agreement and the transactions contemplated by the Merger Agreement, including the issuance of our common shares in connection with the Merger, or the failure of AK Steel stockholders to adopt the Merger Agreement, our business and financial results may be adversely affected, including as follows:

- we may experience negative reactions from the financial markets, including negative impacts on the market price of our common shares;
- the manner in which customers, vendors, business partners and other third parties perceive us may be negatively impacted, which in turn could affect our ability to compete for new business or obtain renewals in the marketplace more broadly;
- we may experience negative reactions from employees, which may adversely affect, among other things, productivity and occupational safety; and
- we will have expended significant time and resources that could otherwise have been spent on our existing businesses and the pursuit of other opportunities that could have been beneficial to us, and our ongoing business and financial results may be adversely affected.

If the Merger Agreement is terminated under specified circumstances, we may be required to pay AK Steel a termination fee.

We are subject to business uncertainties while the Merger is pending, which could adversely affect our business.

Uncertainty about the effect of the Merger on employees, suppliers and customers may have an adverse effect on us. These uncertainties may impair our ability to attract, retain and motivate key personnel until the Merger is completed and for a period of time thereafter, and could cause our suppliers, customers and others that deal with us to seek to change their existing business relationships with us. For example, our steelmaking customers may not want to purchase their iron ore from a company that is also a competitor.

The Merger may be less accretive than expected, or may be dilutive, to our earnings per share, which may negatively affect the market price of our common shares.

The Merger may be less accretive than expected, or may be dilutive, to our earnings per share. Estimates of our earnings per share in the future are based on preliminary estimates that may materially change. In addition, future events and conditions could decrease or delay any accretion, result in dilution or cause greater dilution than is currently expected, including:

- adverse changes in market conditions;
- commodity prices for iron ore and steel;
- production levels;
- operating results;
- competitive conditions;

- laws and regulations affecting the iron ore and steel businesses;
- capital expenditure obligations;
- higher than expected integration costs;
- lower than expected synergies; and
- general economic conditions.

Any dilution of, or decrease or delay of any accretion to, our earnings per share could cause the price of our common shares to decline.

We will incur significant transaction and Merger-related costs in connection with the Merger, which may be in excess of those anticipated by us.

We expect to continue to incur a number of non-recurring costs associated with completing the Merger, combining the operations of the two companies and achieving anticipated synergies. These fees and costs have been, and will continue to be, substantial. The substantial majority of non-recurring expenses will consist of transaction costs related to the Merger and include, among others, fees paid to financial, legal and accounting advisors, employee retention costs, severance, change of control and benefit costs, and filing fees.

We will also incur transaction fees and costs related to formulating and implementing integration plans, including facilities and systems consolidation costs and employment-related costs. We will continue to assess the magnitude of these costs, and additional unanticipated costs may be incurred in the Merger and the integration of the two companies' businesses. Although we expect that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the businesses, should allow us to offset integration-related costs over time, this net benefit may not be achieved in the near term or at all.

The costs described above, as well as other unanticipated costs and expenses, could have a material adverse effect on our financial condition and operating results following the completion of the Merger.

Many of these costs will be borne by us even if the Merger is not completed.

Following completion of the proposed Merger, our debt may limit our financial flexibility.

As of December 31, 2019, we had approximately $2.1 billion of outstanding indebtedness. We expect to incur and/or assume approximately $2.2 billion of debt to complete the acquisition of AK Steel. If we seek to refinance our and/or AK Steel's existing indebtedness, there can be no guarantee that we would be able to execute the refinancing on favorable terms or at all. In addition, in connection with entering into the Merger Agreement, we obtained commitments to provide debt financing in an amount sufficient to repay AK Steel's outstanding indebtedness under its revolving credit facility as well as AK Steel's outstanding senior secured notes. Although the receipt of such financing is not a condition to the closing of the Merger, the unavailability of such financing could adversely impact the financial condition and liquidity of the combined company.

Assuming we do not repay, repurchase, redeem, exchange or otherwise terminate any of our or AK Steel's existing indebtedness, immediately following the completion of the Merger, we expect to have approximately $4.3 billion of outstanding indebtedness.

Any increase in our indebtedness could have adverse effects on our financial condition and results of operations, including:

- increasing our vulnerability to changing economic, regulatory and industry conditions;
- limiting our ability to compete and our flexibility in planning for, or reacting to, changes in our business and industry;
- limiting our ability to pay dividends to our shareholders;
- limiting our ability to borrow additional funds; and
- requiring us to dedicate a substantial portion of our cash flow from operations to payments on our debt, thereby reducing funds available for working capital, capital expenditures, acquisitions, share repurchases, dividends and other purposes.

In addition, in connection with executing our business strategies following the Merger, we expect to continue to evaluate the possibility of acquiring additional assets and making further strategic investments, and we may elect to finance these endeavors by incurring additional indebtedness.

Our ability to arrange any additional financing for the purposes described above or otherwise will depend on, among other factors, our financial position and performance, as well as prevailing market conditions and other factors beyond our control. We cannot assure you that we will be able to obtain such financing on acceptable terms or at all.

We or AK Steel are the target of securities class action and derivative lawsuits that could result in substantial costs and may delay or prevent the Merger from being completed.

Securities class action lawsuits and derivative lawsuits are often brought against public companies when companies enter into agreements for transactions similar to those contemplated by the Merger Agreement, and such lawsuits have been brought against us or AK Steel in connection with the Merger Agreement. For example, several such lawsuits have been filed against AK Steel and its directors and are currently pending. Two such lawsuits have also named us as a defendant, and another lawsuit has been filed against us and our directors (refer to *Part I - Item 3. Legal Proceedings* for additional information on these lawsuits). Even if the lawsuits are without merit, these claims can result in substantial costs and divert management time and resources. An adverse judgment could result in monetary damages, which could have a negative impact on our liquidity and financial condition. Additionally, if a plaintiff is successful in obtaining an injunction prohibiting completion of the Merger, then that injunction may delay or prevent the Merger from being completed, which may adversely affect our business, financial position and results of operations.

Even if we complete the Merger, we may fail to realize all of the anticipated benefits of the proposed Merger, and our integration with AK Steel may not be as successful as anticipated.

The success of the proposed Merger will depend, in part, on our ability to realize the anticipated benefits and cost savings from combining our businesses with AK Steel's businesses. The anticipated benefits and cost savings of the proposed Merger may not be realized fully or at all, may take longer to realize than expected, may require more non-recurring costs and expenditures to realize than expected or could have other adverse effects that we do not currently foresee. Some of the assumptions that we have made, such as with respect to anticipated operating synergies or the costs associated with realizing such synergies; significant long-term cash flow generation; and the benefits of being a vertically integrated value-added iron ore and steel producing enterprise, may not be realized. In addition, there could be potential unknown liabilities and unforeseen expenses associated with the Merger and/or AK Steel's businesses that were not discovered in the course of performing due diligence.

The Merger involves numerous operational, strategic, financial, accounting, legal, tax and other functions, systems and management controls that must be integrated. Difficulties in integrating the two companies may result in the combined company performing differently than expected, in operational challenges or in the failure to realize anticipated expense-related efficiencies. Following completion of the Merger, we may also experience challenges associated with managing the larger, more complex, integrated businesses. The integration process may result in the loss of key employees, the disruption of ongoing businesses, or inconsistencies in standards, controls, procedures and policies.

Following completion of the proposed Merger, the market price of our common shares may decline in the future as a result of the sale of our common shares held by former AK Steel stockholders or our current shareholders.

We expect to issue approximately 133 million of our common shares to AK Steel stockholders in the Merger (including shares underlying AK Steel equity awards expected to be outstanding at the effective time of the Merger, which will be converted into awards with respect to our common shares). Following their receipt of our common shares as merger consideration, former AK Steel stockholders may seek to sell our common shares delivered to them. Other shareholders may also seek to sell our common shares held by them following, or in anticipation of, completion of the Merger. These sales (or the perception that these sales may occur), coupled with the increase in the outstanding number of our common shares, may affect the market for, and the market price of, our common shares in an adverse manner.

Following completion of the proposed Merger, we may record tangible and intangible assets, including goodwill, that could become impaired and result in material non-cash charges to our results of operations in the future.

The Merger will be accounted for as an acquisition by us in accordance with GAAP. Under the acquisition method of accounting, the assets and liabilities of AK Steel and its subsidiaries will be recorded, as of completion of the Merger, at their respective fair values and added to our assets and liabilities. Our reported financial condition and results of operations for periods after completion of the Merger will reflect AK Steel balances and results after completion of the

Merger but will not be restated retroactively to reflect the historical financial position or results of operations of AK Steel and its subsidiaries for periods prior to the Merger.

Under the acquisition method of accounting, the total purchase price will be allocated to AK Steel's tangible assets and liabilities and identifiable intangible assets based on their fair values as of the date of completion of the Merger. The excess, if any, of the purchase price over those fair values will be recorded as goodwill. To the extent the value of tangible or intangible assets, including goodwill, becomes impaired, we may be required to incur material non-cash charges relating to such impairment. Our operating results may be significantly impacted from both the impairment and the underlying trends in the business that triggered the impairment.

The ability to use AK Steel's and our respective pre-Merger net operating loss carryforwards and certain other tax attributes to offset future taxable income may be subject to certain limitations.

If a corporation undergoes an "ownership change" within the meaning of Section 382 of the IRC, the corporation's net operating loss carryforwards and certain other tax attributes arising before the "ownership change" are subject to limitations after the "ownership change." An "ownership change" under Section 382 of the IRC generally occurs if one or more shareholders or groups of shareholders who own at least 5% of the corporation's equity increase their ownership in the aggregate by more than 50 percentage points over their lowest ownership percentage within a rolling period that begins on the later of three years prior to the testing date and the date of the last "ownership change." If an "ownership change" were to occur, Section 382 of the IRC would impose an annual limit on the amount of pre-ownership change net operating loss carryforwards and other tax attributes the corporation could use to reduce its taxable income, potentially increasing and accelerating the corporation's liability for income taxes, and also potentially causing tax attributes to expire unused. The amount of the annual limitation is determined based on a corporation's value immediately prior to the ownership change.

As of December 31, 2018, AK Steel had U.S. federal net operating loss carryforwards of approximately $2.2 billion and approximately $89.2 million in deferred tax assets for state net operating loss carryforwards and tax credit carryforwards. The Merger likely will result in an "ownership change" with respect to AK Steel. Accordingly, all or a portion of AK Steel's U.S. federal net operating loss carryforwards and certain other tax attributes likely would be subject to limitations (or disallowance) on their use after the Merger. Similar rules with respect to the state net operating loss carryforwards may apply under state tax laws.

As of December 31, 2018, we had U.S. federal net operating loss carryforwards of approximately $2.1 billion and state net operating loss carryforwards of approximately $1.5 billion. Our ability to utilize the $2.1 billion U.S. federal net operating loss carryforwards may be limited if we experience an "ownership change" under Section 382 of the IRC. Similar rules with respect to the $1.5 billion state net operating loss carryforwards may apply under state tax laws. The issuance of our common shares to AK Steel stockholders in the Merger or in connection with other issuances or sales of our common shares (including certain transactions involving our common shares that are outside of our control) could cause an "ownership change".

Subsequent "ownership changes" may further affect the limitation in future years, and similar rules may also apply under state and foreign tax laws. Consequently, even if we achieve profitability following the Merger, we may not be able to utilize a material portion of AK Steel's or our net operating loss carryforwards and other tax attributes, which, in addition to increasing our U.S. federal income tax liability, could adversely affect our share price, financial condition, results of operations and cash flows.

Completion of the Merger may trigger change in control or other provisions in certain agreements to which AK Steel is a party.

The completion of the Merger may trigger change in control or other provisions in certain agreements to which AK Steel is a party and to which the combined company will be subject following the Merger. If we are unable to obtain consents to the Merger from the counterparties or negotiate waivers of those provisions, the counterparties may exercise their rights and remedies under the agreements, which may include terminating the agreements or seeking monetary damages. Even if we are able to obtain consents or negotiate waivers, the counterparties may require consideration for granting such consents or waivers or seek to renegotiate the agreements on terms less favorable to us.

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 offices as of December 31, 2019:

Mining and Pelletizing

All of our iron ore mining operations are open-pit mines. Additional pit development is underway as required by long-range mine plans. Drilling programs are conducted periodically to collect 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 life of mine operating schedules.

We currently own or co-own four operating iron ore mines in Michigan and Minnesota, as well as one indefinitely idled mine in Michigan. We produced 19.9 million, 20.3 million and 18.8 million long tons of iron ore pellets in 2019, 2018 and 2017, respectively, at those mines for our account. During 2019, 2018 and 2017 our owned and co-owned mines produced 5.8 million, 6.0 million and 6.7 million long tons, respectively, on behalf of current and previous steel company partners of the mines.

Our Mining and Pelletizing segment 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.

Mine	Cliffs Ownership	Infrastructure	Mineralization	Operating Since	Current Annual Capacity[1,2]	2019 Production[1,2]	Mineral Owned	Rights Leased
Tilden	100%	Mine, Concentrator, Pelletizer, Railroad	Hematite & Magnetite	1974	8.0	7.7	100%	—%
Northshore	100%	Mine, Concentrator, Pelletizer, Railroad	Magnetite	1990	6.0	5.2	—%	100%
United Taconite	100%	Mine, Concentrator, Pelletizer	Magnetite	1965	5.4	5.3	—%	100%
Hibbing	23%	Mine, Concentrator, Pelletizer	Magnetite	1976	8.0	7.5	3%	97%
Empire[3]	100%	Mine, Concentrator, Pelletizer	Magnetite	1963	*	—	53%	47%

[1] Reported on a wet basis in millions of long tons, equivalent to 2,240 pounds.

[2] Figures reported on 100% basis.

[3] Empire was indefinitely idled beginning August 2016.

* Historically, Empire had an annual capacity of 5.5 million long tons; currently indefinitely idled.

Tilden Mine

The Tilden mine is located on the Marquette Iron Range in Michigan's Upper Peninsula approximately five miles south of Ishpeming, Michigan. Over the past five years, the Tilden mine has produced between 7.6 million and 7.7 million long tons of iron ore pellets annually. During 2017, we acquired the remaining 15% equity interest in Tilden owned by U.S. Steel, bringing our ownership to 100% of the mine. We own all of the ore reserves at the Tilden mine. Operations consist of an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills, magnetite separation and floatation to produce hematite and magnetite concentrates that are then supplied to the on-site pellet plant. From the site, pellets are transported by our LS&I rail to a ship loading port at Marquette, Michigan, operated by LS&I.

Northshore Mine

The Northshore mine is located in northeastern Minnesota, approximately two miles south of Babbitt, Minnesota, on the northeastern end of the Mesabi Iron Range. Northshore's processing facilities are located in Silver Bay, Minnesota, near Lake Superior. Over the past five years, the Northshore mine has produced between 3.2 million and 5.6 million long tons of iron ore pellets annually. The Northshore mine was idled from January through May 2016. The temporary idle was a result of historic levels of steel imports into the U.S. and reduced demand from our steel-producing customers. In 2019 we completed our low silica capital upgrade to produce DR-grade pellets on a commercial scale while maintaining overall production capacity of the Northshore processing facility. We are able to produce 3.5 million long tons of DR-grade pellets annually.

We own 100% of the Northshore mine. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. We are currently engaged in arbitration proceedings with Mesabi Trust relating to a royalty agreement under which Northshore extracts iron ore from Mesabi Trust lands in return for paying royalties to Mesabi Trust. For further information, refer to *Item 3. Legal Proceedings* of this Annual Report on Form 10-K.

Northshore operations consist of 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 site has its own ship loading port located on Lake Superior.

United Taconite Mine

The United Taconite mine is located on Minnesota's Mesabi Iron Range in and around the city of Eveleth, Minnesota. The United Taconite concentrator and pelletizing facilities are located ten miles south of the mine, near the town of Forbes, Minnesota. Over the past five years, the United Taconite mine has produced between 1.5 million and 5.3 million long tons of iron ore pellets annually. The United Taconite mine was temporarily idled from January through August 2016. The temporary idle was a result of historic levels of steel imports into the U.S. and reduced demand from our steel-producing customers. Throughout 2019 and 2018 the United Taconite mine was substantially at full production levels.

We own 100% of the United Taconite mine. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. United Taconite operations consist of 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 pellet plant. From the plant site, pellets are transported by CN rail to a ship loading port at Duluth, Minnesota, operated by CN.

Hibbing Mine

The Hibbing mine is located in the center of Minnesota's Mesabi Iron Range and is approximately ten miles north of Hibbing, Minnesota, and five miles west of Chisholm, Minnesota. On August 12, 2019, our subsidiary, Cliffs Mining Company, ceased performing manager duties for the Hibbing mine and transitioned those duties to ArcelorMittal USA. Prior to this transition, we managed the Hibbing mine and our joint venture partners made required capital contributions and paid for their share of the iron ore pellets that we produced. Over the past five years, the Hibbing mine has produced between 7.5 million and 8.2 million long tons of iron ore pellets annually. We own 23% of Hibbing, a subsidiary of ArcelorMittal USA has a 62.3% interest and a subsidiary of U.S. Steel has a 14.7% interest. Each partner takes its share of production pro rata; however, provisions in the joint venture agreement allow additional or reduced production to be delivered under certain circumstances. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. Hibbing operations consist of 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 rail to a ship loading port at Superior, Wisconsin, operated by BNSF.

Empire Mine

The Empire mine is located on the Marquette Iron Range in Michigan's Upper Peninsula approximately 15 miles southwest of Marquette, Michigan. The Empire mine has had no production since the indefinite idle began in August 2016, compared to historically having an annual capacity of 5.5 million long tons of iron ore pellets.

During 2017, our ownership interest in Empire increased to 100% as we reached an agreement to distribute the noncontrolling interest net assets to ArcelorMittal USA, in exchange for its interest in Empire. Prior to the indefinite idle, operations consisted of an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills, magnetic separation and floatation to produce a magnetite concentrate that was then supplied to the on-site pellet plant. From the site, pellets were transported by CN rail to a ship loading port at Escanaba, Michigan, operated by CN.

Metallics Segment

Our HBI production plant is the first venture of our Metallics segment. It is the first facility of its kind in the Great Lakes region and is located near the Port of Toledo, in northwestern Ohio, in close proximity to future EAF customers. In addition, the Toledo site is near an existing dock, has rail access and heavy haul roads for construction and operation logistics. We are leasing the property on which the plant is being constructed. Our Toledo plant is expected to produce HBI, a specialized high quality iron alternative to scrap and pig iron, at a rate of 1.9 million metric tons per year when brought to production and is expected to begin commercial production in the first half of 2020.

Refer to NOTE 18 - COMMITMENTS AND CONTINGENCIES for further discussion of capital commitments related to our HBI production plant.

Mineral Policy

We have a corporate policy prescribing internal controls and procedures with respect to auditing and estimating of minerals. The procedures contained in the policy include the calculation of mineral estimates at each property by our engineers, geologists and accountants, as well as third-party consultants. Management compiles and reviews the calculations, and once finalized, such information is used to prepare the disclosures for our annual and quarterly reports. The disclosures are reviewed and approved by management, including our chief executive officer and chief financial officer. Additionally, the long-range mine planning and mineral estimates are reviewed annually by our Audit Committee. Furthermore, all changes to mineral estimates, other than those due to production, are adequately documented and submitted to senior operations officers for review and approval. Finally, periodic reviews of long-range mine plans and mineral reserve estimates are conducted at mine staff meetings, senior management meetings and by independent experts.

Reserves are defined by SEC Industry Standard Guide 7 as that part of a mineral deposit that could be economically and legally extracted and produced at the time of the reserve determination. All reserves are classified as proven or probable and are supported by life-of-mine plans.

Reserve estimates are based on pricing that does not exceed the three-year trailing average index price of iron ore adjusted to our realized price. We evaluate and analyze mineral reserve estimates in accordance with our mineral policy and SEC requirements. The table below identifies the year in which the latest reserve estimate was completed.

Mining and Pelletizing

Property	Date of Latest Economic Reserve Analysis
Tilden	2019
Northshore	2018
United Taconite	2019
Hibbing	2015

Ore reserve estimates for our iron ore mines as of December 31, 2019 were estimated from fully designed open pits developed using three-dimensional modeling techniques. These fully designed pits incorporate design slopes, practical mining shapes and access ramps to assure the accuracy of our reserve estimates. All operations' reserves have been adjusted net of production through 2019.

All tonnages reported for our Mining and Pelletizing operating segment are in long tons of 2,240 pounds and are reported on a 100% basis.

Mining and Pelletizing Mineral Reserves
as of December 31, 2019
(In Millions of Long Tons)

		Proven		Probable		Proven & Probable		Saleable Product[2,3]		Previous Year	
Property	Cliffs Share	Tonnage	% Grade	Tonnage	% Grade	Tonnage	% Grade[5]	Process Recovery[4]	Tonnage	Proven & Probable Crude Ore	Saleable Product
Tilden[1]	100%	185.3	35.2	418.1	34.6	603.4	34.8	34%	206.4	324.4	122.1
Northshore	100%	275.1	25.3	540.9	23.8	816.0	24.3	33%	265.3	835.1	270.2
United Taconite	100%	173.5	23.1	631.5	22.1	805.0	22.3	31%	253.3	814.4	259.5
Hibbing	23%	97.2	19.7	24.7	19.6	121.9	19.7	27%	32.4	149.8	39.7
Totals		**731.1**		**1,615.2**		**2,346.3**			**757.4**	**2,123.7**	**691.5**

[1] Tilden hematite reported grade is percent FeT; all other properties are percent magnetic iron.

[2] Saleable product is a standard pellet containing 65 to 66% Fe calculated from both proven and probable mineral reserves.

[3] Saleable product is reported on a dry basis. Shipped products typically contain 1 to 4% moisture.

[4] Process recovery includes all factors for converting crude ore tonnage to a saleable product.

[5] Cutoff grades are 15% magnetic iron for Hibbing, 17% for United Taconite, 19% for Northshore and 20% for Tilden. Cutoff for Tilden hematite is 25% FeT.

Item 3. *Legal Proceedings*

Legal Proceedings Relating to our Business

Mesabi Metallics Adversary Proceeding. On September 7, 2017, Mesabi Metallics Company LLC (f/k/a Essar Steel Minnesota LLC) ("Mesabi Metallics") 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 Metallics 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 Metallics 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 Metallics seeks, among other things, unspecified damages and injunctive relief. Cliffs and Cliffs Minnesota Land filed counterclaims against Mesabi Metallics, 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 Metallics' leases had terminated and upholding Cliffs' and Cliffs Minnesota Land's purchase and lease of the contested real estate interests. Mesabi Metallics 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 any remaining claims in the lawsuit.

Mesabi Trust Arbitration. On December 9, 2019, Mesabi Trust filed a demand for arbitration with the American Arbitration Association against Northshore and Cleveland-Cliffs Inc. alleging various breaches of a royalty agreement under which Northshore extracts iron ore from Mesabi Trust lands in return for paying royalties to Mesabi Trust. In its demand, Mesabi Trust asserts that we improperly based royalty payments for intercompany sales of DR-grade pellets on artificially low pricing of DR-grade pellet sales to one of our arms' length third-party customers. Mesabi Trust further asserts that we paid royalties too soon on DR-grade pellets stockpiled at Northshore and destined for shipment to our HBI production plant. The allegations also include failure to provide access to information and individuals necessary to determine compliance with the royalty agreement. In addition to seeking damages and costs, Mesabi Trust seeks declarations as to the methodology and timing for calculating royalties on our intercompany DR-grade pellet sales, and that Mesabi Trust should have full and unfettered access to all of our information and employees. We filed our answering statement to Mesabi Trust's demand for arbitration on January 15, 2020. The two arbitrators appointed by the parties are required to appoint a third arbitrator on or before March 6, 2020. We believe the claims asserted against us are without merit, and we intend to vigorously defend against them.

Taconite MACT Compliance Review. EPA Region 5 issued Notices of Violation during the first quarter of 2014 to Empire, Tilden and United Taconite related to alleged historical violations of the Taconite MACT rule and certain elements of their respective state-issued Title V operating permits dating back to 2010. Final settlement for alleged exceedances was resolved for United Taconite by consent decree with a civil penalty paid of $0.1 million and a supplemental environmental project. The allegations for Tilden and Empire were resolved by consent decree with civil penalties paid of no more than $0.2 million and $0.1 million, respectively.

CCAA Proceedings. Refer to NOTE 13 - DISCONTINUED OPERATIONS for a description of the CCAA proceedings with respect to the Bloom Lake Group and the Wabush Group. Such description is incorporated by reference into this Item 3.

Legal Proceedings Relating to the Merger

Franchi, et al. v. AK Steel Holding Corp., et al., Case No. 1:20-cv-00078 (D. Del.) (the "Franchi Action"). On January 17, 2020, a purported stockholder of AK Steel filed this putative class action lawsuit in federal court in Delaware against AK Steel, the directors of AK Steel, Cleveland-Cliffs Inc. and Merger Sub. The complaint alleges that the Form S-4 Registration Statement filed in connection with the proposed Merger is false and misleading and/or omits material information concerning the transactions contemplated by the Merger Agreement in violation of the federal securities laws.

Nessim, et al. v. Cleveland-Cliffs Inc., et al., Case No. 1:20-cv-00850 (S.D.N.Y.) (the "Nessim Action"). On January 31, 2020, a purported shareholder of Cleveland-Cliffs Inc. filed this putative class action lawsuit in federal court in New York against us and each of our directors. The complaint, like the complaint in the Franchi Action, alleges that the Form S-4 Registration Statement filed in connection with the proposed Merger is false and misleading and/or omits material information concerning the transactions contemplated by the Merger Agreement in violation of the federal securities laws.

Pate, et al. v. AK Steel Holding Corp., et al., Case No. CV 2020 01 0196 (Ohio Common Pleas, Butler County) (the "Pate Action"). On January 28, 2020, a purported stockholder of AK Steel filed this putative class action lawsuit in state court in Ohio against AK Steel, the directors of AK Steel, Cleveland-Cliffs Inc. and Merger Sub. Among other things, the complaint alleges breaches of fiduciary duty claims against the AK Steel directors and aiding and abetting claims against AK Steel, us and Merger Sub in connection with the transactions contemplated by the Merger Agreement, including that the registration statement on Form S-4 filed in connection with the proposed Merger is false and misleading and/or omits material information concerning the transactions contemplated by the Merger Agreement.

The lawsuits relating to the Merger, among other requested relief, seek to enjoin the transactions contemplated by the Merger Agreement and an award of attorneys' fees and expenses. We believe the Franchi, Nessim and Pate Actions are without merit, and we intend to vigorously defend against them.

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 results 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 required mine safety results regarding certain mining safety and health matters for each of our mine locations that are covered under the scope of the Dodd-Frank Act are included in Exhibit 95 of *Item 15. Exhibits and Financial Statement Schedules* of this Annual Report on Form 10-K.

Item 5. ***Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Stock Exchange Information

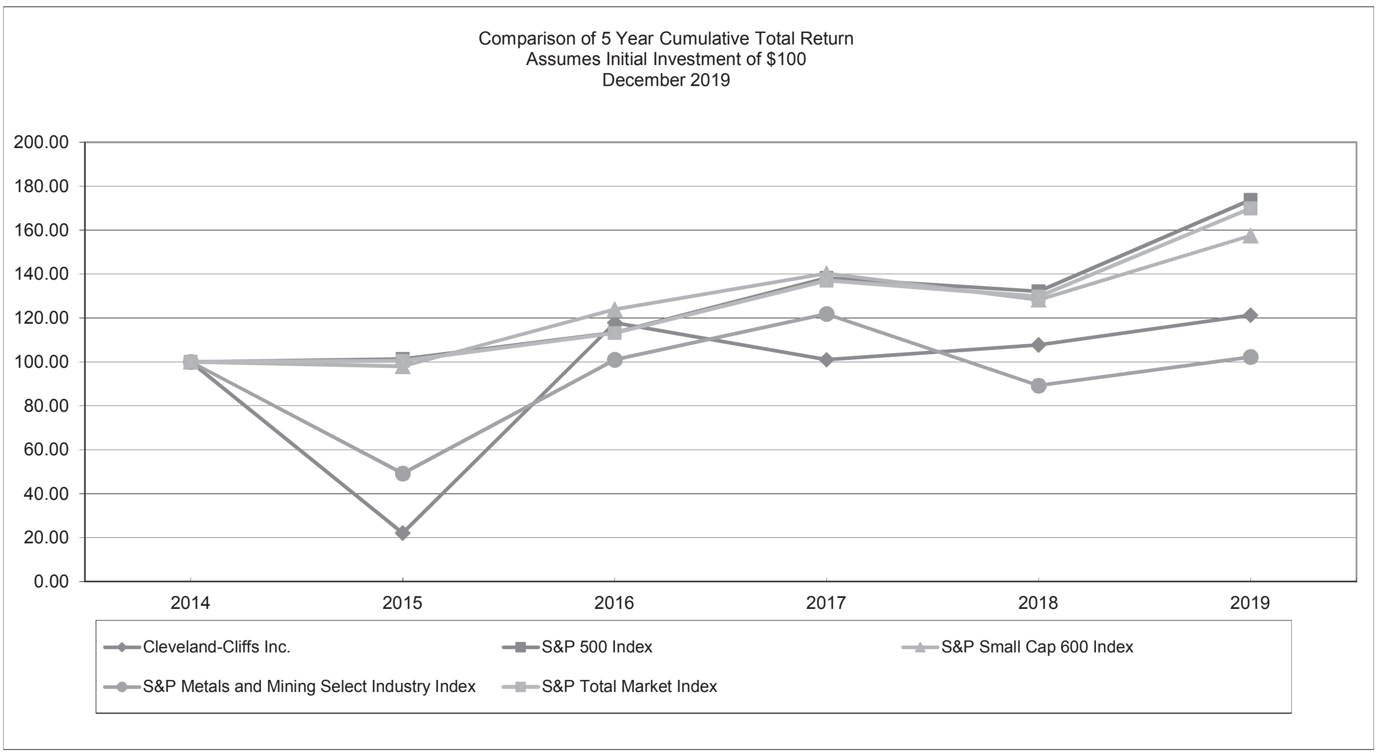
Our common shares (ticker symbol CLF) are listed on the NYSE.

Holders

At February 18, 2020, we had 1,095 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 Small Cap 600 Index; (4) S&P Metals and Mining Select Industry Index; and (5) S&P Total Market Index. The values of each investment are based on price change plus reinvestment of all dividends reported to shareholders, based on monthly granularity.



		2014	2015	2016	2017	2018	2019
Cleveland-Cliffs Inc.	Return %	—	(77.87)	432.28	(14.27)	6.66	**12.60**
	Cum $	100.00	22.13	117.79	100.98	107.71	**121.28**
S&P 500 Index	Return %	—	1.38	11.93	21.80	(4.39)	**31.48**
	Cum $	100.00	101.38	113.47	138.21	132.14	**173.74**
S&P Small Cap 600 Index[1]	Return %	—	(2.01)	26.46	13.15	(8.52)	**22.74**
	Cum $	100.00	97.99	123.92	140.21	128.27	**157.44**
S&P Metals and Mining Select Industry Index	Return %	—	(50.76)	105.09	20.61	(26.76)	**14.70**
	Cum $	100.00	49.24	100.99	121.80	89.21	**102.32**
S&P Total Market Index[1]	Return %	—	0.46	12.62	21.13	(5.30)	**30.89**
	Cum $	100.00	100.46	113.14	137.04	129.78	**169.87**

[1] During the year ended December 31, 2019, we were added to the S&P Small Cap 600 Index. As a result, we are replacing the S&P Total Market Index with the S&P Small Cap 600 Index. The data for the S&P Total Market Index is reflected for comparative purposes.

Issuer Purchases of Equity Securities

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

ISSUER PURCHASES OF EQUITY SECURITIES

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, 2019	1,375	$ 7.19	—	$ 229,356
November 1 - 30, 2019	709	$ 6.96	—	$ 229,356
December 1 - 31, 2019	—	$ —	—	$ 229,356
Total	**2,084**	**$ 7.11**	**—**	**—**

[1] All shares were delivered to us to satisfy tax withholding obligations due upon the vesting or payment of stock awards.

[2] On November 26, 2018, we announced a new share repurchase program which was authorized by our Board of Directors, pursuant to which we could buy back our outstanding common shares in the open market or in privately negotiated transactions up to a maximum of $200 million, excluding commissions and fees. On April 25, 2019, we announced that our Board of Directors increased the common share repurchase authorization by an additional $100 million, excluding commissions and fees. The program could be executed through open-market purchases, including through Rule 10b5-1 agreements, or privately negotiated transactions. The authorization was effective until December 31, 2019.

Item 6. *Selected Financial Data*

Summary of Financial and Other Statistical Data - Cleveland-Cliffs Inc. and Subsidiaries

	2019	2018 (a)	2017 (b)	2016 (c)	2015 (d)
Financial data (in millions, except per share amounts)					
Revenue from product sales and services	**$ 1,989.9**	$ 2,332.4	$ 1,866.0	$ 1,554.5	$ 1,525.4
Income from continuing operations	**$ 294.5**	$ 1,039.9	$ 360.6	$ 122.6	$ 134.3
Income (loss) from discontinued operations, net of tax *	**$ (1.7)**	$ 88.2	$ 2.5	$ 76.7	$ (882.7)
Earnings (loss) per common share attributable to Cliffs common shareholders - basic					
Continuing operations	**$ 1.07**	$ 3.50	$ 1.27	$ 0.49	$ 0.57
Discontinued operations *	**(0.01)**	0.30	0.01	0.39	(5.71)
Earnings (loss) per common share attributable to Cliffs common shareholders - basic	**$ 1.06**	$ 3.80	$ 1.28	$ 0.88	$ (5.14)
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted					
Continuing operations	**$ 1.04**	$ 3.42	$ 1.25	$ 0.49	$ 0.57
Discontinued operations *	**(0.01)**	0.29	0.01	0.38	(5.70)
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted	**$ 1.03**	$ 3.71	$ 1.26	$ 0.87	$ (5.13)
Total assets	**$ 3,503.8**	$ 3,529.6	$ 2,953.4	$ 1,923.9	$ 2,135.5
Long-term debt obligations (including finance leases)	**$ 2,144.6**	$ 2,104.5	$ 2,311.8	$ 2,178.6	$ 2,704.1
Cash dividends declared to preferred shareholders					
- Per depositary share	**$ —**	$ —	$ —	$ —	$ 1.32
- Total	**$ —**	$ —	$ —	$ —	$ 38.4
Cash dividends declared to common shareholders					
- Per share	**$ 0.27**	$ 0.05	$ —	$ —	$ —
- Total	**$ 75.0**	$ 15.0	$ —	$ —	$ —

Note: This information should be read in conjunction with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data.

(*) Refer to NOTE 13 - DISCONTINUED OPERATIONS, for information regarding discontinued operations.

(a) During 2018, we recorded an income tax benefit of $475.2 million, primarily related to the release of the valuation allowance in the U.S. Refer to NOTE 10 - INCOME TAXES for further information. Additionally, on January 1, 2018, we adopted Topic 606 and applied it to all contracts that were not completed using the modified retrospective method. We recognized the cumulative effect of initially applying Topic 606 as an adjustment of $34.0 million to the opening balance of *Retained deficit*. The comparative period information has not been retrospectively revised and continues to be reported under the accounting standards in effect for those periods.

(b) Refer to NOTE 6 - DEBT AND CREDIT FACILITIES for information regarding debt issuances and extinguishments, NOTE 14 - SHAREHOLDERS' EQUITY for information regarding a common share issuance and NOTE 10 - INCOME TAXES for information regarding the financial impact of Public Law 115–97, commonly known as the “Tax Cuts and Jobs Act”.

(c) During 2016, we recorded a net gain of $166.3 million related to debt restructuring activities that occurred throughout the year, including the issuance of $218.5 million aggregate principal of 8.00% 2020 1.5 Lien Notes in exchange for $512.2 million aggregate principal amount of our existing senior notes, the issuance of an aggregate of 8.2 million common shares in exchange for $56.9 million aggregate principal amount of our existing senior notes and a loss on the redemption of the full $283.6 million outstanding of our 3.95% 2018 Senior Notes at a total redemption price of $301.0 million. We also issued 44.4 million common shares in an underwritten public offering. We received net proceeds of $287.6 million at a public offering price of $6.75 per common share.

(d) During 2015, our Eastern Canada Iron Ore segment commenced restructuring proceedings in Montreal, Quebec under the CCAA. As a result of these proceedings, the Canadian entities were deconsolidated and all financial results were classified within discontinued operations. During 2015, our North American Coal operating segment met the criteria to be classified as held for sale under *ASC Topic 205, Presentation of Financial Statements*, until the operations were sold during the fourth quarter, and as a result, all financial results were classified within discontinued operations. Refer to NOTE 13 - DISCONTINUED OPERATIONS, for information regarding discontinued operations.

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 ("MD&A") 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 elsewhere in this document.

Industry Overview

The key driver of our business is demand for steelmaking raw materials from U.S. steelmakers. During 2019, the U.S. produced approximately 88 million metric tons of crude steel, which is 1% higher compared to 2018, representing about 5% of total global crude steel production. U.S. total steel capacity utilization was approximately 80% during 2019, which is an approximate 3% increase from 2018. Throughout 2019, global crude steel production increased about 2% compared to 2018, driven by an approximate 7% increase in Chinese crude steel production.

For the year ended December 31, 2019, conditions in the global iron ore market were at their most favorable levels since 2014. In January 2019, a tailings dam operated by Vale S.A., the largest iron ore miner in the world, suffered a catastrophic failure resulting in hundreds of fatalities in Brumadinho, Brazil. The fallout of this disaster led to multiple disruptions in iron ore supply. Due in large part to these disruptions and China's healthy steel production levels, the Platts 62% price, a key component in our supply contracts, averaged $93 per metric ton in 2019, a 35% increase from the $69 per metric ton average in 2018.

The Atlantic Basin pellet premium, another important pricing factor in our contracts, averaged $57 per metric ton for the year ended December 31, 2019, a 3% decrease compared to 2018. However, the market for pellets deteriorated rapidly during the second half of 2019, ending at a price of $38 per metric ton. Given both the weak steel market conditions in Europe and declining demand for high-quality iron ore products in China, pellet suppliers have lowered premiums dramatically. This drove the Atlantic Basin pellet premium to a three-year low, representing a substantial deterioration from the multi-year highs seen earlier in the year.

The hot-rolled coil steel price, which is an important attribute in the calculation of supplemental revenue in a customer's supply agreement, averaged $601 per net ton for the year ended December 31, 2019, 27% lower than last year. While purchasers scrambled to place steel orders in the wake of the Section 232 tariffs implemented last year, the U.S. market has since cooled and prices have moved substantially lower due to weak global supply-demand conditions, inventory destocking, increased local supply and lower demand for sheet products. In addition, scrap steel prices fell to three-year lows due to lack of export demand, putting additional pressure on pricing in the steel supply chain.

Our consolidated revenues were $2.0 billion and $2.3 billion for the years ended December 31, 2019 and 2018, respectively, with net income from continuing operations of $1.04 and $3.42 per diluted share, respectively. Net income from continuing operations for 2019, when compared to 2018, was negatively impacted by an income tax benefit of $475.2 million in 2018, primarily due to the release of the valuation allowance in the U.S., which was not repeated in 2019. Sales margin decreased by $233.9 million during 2019 when compared to 2018, primarily driven by the decrease in revenue from lower overall average realized product revenue rates and lower sales volumes.

Strategy

Protecting our Mining and Pelletizing Segment Business

We are the market-leading iron ore producer in the U.S., supplying differentiated iron ore pellets under long-term contracts to major North American blast furnace steel producers. We have the unique advantage of being a low-cost, high-quality, iron ore pellet producer with significant transportation and logistics advantages to serve the Great Lakes steel market. The pricing structure and long-term nature of our existing contracts, along with our low-cost operating profile, position our Mining and Pelletizing segment as a strong cash flow generator in most commodity pricing environments. Since instituting our strategy in 2014 of focusing on this business, we have achieved significant accomplishments, including maximizing commercial leverage in pricing and securing sales volume certainty with steelmakers throughout the Great Lakes region, improving operating reliability by making operational improvements, realizing more predictability in cash flows, developing new demand avenues in the metallics industry, embracing the global push toward environmental stewardship and developing new pellet products to meet ever-evolving market demands.

We recognize the importance of our current strong position in the North American blast furnace steel industry, and one of our top priorities is to protect and enhance the market position of our Mining and Pelletizing business. This involves continuing to deliver high-quality, custom-made pellets that allow our customers to remain competitive in the quality, production efficiency, and environmental friendliness of their steel products. Protecting this business also involves continually evaluating opportunities to preserve our customer base, expand our production capacity and increase ore reserve life. In 2017, we achieved key accomplishments toward these goals by acquiring the remaining minority stake in our Tilden and Empire mines as well as additional real estate interests in Minnesota. In 2018, we began supplying pellets under two new customer supply agreements in the Great Lakes region. In addition, we executed the efficient exit of our Asia Pacific Iron Ore business, officially completing the divestiture of the Company's non-core iron ore assets. In 2019, we completed the upgrades at our Northshore mine to begin commercially producing DR-grade pellets.

The acquisition of AK Steel, when complete, is expected to ensure pellet volume commitments for approximately 6 million long tons of pellets, to complement our existing long-term minimum volume pellet offtake agreements with other key integrated steel producers and pellets to be consumed at our Toledo HBI production plant.

Expanding our Customer Base and Product Offering

The acquisition of AK Steel, when complete, is expected to allow us to benefit from a larger and more diverse base of customers, with less overall emphasis on commodity-linked contracts. The expansion of our customer base into the automotive industry, as well as other steel consuming manufacturers, through the acquisition of AK Steel is expected to generate more predictable earnings and cash flows due to the focus on value-added and non-commoditized products, and less exposure to volatile commodity indices. AK Steel is one of the few steel producers capable of producing the carbon and stainless steel grades critical to automotive lightweighting trends. AK Steel generally supplies more advanced steel products than EAF steelmakers, who have gained market share from other blast furnaces on less advanced commodity-grade steels. As currently configured, EAFs are largely unable to supply the highly-specified products that AK Steel primarily sells.

Although AK Steel has a different customer base compared to other blast furnace steelmakers, we cannot ignore the ongoing shift of steelmaking share in the U.S. away from our other blast furnace customers to the EAF steelmakers. Over the past 25 years, the market share of EAFs has nearly doubled. However, as EAFs have moved to higher-value steel products, they require more high-quality iron ore-based metallics instead of lower-grade scrap as raw material feedstock. As a result of this trend, one of our top strategic priorities will be to become a critical supplier of the EAF market by providing these specialized metallics.

In June 2017, we announced the planned construction of an HBI production plant in Toledo, Ohio. Over the past 32 months, we have made significant progress on the construction of this plant. During 2018, we increased the expected productive capacity of the Toledo HBI production plant from 1.6 million to 1.9 million metric tons per year based on market analysis, greater-than-expected customer demand and expansion opportunities identified during the construction process. We estimate the construction cost to be approximately $830 million plus a contingency of up to 20%, excluding capitalized interest, of which approximately $700 million was paid as of December 31, 2019. We expect that the HBI production plant, once operational, will consume approximately 2.8 million long tons of our DR-grade pellets per year. During 2019, we announced that we expect to reach commercial production ahead of schedule, in the first half of 2020.

We expect our HBI partially to replace the over 3 million metric tons of ore-based metallics that are imported into the Great Lakes region every year from Russia, Ukraine, Brazil and Venezuela, as well as the nearly 20 million metric tons of scrap used in the Great Lakes area every year. The Toledo site is in close proximity to over 20 EAFs, giving us a natural competitive freight advantage over import competitors. Not only does this production plant create another outlet for our high-margin pellets, but it also presents an attractive economic opportunity for us. As the only producer of DR-grade pellets in the Great Lakes region and with access to abundant, low-cost natural gas, we will be in a unique position to serve clients in the area and grow our customer base.

The acquisition of AK Steel, when complete, provides another potential outlet for HBI as it can also be used in integrated steel operations to increase productivity and reduce carbon footprint, allowing for more environmentally friendly steelmaking. AK Steel has used imported HBI in the past for these purposes.

Maintaining Discipline on Costs and Capital Allocation

We believe our ability to execute our strategy is dependent on maintaining our financial position, balance sheet strength and financial flexibility, which will enable us to manage through the inherent cyclical demand for our products and volatility in commodity prices. Our streamlined organization and support functions are well-aligned with our strategic direction. Our capital allocation plan is focused on expanding our customer base through the acquisition of AK Steel and the Metallics segment, strengthening and protecting our Mining and Pelletizing segment operations, maintaining balance sheet flexibility and returning excess capital to shareholders.

As the implementation of our strategy has strengthened the business, we have put additional emphasis on returning excess capital to shareholders and the continued improvement of our balance sheet via continued reduction of long-term debt and extension of long-term debt maturities. Since 2018, when we announced a share repurchase program, we have repurchased 29.8 million common shares for $299.8 million in the aggregate under the $300 million share repurchase program. In 2019, we began paying a quarterly cash dividend of $0.05 per common share, which increased 20% to $0.06 per common share in the third quarter of 2019. In the fourth quarter 2019, we also paid a special cash dividend of $0.04 per common share. Since 2015, we have reduced our annual interest expense by 54%, or approximately $120 million, by using various liability management strategies consistent with our capital allocation priorities and our stated objective of improving the strength of our balance sheet and simplifying the capital structure. Given the cyclical nature of our business, we will continue to be opportunistic in managing our balance sheet and capital structure, which should put us in an optimal position to manage through any commodity environment, and we continue to seek the best opportunities to accomplish this.

Recent Developments

On December 2, 2019, we entered into the Merger Agreement with AK Steel and Merger Sub, pursuant to which, upon the terms and subject to the conditions set forth therein, Merger Sub will merge with and into AK Steel, with AK Steel surviving the Merger as a wholly owned subsidiary of Cliffs.

Pursuant to the Merger Agreement, at the effective time of the Merger, each share of AK Steel common stock issued and outstanding prior to the effective time of the Merger will be converted into, and become exchangeable for, 0.400 of a share of our common stock, par value $0.125 per share.

We expect to complete the Merger in the first quarter of 2020. Completion of the Merger is subject to various conditions, such as satisfaction or waiver of certain specified closing conditions, and it is possible that factors outside of our control could result in the Merger being completed at a later time or not at all. The Merger Agreement also contains certain termination rights that may be exercised by either us or AK Steel. We plan to complete the Merger as soon as reasonably practicable following the satisfaction of all applicable conditions.

In connection with the consummation of the Merger, we expect to: (i) use the net proceeds from the issuance of the New Cliffs Secured/Unsecured Notes, as well as cash on hand, to repurchase, redeem or otherwise retire the AK Steel 7.50% 2023 Notes and the AK Steel 7.625% 2021 Notes; and (ii) enter into the New ABL Facility to replace our existing ABL Facility and AK Steel's existing revolving credit facility, refinance in full all amounts outstanding under AK Steel's existing revolving credit facility, provide funds to pay any cash that is required to be paid pursuant to the terms of the Merger Agreement in lieu of the issuance of any fractional Cliffs common shares in the Merger and pay certain Merger-related expenses. In connection with entering into the Merger Agreement, we entered into a commitment letter with certain lenders with respect to our entry into the New ABL Facility and pursuant to which, on the terms and subject to the conditions in such commitment letter, such lenders have agreed to provide us with an aggregate principal amount of $1,500.0 million. We intend to seek additional commitments of $500.0 million during the primary "retail" syndication of the New ABL Facility.

On February 18, 2020, our Board of Directors declared a quarterly cash dividend on our common shares of $0.06 per share. The cash dividend will be payable on April 15, 2020, to shareholders of record as of the close of business on April 3, 2020.

Business Segments

Our Company's continuing operations are organized and managed in two business units according to our differentiated products: Mining and Pelletizing and Metallics. Our Mining and Pelletizing segment is a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. In our Metallics segment, we expect to complete construction of our HBI production plant in Toledo, Ohio and begin operations during the first half of 2020.

2019 Compared to 2018

Consolidated Results of Operations

The following table presents a reconciliation of our gross *Revenues from product sales and services* and *Sales margin* by reportable segment to consolidated *Revenues from product sales and services* and *Sales margin* by reportable segment:

	(In Millions)		
	Year Ended December 31, 2019		
	Mining and Pelletizing	**Metallics**	**Total**
Operating segment revenues from product sales and services	**$ 2,069.2**	**$ —**	**$ 2,069.2**
Elimination of intersegment revenues	**(79.3)**	**—**	**(79.3)**
Total revenues from product sales and services	**$ 1,989.9**	**$ —**	**$ 1,989.9**
Operating segment sales margin	**$ 600.0**	**$ —**	**$ 600.0**
Elimination of intersegment sales margin	**(24.3)**	**—**	**(24.3)**
Total sales margin	**$ 575.7**	**$ —**	**$ 575.7**

Revenues from product sales and services of $2,332.4 million and *Sales margin* of $809.6 million related to our Mining and Pelletizing segment accounted for all of our consolidated revenues and sales margin for the year ended December 31, 2018.

Refer to *Mining and Pelletizing Segment Results* for further discussion of our segment operating results.

Other Operating Income (Expense)

The following is a summary of *Other operating income (expense)*:

	(In Millions)		
	2019	2018	Variance Favorable/ (Unfavorable)
Selling, general and administrative expenses	**$ (119.4)**	$ (113.5)	$ (5.9)
Miscellaneous - net:			
Empire idle costs	**(17.9)**	(24.1)	6.2
Metallics startup costs	**(8.1)**	(3.3)	(4.8)
Other	**(1.0)**	4.5	(5.5)
Total Miscellaneous - net	**(27.0)**	(22.9)	(4.1)
	$ (146.4)	$ (136.4)	$ (10.0)

Selling, general and administrative expenses for the year ended December 31, 2019 was $5.9 million higher than 2018, primarily due to diligence and other acquisition costs associated with the Merger.

Other Expense

The following is a summary of *Other expense*:

	(In Millions)		
	2019	2018	Variance Favorable/ (Unfavorable)
Interest expense, net	**$ (101.2)**	$ (118.9)	$ 17.7
Loss on extinguishment of debt	**(18.2)**	(6.8)	(11.4)
Other non-operating income (expense):			
Net periodic benefit costs other than service cost component	**(0.6)**	14.0	(14.6)
Other	**2.8**	3.2	(0.4)
	$ (117.2)	$ (108.5)	$ (8.7)

Interest expense, net for the year ended December 31, 2019 was $17.7 million lower than 2018, primarily due to an increase in capitalized interest related to the construction of the HBI production plant and upgrades at the Northshore plant. Additionally, debt restructuring activities during 2018 reduced 2019 interest expense.

Loss on extinguishment of debt for the year ended December 31, 2019 of $18.2 million was related to the redemption of all of our then-outstanding 4.875% Senior Notes due 2021 and the repurchase of $600 million aggregate principal amount of our 5.75% Senior Notes due 2025 completed during the second quarter of 2019. This compares to a loss of $6.8 million for the year ended December 31, 2018, primarily related to the redemption in full of our outstanding 4.80% 2020 Senior Notes and 5.90% 2020 Senior Notes and the repurchase of certain of our other senior notes. Refer to NOTE 6 - DEBT AND CREDIT FACILITIES for further discussion.

Net periodic benefit costs other than service cost component for the year ended December 31, 2019 was $14.6 million higher than 2018, primarily due to lower expected returns on assets and higher interest costs. Refer to NOTE 8 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further detail on the components of net periodic benefit costs other than service cost component.

Income Taxes

Our tax rate is affected by permanent items, such as 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)	
	2019	2018
Income tax benefit (expense)	**$ (17.6)**	$ 475.2
Effective tax rate	**5.7%**	(84.1)%

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

	(In Millions)					
	2019			2018		
Tax at U.S. statutory rate	**$**	**65.5**	**21.0%**	$	118.6	21.0 %
Increase (decrease) due to:						
Percentage depletion in excess of cost depletion		**(49.3)**	**(15.8)**		(54.6)	(9.7)
Luxembourg legal entity reduction		**846.0**	**271.1**		161.7	28.6
Valuation allowance release:						
Current year activity		**—**	**—**		(79.6)	(14.1)
Release of U.S. valuation allowance		**—**	**—**		(460.5)	(81.5)
Luxembourg legal entity reduction		**(846.0)**	**(271.1)**		(161.7)	(28.6)
Other items, net		**1.4**	**0.5**		0.9	0.2
Provision for income tax expense (benefit) and effective income tax rate including discrete items	**$**	**17.6**	**5.7%**	$	(475.2)	(84.1)%

Our tax provision for the year ended December 31, 2019 was an expense of $17.6 million and an effective tax rate of 5.7% compared with a benefit of $475.2 million and an effective tax rate of negative 84.1% for the prior year. The increase in income tax expense from the prior year is primarily due to release of the valuation allowance in the U.S. of $460.5 million in 2018. The Luxembourg legal entity reduction relates to initiatives resulting in the dissolution of entities and settlement of related financial instruments in the years ended December 31, 2019 and 2018. These 2019 and 2018 net operating loss deferred tax asset reductions resulted in tax expense of $846.0 million and $161.7 million, respectively, which were fully offset by decreases in the valuation allowance.

See NOTE 10 - INCOME TAXES for further information.

Income (loss) from discontinued operations, net of tax

During the year ended December 31, 2019, we recorded a loss of $1.7 million within *Income (loss) from discontinued operations, net of tax*. During the year ended December 31, 2018, we recorded income of $88.2 million, primarily due to the exit from our Asia Pacific Iron Ore operations. As a result of the liquidation of the Australian subsidiaries' net assets, the historical changes in foreign currency translation recorded in *Accumulated other comprehensive loss* in the Statements of Consolidated Financial Position totaling $228.1 million was reclassified and recognized as a gain in *Income (loss) from discontinued operations, net of tax*, which was partially offset by operating losses and exit costs at Asia Pacific Iron Ore and the settlement of the CCAA proceedings. Refer to NOTE 13 - DISCONTINUED OPERATIONS for further information.

Mining and Pelletizing Segment Results

The following is a summary of the Mining and Pelletizing segment results:

	(In Millions)					
	Year Ended December 31,		Changes due to:			
	2019	2018	Revenue and cost rate	Sales volume	Freight	Total change
Revenues from product sales and services	**$ 2,069.2**	$ 2,332.4	$ (127.3)	$ (117.7)	$ (18.2)	$ (263.2)
Cost of goods sold	**(1,469.2)**	(1,522.8)	(39.8)	75.2	18.2	53.6
Sales margin	**$ 600.0**	$ 809.6	$ (167.1)	$ (42.5)	$ —	$ (209.6)

	Year Ended December 31,			
Per Long Sales Ton Information	**2019**	2018	Difference	Percent change
Realized product revenue rate[1]	**$ 99.50**	$ 105.64	$ (6.14)	(5.8)%
Cash cost of goods sold rate[1,2]	**64.45**	62.95	1.50	2.4 %
Depreciation, depletion & amortization	**4.08**	3.32	0.76	22.9 %
Total cost of goods sold rate	**68.53**	66.27	2.26	3.4 %
Sales margin	**$ 30.97**	$ 39.37	$ (8.40)	(21.3)%
Sales tons[3] (In thousands)	**19,371**	20,563		
Production tons[3] (In thousands)	**19,915**	20,329		

[1] Excludes revenues and expenses related to freight, which are offsetting and have no impact on sales margin.

[2] Cash cost of goods sold rate is a non-GAAP financial measure. Refer to "Non-GAAP Reconciliation" for reconciliation in dollars back to our consolidated financial statements.

[3] Tons are long tons. Includes Cliffs' 23% share of the Hibbing mine production. Includes intercompany sales to our Metallics segment of 788 thousand long tons for the year ended December 31, 2019.

Sales margin was $600.0 million for the year ended December 31, 2019, compared with $809.6 million for the year ended December 31, 2018. Sales margin per long ton decreased 21.3% to $30.97 per long ton during the year ended December 31, 2019 compared to 2018.

Revenue decreased by $245.0 million during the year ended December 31, 2019, compared to 2018, excluding the freight decrease of $18.2 million, driven by:

- A decrease in the average year-to-date realized product revenue rate of $6.14 per long ton, or 5.8%, during the year ended December 31, 2019, compared to 2018, which resulted in a decrease of $127.3 million, predominantly due to:
    - A decrease in the hot-rolled coil steel price, which negatively affected the realized revenue rate by $16 per long ton or $311 million; and
    - Lower pellet premiums which negatively affected the realized revenue rate by $2 per long ton or $40 million.
    - These decreases were offset partially by higher full-year Platts 62% price, which positively affected the realized revenue rate by $13 per long ton, or $260 million.
- Lower third-party sales volume of 2.0 million long tons, due to decreased customer demand, which was offset partially by increased intercompany demand of 0.8 million long tons, for a net decrease of 1.2 million long tons or decreased revenues of $117.7 million.

Cost of goods sold decreased $35.4 million during the year ended December 31, 2019, compared to 2018, excluding the domestic freight decrease of $18.2 million, driven by:

- A decrease in sales volume of 1.2 million long tons, which resulted in decreased costs of $75 million period-over-period.
- This decrease was offset partially by an unfavorable change in the full-year cost predominantly due to:
    - Increased stripping and lower ore recovery, which together increased costs by $35 million, or $2 per long ton, increased depreciation of $15 million, or $1 per long ton, increased commodity supply usage of $12 million, or $1 per long ton, and increased maintenance of $9 million, or $1 per long ton.
    - This unfavorable change was offset partially by decreased royalties of $14 million, or $1 per long ton, lower energy rates resulting in lower costs of $12 million, or $1 per long ton, and decreased labor costs of $11 million, or $1 per long ton.

EBITDA and Adjusted EBITDA

We evaluate performance based on EBITDA and Adjusted EBITDA, which are non-GAAP measures. These measures are 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 iron ore industry. In addition, management believes EBITDA and Adjusted EBITDA are useful measures 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.

	(In Millions)	
	2019	2018
Net income	**$ 292.8**	$ 1,128.1
Less:		
Interest expense, net	**(101.6)**	(121.3)
Income tax benefit (expense)	**(17.6)**	460.3
Depreciation, depletion and amortization	**(85.1)**	(89.0)
Total EBITDA	**$ 497.1**	$ 878.1
Less:		
Impact of discontinued operations	**$ (1.3)**	$ 120.6
Loss on extinguishment of debt	**(18.2)**	(6.8)
Severance costs	**(1.7)**	—
Acquisition costs	**(6.5)**	—
Foreign exchange remeasurement	**—**	(0.9)
Impairment of other long-lived assets	**—**	(1.1)
Total Adjusted EBITDA	**$ 524.8**	$ 766.3
EBITDA:		
Mining and Pelletizing	**$ 648.1**	$ 852.9
Metallics	**(8.1)**	(3.3)
Corporate and Other (including discontinued operations)	**(142.9)**	28.5
Total EBITDA	**$ 497.1**	$ 878.1
Adjusted EBITDA:		
Mining and Pelletizing	**$ 668.3**	$ 875.3
Metallics	**(8.1)**	(3.3)
Corporate	**(135.4)**	(105.7)
Total Adjusted EBITDA	**$ 524.8**	$ 766.3

EBITDA for the year ended December 31, 2019 decreased by $381.0 million on a consolidated basis from 2018. The unfavorable variance in EBITDA for the year ended December 31, 2019 was primarily due to a decrease in sales margin of $233.9 million and an unfavorable impact from discontinued operations of $121.9 million compared to the prior-year period. The unfavorable impact from discontinued operations is primarily due to the historical changes in foreign currency translation that were previously recorded in *Accumulated other comprehensive loss* totaling $228.1 million, which were reclassified and recognized as a gain in *Income (loss) from discontinued operations, net of tax* during 2018. The favorable impact from reclassification of historical foreign currency translation changes was partially offset by operating losses and exit costs at Asia Pacific Iron Ore and the settlement of the CCAA proceedings. Refer to NOTE 13 - DISCONTINUED OPERATIONS for further information.

Adjusted EBITDA decreased by $241.5 million for the year ended December 31, 2019 from the comparable period in 2018. The decrease was primarily due to lower consolidated sales margin of $233.9 million for the year ended December 31, 2019, compared to the prior year.

The discussion of our *Consolidated Results of Operations* for 2018 compared to 2017 can be found in Part II, Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations", of our Form 10-K for the period ended December 31, 2018, filed with the SEC on February 8, 2019.

Liquidity, Cash Flows and Capital Resources

Our primary sources of liquidity are *Cash and cash equivalents* and cash generated from our operating and financing activities. Our capital allocation decision-making process is focused on returning capital to shareholders while maintaining the strength of our balance sheet and creating financial flexibility to make strategic investments and manage through the inherent cyclical demand for our products and volatility in commodity prices. We are focused on maximizing the cash generation of our operations, reducing operating costs, and aligning capital investments with our strategic priorities and the requirements of our business plan, including regulatory and permission-to-operate related projects.

During 2019, we took action in alignment with our capital allocation priorities. First, we repurchased 24.4 million common shares for $252.9 million in the aggregate under the $300 million share repurchase program and increased our quarterly cash dividend by 20%, along with declaring a special cash dividend. Second, we focused on protecting our business by allocating capital to both sustaining our existing operations and our two major expansion capital projects: the HBI production plant in Toledo, Ohio and the completion of the upgrade to the Northshore plant to replace up to 3.5 million long tons of blast furnace pellet production with DR-grade pellet production. Finally, using the net proceeds from the issuance of our 5.875% 2027 Senior Notes, along with cash generated by operations, we redeemed in full all of our outstanding 4.875% 2021 Senior Notes and repurchased $600 million aggregate principal amount of our outstanding 5.75% 2025 Senior Notes pursuant to a tender offer. Accordingly, we have no debt maturing until 2024.

Based on our outlook for the next 12 months, which is subject to continued changing demand from steelmakers that utilize our products and volatility in iron ore and domestic steel prices, we expect to generate cash from operations sufficient to meet the needs of our existing operations, service our debt obligations and fund our dividends.

In connection with the consummation of the Merger, we expect to use the net proceeds from the issuance of the New Cliffs Secured/Unsecured Notes, as well as cash on hand, to repurchase, redeem or otherwise retire the AK Steel 7.50% 2023 Notes and the AK Steel 7.625% 2021 Notes.

Refer to “Outlook” for additional guidance regarding expected future results, including projections on pricing, sales volume and production.

The following discussion summarizes the significant items impacting our cash flows during 2019 and comparative years as well as expected impacts to our future cash flows over the next 12 months. Refer to the Statements of Consolidated Cash Flows for additional information.

Operating Activities

Net cash provided by operating activities was $562.5 million and $478.5 million for the years ended December 31, 2019 and 2018, respectively. The incremental increase in cash provided by operating activities during 2019 compared to 2018 primarily was due to the collection of the $117.3 million income tax receivable in the current year and prior-year uses of cash by our discontinued operations, which were not recurring in the current year. These were offset partially by lower cash generated from our operations.

Our U.S. cash and cash equivalents balance at December 31, 2019 was $351.0 million, or 99.5% of our consolidated total cash and cash equivalents balance of $352.6 million. Additionally, we had a cash balance at December 31, 2019 of $7.0 million classified as part of *Other current assets* in the Statements of Consolidated Financial Position, which will be utilized to support our exit from Australia.

Investing Activities

Net cash used by investing activities was $644.4 million for the year ended December 31, 2019, compared to $273.1 million for the year ended December 31, 2018. We had capital expenditures including capitalized interest of approximately $656 million and $296 million for the years ended December 31, 2019 and 2018, respectively. The 2019 capital expenditures include the continued development of our HBI project, the upgrades at Northshore and sustaining capital spend.

During the year ended December 31, 2019, we had cash outflows, including deposits, of approximately $520 million on the development of the HBI production plant and approximately $40 million on the upgrades at Northshore, excluding amounts attributable to capitalized interest. This compares to cash outflows, including deposits, during the year ended December 31, 2018, of approximately $180 million on the development of the HBI production plant and approximately $50 million on the upgrades at Northshore. Additionally, we spent approximately $69 million globally on expenditures related to sustaining capital during 2019 and 2018. Sustaining capital spend includes infrastructure, mobile equipment, environmental, safety and health, fixed equipment and product quality.

We anticipate total cash used for capital expenditures during the next 12 months to be approximately $360 million, excluding amounts attributable to capitalized interest. Included within this estimate is approximately $70 million for sustaining capital and $290 million related to development of the HBI production plant.

Financing Activities

Net cash used by financing activities was $394.1 million for the year ended December 31, 2019, compared to $375.2 million for the year ended December 31, 2018. Net cash used by financing activities during the 2019 primarily related to the repurchase of 24.4 million common shares for $252.9 million in the aggregate under the $300 million share repurchase program, which was active until December 31, 2019. Additionally, we issued $750 million aggregate principal amount of 5.875% 2027 Senior Notes, which provided net proceeds of approximately $714 million. The net proceeds from the notes offering, along with cash on hand, were used to redeem in full all of our then-outstanding 4.875% 2021 Senior Notes and to purchase $600 million aggregate principal amount of our outstanding 5.75% 2025 Senior Notes pursuant to a tender offer. In total, during 2019, we purchased $724.0 million aggregate principal amount of senior notes for $729.3 million in cash.

Additional uses of cash from financing activities during 2019 included payments of regular quarterly cash dividends and a special cash dividend on our common shares of $72.1 million and a cash payment of $44.2 million related to the third and final annual installment of the distribution of Empire partnership equity.

Uses of cash from financing activities during 2018 primarily related to the redemption of various tranches of unsecured debt. We redeemed in full all of our then-outstanding $400 million 5.90% 2020 Senior Notes and $500 million 4.80% 2020 Senior Notes and purchased certain other outstanding senior notes. In total, during 2018 we purchased $227.4 million aggregate principal amount of senior notes for $234.5 million. Additionally, we repurchased 5.4 million common shares for $47.5 million in the aggregate under the share repurchase program.

Other uses of cash for financing activities during 2018 included cash payments of $44.2 million for the second annual installment of the distribution of the Empire partnership equity and $41.4 million for repayments of lease liabilities related to the discontinuation of our Asia Pacific Iron Ore operations.

We anticipate future uses of cash for financing activities during the next 12 months to include regular quarterly cash dividend payments of approximately $0.06 per common share outstanding. On February 18, 2020, our Board of Directors declared a quarterly cash dividend on our common shares of $0.06 per share. The cash dividend will be payable on April 15, 2020, to shareholders of record as of the close of business on April 3, 2020.

The discussion of our *Liquidity, Cash Flows and Capital Resources* results for 2018 compared to 2017 can be found in Part II, Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations", in our Form 10-K for the period ended December 31, 2018, filed with the SEC on February 8, 2019.

The following represents our future cash commitments and contractual obligations as of December 31, 2019:

	Payments Due by Period (In Millions)				
	Total	Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years
Long-term debt	$ 2,238.0	$ —	$ —	$ 400.0	$ 1,838.0
Interest on debt[1]	988.9	117.4	228.4	218.6	424.5
Operating lease obligations	15.7	3.3	4.4	3.9	4.1
Finance lease obligations	43.1	8.9	15.8	11.5	6.9
Purchase obligations:					
Open purchase orders	68.4	68.3	0.1	—	—
HBI production plant[2]	290.0	290.0	—	—	—
Minimum "take or pay" purchase commitments[3]	986.9	149.1	243.7	166.7	427.4
Total purchase obligations	1,345.3	507.4	243.8	166.7	427.4
Other long-term liabilities:					
Pension funding minimums	373.6	20.2	84.3	112.8	156.3
OPEB claim payments	89.2	3.5	6.8	6.6	72.3
Environmental and mine closure obligations	167.3	2.4	44.5	1.9	118.5
Other	17.1	8.5	4.0	2.8	1.8
Total other long-term liabilities	647.2	34.6	139.6	124.1	348.9
Total	$ 5,278.2	$ 671.6	$ 632.0	$ 924.8	$ 3,049.8

[1] Refer to NOTE 6 - DEBT AND CREDIT FACILITIES for additional information regarding our debt and related interest rates.

[2] Includes purchase obligations and contracted amounts of approximately $260 million.

[3] Includes minimum railroad transportation obligations, minimum electric power demand charges, minimum diesel and natural gas obligations and minimum port facility obligations.

The above table does not reflect $4.4 million of unrecognized tax benefits, which we have recorded for uncertain tax positions, as we are unable to determine a reasonable and reliable estimate of the timing of future payments.

Refer to NOTE 18 - COMMITMENTS AND CONTINGENCIES for additional information regarding our future commitments and obligations.

Capital Resources

We expect to fund our business obligations from available cash, current and future operations and existing and future borrowing arrangements. We also may pursue other funding strategies in the capital markets to strengthen our liquidity, extend debt maturities and/or fund strategic initiatives. The following represents a summary of key liquidity measures:

	(In Millions)	
	December 31, 2019	December 31, 2018
Cash and cash equivalents	**$ 352.6**	$ 823.2
Available borrowing base on ABL Facility[1]	**$ 395.7**	$ 323.7
ABL Facility loans drawn	**—**	—
Letter of credit obligations and other commitments	**(37.9)**	(55.0)
Borrowing capacity available	**$ 357.8**	$ 268.7

[1] The ABL Facility has a maximum borrowing base of $450 million, determined by applying customary advance rates to eligible accounts receivable, inventory and certain mobile equipment.

Our primary sources of funding are cash and cash equivalents, which totaled $352.6 million as of December 31, 2019, cash generated by our business, availability under the ABL Facility and other financing activities. 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. The combination of cash and availability under the ABL Facility gives us $710.4 million in liquidity entering the first quarter of 2020, which is expected to be adequate to fund operations, letter of credit obligations, sustaining and expansion capital expenditures and other cash commitments for at least the next 12 months.

As of December 31, 2019, 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. We believe that the cash on hand and the ABL Facility provide us sufficient liquidity to support our operating, investing and financing activities. We have the capability to issue additional unsecured notes and, subject to the limitations set forth in our existing debt indentures, additional secured indebtedness, if we elect to access the debt capital markets. However, available capacity of these notes could be limited by market conditions.

In connection with the consummation of the Merger, we expect to enter into the New ABL Facility to replace our existing ABL Facility and AK Steel's existing revolving credit facility, refinance in full all amounts outstanding under AK Steel's existing revolving credit facility, provide funds to pay any cash that is required to be paid pursuant to the terms of the Merger Agreement in lieu of the issuance of any fractional Cliffs common shares in the Merger and pay certain Merger-related expenses. We expect that the New ABL Facility's covenants, events of default and representations and warranties will be substantially similar to the existing ABL Facility and will have substantially similar collateral and guarantee requirements. In connection with entering into the Merger Agreement, we entered into a commitment letter with certain lenders with respect to our entry into the New ABL Facility and pursuant to which, on the terms and subject to the conditions in such commitment letter, such lenders have agreed to provide us with an aggregate principal amount of $1,500.0 million. We intend to seek additional commitments of $500.0 million during the primary "retail" syndication of the New ABL Facility.

We intend from time to time to seek to retire or purchase 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 repurchases, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors, and the amounts involved may be material.

Off-Balance Sheet Arrangements

In the normal course of business, we are a party to certain 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; and financial instruments with off-balance sheet risk, such as bank letters of credit and bank guarantees.

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

Commodity Price Risk

Our consolidated revenues include the sale of a single product, iron ore pellets, in the North American market. Our financial results can vary significantly as a result of fluctuations in the market prices of iron ore, hot-rolled coil steel and iron ore pellet premiums. World market prices for these commodities have fluctuated historically and are affected by numerous factors beyond our control. The world market price that is most commonly utilized in our iron ore sales contracts is the Platts 62% price, which can fluctuate widely due to numerous factors, such as global economic growth or contraction, change in demand for steel or changes in availability of supply.

Customer Supply Agreement

A supply agreement with one customer provides for supplemental revenue or refunds based on the hot-rolled coil steel price at the time the iron ore product is consumed in the customer's blast furnaces. At December 31, 2019, we had derivative assets of $44.5 million, representing the fair value of the pricing factors, based upon the amount of unconsumed long tons and an estimated hot-rolled coil steel price for the period in which the iron ore is expected to be consumed in the customer's blast furnaces, subject to final pricing at a future date. We estimate that a $75 positive or negative change in the hot-rolled coil steel price realized from the December 31, 2019 estimated price recorded would cause the fair value of the derivative instrument to increase or decrease by approximately $22 million, respectively, thereby impacting our consolidated revenues by the same amount. We have not entered into any hedging programs to mitigate the risk of adverse price fluctuations.

Volatile Energy and Fuel Costs

The volatile cost of energy is an important factor affecting the production costs at our iron ore operations. Our consolidated Mining and Pelletizing segment operations consumed 15 million MMBtu of natural gas at an average delivered price of $3.31 per MMBtu during 2019. Additionally, our consolidated Mining and Pelletizing segment operations consumed 18 million gallons of diesel fuel at an average delivered price of $2.16 per gallon during 2019.

Our strategy to address volatile natural gas and diesel rates includes improving efficiency in energy usage, identifying alternative providers and utilizing the lowest cost alternative fuels. We utilize a hedging program to manage the price risk of natural gas and diesel at our operations. We will continue to monitor relevant energy markets for risk mitigation opportunities and may make additional forward purchases or employ other hedging instruments in the future as warranted and deemed appropriate by management. We estimate that, a 10% change from our 2019 average natural gas and diesel fuel prices would result in a change of approximately $9 million in our annual fuel and energy cost based on expected consumption for 2020.

In the ordinary course of business, there may also be increases and decreases in prices relative to electricity costs at our mine sites. Specifically, certain contracts are exposed to market pricing or subject to a power supply cost recovery mechanism that is based on variations in the utility's actual fuel and purchase power expenses. Two of our operating mine site's contracts are market based, while one of our operating mine sites has a regulated power contract that has limited exposure to market volatility. We estimate a 10% change from our 2019 average electricity prices for our market based electricity contracts would result in a change of approximately $11 million in our annual electricity cost based on expected consumption for 2020. We will continue to monitor relevant energy markets for risk mitigation opportunities; however, we are currently not engaged in a hedge program for electricity costs.

Valuation of 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 statement 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 estimates of economic and market conditions over the projected period, including growth rates in revenues and costs, 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. As of December 31, 2019, no impairment factors were present that would indicate that the carrying value of our asset groups may not be recoverable; as a result, no impairment assessment was required.

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 base rate plus the base rate margin depending on the excess availability. As of December 31, 2019, we had no amounts drawn on the ABL Facility.

Supply Concentration Risks

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

Outlook

All outlook projections only refer to Cliffs on a standalone basis, and do not contemplate the pending acquisition of AK Steel.

Based on the full-year average pricing assumptions including iron ore prices of $90 per metric ton, steel prices of $650 per short ton, and pellet premiums of $50 per metric ton, we would expect to generate approximately $300 million to $325 million of net income and $550 million to $575 million of Adjusted EBITDA for the full-year 2020. Refer to the table below for a reconciliation of EBITDA and Adjusted EBITDA to net income.

In 2020, we also expect $125 million in interest expense, $25 million in non-cash tax expense and $100 million in depreciation, depletion, and amortization.

Additionally, we expect to receive approximately $60 million in cash tax refunds during the third quarter of 2020.

Our 2020 capital spending expectation is $350 million to $400 million, including the remaining spend to complete the Toledo HBI production plant, carryover from 2019, sustaining capital, and capitalized interest.

Non-GAAP Reconciliation - EBITDA and Adjusted EBITDA Outlook

	(In Millions)	
	Year Ending December 31,	
	2020	
Net income	$	300 - 325
Less:		
Interest expense, net		(125)
Income tax expense		(25)
Depreciation, depletion and amortization		(100)
EBITDA	$	550 - 575
Less:		
Adjustments[1]	$	—
Adjusted EBITDA	$	550 - 575

[1] Adjustments to EBITDA are unpredictable by nature and thus cannot be forecasted.

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.

Revenue Recognition

Customer Supply Agreement

A supply agreement with one customer provides for supplemental revenue or refunds to the customer based on the hot-rolled coil steel price in the year the iron ore product is consumed in the customer’s blast furnace. The supplemental pricing is characterized as a freestanding derivative and is required to be accounted for separately once control transfers to the customer. The derivative instrument, which is finalized based on a future price, is adjusted to fair value as a revenue adjustment each reporting period until the pellets are consumed and the amounts are settled.

The fair value of the instrument is determined using a market approach based on an estimate of the hot-rolled coil steel price, and takes into consideration current market conditions and nonperformance risk. At December 31, 2019, we had a derivative asset of $44.5 million, representing the fair value of the pricing factors, based upon the amount of unconsumed long tons and the estimated hot-rolled coil steel price related to the period in which the iron ore is expected to be consumed in the customer's blast furnace at each respective steelmaking facility, subject to final pricing at a future date. We recognized net derivative revenue of $78.1 million in *Product revenues* in the Statements of Consolidated Operations for the year ended December 31, 2019.

The accuracy of our estimates typically increases as the year progresses based on additional information in the market becoming available. Our estimates for supplemental revenue adjustments have been materially correct related to the Mining and Pelletizing segment's product revenues for the year ended December 31, 2019, 2018 and 2017.

Mineral Reserves

We regularly evaluate our mineral reserves and update them as required in accordance with SEC Industry Guide 7. We perform an in-depth evaluation of our mineral reserve estimates by iron ore mine on a periodic basis, in addition to routine annual assessments. The determination of mineral reserves requires us, with the support of our third-party 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, 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 reserves could decrease capacity of mineral reserves. 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 11 - ENVIRONMENTAL AND MINE CLOSURE 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 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. Increases or decreases in mineral reserves or mine lives could significantly affect these items.

Valuation of Long-Lived Assets

In assessing the recoverability of our long-lived asset groups, significant assumptions regarding the estimated future cash flows and other factors to determine the fair value of the respective assets must be made, as well as the related estimated useful lives. If these estimates or their related assumptions change in the future as a result of changes in strategy or market conditions, we may be required to record impairment charges for these assets in the period such determination was made.

We monitor conditions that indicate that the carrying value of an asset or asset group may be impaired. 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. An impairment loss exists when projected undiscounted net cash flows are less than the carrying value of the 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. The impairment analysis and fair value determination can result in substantially different outcomes based on changes in critical assumptions and estimates, including the quantity and quality of remaining mineral reserves, future iron ore prices and production costs. The long-lived assets of the Mining and Pelletizing segment and Metallics segment were $1,156.0 million and $810.4 million, respectively, as of December 31, 2019 and $1,110.9 million and $200.5 million, respectively, as of December 31, 2018.

During 2019, 2018 and 2017 there were no impairment indicators present at our continuing operations; as a result, no impairment assessments were required.

Refer to NOTE 1 - BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES for further information regarding our policy on asset impairment.

Asset Retirement Obligations and Environmental Remediation Costs

The accrued mine closure obligations for our active mining operations provide for contractual and legal obligations associated with the eventual closure of the mining operations. We perform an in-depth evaluation of the liability every three years in addition to our routine annual assessments. In 2017, we employed a third-party specialist 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. The closure date for each location is determined based on the exhaustion date of the remaining iron ore reserves, which is dependent on our estimate of mineral reserves. The estimated obligations are particularly sensitive to the impact of changes in mine lives given the difference between the inflation and discount rates. 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.

We have a formal policy for environmental protection and remediation. Our obligations for known environmental matters at active and closed mining operations and other sites have been recognized based on estimates of the cost of investigation and remediation at each site. 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 not discounted to present value unless the amount and timing of the cash disbursements can be reasonably estimated. Potential insurance recoveries are not recognized until realized. Refer to NOTE 11 - ENVIRONMENTAL AND MINE CLOSURE OBLIGATIONS, for further information.

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, 2019 and 2018, we had a valuation allowance of $441.3 million and $1,287.3 million, respectively, against our deferred tax assets. Of this amount, $44.2 million and $44.1 million relate to the U.S. deferred tax assets at December 31, 2019 and 2018, respectively and $397.1 million and $1,243.2 million relate to foreign deferred tax assets, respectively.

At December 31, 2018, we determined that it was appropriate to release all of the valuation allowance related to U.S. federal deferred tax assets as it is more likely than not that the entire deferred tax asset will be realized before the end of the carryforward period. See NOTE 10 - INCOME TAXES for further information and considerations related to the release.

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, 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 the 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 10 - INCOME TAXES, for further information.

Employee Retirement Benefit Obligations

We offer defined benefit pension plans, defined contribution pension plans and OPEB plans, primarily consisting of retiree healthcare benefits, to most employees in North America as part of a total compensation and benefits program. The defined benefit pension plans largely are noncontributory and benefits generally are based on employees' years of service and average earnings for a defined period prior to retirement, or a minimum formula.

Following is a summary of our U.S. defined benefit pension and OPEB funding and expense:

	Pension		OPEB	
	Funding	Expense (Benefit)	Funding	Expense (Benefit)
2017	$ 24.4	$ 18.0	$ 2.1	$ (6.1)
2018	27.6	12.7	3.8	(5.9)
2019	**16.4**	**22.4**	**3.7**	**(2.5)**
2020 (Estimated)	20.2	16.7	3.5	(8.7)

Assumptions used in determining the benefit obligations and the value of plan assets for defined benefit pension plans and OPEB plans, primarily consisting of retiree healthcare benefits, that we offer are evaluated periodically by management. Critical assumptions, such as the discount rate used to measure the benefit obligations, the expected long-term rate of return on plan assets, the medical care cost trend, and the rate of compensation increase are reviewed annually.

As of December 31, 2019 and 2018, we used the following assumptions:

	Pension and Other Benefits	
	2019	2018
Plan discount rates:		
Iron Hourly Pension Plan	**3.34 %**	4.31 %
Salaried Pension Plan	**3.18**	4.21
Ore Mining Pension Plan	**N/A**	4.33
SERP	**3.05**	4.22
Hourly OPEB Plan	**3.28**	4.29
Salaried OPEB Plan	**3.29**	4.27
Rate of compensation increase - Salaried	**3.00**	3.00
Rate of compensation increase - Hourly	**2.00**	2.00
Pension plan expected return on plan assets	**8.25**	8.25
OPEB plan expected return on plan assets	**7.00**	7.00
Health care cost trend rate assumed for next year	**6.50**	6.75
Ultimate health care cost trend rate	**5.00**	5.00
Year that the ultimate rate is reached	**2026**	2026

The decrease in the discount rates in 2019 was driven by the change in corporate bond yields, which were down approximately 110 basis points compared to the prior year.

Additionally, on December 31, 2019, the assumed mortality improvement projection was changed from generational scale MP-2018 to generational scale MP-2019. The healthy mortality assumption was updated to the Pri-2012 mortality tables with blue collar and white collar adjustments made for certain hourly and salaried groups to determine the expected life of our plan participants.

Following are sensitivities of potential further changes in these key assumptions on the estimated 2020 pension and OPEB expense and the pension and OPEB obligations as of December 31, 2019:

	(In Millions)			
	Increase in Expense		Increase in Benefit Obligation	
	Pension	OPEB	Pension	OPEB
Decrease discount rate 0.25%	$ 3.3	$ 0.2	$ 29.7	$ 7.0
Decrease return on assets 1.00%	7.2	2.6	N/A	N/A

Changes in actuarial assumptions, including discount rates, employee retirement rates, mortality, compensation levels, plan asset investment performance and healthcare costs, are determined based on analyses of actual and expected factors. Changes in actuarial assumptions and/or investment performance of plan assets may have a significant impact on our financial condition due to the magnitude of our retirement obligations. Refer to NOTE 8 - 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 Cliffs' 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. Uncertainties and risk factors that could affect Cliffs' future performance and cause results to differ from the forward-looking statements in this report include, but are not limited to:

- uncertainty and weaknesses in global economic conditions, including downward pressure on prices caused by oversupply of imported products, reduced market demand and risks related to U.S. government actions with respect to Section 232 of the Trade Expansion Act (as amended by the Trade Act of 1974), the United States-Mexico-Canada Agreement and/or other trade agreements, treaties or policies;
- continued volatility of iron ore and steel prices and other trends, which may impact the price-adjustment calculations under our sales contracts;
- our ability to successfully diversify our product mix and add new customers beyond our traditional blast furnace clientele;
- our ability to cost-effectively achieve planned production rates or levels, including at our HBI plant;
- our ability to successfully identify and consummate any strategic investments or development projects, including our HBI plant;
- the impact of our blast furnace customers reducing their steel production due to increased market share of steel produced using other methods or lighter-weight steel alternatives;
- our actual economic iron ore reserves or reductions in current mineral estimates, including whether any mineralized material qualifies as a reserve;
- the outcome of any contractual disputes with our customers, joint venture partners or significant energy, material or service providers or any other litigation or arbitration;
- problems or uncertainties with sales volume or mix, productivity, tons mined, transportation, mine-closure obligations, environmental liabilities, employee-benefit costs and other risks of the mining industry;
- impacts of existing and increasing governmental regulation and related costs and liabilities, including failure to receive or maintain required operating and environmental permits, approvals, modifications or other authorization of, or from, any governmental or regulatory entity and costs related to implementing improvements to ensure compliance with regulatory changes;

- our ability to maintain adequate liquidity, our level of indebtedness and the availability of capital could limit cash flow available to fund working capital, planned capital expenditures, acquisitions and other general corporate purposes or ongoing needs of our business;
- our ability to continue to pay cash dividends, and the amount and timing of any cash dividends;
- our ability to maintain appropriate relations with unions and employees;
- the ability of our customers, joint venture partners and third party service providers to meet their obligations to us on a timely basis or at all;
- events or circumstances that could impair or adversely impact the viability of a mine or production plant and the carrying value of associated assets, as well as any resulting impairment charges;
- uncertainties associated with natural disasters, weather conditions, unanticipated geological conditions, supply or price of energy, equipment failures and other unexpected events;
- adverse changes in interest rates and tax laws;
- the potential existence of significant deficiencies or material weakness in our internal control over financial reporting;
- the possibility that the Merger Agreement may be terminated and the proposed Merger may not be completed, whether due to the inability to obtain regulatory approvals, as a result of litigation instituted against AK Steel and/or us, the inability to obtain shareholder approval, or the inability to satisfy any other condition to the completion of the Merger;
- our ability to realize the anticipated benefits of the proposed Merger and to successfully integrate the businesses of AK Steel into our existing businesses, including uncertainties associated with maintaining relationships with customers, vendors and employees, as well as realizing the estimated future synergies;
- the possibility that the Merger may be less accretive than expected, and may be dilutive, to our earnings per share, whether as a result of adverse changes in market conditions, volatility in the commodity prices for iron ore and/or steel, adverse regulatory developments or otherwise; and
- additional debt we assume, or other proposed financing transactions we may enter into, in connection with the proposed Merger may negatively impact our credit profile and limit our financial flexibility.

For additional factors affecting the business of Cliffs, refer to *Part I – Item 1A. Risk Factors.* You are urged to carefully consider these risk factors.

Non-GAAP Reconciliation

We present cash cost of goods sold rate per long ton, which is a non-GAAP financial measure that management uses in evaluating operating performance. We believe our presentation of non-GAAP cash cost of goods sold is useful to investors because it excludes depreciation, depletion and amortization, which are non-cash, and freight, which has no impact on sales margin, thus providing a more accurate view of the cash outflows related to the sale of iron ore. The presentation of this measure is not intended to be considered in isolation from, as a substitute for, or as superior to, the financial information prepared and presented in accordance with GAAP. The presentation of this measure may be different from non-GAAP financial measures used by other companies. Below is a reconciliation in dollars of this non-GAAP financial measure to our Mining and Pelletizing segment cost of goods sold.

	(In Millions)	
	Year Ended December 31,	
	2019	2018
Cost of goods sold	**$ (1,469.2)**	$ (1,522.8)
Less:		
Freight	**(141.8)**	(160.1)
Depreciation, depletion & amortization	**(79.0)**	(68.2)
Cash cost of goods sold	**$ (1,248.4)**	$ (1,294.5)

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.

Statements of Consolidated Financial Position

Cleveland-Cliffs Inc. and Subsidiaries

	(In Millions) December 31, 2019	2018
ASSETS		
Current Assets:		
Cash and cash equivalents	**$ 352.6**	$ 823.2
Accounts receivable, net	**94.0**	226.7
Inventories	**317.4**	181.1
Derivative assets	**45.8**	91.5
Income tax receivable, current	**58.6**	117.3
Other current assets	**29.5**	39.8
Total current assets	**897.9**	1,479.6
Non-current assets:		
Property, plant and equipment, net	**1,929.0**	1,286.0
Income tax receivable, non-current	**62.7**	121.3
Deferred income taxes	**459.5**	464.8
Other non-current assets	**154.7**	177.9
TOTAL ASSETS	**$ 3,503.8**	$ 3,529.6
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	**$ 193.2**	$ 186.8
Accrued liabilities	**126.3**	158.9
State and local taxes payable	**37.9**	35.5
Other current liabilities	**52.0**	87.0
Total current liabilities	**409.4**	468.2
Non-current liabilities:		
Long-term debt	**2,113.8**	2,092.9
Pension and OPEB liabilities	**311.5**	248.7
Environmental and mine closure obligations	**164.9**	172.0
Other non-current liabilities	**146.3**	123.6
TOTAL LIABILITIES	**3,145.9**	3,105.4
Commitments and contingencies (See Note 18)		
Equity:		
Common Shares - par value $0.125 per share		
Authorized - 600,000,000 shares (2018 - 600,000,000 shares);		
Issued - 301,886,794 shares (2018 - 301,886,794 shares);		
Outstanding - 270,084,005 shares (2018 - 292,611,569 shares)	**37.7**	37.7
Capital in excess of par value of shares	**3,872.1**	3,916.7
Retained deficit	**(2,842.4)**	(3,060.2)
Cost of 31,802,789 common shares in treasury (2018 - 9,275,225 shares)	**(390.7)**	(186.1)
Accumulated other comprehensive loss	**(318.8)**	(283.9)
TOTAL EQUITY	**357.9**	424.2
TOTAL LIABILITIES AND EQUITY	**$ 3,503.8**	$ 3,529.6

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,		
	2019	2018	2017
Revenues from product sales and services	**$ 1,989.9**	$ 2,332.4	$ 1,866.0
Cost of goods sold and operating expenses	**(1,414.2)**	(1,522.8)	(1,398.4)
Sales margin	**575.7**	809.6	467.6
Other operating income (expense):			
Selling, general and administrative expenses	**(119.4)**	(113.5)	(102.9)
Miscellaneous - net	**(27.0)**	(22.9)	25.5
Total other operating expense	**(146.4)**	(136.4)	(77.4)
Operating income	**429.3**	673.2	390.2
Other income (expense):			
Interest expense, net	**(101.2)**	(118.9)	(126.8)
Loss on extinguishment of debt	**(18.2)**	(6.8)	(165.4)
Other non-operating income	**2.2**	17.2	10.2
Total other expense	**(117.2)**	(108.5)	(282.0)
Income from continuing operations before income taxes	**312.1**	564.7	108.2
Income tax benefit (expense)	**(17.6)**	475.2	252.4
Income from continuing operations	**294.5**	1,039.9	360.6
Income (loss) from discontinued operations, net of tax	**(1.7)**	88.2	2.5
Net income	**292.8**	1,128.1	363.1
Loss attributable to noncontrolling interest	**—**	—	3.9
Net income attributable to Cliffs shareholders	**$ 292.8**	$ 1,128.1	$ 367.0
Earnings (loss) per common share attributable to Cliffs shareholders - basic			
Continuing operations	**$ 1.07**	$ 3.50	$ 1.27
Discontinued operations	**(0.01)**	0.30	0.01
	$ 1.06	$ 3.80	$ 1.28
Earnings (loss) per common share attributable to Cliffs shareholders - diluted			
Continuing operations	**$ 1.04**	$ 3.42	$ 1.25
Discontinued operations	**(0.01)**	0.29	0.01
	$ 1.03	$ 3.71	$ 1.26
Average number of shares (in thousands)			
Basic	**276,761**	297,176	288,435
Diluted	**284,480**	304,141	292,961

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,		
	2019	2018	2017
Net income attributable to Cliffs shareholders	**$ 292.8**	$ 1,128.1	$ 367.0
Other comprehensive income (loss):			
Changes in pension and OPEB, net of tax	**(34.6)**	(17.2)	11.5
Changes in foreign currency translation	**—**	(225.4)	(13.9)
Changes in derivative financial instruments, net of tax	**(0.3)**	(2.3)	(0.5)
Other comprehensive loss	**(34.9)**	(244.9)	(2.9)
Other comprehensive loss attributable to the noncontrolling interest	**—**	—	(1.1)
Total comprehensive income attributable to Cliffs shareholders	**$ 257.9**	$ 883.2	$ 363.0

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,		
	2019	2018	2017
OPERATING ACTIVITIES			
Net income	**$ 292.8**	$ 1,128.1	$ 363.1
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, depletion and amortization	**85.1**	89.0	87.7
Deferred income taxes	**16.8**	(460.5)	—
Loss on extinguishment of debt	**18.2**	6.8	165.4
Loss (gain) on derivatives	**46.8**	(110.2)	(4.1)
Gain on foreign currency translation	**—**	(228.1)	—
Other	**65.4**	20.7	45.5
Changes in operating assets and liabilities:			
Receivables and other assets	**254.5**	51.7	(246.3)
Inventories	**(136.3)**	43.5	(4.2)
Payables, accrued expenses and other liabilities	**(80.8)**	(62.5)	(69.0)
Net cash provided by operating activities	**562.5**	478.5	338.1
INVESTING ACTIVITIES			
Purchase of property, plant and equipment	**(639.0)**	(208.6)	(134.9)
Deposits for property, plant and equipment	**(17.0)**	(87.5)	(16.8)
Other investing activities	**11.6**	23.0	(4.3)
Net cash used by investing activities	**(644.4)**	(273.1)	(156.0)
FINANCING ACTIVITIES			
Repurchase of common shares	**(252.9)**	(47.5)	—
Dividends paid	**(72.1)**	—	—
Net proceeds from issuance of common shares	**—**	—	661.3
Proceeds from issuance of debt	**720.9**	—	1,771.5
Debt issuance costs	**(6.8)**	(1.5)	(28.6)
Repurchase of debt	**(729.3)**	(234.5)	(1,720.7)
Acquisition of noncontrolling interest	**—**	—	(105.0)
Distributions of partnership equity	**(44.2)**	(44.2)	(52.9)
Other financing activities	**(9.7)**	(47.5)	(26.7)
Net cash provided (used) by financing activities	**(394.1)**	(375.2)	498.9
Effect of exchange rate changes on cash	**—**	(2.3)	3.3
Increase (decrease) in cash and cash equivalents, including cash classified within other current assets related to discontinued operations	**(476.0)**	(172.1)	684.3
Less: increase (decrease) in cash and cash equivalents from discontinued operations, classified within other current assets	**(5.4)**	(17.0)	18.8
Net increase (decrease) in cash and cash equivalents	**(470.6)**	(155.1)	665.5
Cash and cash equivalents at beginning of year	**823.2**	978.3	312.8
Cash and cash equivalents at end of year	**$ 352.6**	$ 823.2	$ 978.3

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							
	Number of Common Shares Outstanding	Par Value of Common Shares Issued	Capital in Excess of Par Value of Shares	Retained Deficit	Common Shares in Treasury	Accumulated Other Comprehensive Loss	Non-Controlling Interest	Total
January 1, 2017	233.1	$ 29.8	$ 3,347.0	$(4,574.3)	$ (245.5)	$ (21.3)	$ 133.8	$ (1,330.5)
Comprehensive income (loss)	—	—	—	367.0	—	(4.0)	(2.8)	360.2
Issuance of convertible debt	—	—	83.4	—	—	—	—	83.4
Equity offering	63.3	7.9	653.4	—	—	—	—	661.3
Acquisition of noncontrolling interest	—	—	(70.2)	—	—	(18.9)	(15.9)	(105.0)
Distributions of partnership equity	—	—	(17.3)	—	—	5.2	(116.7)	(128.8)
Capital contributions by noncontrolling interest to subsidiary	—	—	—	—	—	—	1.8	1.8
Stock and other incentive plans	1.0	—	(62.4)	—	75.9	—	—	13.5
December 31, 2017	297.4	$ 37.7	$ 3,933.9	$(4,207.3)	$ (169.6)	$ (39.0)	$ 0.2	$ (444.1)
Adoption of accounting standard	—	—	—	34.0	—	—	—	34.0
Comprehensive income (loss)	—	—	—	1,128.1	—	(244.9)	—	883.2
Distributions to noncontrolling interest	—	—	—	—	—	—	(0.2)	(0.2)
Stock and other incentive plans	0.6	—	(17.2)	—	31.0	—	—	13.8
Common stock repurchases	(5.4)	—	—	—	(47.5)	—	—	(47.5)
Common stock dividends ($0.05 per share)	—	—	—	(15.0)	—	—	—	(15.0)
December 31, 2018	292.6	$ 37.7	$ 3,916.7	$(3,060.2)	$ (186.1)	$ (283.9)	$ —	$ 424.2
Comprehensive income (loss)	—	—	—	292.8	—	(34.9)	—	257.9
Stock and other incentive plans	1.9	—	(44.6)	—	48.3	—	—	3.7
Common stock repurchases	(24.4)	—	—	—	(252.9)	—	—	(252.9)
Common stock dividends ($0.27 per share)	—	—	—	(75.0)	—	—	—	(75.0)
December 31, 2019	270.1	$ 37.7	$ 3,872.1	$(2,842.4)	$ (390.7)	$ (318.8)	$ —	$ 357.9

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

NOTE 1 - BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Nature of Existing Business

Founded in 1847, Cleveland-Cliffs Inc. is the largest and oldest independent iron ore mining company in the United States. We are a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. In 2020, we expect to be the sole producer of HBI in the Great Lakes region with the startup of our first production plant in Toledo, Ohio.

Our Company's continuing operations are organized and managed in two operating segments according to our differentiated products. Our Mining and Pelletizing segment is a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. Our Metallics segment includes our HBI production plant in Toledo, Ohio, which is currently under construction and expected to be completed during the first half of 2020. During the second quarter of 2019, Northshore mine began supplying DR-grade pellets to our Metallics segment, which will be used as feedstock for the HBI production plant when we begin production in 2020.

Unless otherwise noted, discussion of our business and results of operations in this Annual Report on Form 10-K refers to our continuing operations on a stand-alone basis without giving effect to the Merger.

Proposed Merger with AK Steel

On December 2, 2019, we entered into the Merger Agreement with AK Steel and Merger Sub, pursuant to which, upon the terms and subject to the conditions set forth therein, Merger Sub will merge with and into AK Steel, with AK Steel surviving the Merger as a wholly owned subsidiary of Cliffs.

Pursuant to the Merger Agreement, at the effective time of the Merger, each share of AK Steel common stock issued and outstanding prior to the effective time of the Merger will be converted into, and become exchangeable for, 0.400 of a share of our common stock, par value $0.125 per share.

We expect to complete the Merger in the first quarter of 2020. Completion of the Merger is subject to various conditions, such as satisfaction or waiver of certain specified closing conditions, and it is possible that factors outside of our control could result in the Merger being completed at a later time or not at all. The Merger Agreement also contains certain termination rights that may be exercised by either us or AK Steel. We plan to complete the Merger as soon as reasonably practicable following the satisfaction of all applicable conditions.

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. The more significant areas requiring the use of management estimates and assumptions relate to mineral reserves; future realizable cash flow; environmental, reclamation and closure obligations; valuation of long-lived assets, inventory, tax assets and post-employment, post-retirement and other employee benefit liabilities; reserves for contingencies and litigation; and the fair value of derivative instruments. 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.

Basis of Consolidation

The consolidated financial statements include our accounts and the accounts of our wholly owned subsidiaries, including the following iron ore operations at December 31, 2019:

Name	Location	Business Segment	Status of Operations
Northshore	Minnesota	Mining and Pelletizing	Active
United Taconite	Minnesota	Mining and Pelletizing	Active
Tilden	Michigan	Mining and Pelletizing	Active
Empire	Michigan	Mining and Pelletizing	Indefinitely Idled
Toledo HBI	Ohio	Metallics	Construction Stage

Intercompany transactions and balances are eliminated upon consolidation.

Equity Method Investment

We have an investment in an unconsolidated joint venture that we have the ability to exercise significant influence over, but not control, and is accounted for under the equity method.

Our 23% ownership interest in Hibbing is recorded as an equity method investment. As of December 31, 2019 and 2018, our investment in Hibbing was $18.0 million and $15.4 million, respectively, classified in *Other non-current liabilities* in the Statements of Consolidated Financial Position.

Our share of equity income is eliminated against consolidated product inventory upon production, and against *Cost of goods sold and operating expenses* when sold. This effectively reduces the cost of our share of the mining venture's production, reflecting the cost-based nature of our participation in the unconsolidated joint venture.

Noncontrolling Interests

During 2017, our ownership interest in Empire increased to 100% as we reached an agreement to distribute the noncontrolling interest net assets of $132.7 million to ArcelorMittal USA, in exchange for its interest in Empire. The parties agreed that the net assets were to be distributed in three installments of $44.2 million each, the balance of which was recorded in *Other current liabilities* in the Statements of Consolidated Financial Position. The final installment was paid in August 2019. Upon payment of the first installment, we assumed ArcelorMittal USA's 21% interest and reflected the ownership percentage change in our consolidated financial statements. During the year ended December 31, 2017, we accounted for the increase in ownership as an equity transaction, which resulted in a net $12.1 million decrease in equity attributable to Cliffs' shareholders and a $116.7 million decrease in *Noncontrolling interest*. The net loss attributable to the noncontrolling interest of the Empire mining venture was $3.9 million for the year ended December 31, 2017.

During 2017, we also acquired the remaining 15% equity interest in Tilden owned by U.S. Steel for $105.0 million. With the closing of this transaction, we have 100% ownership of the mine. During the year ended December 31, 2017, we accounted for the increase in ownership as an equity transaction, which resulted in an $89.1 million decrease in equity attributable to Cliffs' shareholders and a $15.9 million decrease in *Noncontrolling interest*.

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 consider investments in highly liquid debt instruments with an original maturity of three months or less from the date of acquisition and longer maturities when funds can be withdrawn in three months or less without a significant penalty to be cash equivalents. We routinely monitor and evaluate counterparty credit risk related to the financial institutions in which our short-term investment securities are held.

Trade Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the point control transfers and represents the amount of consideration we expect to receive in exchange for transferred goods and do not bear interest. The allowance for doubtful accounts is our best estimate of the expected credit losses over the life of our existing accounts receivable. 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 establish or adjust the allowance as necessary using the specific identification method.

Inventories

Product Inventories

The Mining and Pelletizing segment cost of product inventories is determined using the LIFO method and is stated at the lower of cost or market. The Metallics segment cost of product inventories is determined using the weighted-average method and is stated at the lower of cost or net realizable value.

Supplies and Other Inventories

Supply inventories include replacement parts, fuel, chemicals and other general supplies, which are expected to be used or consumed in normal operations. Supply inventories also include critical spares. Critical spares are replacement parts for equipment that is critical for the continued operation of the mine or processing facilities.

Supply inventories are stated at the lower of cost or net realizable value using average cost, less an allowance for obsolete and surplus items.

Refer to NOTE 4 - INVENTORIES for further information.

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, if deemed necessary.

Derivative financial instruments are recognized as either assets or liabilities in 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 or that it has ceased to be a highly effective 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 loss*. Amounts recorded in *Accumulated other comprehensive loss* 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, such as provisional pricing arrangements and supplemental revenue or refunds contained within a customer supply agreement, changes in fair value are recorded in the period of the instrument's earnings or losses.

Refer to *Revenue Recognition* below for discussion of derivatives recorded as a result of pricing terms in our sales contracts. Additionally, refer to NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES for further information.

Property, Plant and Equipment

Our properties are stated at the lower of cost less accumulated depreciation or fair value. Depreciation of plant and equipment is computed principally by the straight-line method based on estimated useful lives, not to exceed the mine lives. Depreciation continues to be recognized when operations are idled temporarily. Depreciation and depletion is recorded over the following estimated useful lives:

Asset Class	Basis	Life
Land rights and mineral rights	Units of production	Life of mine
Office and information technology	Straight line	3 to 15 years
Buildings	Straight line	45 years
Mining equipment	Straight line/Double declining balance	3 to 20 years
Processing equipment	Straight line	10 to 45 years
Electric power facilities	Straight line	10 to 45 years
Land improvements	Straight line	20 to 45 years
Asset retirement obligation	Straight line	Life of mine

Refer to NOTE 5 - PROPERTY, PLANT AND EQUIPMENT for further information.

Other Intangible Assets

Our mine permits are subject to periodic amortization on a straight line basis over their estimated useful life, which corresponds with the life of mine.

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"). An impairment loss exists when projected net undiscounted cash flows are less than the carrying value of the 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.

For the years ended December 31, 2019, 2018 and 2017, no impairment factors 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.

Refer to NOTE 7 - FAIR VALUE OF FINANCIAL INSTRUMENTS and NOTE 8 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

Pensions and Other Postretirement Benefits

We offer defined benefit pension plans, defined contribution pension plans and OPEB plans, primarily consisting of retiree healthcare benefits, to most employees as part of a total compensation and benefits program.

We recognize the funded or unfunded status of our pension and OPEB obligations on our December 31, 2019 and 2018 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 loss* in the Statements of Consolidated Financial Position.

The actuarial estimates of the PBO and APBO 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 determined utilizing the weighted average of expected returns for plan asset investments in various asset categories based on historical performance, adjusted for current trends. Service costs are classified within *Cost of goods sold and operating expenses, 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 *Other non-operating income.*

Refer to NOTE 8 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

Asset Retirement Obligations

Asset retirement obligations are recognized when incurred and recorded as liabilities 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 at each mine site 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 mines 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 mines are reflected in earnings in the period an estimate is revised.

Refer to NOTE 11 - ENVIRONMENTAL AND MINE CLOSURE OBLIGATIONS for further information.

Environmental Remediation Costs

We have a formal policy for environmental protection and restoration. Our mining and exploration 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 at active and closed mining operations and other sites, 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 not discounted unless the amount and timing of the cash disbursements reasonably can be 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.

Refer to NOTE 11 - ENVIRONMENTAL AND MINE CLOSURE OBLIGATIONS for further information.

Revenue Recognition - Pre-Adoption of Topic 606 (2017)

Prior to the adoption of Topic 606, revenue was recognized from a sale when persuasive evidence of an arrangement existed, the price was fixed or determinable, the product was delivered in accordance with shipping terms, title and risk of loss were transferred to the customer in accordance with the specified provisions of each supply agreement and collection of the sales price reasonably was assured. Our supply agreements provide that title and risk of loss transfer to the customer either upon loading of the vessel, shipment or when payment is received. Under certain supply agreements, we ship the product to ports on the lower Great Lakes or to the customers' facilities prior to the transfer of title. Our rationale for shipping iron ore products to certain customers and retaining title until payment is received for these products is to minimize credit risk exposure.

Sales were recorded at a sales price specified in the relevant supply agreements resulting in revenue and a receivable at the time of sale. The majority of our contracts have pricing mechanisms that require price estimation at the time of delivery with price finalization at a future period. Upon revenue recognition for provisionally priced sales, a derivative was created for the difference between the sales price used and expected future settlement price. The derivative was adjusted to fair value through *Revenues from product sales and services* as a revenue adjustment each reporting period based upon current market data and forward-looking estimates determined by management until the final sales price was determined. The principal risks associated with recognition of sales on a provisional basis include Platts 62% price, Atlantic Basin pellet premium and index freight fluctuations between the date initially recorded and the date of final settlement. For revenue recognition, we estimated the future settlement rate; however, if significant changes in inputs occurred between the provisional pricing date and the final settlement date, we were required to either return a portion of the sales proceeds received or bill for the additional sales proceeds due based on the provisional sales price.

Revenue Recognition - Post-Adoption of Topic 606 (2018 and 2019)

We sell a single product, iron ore pellets, in the North American market. With the adoption of Topic 606 as of January 1, 2018, revenue is recognized generally when iron ore is delivered to our customers. Revenue is measured at the point that control transfers and represents the amount of consideration we expect to receive in exchange for transferring goods. We offer standard payment terms to our customers, generally requiring settlement within 30 days.

We enter into supply contracts of varying lengths to provide customers iron ore pellets to use in their blast furnaces. Blast furnaces run continuously with a constant feed of iron ore and once shut down, cannot easily be restarted. As a result, we ship iron ore in large quantities for storage and use by customers at a later date. Customers do not simultaneously receive and consume the benefits of the iron ore. Based on our assessment of the factors that indicate the pattern of satisfaction, we transfer control of the iron ore at a point in time upon shipment or delivery of the product. The customer is able to direct the use of, and obtain substantially all of the benefits from, the product at the time the product is delivered.

Most of our customer supply agreements specify a provisional price, which is used for initial billing and cash collection. Revenue recorded in accordance with Topic 606 is calculated using the expected revenue rate at the point when control transfers. The final settlement includes market inputs for a specified period of time, which may vary by customer, but typically include one or more of the following: Platts 62% price, Atlantic Basin pellet premium, Platts international indexed freight rates and changes in specified PPI, including industrial commodities, energy and steel. Changes in the expected revenue rate from the date control transfers through final settlement of contract terms is recorded in accordance with Topic 815. Refer to NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES for further information on how our estimated and final revenue rates are determined.

A supply agreement with a customer provides for supplemental revenue or refunds based on the hot-rolled coil steel price in the year the iron ore is consumed in the customer’s blast furnaces. As control transfers prior to consumption, the supplemental revenue is recorded in accordance with Topic 815. Refer to NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES for further information on supplemental revenue or refunds.

Included within *Revenues from product sales and services* is derivative revenue related to Topic 815 of $7.5 million, $422.6 million and $120.6 million for the years ended December 31, 2019, 2018 and 2017, respectively.

As of December 31, 2019 and 2018, under Topic 606, we had finished goods of 1.0 million long tons and 0.8 million long tons, respectively, in transit or stored at ports and customer facilities on the lower Great Lakes to service customers, for which revenue had yet to be recognized. Under the previous accounting standard, we did not recognize revenue and related cost of goods sold until title transferred to the customer, usually when payment was received. As of December 31, 2017, under the previous accounting standard, we had finished goods of 1.5 million long tons stored at ports and customer facilities on the lower Great Lakes to service customers, for which revenue had yet to be recognized.

Practical expedients and exemptions

We have elected to treat all shipping and handling costs as fulfillment costs because a significant portion of these costs are incurred prior to control transfer.

We have various long-term sales contracts with minimum purchase and supply requirement provisions that extend beyond the current reporting period. The portion of our transaction price for these contracts that is allocated entirely to wholly unsatisfied performance obligations is based on market prices that have not yet been determined and therefore is variable in nature. As such, we have not disclosed the value of unsatisfied performance obligations pursuant to the practical expedient.

Cost of Goods Sold

Cost of goods sold and operating expenses represents all direct and indirect costs and expenses applicable to the sales from our mining operations.

In some circumstances, as requested by the customer, we will coordinate and ship our product via vessel directly to the port nearest to the customer's blast furnace. In this type of contract, the customer will pay one amount inclusive of both product and freight. We recognize revenue for both product revenue and the amount reimbursed for the vessel freight to the final port. We separate these revenue types in NOTE 2 - SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION. Accordingly, the revenue we record for freight is offset by an equal amount included in *Cost of goods sold and operating expenses* for costs we incur for that freight, resulting in no impact on sales margin.

Operating expenses represented the portion of the Tilden mining venture costs prior to our 100% ownership; that is, the costs attributable to the share of the mine’s production owned by the other joint venture partner in the Tilden mine until we acquired the remaining 15% noncontrolling interest during 2017. The mining venture functioned as a captive cost company, supplying product only to its owners effectively for the cost of production. Accordingly, the noncontrolling interests’ revenue amounts were stated at cost of production and were offset by an equal amount included in *Cost of goods sold and operating expenses* resulting in no sales margin reflected for the noncontrolling partner participant. As we were responsible for product fulfillment under the venture, we acted as a principal in the transaction and, accordingly, recorded revenue under these arrangements on a gross basis.

We received management fees or royalties, which were earned as pellets were produced for our joint ownership mines, until we ceased our mine manager duties at Hibbing and until we purchased the remaining interest in Tilden.

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 overhaul, generally five years. 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 historic and projected stock prices was developed for both the Company and its predetermined peer group of mining and metals companies. The fair value assumes that 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 mining and metals 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 and option exercise price, and assumptions regarding 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.

Refer to NOTE 9 - STOCK COMPENSATION PLANS for additional information.

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* 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.

See NOTE 10 - INCOME TAXES for further information.

Discontinued Operations

Asia Pacific Iron Ore Operations

During 2018, we committed to a course of action leading to the permanent closure of the Asia Pacific Iron Ore mining operations and sold all of the assets of our Asia Pacific Iron Ore business through a series of sales to third parties. As a result of our exit, management determined that our Asia Pacific Iron Ore operating segment met the criteria to be classified as held for sale and a discontinued operation under *ASC Topic 205, Presentation of Financial Statements*. As such, all current and historical Asia Pacific Iron Ore operating segment results are classified within discontinued operations.

Canadian Operations

During 2015, we announced that the Bloom Lake Group and the Wabush Group commenced restructuring proceedings in Montreal, Quebec under the CCAA to address the immediate liquidity issues and to preserve and protect their assets for the benefit of all stakeholders while restructuring and/or sale options were explored. Our Canadian exit represented a strategic shift in our business. For this reason, all Eastern Canadian Iron Ore costs to exit are classified as discontinued operations.

Refer to NOTE 13 - DISCONTINUED OPERATIONS for further discussion of the Asia Pacific Iron Ore segment and Eastern Canadian Iron Ore discontinued operations.

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. In August 2018, management determined that there were significant changes in economic factors related to our Australian subsidiaries. The change in economic factors was a result of the sale and conveyance of substantially all assets and liabilities of our Australian subsidiaries to third parties, representing a significant change in operations. As such, the functional currency for the Australian subsidiaries changed from the Australian dollar to the U.S. dollar and all remaining Australian denominated monetary balances will be remeasured prospectively through the Statements of Consolidated Operations.

As a result of the liquidation of the Australian subsidiaries' assets, the historical impact of foreign currency translation recorded in *Accumulated other comprehensive loss* in the Statements of Consolidated Financial Position of $228.1 million was reclassified and recognized as a gain in *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2018.

Refer to NOTE 13 - DISCONTINUED OPERATIONS for further information regarding our Australian subsidiaries.

Earnings Per Share

We present both basic and diluted earnings per share amounts for continuing operations and discontinued operations. Total basic earnings per share amounts are calculated by dividing *Net income attributable to Cliffs shareholders* by the weighted average number of common shares outstanding during the period presented. Total diluted earnings per share amounts are calculated by dividing *Net income attributable to Cliffs shareholders* by the weighted average number of common shares, common share equivalents under stock plans using the treasury-stock method and the calculated common share equivalents in excess of the conversion rate related to our 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.

See NOTE 6 - DEBT AND CREDIT FACILITIES and NOTE 17 - EARNINGS PER SHARE for further information.

Recent Accounting Pronouncements

Issued and Adopted

In February 2016, the FASB issued *ASU No. 2016-02, Leases (Topic 842)*. The new standard requires lessees to recognize a right-of-use asset and a lease liability on the balance sheet for all leases except for short-term leases. For lessees, leases are classified as either operating or finance leases. We adopted this standard on its effective date of January 1, 2019 using the optional alternative approach, which requires application of the new guidance at the beginning of the standard's effective date. Adoption of the updated standard did not have a material effect on our consolidated financial statements.

In June 2016, the FASB issued *ASU No. 2016-13, Financial Instruments-Credit Losses (Topic 326)*, which introduces a new accounting model, Current Expected Credit Losses ("CECL"). CECL requires earlier recognition of credit losses, while also providing additional transparency about credit risk. CECL utilizes a lifetime expected credit loss measurement objective for the recognition of credit losses at the time the financial asset is originated or acquired. The expected credit losses are adjusted each period for changes in expected lifetime credit losses. We elected to early adopt this standard on December 31, 2019. Adoption of the updated standard did not have a material effect on our consolidated financial statements.

On January 1, 2018, we adopted Topic 606 and applied it to all contracts that were not completed using the modified retrospective method. We recognized the cumulative effect of initially applying Topic 606 as an adjustment of $34.0 million to the opening balance of *Retained deficit*. The comparative period information for the year ended December 31, 2017, has not been retrospectively revised and continues to be reported under the accounting standards in effect for that period. The adoption of Topic 606 increased 2018 *Revenues from product sales and services* and *Net income* by $68.1 million and $46.2 million, respectively.

Under Topic 606, revenue is generally recognized upon delivery to our customers, which is earlier than under the previous guidance. As an example, for certain iron ore shipments where revenue was previously recognized upon title transfer when payment was received, we now recognize revenue when control transfers, which is generally upon delivery. While we continue to retain title until we receive payment in many cases, we determined upon review of our customer contracts that the preponderance of control indicators pass to our customers' favor when we deliver our products; thus, we generally concluded that control transfers at that point. As a result of the adoption of Topic 606 and vessel deliveries not occurring during the winter months because of the closure of the Soo Locks at Sault Ste. Marie and the Welland Canal, our revenues and net income will be relatively lower than historical levels during the first quarter of each year and relatively higher than historical levels during the remaining three quarters of each year. However, the total amount of revenue recognized during the year should remain substantially the same as under previous accounting standards, assuming revenue rates and volumes are consistent between years. The adoption of Topic 606 did not have an impact on net cash flows in our Statements of Consolidated Cash Flows.

NOTE 2 - SUPPLEMENTARY FINANCIAL STATEMENT INFORMATION

Revenues from Product Sales and Services

The following table represents our *Revenues from product sales and services* contributed by each category of products and services:

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Revenue category:			
Product	**$ 1,848.1**	$ 2,172.3	$ 1,644.6
Freight	**141.8**	160.1	166.7
Venture partner's cost reimbursements	**—**	—	54.7
Total revenues from product sales and services	**$ 1,989.9**	$ 2,332.4	$ 1,866.0

Freight and venture partner's cost reimbursements are included in both *Revenues from product sales and services* and *Cost of goods sold and operating expenses* and are offset within *Sales margin*.

There was no allowance for doubtful accounts at December 31, 2019 and 2018 and no bad debt expense for the years ended December 31, 2019, 2018 and 2017.

Deferred Revenue

The table below summarizes our deferred revenue balances:

	(In Millions)			
	Deferred Revenue (Current)		Deferred Revenue (Long-Term)	
	Year Ended December 31,		Year Ended December 31,	
	2019	2018	**2019**	2018
Opening balance as of January 1	**$ 21.0**	$ 23.8	**$ 38.5**	$ 51.4
Closing balance as of December 31	**22.1**	21.0	**25.7**	38.5
Increase (Decrease)	**$ 1.1**	$ (2.8)	**$ (12.8)**	$ (12.9)

The terms of one of our pellet supply agreements required supplemental payments to be paid by the customer during the period 2009 through 2012. Installment amounts received under this arrangement in excess of sales were classified as *Other current liabilities* and *Other non-current liabilities* in the Statements of Consolidated Financial Position upon receipt of payment. Revenue is recognized over the life of the supply agreement, which extends until 2022, in equal annual installments. As of December 31, 2019 and December 31, 2018, installment amounts received in excess of sales totaled $38.5 million and $51.3 million, respectively, related to this agreement. As of December 31, 2019, and December 31, 2018, deferred revenue of $12.8 million was recorded in *Other current liabilities* and $25.7 million and $38.5 million, respectively, was recorded as long-term in *Other non-current liabilities* in the Statements of Consolidated Financial Position, related to this agreement.

Due to the payment terms and the timing of cash receipts near a period end, cash receipts can exceed deliveries for certain customers. Revenue associated with these transactions totaling $9.3 million and $8.2 million was deferred and included in *Other current liabilities* in the Statements of Consolidated Financial Position as of December 31, 2019 and December 31, 2018, respectively.

Accrued Liabilities

The following table presents the detail of our *Accrued liabilities* in the Statements of Consolidated Financial Position:

	(In Millions)	
	December 31,	
	2019	2018
Accrued employment costs	**$ 61.7**	$ 74.0
Accrued interest	**29.0**	38.4
Accrued dividends	**17.8**	15.0
Accrued royalties	**8.4**	17.3
Other	**9.4**	14.2
Accrued liabilities	**$ 126.3**	$ 158.9

Cash Flow Information

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

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Capital additions[1]	**$ 689.8**	$ 394.8	$ 156.0
Less:			
Non-cash accruals	**15.3**	93.6	(2.2)
Right-of-use assets - finance leases	**29.3**	7.6	6.5
Grants	**(10.8)**	(2.5)	—
Cash paid for capital expenditures including deposits	**$ 656.0**	$ 296.1	$ 151.7

[1] Includes capital additions related to discontinued operations of $0.1 million and $2.8 million for the years ended December 31, 2018 and 2017, respectively.

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

	(In Millions)		
	2019	2018	2017
Taxes paid on income	**$ 0.2**	$ 2.9	$ 1.7
Income tax refunds	**(117.9)**	(11.3)	(7.8)
Interest paid on debt obligations net of capitalized interest[1]	**97.6**	105.7	139.0

[1] Capitalized interest was $24.8 million and $6.5 million for the years ended December 31, 2019 and 2018, respectively.

Non-Cash Financing Activities - Declared Dividends

On December 2, 2019, the Board of Directors declared a quarterly cash dividend on our common shares of $0.06 per share. The cash dividend of $16.2 million was paid on January 15, 2020 to shareholders of record as of the close of business on January 3, 2020.

NOTE 3 - SEGMENT REPORTING

Our Company's continuing operations are organized and managed in two operating segments according to our differentiated products. Our Mining and Pelletizing segment is a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. Our Metallics segment includes our HBI production plant in Toledo, Ohio, which is currently under construction and expected to be completed during the first half of 2020. During the second quarter of 2019, Northshore mine began supplying DR-grade pellets to our Metallics segment, which will be used as feedstock for the HBI production plant. All intersegment sales were eliminated in consolidation.

We evaluate performance based on sales margin, defined as revenues less cost of goods sold identifiable to each segment. Additionally, we evaluate performance on a segment basis, as well as a consolidated basis, based on EBITDA and Adjusted EBITDA. These measures are 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 iron ore industry. In addition, management believes EBITDA and Adjusted EBITDA are useful measures 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 tables present a summary of our reportable segments including a reconciliation of segment revenues to total *Revenues from product sales and services*, segment sales margin to total *Sales margin* and a reconciliation of *Net income* to EBITDA and Adjusted EBITDA:

	(In Millions)		
	Year Ended December 31, 2019		
	Mining and Pelletizing	Metallics	Total
Operating segment revenues from product sales and services	$ 2,069.2	$ —	$ 2,069.2
Elimination of intersegment revenues	(79.3)	—	(79.3)
Total revenues from product sales and services	$ 1,989.9	$ —	$ 1,989.9
Operating segment sales margin	$ 600.0	$ —	$ 600.0
Elimination of intersegment sales margin	(24.3)	—	(24.3)
Total sales margin	$ 575.7	$ —	$ 575.7

Revenues from product sales and services of $2,332.4 million and $1,866.0 million, respectively, and sales margin of $809.6 million and $467.6 million, respectively, related to our Mining and Pelletizing segment accounted for all of our consolidated revenues and sales margin for years ended December 31, 2018 and December 31, 2017.

	(In Millions)		
	2019	2018	2017
Net income	**$ 292.8**	$ 1,128.1	$ 363.1
Less:			
Interest expense, net	**(101.6)**	(121.3)	(132.0)
Income tax benefit (expense)	**(17.6)**	460.3	252.4
Depreciation, depletion and amortization	**(85.1)**	(89.0)	(87.7)
Total EBITDA	**$ 497.1**	$ 878.1	$ 330.4
Less:			
Impact of discontinued operations	**$ (1.3)**	$ 120.6	$ 22.0
Loss on extinguishment of debt	**(18.2)**	(6.8)	(165.4)
Severance costs	**(1.7)**	—	—
Acquisition costs	**(6.5)**	—	—
Foreign exchange remeasurement	**—**	(0.9)	13.9
Impairment of other long-lived assets	**—**	(1.1)	—
Total Adjusted EBITDA	**$ 524.8**	$ 766.3	$ 459.9
EBITDA:			
Mining and Pelletizing	**$ 648.1**	$ 852.9	$ 534.9
Metallics	**(8.1)**	(3.3)	(0.4)
Corporate and Other (including discontinued operations)	**(142.9)**	28.5	(204.1)
Total EBITDA	**$ 497.1**	$ 878.1	$ 330.4
Adjusted EBITDA:			
Mining and Pelletizing	**$ 668.3**	$ 875.3	$ 559.4
Metallics	**(8.1)**	(3.3)	(0.4)
Corporate	**(135.4)**	(105.7)	(99.1)
Total Adjusted EBITDA	**$ 524.8**	$ 766.3	$ 459.9

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

	(In Millions)		
	2019	2018	2017
Depreciation, depletion and amortization:			
Mining and Pelletizing	**$ 79.0**	$ 68.2	$ 66.6
Metallics	**0.6**	—	—
Corporate	**5.5**	5.6	6.8
Total depreciation, depletion and amortization	**$ 85.1**	$ 73.8	$ 73.4
Capital additions[1]:			
Mining and Pelletizing	**$ 128.1**	$ 145.0	$ 136.8
Metallics	**558.4**	248.1	13.7
Corporate and Other	**3.3**	1.6	2.7
Total capital additions	**$ 689.8**	$ 394.7	$ 153.2

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

A summary of assets by segment is as follows:

	(In Millions)		
	December 31,		
	2019	2018	2017
Assets:			
Mining and Pelletizing	**$ 1,643.1**	$ 1,694.1	$ 1,500.6
Metallics	**913.6**	265.9	13.4
Total reportable segment assets	**2,556.7**	1,960.0	1,514.0
Corporate and Other	**940.1**	1,557.2	1,300.6
Assets of discontinued operations	**7.0**	12.4	138.8
Total assets	**$ 3,503.8**	$ 3,529.6	$ 2,953.4

Included in the consolidated financial statements are the following amounts relating to geographic location:

	(In Millions)		
	2019	2018	2017
Revenues from product sales and services:			
United States	**$ 1,505.2**	$ 1,847.3	$ 1,504.5
Canada	**448.1**	395.1	206.2
Other countries	**36.6**	90.0	155.3
Total revenues from product sales and services	**$ 1,989.9**	$ 2,332.4	$ 1,866.0
Property, plant and equipment, net:			
United States	**$ 1,929.0**	$ 1,286.0	$ 1,033.8

Concentrations in Revenue

In 2019, 2018 and 2017, three customers individually accounted for more than 10% of our consolidated product revenue. Total product revenue from those customers represents $1.8 billion, $2.1 billion and $1.5 billion of our total consolidated product revenue in 2019, 2018 and 2017, respectively.

NOTE 4 - INVENTORIES

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

	(In Millions)	
	December 31,	
	2019	2018
Product inventories		
Finished goods	$ **114.1**	$ 77.8
Work-in-process	**68.7**	10.1
Total product inventories	**182.8**	87.9
Supplies and other inventories	**134.6**	93.2
Inventories	$ **317.4**	$ 181.1

The excess of current cost over LIFO cost of iron ore inventories was $101.3 million and $95.6 million at December 31, 2019 and 2018, respectively. As of December 31, 2019, the product inventory balance for the Mining and Pelletizing segment increased, resulting in a LIFO increment in 2019. The effect of the inventory build was an increase in *Inventories* of $34.2 million in the Statements of Consolidated Financial Position for the year ended December 31, 2019. As of December 31, 2018, the product inventory balance for the Mining and Pelletizing segment declined, resulting in the liquidation of a LIFO layer in 2018. The effect of the inventory reduction was a decrease in *Cost of goods sold and operating expenses* of $0.2 million in the Statements of Consolidated Operations for the year ended December 31, 2018.

The allowance for obsolete and surplus items in supplies and other inventories was $12.7 million and $12.6 million at December 31, 2019 and 2018, respectively.

NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

The following table indicates the carrying value of each of the major classes of our consolidated property, plant and equipment:

	(In Millions)	
	December 31,	
	2019	2018
Land rights and mineral rights	$ **549.7**	$ 549.6
Office and information technology	**71.9**	70.0
Buildings	**157.8**	87.2
Mining equipment	**581.9**	548.5
Processing equipment	**791.8**	645.8
Electric power facilities	**81.9**	58.7
Land improvements	**32.5**	23.8
Asset retirement obligation	**1.7**	14.8
Other	**27.9**	25.2
Construction-in-progress	**730.3**	284.8
	3,027.4	2,308.4
Allowance for depreciation and depletion	**(1,098.4)**	(1,022.4)
	$ **1,929.0**	$ 1,286.0

At December 31, 2019 and 2018, we had deposits for property, plant and equipment of $34.0 million and $83.0 million, respectively, included in *Other non-current assets*.

We recorded depreciation expense of $76.6 million, $65.6 million and $65.8 million in the Statements of Consolidated Operations for the years ended December 31, 2019, 2018 and 2017, respectively.

We recorded capitalized interest into property, plant and equipment of $24.8 million and $6.5 million during the years ended December 31, 2019 and 2018, respectively.

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

	(In Millions)	
	December 31,	
	2019	2018
Land rights	**$ 12.4**	$ 12.4
Mineral rights:		
Cost	**$ 537.3**	$ 537.2
Depletion	**(134.1)**	(126.5)
Net mineral rights	**$ 403.2**	$ 410.7

We recorded depletion expense of $7.5 million, $7.4 million and $6.8 million in the Statements of Consolidated Operations for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTE 6 - DEBT AND CREDIT FACILITIES

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

(In Millions)					
December 31, 2019					
Debt Instrument	**Annual Effective Interest Rate**	**Total Principal Amount**	**Debt Issuance Costs**	**Unamortized Discounts**	**Total Debt**
Senior Secured Notes:					
$400 Million 4.875% 2024 Senior Notes	**5.00%**	**$ 400.0**	**$ (4.6)**	**$ (1.8)**	**$ 393.6**
Senior Unsecured Notes:					
$316.25 Million 1.50% 2025 Convertible Senior Notes	**6.26%**	**316.3**	**(4.6)**	**(65.0)**	**246.7**
$1.075 Billion 5.75% 2025 Senior Notes	**6.01%**	**473.3**	**(3.6)**	**(5.5)**	**464.2**
$750 Million 5.875% 2027 Senior Notes	**6.49%**	**750.0**	**(6.3)**	**(27.3)**	**716.4**
$800 Million 6.25% 2040 Senior Notes	**6.34%**	**298.4**	**(2.2)**	**(3.3)**	**292.9**
ABL Facility	**N/A**	**450.0**	**N/A**	**N/A**	**—**
Long-term debt					**$ 2,113.8**

(In Millions)					
December 31, 2018					
Debt Instrument	Annual Effective Interest Rate	Total Principal Amount	Debt Issuance Costs	Unamortized Discounts	Total Debt
Senior Secured Notes:					
$400 Million 4.875% 2024 Senior Notes	5.00%	$ 400.0	$ (5.7)	$ (2.2)	$ 392.1
Unsecured Senior Notes:					
$700 Million 4.875% 2021 Senior Notes	4.89%	124.0	(0.2)	—	123.8
$316.25 Million 1.50% 2025 Convertible Senior Notes	6.26%	316.3	(5.5)	(75.6)	235.2
$1.075 Billion 5.75% 2025 Senior Notes	6.01%	1,073.3	(9.9)	(14.6)	1,048.8
$800 Million 6.25% 2040 Senior Notes	6.34%	298.4	(2.3)	(3.3)	292.8
ABL Facility	N/A	450.0	N/A	N/A	—
Fair Value Adjustment to Interest Rate Hedge					0.2
Long-term debt					$ 2,092.9

Outstanding Senior Secured Notes

Our Senior Secured Notes bear interest at a rate of 4.875% per annum, which is payable semi-annually in arrears on January 15 and July 15 of each year. The Senior Secured Notes mature on January 15, 2024 and are secured senior obligations of the Company.

Our 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, and (ii) a second-priority lien on the ABL Collateral (as defined below), which is junior to a first-priority lien for the benefit of the lenders under our ABL Facility.

The terms of the Senior Secured Notes contain certain covenants; however, there are no financial covenants. Upon the occurrence of a change of control triggering event, as defined in the indenture, 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 following is a summary of redemption prices for our Senior Secured Notes:

Redemption Period	**Redemption Price[1]**	**Restricted Amount**
Prior to January 15, 2021 - using proceeds of equity issuance[2]	104.875 %	Up to 35% of original aggregate principal
Prior to January 15, 2021[2]	100.000	
Prior to January 15, 2021	103.000	Up to 10% of original aggregate principal
Beginning on January 15, 2021	102.438	
Beginning on January 15, 2022	101.219	
Beginning on January 15, 2023	100.000	

[1] Plus accrued and unpaid interest, if any, up to but excluding the redemption date.

[2] Plus a "make-whole" premium.

Outstanding Senior Unsecured Notes

$750 Million 5.875% 2027 Senior Notes - 2019 Offering

On May 13, 2019, we entered into an indenture among the Company, the guarantors party thereto and U.S. Bank National Association, as trustee, relating to the issuance of $750 million aggregate principal amount of 5.875%

2027 Senior Notes. The 5.875% 2027 Senior Notes were issued at 96.125% of face value. The 5.875% 2027 Senior Notes were issued in a private transaction exempt from the registration requirements of the Securities Act of 1933. Pursuant to the registration rights agreement executed as part of the offering, we agreed to file a registration statement with the SEC with respect to a registered offer to exchange the 5.875% 2027 Senior Notes for publicly registered notes within 365 days of the closing date, with all significant terms and conditions remaining the same.

The 5.875% 2027 Senior Notes bear interest at a rate of 5.875% per annum, payable semi-annually in arrears on June 1 and December 1 of each year, commencing on December 1, 2019. The 5.875% 2027 Senior Notes mature on June 1, 2027.

The 5.875% 2027 Senior Notes are unsecured obligations and rank equally in right of payment with all of our existing and future unsecured and unsubordinated indebtedness. The 5.875% 2027 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 5.875% 2027 Senior Notes.

The 5.875% 2027 Senior Notes may be redeemed, in whole or in part, at any time at our option not less than 30 days nor more than 60 days after prior notice is sent to the holders of the 5.875% 2027 Senior Notes. The following is a summary of redemption prices for our 5.875% 2027 Senior Notes:

Redemption Period	Redemption Price[1]	Restricted Amount
Prior to June 1, 2022 - using proceeds of equity issuance	105.875 %	Up to 35% of original aggregate principal
Prior to June 1, 2022[2]	100.000	
Beginning on June 1, 2022	102.938	
Beginning on June 1, 2023	101.958	
Beginning on June 1, 2024	100.979	
Beginning on June 1, 2025 and thereafter	100.000	

1 Plus accrued and unpaid interest, if any, up to but excluding the redemption date.

2 Plus a "make-whole" premium.

In addition, if a change of control triggering event, as defined in the indenture, occurs with respect to the 5.875% 2027 Senior Notes, we will be required to offer to purchase the notes at a purchase price equal to 101% of the aggregate principal amount, plus accrued and unpaid interest, if any, to, but not including, the date of purchase.

The terms of the 5.875% 2027 Senior Notes contain certain customary covenants; however, there are no financial covenants.

Debt issuance costs of $6.8 million were incurred related to the offering of the 5.875% 2027 Senior Notes and are included in *Long-term debt* in the Statements of Consolidated Financial Position.

$316.25 Million 1.50% 2025 Convertible Senior Notes

The 2025 Convertible Notes bear interest at a rate of 1.50% per year, payable semiannually in arrears on January 15 and July 15 of each year. The 2025 Convertible Notes mature on January 15, 2025. The 2025 Convertible Notes are senior unsecured obligations and rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the 2025 Convertible Notes; equal in right of payment to any of our unsecured indebtedness that is not so subordinated; effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries. The terms of the 2025 Convertible Notes contain certain customary covenants; however, there are no financial covenants.

Holders may convert their 2025 Convertible Notes at their option at any time prior to the close of business on the business day immediately preceding July 15, 2024, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on March 31, 2018, if the last reported sale price of our common shares, par value $0.125 per share, for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five-business day period after any five-consecutive trading day period (the “measurement period”) in which the trading price per $1,000 principal amount of 2025 Convertible Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common shares and the conversion rate on each such trading day; (3) if we call the notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events. On or after July 15, 2024 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2025 Convertible Notes at any time, regardless of the foregoing circumstances. Upon conversion, we will pay or deliver, as the case may be, cash, common shares or a combination of cash and common shares, at our election.

Upon the issuance of the 2025 Convertible Notes the initial conversion rate was 122.4365 common shares per $1,000 principal, with a conversion price of $8.17 per common share. The conversion rate is subject to adjustment in some circumstances, including the payment of dividends on common shares, but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date, or if we deliver a notice of redemption, we will, in certain circumstances, increase the conversion rate for a holder who elects to convert its 2025 Convertible Notes in connection with such a corporate event or notice of redemption, as the case may be. As of December 31, 2019, the conversion rate was 126.3479 common shares per $1,000 principal amount of 2025 Convertible Notes.

We may not redeem the 2025 Convertible Notes prior to January 15, 2022. We may redeem all or any portion of the 2025 Convertible Notes, for cash at our option on or after January 15, 2022 if the last reported sale price of our common shares has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30-consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the 2025 Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

It is our current intent to settle conversions through combination settlement. Our ability to settle conversions through combination settlement and cash settlement will be subject to restrictions in the agreement governing our ABL Facility and may be subject to restrictions in agreements governing our future debt.

If we undergo a fundamental change as defined in the indenture, holders may require us to repurchase for cash all or any portion of their 2025 Convertible Notes at a fundamental change repurchase price equal to 100% of the principal amount of the 2025 Convertible Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

In accounting for the issuance of the notes, we separated the 2025 Convertible Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of similar liabilities that did not have associated convertible features. The carrying amount of the equity component of $85.9 million representing the conversion option was determined by deducting the fair value of the liability component from the par value of the notes. The difference represents the debt discount that is amortized to interest expense over the term of the notes. The equity component is not remeasured as long as it continues to qualify for equity classification.

Other Outstanding 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)
$1.075 Billion 5.75% 2025 Senior Notes	March 1, 2025	March 1 and September 1
$800 Million 6.25% 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. There are no subsidiary guarantees of the interest and principal amounts for the 2040 Senior Notes. The 2025 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 2025 Senior Notes.

The 2040 Senior Notes may be redeemed any time at our option not less than 30 days nor more than 60 days after prior notice is sent to the holders. The 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.

We may redeem the 2025 Senior Notes, in whole or in part, on or after March 1, 2020, at the redemption prices set forth in the indenture, plus accrued and unpaid interest, if any, to, but not including, the date of redemption, and prior to March 1, 2020, at a redemption price equal to 100% of the principal amount thereof plus a "make-whole" premium set forth in the indenture, plus accrued and unpaid interest, if any, to, but not including, the date of redemption. We may also redeem up to 35% of the aggregate principal amount of the 2025 Senior Notes on or prior to March 1, 2020 at a redemption price equal to 105.75% of the principal amount thereof, plus accrued and unpaid interest, if any, to, but not including, the date of redemption with the net cash proceeds of one or more equity offerings.

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.

Debt Extinguishment - 2019

During the year ended December 31, 2019, we used the net proceeds from the issuance of $750 million aggregate principal amount of 5.875% 2027 Senior Notes, along with cash on hand, to redeem in full all of our outstanding 4.875% 2021 Senior Notes and to fund the repurchase of $600 million aggregate principal amount of our outstanding 5.75% 2025 Senior Notes in a tender offer.

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

	(In Millions)	
	Year Ended December 31, 2019	
	Debt Extinguished	(Loss) on Extinguishment[1]
Unsecured Notes:		
$700 Million 4.875% 2021 Senior Notes	$ 124.0	$ (5.3)
$1.075 Billion 5.75% 2025 Senior Notes	600.0	(12.9)
	$ 724.0	$ (18.2)

[1] This includes premiums paid related to the redemption of our notes of $5.3 million.

Debt Extinguishment - 2018

During the year ended December 31, 2018, we redeemed in full all of our outstanding 5.90% 2020 Senior Notes and 4.80% 2020 Senior Notes with cash on hand. Additionally, we purchased certain of our 4.875% 2021 Senior Notes and 5.75% 2025 Senior Notes.

The following is a summary of the debt extinguished and the respective gain (loss) on extinguishment:

	(In Millions)	
	Year Ended December 31, 2018	
	Debt Extinguished	Gain (Loss) on Extinguishment[1]
Unsecured Notes:		
$400 Million 5.90% 2020 Senior Notes	$ 88.9	$ (3.3)
$500 Million 4.80% 2020 Senior Notes	122.4	(3.7)
$700 Million 4.875% 2021 Senior Notes	14.4	0.1
$1.075 Billion 5.75% 2025 Senior Notes	1.7	0.1
	$ 227.4	$ (6.8)

[1] This includes premiums paid related to the redemption of our notes of $7.1 million.

Debt Extinguishment - 2017

During the year ended December 31, 2017, we issued 63.3 million common shares in an underwritten public offering. We received net proceeds of $661.3 million at a public offering price of $10.75 per common share. The net proceeds from the issuance of our common shares and the net proceeds from the issuance of $1.075 Billion 5.75% 2025 Senior Notes were used to redeem in full all of our outstanding 8.25% 2020 First Lien Notes, 8.00% 2020 1.5 Lien Notes and 7.75% 2020 Second Lien Notes. Additionally, through tender offers, we purchased certain of our 5.90% 2020 Senior Notes, our 4.80% 2020 Senior Notes and our 4.875% 2021 Senior Notes.

The following is a summary of the debt extinguished and the respective gain (loss) on extinguishment:

	(In Millions)	
	Year Ended December 31, 2017	
	Debt Extinguished	Gain (Loss) on Extinguishment[1]
Secured Notes:		
$540 Million 8.25% 2020 First Lien Notes	$ 540.0	$ (93.5)
$218.5 Million 8.00% 2020 1.5 Lien Notes	218.5	45.1
$544.2 Million 7.75% 2020 Second Lien Notes	430.1	(104.5)
Unsecured Notes:		
$400 Million 5.90% 2020 Senior Notes	136.7	(7.8)
$500 Million 4.80% 2020 Senior Notes	114.4	(1.9)
$700 Million 4.875% 2021 Senior Notes	171.0	(2.8)
	$ 1,610.7	$ (165.4)

[1] This includes premiums paid related to the redemption of our notes of $110.0 million.

Debt Maturities

The following represents a summary of our debt instrument maturities based on the principal amounts outstanding at December 31, 2019:

	(In Millions)
	Maturities of Debt
2020	$ —
2021	—
2022	—
2023	—
2024	400.0
2025 and thereafter	1,838.0
Total maturities of debt	$ 2,238.0

ABL Facility

On February 28, 2018, we amended and restated our senior secured asset-based revolving credit facility with various financial institutions. The ABL Facility will mature upon the earlier of February 28, 2023 or 60 days prior to the maturity of certain other material debt and provides for up to $450.0 million in borrowings, including a $248.8 million sublimit for the issuance of letters of credit and a $100.0 million sublimit for swingline loans. 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 us and 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. The base rate is equal to the greater of the federal funds rate plus 0.5%, the LIBOR rate based on a one-month interest period plus 1% and the floating rate announced by Bank of America Merrill Lynch as its “prime rate" and 1%. The LIBOR rate is a per annum fixed rate equal to LIBOR with respect to the applicable interest period and amount of LIBOR rate loan requested.

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.

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, if any), 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.

As of December 31, 2019 and 2018, 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 following represents a summary of our borrowing capacity under the ABL Facility:

	(In Millions)	
	December 31, 2019	December 31, 2018
Available borrowing base on ABL Facility[1]	**$ 395.7**	$ 323.7
Letter of credit obligations and other commitments[2]	**(37.9)**	(55.0)
Borrowing capacity available[3]	**$ 357.8**	$ 268.7

[1] The ABL Facility has a maximum borrowing base of $450 million, 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 and environmental obligations.

[3] As of December 31, 2019 and 2018 we had no loans drawn under the ABL Facility.

NOTE 7 - FAIR VALUE OF FINANCIAL INSTRUMENTS

The following represents the assets and liabilities measured at fair value:

	(In Millions)			
	December 31, 2019			
	Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Assets:				
Cash equivalents	**$ —**	**$ 187.6**	**$ —**	**$ 187.6**
Derivative assets	**—**	**—**	**45.8**	**45.8**
Total	**$ —**	**$ 187.6**	**$ 45.8**	**$ 233.4**
Liabilities:				
Derivative liabilities	**$ —**	**$ 3.2**	**$ 1.1**	**$ 4.3**
Total	**$ —**	**$ 3.2**	**$ 1.1**	**$ 4.3**

	(In Millions)			
	December 31, 2018			
	Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Cash equivalents	$ 0.8	$ 542.6	$ —	$ 543.4
Derivative assets	—	0.1	91.4	91.5
Total	$ 0.8	$ 542.7	$ 91.4	$ 634.9
Liabilities:				
Derivative liabilities	$ —	$ 3.7	$ —	$ 3.7
Total	$ —	$ 3.7	$ —	$ 3.7

Financial assets classified in Level 1 included money market funds. The valuation of these instruments is based upon unadjusted quoted prices for identical assets in active markets.

The valuation of financial assets and liabilities classified in Level 2 is determined using a market approach based upon quoted prices for similar assets and liabilities in active markets, or other inputs that are observable. Level 2 assets included commercial paper at December 31, 2019 and commercial paper, certificates of deposit and commodity hedge contracts at December 31, 2018. Level 2 liabilities included commodity hedge contracts at December 31, 2019 and 2018.

The Level 3 assets and liabilities consist of a freestanding derivative instrument related to a certain supply agreement and derivative assets and liabilities related to certain provisional pricing arrangements with our customers.

The supply agreement included in our Level 3 assets contains provisions for supplemental revenue or refunds based on the hot-rolled coil steel price in the year the iron ore product is consumed in the customer's blast furnaces. We account for these provisions as derivative instruments at the time of sale and adjust the derivative instruments to fair value through *Revenues from product sales and services* each reporting period until the product is consumed and the amounts are settled. We had assets of $44.5 million and $89.3 million at December 31, 2019 and 2018, respectively, related to this supply agreement.

The provisional pricing arrangements included in our Level 3 assets/liabilities specify provisional price calculations, where the pricing mechanisms generally are based on market pricing, with the final revenue rate to be based on market inputs at a specified point in time in the future, per the terms of the supply agreements. The difference between the estimated final revenue rate at the date of sale and the estimated final revenue rate at the measurement date is characterized as a derivative and is required to be accounted for separately once the revenue has been recognized. The derivative instruments are adjusted to fair value through *Revenues from product sales and services* each reporting period based upon current market data and forward-looking estimates provided by management until the final revenue rates are determined. At December 31, 2019, we had assets of $1.3 million and liabilities of $1.1 million related to provisional pricing arrangements. At December 31, 2018, we had assets of $2.1 million related to provisional pricing arrangements.

The following table illustrates information about quantitative inputs and assumptions for the derivative assets and derivative liabilities categorized in Level 3 of the fair value hierarchy:

Qualitative/Quantitative Information About Level 3 Fair Value Measurements

	Fair Value at December 31, 2019 (In Millions)	Balance Sheet Location	Valuation Technique	Unobservable Input	Point Estimate
Customer supply agreement	$44.5	*Derivative assets*	Market Approach	Management's estimate of hot-rolled coil steel price per net ton	$650
Provisional pricing arrangements	$1.3	*Derivative assets*	Market Approach	Management's estimate of Platts 62% price per dry metric ton	$76
Provisional pricing arrangements	$1.1	*Other current liabilities*	Market Approach	PPI estimates	197

The significant unobservable input used in the fair value measurement of our customer supply agreement is a forward-looking estimate of the hot-rolled coil steel price determined by management.

At December 31, 2019, the significant unobservable inputs used in the fair value measurement of our provisional pricing arrangements were management's estimate of Platts 62% price based upon current market data and index pricing and estimates for PPI data, including those for industrial commodities, fuel and steel. During the year, significant unobservable inputs used in the fair value measurement of our provisional pricing arrangements also included the Atlantic Basin pellet premium based upon current market data and index pricing, of which includes forward-looking estimates determined by management. Refer to NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES for further information.

The following tables represent a reconciliation of the changes in fair value of financial instruments measured at fair value on a recurring basis using significant unobservable inputs (Level 3):

	(In Millions)			
	Derivative Assets (Level 3)		Derivative Liabilities (Level 3)	
	Year Ended December 31,		Year Ended December 31,	
	2019	2018	**2019**	2018
Beginning balance - January 1	**$ 91.4**	$ 49.5	**$ —**	$ (1.7)
Total gains (losses) included in earnings	**78.6**	428.7	**(71.1)**	(6.1)
Settlements	**(124.2)**	(386.8)	**70.0**	7.8
Ending balance - December 31	**$ 45.8**	$ 91.4	**$ (1.1)**	$ —
Total gains (losses) for the period included in earnings attributable to the change in unrealized gains (losses) on assets still held at the reporting date	**$ 45.8**	$ 91.4	**$ (1.1)**	$ —

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

		(In Millions)			
		December 31, 2019		December 31, 2018	
	Classification	**Carrying Value**	**Fair Value**	Carrying Value	Fair Value
Long-term debt:					
Secured Notes:					
$400 Million 4.875% 2024 Senior Notes	Level 1	**$ 393.6**	**$ 410.0**	$ 392.1	$ 370.2
Unsecured Notes:					
$700 Million 4.875% 2021 Senior Notes	Level 1	**—**	**—**	123.8	122.3
$316.25 Million 1.50% 2025 Convertible Senior Notes	Level 1	**246.7**	**385.0**	235.2	352.4
$1.075 Billion 5.75% 2025 Senior Notes	Level 1	**464.2**	**473.3**	1,048.8	962.0
$750 Million 5.875% 2027 Senior Notes	Level 1	**716.4**	**718.5**	—	—
$800 Million 6.25% 2040 Senior Notes	Level 1	**292.9**	**250.2**	292.8	232.8
ABL Facility	Level 2	**—**	**—**	—	—
Fair Value Adjustment to Interest Rate Hedge	Level 2	**—**	**—**	0.2	0.2
Total long-term debt		**$ 2,113.8**	**$ 2,237.0**	$ 2,092.9	$ 2,039.9

The fair value of long-term debt was determined using quoted market prices.

NOTE 8 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS

We offer defined benefit pension plans, defined contribution pension plans and OPEB plans, primarily consisting of retiree healthcare benefits, to most employees as part of a total compensation and benefits program. The defined benefit pension plans are noncontributory and benefits generally are based on a minimum formula or employees' years of service and average earnings for a defined period prior to retirement.

We offer retiree medical coverage to hourly retirees of our USW-represented mines. Currently, we have a four-year agreement with the USW which began October 1, 2018 and is effective through September 30, 2022. The 2018 USW agreement established the set fixed monthly medical premiums for participants who retired prior to January 1, 2015. These fixed premiums will expire on December 31, 2020 and revert to increasing premiums based on a cost-sharing formula thereafter. The agreement also provides for an OPEB cap that limits the amount of our contributions toward retiree medical insurance coverage per calendar year for each retiree and spouse of a retiree who retired on or after January 1, 2015. The amount of the annual OPEB cap is based upon the gross plan costs we incurred in 2014. The OPEB cap does not apply to surviving spouses. In lieu of retiree medical coverage, USW-represented employees hired after September 1, 2016 receive a 401(k) contribution of $0.60 per hour worked to a restricted Retiree Health Care Account.

In addition, we currently provide various levels of OPEB to some full-time employees who meet certain length of service and age requirements (a portion of which is pursuant to collective bargaining agreements). Most plans require retiree contributions and have deductibles, co-pay requirements and benefit limits. Most bargaining unit plans require retiree contributions and co-pays for medical and prescription drug coverage. There is a cap on our cost for medical coverage under the salaried plans. The annual limit applies to each covered participant and equals $7,000 for coverage prior to age 65, with the retiree's participation adjusted based on the age at which the retiree's benefits commence. We do not provide OPEB for most salaried employees hired after January 1, 1993. Retiree healthcare coverage is provided through programs administered by insurance companies whose charges are based on benefits paid.

On August 12, 2019, Cliffs Mining Company, our subsidiary, ceased performing manager duties for the Hibbing mine and transitioned those duties to ArcelorMittal USA. In connection with this transition, Cliffs Mining Company and ArcelorMittal USA entered into a transition agreement, pursuant to which the Ore Mining Companies Pension Plan previously sponsored by Cliffs Mining Company is now sponsored by ArcelorMittal Hibbing Management LLC. In connection with the transfer of manager duties for the Hibbing mine, Hibbing employees previously employed by Cliffs Mining Company became employed by an ArcelorMittal USA controlled group entity. All non-Hibbing active and retired participants were transferred to our Salaried Pension Plan. This transition did not have a material impact on our consolidated financial statements in the year ended December 31, 2019.

The following table summarizes the annual expense (income) recognized related to the retirement plans:

	(In Millions)		
	2019	2018	2017
Defined benefit pension plans	**$ 22.4**	$ 12.7	$ 18.0
Defined contribution pension plans	**3.4**	3.1	2.9
OPEB plans	**(2.5)**	(5.9)	(6.1)
Total	**$ 23.3**	$ 9.9	$ 14.8

Obligations and Funded Status

The following tables and information provide additional disclosures:

	(In Millions)			
	Pension Benefits		Other Benefits	
Change in benefit obligations:	**2019**	2018	**2019**	2018
Benefit obligations — beginning of year	**$ 905.7**	$ 973.1	**$ 241.9**	$ 265.9
Service cost (excluding expenses)	**17.3**	18.7	**1.7**	2.2
Interest cost	**34.9**	30.3	**9.5**	8.3
Plan amendments	**—**	2.2	**—**	12.8
Actuarial (gain) loss	**111.8**	(57.0)	**18.9**	(29.4)
Benefits paid	**(62.2)**	(60.7)	**(25.6)**	(24.4)
Participant contributions	**—**	—	**5.8**	5.6
Other	**13.6**	(0.9)	**2.3**	0.9
Benefit obligations — end of year	**$ 1,021.1**	$ 905.7	**$ 254.5**	$ 241.9
Change in plan assets:				
Fair value of plan assets — beginning of year	**$ 687.2**	$ 749.8	**$ 240.2**	$ 262.5
Actual return on plan assets	**98.1**	(29.6)	**35.1**	(8.2)
Participant contributions	**—**	—	**0.5**	0.5
Employer contributions	**16.4**	27.6	**2.5**	3.0
Benefits paid	**(62.2)**	(60.7)	**(18.6)**	(17.6)
Other	**9.4**	0.1	**—**	—
Fair value of plan assets — end of year	**$ 748.9**	$ 687.2	**$ 259.7**	$ 240.2
Funded status	**$ (272.2)**	$ (218.5)	**$ 5.2**	$ (1.7)
Amounts recognized in Statements of Financial Position:				
Non-current assets	**$ —**	$ —	**$ 48.5**	$ 32.1
Current liabilities	**(0.5)**	(0.1)	**(3.5)**	(3.5)
Non-current liabilities	**(271.7)**	(218.4)	**(39.8)**	(30.3)
Total amount recognized	**$ (272.2)**	$ (218.5)	**$ 5.2**	$ (1.7)
Amounts recognized in accumulated other comprehensive loss:				
Net actuarial loss	**$ 382.1**	$ 330.1	**$ 72.6**	$ 82.1
Prior service cost (credit)	**7.3**	8.5	**(7.9)**	(9.9)
Net amount recognized	**$ 389.4**	$ 338.6	**$ 64.7**	$ 72.2

	(In Millions)						
	2019						
	Pension Plans				Other Benefits		
	Salaried	**Hourly**	**SERP**	**Total**	**Salaried**	**Hourly**	**Total**
Fair value of plan assets	**$ 293.7**	**$ 455.2**	**$ —**	**$ 748.9**	**$ —**	**$ 259.7**	**$ 259.7**
Benefit obligation	**(407.2)**	**(607.3)**	**(6.6)**	**(1,021.1)**	**(37.7)**	**(216.8)**	**(254.5)**
Funded status	**$ (113.5)**	**$ (152.1)**	**$ (6.6)**	**$ (272.2)**	**$ (37.7)**	**$ 42.9**	**$ 5.2**

	(In Millions)							
	2018							
	Pension Plans					Other Benefits		
	Salaried	Hourly	Mining	SERP	Total	Salaried	Hourly	Total
Fair value of plan assets	$ 249.8	$ 429.4	$ 8.0	$ —	$ 687.2	$ —	$ 240.2	$ 240.2
Benefit obligation	(340.8)	(548.9)	(10.7)	(5.3)	(905.7)	(32.9)	(209.0)	(241.9)
Funded status	$ (91.0)	$ (119.5)	$ (2.7)	$ (5.3)	$ (218.5)	$ (32.9)	$ 31.2	$ (1.7)

The accumulated benefit obligation for all defined benefit pension plans was $1,010.0 million and $896.8 million at December 31, 2019 and 2018, respectively.

Components of Net Periodic Benefit Cost

	(In Millions)					
	Pension Benefits			Other Benefits		
	2019	2018	2017	**2019**	2018	2017
Service cost	**$ 17.3**	$ 18.7	$ 17.1	**$ 1.7**	$ 2.2	$ 1.8
Interest cost	**34.9**	30.3	30.5	**9.5**	8.3	8.3
Expected return on plan assets	**(54.6)**	(60.0)	(54.5)	**(16.8)**	(18.4)	(17.7)
Amortization:						
Prior service costs (credits)	**1.2**	2.2	2.6	**(2.0)**	(3.0)	(3.0)
Net actuarial loss	**23.5**	21.2	22.3	**5.1**	5.0	4.5
Curtailments	**0.1**	0.3	—	**—**	—	—
Net periodic benefit cost (credit)	**$ 22.4**	$ 12.7	$ 18.0	**$ (2.5)**	$ (5.9)	$ (6.1)

Components of Accumulated Other Comprehensive Loss (Income)

The following includes details on the significant actuarial losses (gains) impacting the benefit obligation:

	(In Millions)			
	Pension Benefits		Other Benefits	
	2019	2018	**2019**	2018
Discount rates	**$ 105.8**	$ (75.7)	**$ 25.5**	$ (19.0)
Demographic losses	**12.3**	21.7	**3.6**	2.3
Mortality	**(6.3)**	(3.0)	**(3.9)**	(0.8)
Per capita claims	**—**	—	**(9.4)**	(11.9)
Other	**—**	—	**3.1**	—
Actuarial (gain) loss on benefit obligation	**111.8**	(57.0)	**18.9**	(29.4)
Actual returns on assets (over) under estimate	**(43.5)**	89.6	**(18.3)**	26.6
Amortization of net actuarial loss	**(23.5)**	(21.2)	**(5.1)**	(5.0)
Amortization of prior service credits (costs)	**(1.2)**	(2.2)	**2.0**	3.0
Current year prior service costs	**—**	2.2	**—**	12.8
Other	**7.2**	(0.3)	**(5.0)**	1.5
Total recognized in accumulated other comprehensive loss (income)	**$ 50.8**	$ 11.1	**$ (7.5)**	$ 9.5

Assumptions

The discount rate for determining PBO is determined individually for each plan as noted in the assumption chart below. The discount rates are determined by matching the projected cash flows used to determine the PBO and APBO to a projected yield curve of 936 Aa graded bonds in the 40th to 90th percentiles. These bonds are either noncallable or callable with make-whole provisions.

On December 31, 2019, the assumed mortality improvement projection was changed from generational scale MP-2018 to generational scale MP-2019. The healthy mortality assumption was updated to the Pri-2012 mortality tables with blue collar adjustments for the Iron Hourly Pension and Hourly OPEB plans, with white collar adjustments for the Salaried OPEB Plan, and without adjustments for the Salaried Pension Plan.

On December 31, 2018, the assumed mortality improvement projection was changed from generational scale MP-2017 to generational scale MP-2018. The healthy mortality assumption was the RP-2014 mortality tables with blue collar adjustments for the Iron Hourly Pension and Hourly OPEB plans, with white collar adjustments for the Salaried OPEB Plan, and without adjustments for the Salaried Pension Plan.

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

	Pension Benefits		Other Benefits	
	December 31,		December 31,	
	2019	2018	**2019**	2018
Discount rate:				
Iron Hourly Pension Plan	**3.34 %**	4.31 %	**N/A %**	N/A %
Salaried Pension Plan	**3.18**	4.21	**N/A**	N/A
Ore Mining Pension Plan	**N/A**	4.33	**N/A**	N/A
Supplemental Executive Retirement Plan	**3.05**	4.22	**N/A**	N/A
Hourly OPEB Plan	**N/A**	N/A	**3.28**	4.29
Salaried OPEB Plan	**N/A**	N/A	**3.29**	4.27
Interest crediting rate	**6.00**	6.00	**N/A**	N/A
Salaried rate of compensation increase	**3.00**	3.00	**3.00**	3.00
Hourly rate of compensation increase	**2.00**	2.00	**N/A**	N/A

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

	Pension Benefits			Other Benefits		
	December 31,			December 31,		
	2019	2018	2017	**2019**	2018	2017
Obligation Discount Rate:						
Iron Hourly Pension Plan	**4.31 %**	3.61 %	4.02 %	**N/A %**	N/A %	N/A %
Salaried Pension Plan	**4.22**	3.52	3.91	**N/A**	N/A	N/A
Ore Mining Pension Plan	**N/A**	3.61	4.04	**N/A**	N/A	N/A
Supplemental Executive Retirement Plan	**4.21**	3.54	3.90	**N/A**	N/A	N/A
Hourly OPEB Plan	**N/A**	N/A	N/A	**4.29**	3.60	4.03
Salaried OPEB Plan	**N/A**	N/A	N/A	**4.28**	3.57	3.98
Service Cost Discount Rate:						
Iron Hourly Pension Plan	**4.49**	3.76	4.30	**N/A**	N/A	N/A
Salaried Pension Plan	**4.23**	3.53	3.93	**N/A**	N/A	N/A
Ore Mining Pension Plan	**N/A**	3.75	4.27	**N/A**	N/A	N/A
Supplemental Executive Retirement Plan	**4.11**	3.43	3.69	**N/A**	N/A	N/A
Hourly OPEB Plan	**N/A**	N/A	N/A	**4.48**	3.73	4.23
Salaried OPEB Plan	**N/A**	N/A	N/A	**4.54**	3.76	4.30
Interest Cost Discount Rate:						
Iron Hourly Pension Plan	**3.96**	3.21	3.38	**N/A**	N/A	N/A
Salaried Pension Plan	**3.85**	3.08	3.21	**N/A**	N/A	N/A
Ore Mining Pension Plan	**N/A**	3.22	3.41	**N/A**	N/A	N/A
Supplemental Executive Retirement Plan	**3.89**	3.16	3.36	**N/A**	N/A	N/A
Hourly OPEB Plan	**N/A**	N/A	N/A	**3.95**	3.10	3.24
Salaried OPEB Plan	**N/A**	N/A	N/A	**3.91**	3.15	3.28
Interest crediting rate	**6.00**	6.00	6.00	**N/A**	N/A	N/A
Expected return on plan assets	**8.25**	8.25	8.25	**7.00**	7.00	7.00
Salaried rate of compensation increase	**3.00**	3.00	3.00	**3.00**	3.00	3.00
Hourly rate of compensation increase	**2.00**	2.00	2.00	**N/A**	N/A	N/A

The following represents assumed health care cost trend rates:

	December 31,	
	2019	2018
Health care cost trend rate assumed for next year	**6.50 %**	6.75 %
Ultimate health care cost trend rate	**5.00**	5.00
Year that the ultimate rate is reached	**2026**	2026

Plan Assets

Our financial objectives with respect to our pension and VEBA plan assets are to fully fund the actuarial accrued liability for each of the plans, to maximize investment returns within reasonable and prudent levels of risk, and to maintain sufficient liquidity to meet benefit obligations on a timely basis.

Our investment objective is to outperform the expected return on assets assumption used in the plans' actuarial reports over the life of the plans. The expected return on assets takes into account historical returns and estimated future long-term returns based on capital market assumptions applied to the asset allocation strategy. The expected return is net of investment expenses paid by the plans. In addition, investment performance is monitored on a quarterly basis by benchmarking to various indices and metrics for the one-, three- and five-year periods.

The asset allocation strategy is determined through a detailed analysis of assets and liabilities by plan, which defines the overall risk that is acceptable with regard to the expected level and variability of portfolio returns, surplus (assets compared to liabilities), contributions and pension expense.

The asset allocation review process involves simulating capital market behaviors including global asset class performance, inflation and interest rates in order to evaluate various asset allocation scenarios and determine the asset mix with the highest likelihood of meeting financial objectives. The process includes factoring in the current funded status and likely future funded status levels of the plans by taking into account expected growth or decline in the contributions over time.

The asset allocation strategy varies by plan. The following table reflects the actual asset allocations for pension and VEBA plan assets as of December 31, 2019 and 2018, as well as the 2020 weighted average target asset allocations. Equity investments include securities in large-cap, mid-cap and small-cap companies located in the U.S. and worldwide. Fixed income investments primarily include corporate bonds and government debt securities.

	Pension Assets			VEBA Assets		
		Percentage of Plan Assets at December 31,			Percentage of Plan Assets at December 31,	
Asset Category	**2020 Target Allocation**	**2019**	2018	**2020 Target Allocation**	**2019**	2018
Equity securities	45.0%	**44.0%**	38.9%	8.0%	**7.2%**	8.1%
Fixed income	28.0%	**26.1%**	26.0%	80.0%	**79.8%**	77.0%
Hedge funds	5.0%	**5.4%**	5.4%	4.0%	**4.8%**	4.7%
Private equity	7.0%	**6.6%**	6.2%	3.0%	**0.7%**	1.2%
Structured credit	7.5%	**7.0%**	11.4%	2.0%	**2.1%**	3.5%
Real estate	7.5%	**9.4%**	10.3%	3.0%	**5.4%**	5.4%
Cash	—%	**1.5%**	1.8%	—%	**—%**	0.1%
Total	100.0%	**100.0%**	100.0%	100.0%	**100.0%**	100.0%

Following is a description of the inputs and valuation methodologies used to measure the fair value of our plan assets.

Equity Securities

Equity securities classified as Level 1 investments include U.S. large-, small- and mid-cap investments and international equities. These investments are comprised of securities listed on an exchange, market or automated quotation system for which quotations are readily available. The valuation of these securities is determined using a market approach and is based upon unadjusted quoted prices for identical assets in active markets.

Fixed Income

Fixed income securities classified as Level 1 investments include bonds and government debt securities. These investments are comprised of securities listed on an exchange, market or automated quotation system for which quotations are readily available. The valuation of these securities is determined using a market approach and is based upon unadjusted quoted prices for identical assets in active markets. Also included in fixed income is a portfolio of U.S. Treasury STRIPS, which are zero-coupon bearing fixed income securities backed by the full faith and credit of the U.S. government. The securities sell at a discount to par because there are no incremental coupon payments. STRIPS are not issued directly by the Treasury but rather are created by a financial institution, government securities broker or government securities dealer. Liquidity on the issue varies depending on various market conditions; however, in general the STRIPS market is slightly less liquid than that of the U.S. Treasury Bond market. The STRIPS are priced daily through a bond pricing vendor and are classified as Level 2.

Hedge Funds

Hedge funds are alternative investments comprised of direct or indirect investment in offshore hedge funds with an investment objective to achieve equity-like returns with one half the volatility of equities and moderate correlation. The valuation techniques used to measure fair value attempt to maximize the use of observable inputs and minimize the use of unobservable inputs. Considerable judgment is required to interpret the factors used to develop estimates of fair value. Valuations of the underlying investment funds are obtained and reviewed. The securities that are valued by the funds are interests in the investment funds and not the underlying holdings of such investment funds. Thus, the inputs used to value the investments in each of the underlying funds may differ from the inputs used to value the underlying holdings of such funds. Hedge funds are valued monthly and recorded on a one-month lag.

Private Equity Funds

Private equity funds are alternative investments that represent direct or indirect investments in partnerships, venture funds or a diversified pool of private investment vehicles (fund of funds).

Investment commitments are made in private equity funds based on an asset allocation strategy, and capital calls are made over the life of the funds to fund the commitments. As of December 31, 2019, remaining commitments total $37.1 million for our pension and OPEB plans. Committed amounts are funded from plan assets when capital calls are made. Investment commitments are not pre-funded in reserve accounts.

Private equity investments are valued quarterly and recorded on a one-quarter lag. For alternative investment values reported on a lag, current market information is reviewed for any material changes in values at the reporting date. Capital distributions for the funds do not occur on a regular frequency. Liquidation of these investments would require sale of the partnership interest.

Structured Credit

Structured credit investments are alternative investments comprised of collateralized debt obligations and other structured credit investments that are priced based on valuations provided by independent, third-party pricing agents, if available. Such values generally reflect the last reported sales price if the security is actively traded. The third-party pricing agents may also value structured credit investments at an evaluated bid price by employing methodologies that utilize actual market transactions, broker-supplied valuations or other methodologies designed to identify the market value of such securities.

Structured credit investments are valued monthly and recorded on a one-month lag. For alternative investment values reported on a lag, current market information is reviewed for any material changes in values at the reporting date. Historically, redemption requests have been considered quarterly, subject to notice of 90 days, although the advisor is currently only requiring notice of 65 days.

Real Estate

The real estate portfolio for the pension plans is an alternative investment comprised of one fund with strategic categories of real estate investments. All real estate holdings are appraised externally at least annually, and appraisals are conducted by reputable, independent appraisal firms that are members of the Appraisal Institute. All external appraisals are performed in accordance with the Uniform Standards of Professional Appraisal Practices. The property valuations and assumptions about each property are reviewed quarterly by the investment advisor and values are adjusted if there has been a significant change in circumstances relating to the property since the last external appraisal. The fair value of the fund is updated monthly so there is no lag in reported value. Redemption requests are considered on a quarterly basis, subject to notice of 45 days.

The real estate fund of funds investment for the Empire-Tilden, Hibbing and United Taconite VEBA plans invests in pooled investment vehicles that in turn invest in commercial real estate properties. Valuations are performed quarterly and financial statements are prepared on a semi-annual basis, with annual audited statements. Asset values for this fund are reported with a one-quarter lag, and current market information is reviewed for any material changes in values at the reporting date. Withdrawals are permitted on the last business day of each quarter subject to a 95-day prior written notice.

Pension

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

	(In Millions)			
	December 31, 2019			
Asset Category	**Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Equity securities:				
U.S. large-cap	**$ 139.1**	**$ —**	**$ —**	**$ 139.1**
U.S. small/mid-cap	**29.3**	**—**	**—**	**29.3**
International	**161.4**	**—**	**—**	**161.4**
Fixed income	**173.0**	**22.3**	**—**	**195.3**
Hedge funds	**—**	**—**	**40.2**	**40.2**
Private equity	**—**	**—**	**49.5**	**49.5**
Structured credit	**—**	**—**	**52.3**	**52.3**
Real estate	**—**	**—**	**70.4**	**70.4**
Cash	**11.4**	**—**	**—**	**11.4**
Total	**$ 514.2**	**$ 22.3**	**$ 212.4**	**$ 748.9**

	(In Millions)			
	December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity securities:				
U.S. large-cap	$ 112.6	$ —	$ —	$ 112.6
U.S. small/mid-cap	22.5	—	—	22.5
International	132.0	—	—	132.0
Fixed income	151.1	27.4	—	178.5
Hedge funds	—	—	37.2	37.2
Private equity	—	—	42.6	42.6
Structured credit	—	—	78.8	78.8
Real estate	—	—	70.5	70.5
Cash	12.5	—	—	12.5
Total	$ 430.7	$ 27.4	$ 229.1	$ 687.2

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

	(In Millions)				
	Year Ended December 31, 2019				
	Hedge Funds	**Private Equity Funds**	**Structured Credit Fund**	**Real Estate**	**Total**
Beginning balance — January 1, 2019	**$ 37.2**	**$ 42.6**	**$ 78.8**	**$ 70.5**	**$ 229.1**
Actual return on plan assets:					
Relating to assets still held at the reporting date	**3.4**	**(1.0)**	**0.5**	**(4.2)**	**(1.3)**
Relating to assets sold during the period	**—**	**1.2**	**0.8**	**28.6**	**30.6**
Purchases	**—**	**16.5**	**—**	**—**	**16.5**
Sales	**—**	**(9.3)**	**(26.8)**	**(23.8)**	**(59.9)**
Other	**(0.4)**	**(0.5)**	**(1.0)**	**(0.7)**	**(2.6)**
Ending balance — December 31, 2019	**$ 40.2**	**$ 49.5**	**$ 52.3**	**$ 70.4**	**$ 212.4**

	(In Millions)				
	Year Ended December 31, 2018				
	Hedge Funds	Private Equity Funds	Structured Credit Fund	Real Estate	Total
Beginning balance — January 1, 2018	$ 37.4	$ 39.8	$ 72.9	$ 65.5	$ 215.6
Actual return on plan assets:					
Relating to assets still held at the reporting date	(0.2)	1.4	5.9	5.4	12.5
Relating to assets sold during the period	—	4.0	—	—	4.0
Purchases	—	5.2	—	—	5.2
Sales	—	(7.8)	—	(0.4)	(8.2)
Ending balance — December 31, 2018	$ 37.2	$ 42.6	$ 78.8	$ 70.5	$ 229.1

VEBA

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 fair value of our other benefit plan assets by asset category is as follows:

	(In Millions)			
	December 31, 2019			
Asset Category	**Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Equity securities:				
U.S. large-cap	**$ 9.3**	**$ —**	**$ —**	**$ 9.3**
U.S. small/mid-cap	**2.3**	**—**	**—**	**2.3**
International	**7.0**	**—**	**—**	**7.0**
Fixed income	**166.4**	**40.9**	**—**	**207.3**
Hedge funds	**—**	**—**	**12.4**	**12.4**
Private equity	**—**	**—**	**1.7**	**1.7**
Structured credit	**—**	**—**	**5.5**	**5.5**
Real estate	**—**	**—**	**14.0**	**14.0**
Cash	**0.2**	**—**	**—**	**0.2**
Total	**$ 185.2**	**$ 40.9**	**$ 33.6**	**$ 259.7**

	(In Millions)			
	December 31, 2018			
Asset Category	Quoted Prices in Active Markets for Identical Assets/Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity securities:				
U.S. large-cap	$ 9.7	$ —	$ —	$ 9.7
U.S. small/mid-cap	2.4	—	—	2.4
International	7.3	—	—	7.3
Fixed income	146.8	37.8	—	184.6
Hedge funds	—	—	11.4	11.4
Private equity	—	—	3.0	3.0
Structured credit	—	—	8.5	8.5
Real estate	—	—	13.1	13.1
Cash	0.2	—	—	0.2
Total	$ 166.4	$ 37.8	$ 36.0	$ 240.2

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

	(In Millions)				
	Year Ended December 31, 2019				
	Hedge Funds	Private Equity Funds	Structured Credit Fund	Real Estate	Total
Beginning balance — January 1, 2019	$ 11.4	$ 3.0	$ 8.5	$ 13.1	$ 36.0
Actual return on plan assets:					
Relating to assets still held at the reporting date	1.0	(0.6)	0.1	0.9	1.4
Relating to assets sold during the period	—	—	0.1	—	0.1
Purchases	—	—	—	—	—
Sales	—	(0.7)	(3.2)	—	(3.9)
Ending balance — December 31, 2019	$ 12.4	$ 1.7	$ 5.5	$ 14.0	$ 33.6

	(In Millions)				
	Year Ended December 31, 2018				
	Hedge Funds	Private Equity Funds	Structured Credit Fund	Real Estate	Total
Beginning balance — January 1, 2018	$ 11.4	$ 3.9	$ 7.9	$ 12.0	$ 35.2
Actual return on plan assets:					
Relating to assets still held at the reporting date	—	(0.1)	0.6	1.1	1.6
Relating to assets sold during the period	—	0.3	—	—	0.3
Purchases	—	—	—	—	—
Sales	—	(1.1)	—	—	(1.1)
Ending balance — December 31, 2018	$ 11.4	$ 3.0	$ 8.5	$ 13.1	$ 36.0

Contributions

Annual contributions to the pension plans are made within income tax deductibility restrictions in accordance with statutory regulations. In the event of plan termination, the plan sponsors could be required to fund additional shut down and early retirement obligations that are not included in the pension obligations. Costs for early termination for pensions and OPEB are estimated to be $14.9 million and $3.0 million, respectively. We currently have no intention to shut down, terminate or withdraw from any of our employee benefit plans.

	(In Millions)			
		Other Benefits		
Company Contributions	Pension Benefits	VEBA	Direct Payments	Total
2018	$ 27.6	$ —	$ 3.8	$ 3.8
2019	16.4	—	3.7	3.7
2020 (Expected)[1]	20.2	—	3.5	3.5

[1] Pursuant to the bargaining agreement, benefits can be paid from VEBA trusts that are at least 70% funded (all VEBA trusts are over 70% funded at December 31, 2019). Funding obligations have been suspended as UTAC's, Tilden's and Empire's share of the value of their respective trust assets have reached 90% of their obligation.

VEBA plans are not subject to minimum regulatory funding requirements. Amounts contributed are pursuant to bargaining agreements.

Contributions by participants to the OPEB plans were $5.8 million for the year ended December 31, 2019 and $5.6 million for the year ended December 31, 2018.

Estimated Cost for 2020

For 2020, we estimate net periodic benefit cost (credit) as follows:

	(In Millions)
Defined benefit pension plans	$ 16.7
OPEB plans	(8.7)
Total	$ 8.0

Estimated Future Benefit Payments

	(In Millions)			
		Other Benefits		
	Pension Benefits	Gross Company Benefits	Less Medicare Subsidy	Net Benefit Payments
2020	$ 73.6	$ 17.2	$ (0.7)	$ 16.5
2021	71.1	16.6	(0.8)	15.8
2022	70.4	16.3	(0.8)	15.5
2023	71.2	16.3	(0.8)	15.5
2024	66.9	16.1	(0.9)	15.2
2025-2029	318.2	77.3	(4.6)	72.7

NOTE 9 - STOCK COMPENSATION PLANS

At December 31, 2019, we had outstanding awards under various share-based compensation plans, which are described below. The following table summarizes the share-based compensation expense that we recorded in continuing operations:

	(In Millions, except per share amounts)		
	2019	2018	2017
Cost of goods sold and operating expenses	**$ 2.0**	$ 1.7	$ 1.9
Selling, general and administrative expenses	**15.6**	13.4	16.3
Reduction of operating income from continuing operations before income taxes	**17.6**	15.1	18.2
Income tax benefit[1]	**(3.7)**	—	—
Reduction of net income from continuing operations attributable to Cliffs shareholders	**$ 13.9**	$ 15.1	$ 18.2
Reduction of continuing operations earnings per common share attributable to Cliffs shareholders:			
Basic	**$ 0.05**	$ 0.05	$ 0.06
Diluted	**$ 0.05**	$ 0.05	$ 0.06

[1] No income tax benefit in 2018 and 2017 due to the full valuation allowance.

Employees' Plans

The A&R 2015 Equity Plan was approved by our Board of Directors on February 21, 2017 and by our shareholders on April 25, 2017. The A&R 2015 Equity Plan increased the maximum number of shares that may be issued by 15.0 million common shares.

Following is a summary of approved grants by the Compensation Committee:

Grant Year	Vesting Date	Plan Issued Under	Restricted Stock Units Granted	Performance Shares Granted
2019	12/31/2021	A&R 2015 Equity Plan	572,104	572,104
2018	12/31/2020	A&R 2015 Equity Plan	685,599	675,599
2017	12/31/2019	A&R 2015 Equity Plan	532,358	249,106
2017	12/31/2019	Amended 2015 Equity Plan	553,725	553,725

Performance Shares

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 at the beginning of the relevant performance period. The final payout for the outstanding performance period grants will vary from 0% to 200% of the original grant depending on whether and to what extent the Company achieves certain objectives and performance goals as established by the Compensation Committee.

Following is a summary of our performance share award agreements outstanding as of December 31, 2019:

Performance Share Plan Year	Performance Shares Granted	Forfeitures to Date	Expected to Vest	Grant Date	Grant Date Fair Value	Performance Period
2019	572,104	15,879	556,225	2/19/2019	$ 18.31	1/1/2019 - 12/31/2021
2018	675,599	35,320	640,279	2/21/2018	$ 11.93	1/1/2018 - 12/31/2020
2017	249,106	—	249,106	6/26/2017	$ 10.74	5/31/2017 - 12/31/2019
2017	553,725	63,457	490,268	2/21/2017	$ 19.69	1/1/2017 - 12/31/2019

The performance shares granted on February 21, 2017 were paid at 161.2% of the original grant based on the final performance evaluation versus the performance goals that were established in the grants. The performance shares granted on June 26, 2017 were paid at 200.0%.

Restricted Stock Units

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. The restricted stock units that were granted in 2017 vested on December 31, 2019. The restricted stock units that were granted in 2019 and 2018 cliff vest in three years on December 31, 2021 and December 31, 2020, respectively.

Stock Options

The 412,710 stock options that were granted during the first quarter of 2015 vested on December 31, 2017, are exercisable at a strike price of $7.70 and expire on January 12, 2025. The 250,000 stock options that were granted in the fourth quarter of 2014 vested in equal thirds on each of December 31, 2015, 2016 and 2017 and are exercisable at a strike price of $13.83 and expire on November 17, 2021. As of December 31, 2019, 563,230 stock options remain outstanding and are exercisable with a weighted average price of $10.42.

Employee Stock Purchase Plan

On March 26, 2015, upon recommendation by the Compensation Committee, our Board of Directors approved and adopted, subject to the approval of Cliffs' shareholders at the 2015 Annual Meeting, the Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan. This plan was approved by our shareholders at the 2015 Annual Meeting held May 19, 2015. Ten million common shares have been reserved for issuance under this plan; however, as of December 31, 2019, this program has not been made active and no common shares have been purchased. We sought shareholder approval of this plan for the purpose of qualifying the reserved common shares for special tax treatment under Section 423 of the IRC of 1986, as amended.

Nonemployee Directors

Our nonemployee directors are entitled to receive restricted share awards under the Directors' Plan. For 2019, 2018 and 2017, nonemployee directors were granted a specified number of restricted shares, with a value equal to $100,000. The number of shares is based on the closing price of our common shares on the date of the Annual Meeting. The awards are subject to any deferral election and pursuant to the terms of the Directors' Plan and an award agreement.

On April 23, 2018, our Governance and Nominating Committee of the Board of Directors approved the acceleration of vesting of the restricted share awards granted to the nonemployee directors prior to April 2018, which were generally subject to a vesting period of three years. Effective April 30, 2018 and under the terms of the Directors' Plan, the vesting of these outstanding awards was accelerated. The Governance and Nominating Committee also approved a change to the vesting period for all future awards under the Directors' Plan. The nonemployee director restricted share awards granted on April 25, 2018 and all future awards are subject to a vesting period of one year.

For the last three years, grants of restricted and/or deferred shares have been awarded to elected or re-elected nonemployee directors as follows:

Year of Grant	Restricted Shares	Deferred Shares
2019	86,477	23,659
2018	92,718	17,170
2017	93,359	17,289

Other Information

Stock option, restricted awards and performance share activity under our long-term equity plans and Directors' Plans are as follows:

	2019	2018	2017
	Shares	Shares	Shares
Stock options:			
Outstanding at beginning of year	**563,230**	599,870	599,870
Exercised	**—**	(36,640)	—
Forfeited/canceled	**—**	—	—
Outstanding at end of year	**563,230**	563,230	599,870
Restricted awards:			
Outstanding and restricted at beginning of year	**4,804,248**	4,776,483	5,461,783
Granted during the year	**682,240**	795,487	1,196,731
Vested and issued	**(3,168,195)**	(627,567)	(1,813,315)
Forfeited/canceled	**(60,974)**	(140,155)	(68,716)
Outstanding and restricted at end of year	**2,257,319**	4,804,248	4,776,483
Performance shares:			
Outstanding at beginning of year	**1,424,723**	1,848,312	1,368,469
Granted during the year	**572,104**	675,599	802,831
Vested and issued	**—**	(489,953)	—
Forfeited/canceled	**(60,949)**	(609,235)	(322,988)
Outstanding at end of year	**1,935,878**	1,424,723	1,848,312
Vested or expected to vest as of December 31, 2019[1]	**4,756,427**		
Directors' retainer and voluntary shares:			
Outstanding at beginning of year	**—**	—	—
Granted during the year	**31,075**	27,300	25,476
Vested and issued	**(31,075)**	(27,300)	(25,476)
Outstanding at end of year	**—**	—	—
Reserved for future grants or awards at end of year:			
Employee plans	**9,931,740**		
Directors' plans	**389,692**		
Total	**10,321,432**		

[1] We assume all shares will vest until the date of vesting or forfeiture.

A summary of our outstanding share-based award activity for the year ended December 31, 2019 is as follows:

	Shares	**Weighted Average Grant Date Fair Value**
Outstanding, beginning of year	6,792,201	$ 6.90
Granted	1,285,419	$ 14.18
Vested and issued	(3,199,270)	$ 2.20
Forfeited/canceled	(121,923)	$ 12.21
Outstanding, end of year	4,756,427	$ 11.90

The total compensation cost related to outstanding awards not yet recognized is $16.0 million at December 31, 2019. The weighted average remaining period for the awards outstanding at December 31, 2019 is approximately 1.2 years.

NOTE 10 - INCOME TAXES

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

	(In Millions)		
	2019	2018	2017
United States	**$ 311.9**	$ 565.0	$ 90.7
Foreign	**0.2**	(0.3)	17.5
	$ 312.1	$ 564.7	$ 108.2

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

	(In Millions)		
	2019	2018	2017
Current provision (benefit):			
United States federal	**$ (0.7)**	$ (0.5)	$ (252.6)
United States state & local	**0.1**	—	(0.1)
Foreign	**0.2**	0.7	0.3
	(0.4)	0.2	(252.4)
Deferred provision (benefit):			
United States federal	**18.0**	(475.4)	—
Total income tax provision (benefit) from continuing operations	**$ 17.6**	$ (475.2)	$ (252.4)

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

	(In Millions)					
	2019		2018		2017	
Tax at U.S. statutory rate	**$ 65.5**	**21.0%**	$ 118.6	21.0 %	$ 37.9	35.0 %
Increase (decrease) due to:						
Percentage depletion in excess of cost depletion	**(49.3)**	**(15.8)**	(54.6)	(9.7)	(61.6)	(56.9)
Impact of tax law change - remeasurement of deferred taxes	**—**	**—**	—	—	407.5	376.6
Luxembourg legal entity reduction	**846.0**	**271.1**	161.7	28.6	—	—
Valuation allowance release:						
Tax law change - remeasurement of deferred taxes	**—**	**—**	—	—	(407.5)	(376.6)
Current year activity	**—**	**—**	(79.6)	(14.1)	(469.8)	(434.2)
Release of U.S. valuation allowance	**—**	**—**	(460.5)	(81.5)	—	—
Repeal of AMT	**—**	**—**	—	—	(235.3)	(217.5)
Luxembourg legal entity reduction	**(846.0)**	**(271.1)**	(161.7)	(28.6)	—	—
Impact of foreign operations	**0.2**	**0.1**	0.1	—	477.9	441.7
Other items, net	**1.2**	**0.4**	0.8	0.2	(1.5)	(1.4)
Provision for income tax expense (benefit) and effective income tax rate including discrete items	**$ 17.6**	**5.7%**	$ (475.2)	(84.1)%	$ (252.4)	(233.3)%

The increase in income tax expense from 2018 to 2019 is primarily due to release of the valuation allowance in the U.S. of $460.5 million in 2018. The Luxembourg legal entity reduction relates to initiatives resulting in the dissolution of certain entities and settlement of related financial instruments in the years ended December 31, 2019 and 2018.

These 2019 and 2018 net operating loss deferred tax asset reductions resulted in tax expense of $846.0 million and $161.7 million, respectively, which were fully offset by decreases in the respective valuation allowance.

In December 2017, a benefit of $235.3 million was recorded as a result of the repeal of AMT in the 2017 U.S. Tax Cuts and Jobs Act. Additionally, the impact of tax law change - remeasurement of deferred taxes for the year ended December 31, 2017 primarily relates to the statutory rate reduction in the U.S. that decreased the deferred tax assets by $334.1 million, which was fully offset by a decrease in the valuation allowance. Also on December 31, 2017, there was a Luxembourg rate reduction that decreased the deferred tax assets by $73.4 million, which was fully offset by a decrease in valuation allowance. The impact of foreign operations relates to income and losses in foreign jurisdictions where the statutory rates, ranging from 0% to 24.94%, differ from the U.S. statutory rate of 21% for the years ended December 31, 2019 and 2018 and 35.0% for the year ended December 31, 2017.

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

	(In Millions)		
	2019	2018	2017
Other comprehensive income:			
Postretirement benefit liability	**$ 11.4**	$ 3.6	$ —
Unrealized net loss on derivative financial instruments	**0.1**	0.7	—
Total	**$ 11.5**	$ 4.3	$ —

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

	(In Millions)	
	2019	2018
Deferred tax assets:		
Operating loss & other carryforwards	**$ 794.9**	$ 2,118.8
Pension and OPEB liabilities	**113.7**	102.8
Deferred income	**25.2**	23.3
Property, plant and equipment and mineral rights	**1.4**	13.3
State and local	**71.0**	68.2
Other liabilities	**45.1**	48.4
Total deferred tax assets before valuation allowance	**1,051.3**	2,374.8
Deferred tax asset valuation allowance	**(441.3)**	(1,287.3)
Net deferred tax assets	**610.0**	1,087.5
Deferred tax liabilities:		
Investment in partnerships	**(136.8)**	(141.2)
Intercompany notes	**—**	(465.7)
Other assets	**(13.7)**	(15.8)
Total deferred tax liabilities	**(150.5)**	(622.7)
Net deferred tax assets	**$ 459.5**	$ 464.8

We had gross domestic (including states) and foreign net operating loss carryforwards of $3.5 billion and $1.6 billion, respectively, at December 31, 2019. We had gross domestic and foreign net operating loss carryforwards of $3.6 billion and $6.6 billion, respectively, at December 31, 2018. The U.S. federal net operating losses will begin to expire in 2034 and state net operating losses will begin to expire in 2020. The foreign net operating losses can be carried forward indefinitely. We had foreign tax credit carryforwards of $5.8 million at December 31, 2019 and 2018. The foreign tax credit carryforwards will begin to expire in 2020. We had gross interest expense limitation carryforwards of $55.3 million for the year ended December 31, 2019. This interest expense can be carried forward indefinitely.

The changes in the valuation allowance are presented below:

	(In Millions)		
	2019	2018	2017
Balance at beginning of year	**$ 1,287.3**	$ 1,983.1	$ 3,095.1
Change in valuation allowance:			
Included in income tax expense (benefit)	**(846.0)**	(691.3)	(1,120.0)
Change in deferred assets in other comprehensive income	**—**	(4.5)	(9.8)
Acquisition of noncontrolling interest	**—**	—	17.8
Balance at end of year	**$ 441.3**	$ 1,287.3	$ 1,983.1

During 2019, a legal entity reduction initiative was completed in Luxembourg resulting in the dissolution of certain entities and settlement of related financial instruments, triggering the utilization of $1.3 billion of net operating loss deferred tax asset and reversal of the intercompany notes deferred tax liability of $446.5 million. In addition, prior year adjustments in Luxembourg and a statutory rate reduction from 26.01% to 24.94% resulted in a net increase to the operating loss carryforward deferred tax asset of $46.2 million. The total net deferred tax reduction resulted in an expense of $846.0 million which was fully offset by a decrease in the valuation allowance. During 2018, a similar legal entity reduction initiative was completed resulting in the dissolution of certain Luxembourg entities which resulted in a decrease in the net operating loss deferred tax asset of $161.7 million which was fully offset by a decrease in valuation allowance. We continue to maintain a full valuation allowance against the remaining Luxembourg net deferred tax assets of $397.1 million at December 31, 2019. 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, until sufficient positive evidence exists to support the realization of such assets.

We recorded a $695.8 million net decrease in the valuation allowance in the year ended December 31, 2018. As of December 31, 2018, our U.S. operations emerged from a three-year cumulative loss position. As the significant negative evidence of cumulative losses has been eliminated, we undertook an evaluation of the continuing need for a valuation allowance on the U.S. deferred tax assets, the majority of which relate to the U.S. tax net operating losses.

In completing our evaluation of whether a valuation allowance was still needed, we considered all available positive and negative evidence. Positive evidence considered included the emergence from the three-year cumulative loss position, our long-term customer contracts with minimum tonnage requirements, the global scarcity of iron ore pellets, near term forecasts of strong profitability and the recently revised IRC Section 163(j) interest deduction limitation. Negative evidence included the overall size of the deferred tax asset with limited carryforward and no carryback opportunity, the finite nature of the iron ore resources we mine, the uncertainty of steel tariffs that positively impacted our revenue rates in 2018 and the various market signs that the U.S. economy may be nearing the end of the current expansion.

We also considered that future realization of the deferred tax assets depends on the existence of sufficient taxable income of the appropriate character during the carryforward period. In considering sources of taxable income, we identified that a portion of the deferred tax assets would be utilized by existing taxable temporary differences reversing in the same periods as existing deductible temporary differences. In addition, we determined that carryback opportunities and tax planning strategies do not exist as potential sources of future taxable income. Lastly, forecasting future taxable income was considered, but is challenging in a cyclical industry such as ours as it relies heavily on the accuracy of key assumptions, particularly about key pricing benchmarks.

Because historical information is verifiable and more objective than forecast information and due to the cyclicality of the industry, we developed an estimate of future income based on our historical earnings through the most recent industry cycle. We adjusted historical earnings for certain non-recurring items as well as to reflect the current corporate structure by eliminating the impact of discontinued operations and extinguished debt ("core earnings"). Additionally, we adjusted core earnings to reflect the impact of the recently revised IRC Section 163(j) interest expense deduction limitation as well as permanent tax adjustments. The IRC Section 163(j) limitation will limit our interest expense deduction, particularly in down years in the industry cycle, resulting in higher taxable income.

Based on the core earnings analysis, the Company's average annual book taxable income through the business cycle is in excess of the estimated $109.0 million taxable income that would be required annually to fully utilize the deferred tax assets within the 19 year carryforward period. We ascribed significant weight in our assessment to the core earnings analysis and the resulting projection of taxable income through the industry cycle. Based on the weight of this positive evidence, and after considering the other available positive and negative evidence, we determined that it was appropriate to release all of the valuation allowance related to U.S. federal deferred tax assets at December 31, 2018 as it is more likely than not that the entire amount of the U.S. deferred tax asset will be realized before the end of the carryforward period. The income tax benefit recorded for the reversal of the valuation allowance against the U.S. deferred tax assets was $460.5 million.

We also have a valuation allowance recorded against certain state net operating losses and foreign tax credits, which are expected to expire before utilization. At December 31, 2019 and 2018, we had a valuation allowance recorded against certain state net operating losses of $38.4 million and $38.3 million, respectively. At December 31, 2019 and 2018, we had a valuation allowance recorded against certain foreign tax credits of approximately $5.8 million.

At December 31, 2019 and 2018, we had no cumulative undistributed earnings of foreign subsidiaries included in consolidated 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)		
	2019	2018	2017
Unrecognized tax benefits balance as of January 1	**$ 29.0**	$ 33.5	$ 30.7
Increase (decrease) for tax positions in prior years	**0.2**	0.1	(2.8)
Increase for tax positions in current year	**—**	3.6	4.5
Settlements	**—**	—	1.0
Lapses in statutes of limitations	**—**	(8.2)	—
Other	**—**	—	0.1
Unrecognized tax benefits balance as of December 31	**$ 29.2**	$ 29.0	$ 33.5

At December 31, 2019 and 2018, we had $29.2 million and $29.0 million, respectively, of unrecognized tax benefits recorded. Of this amount, $4.4 million and $4.2 million, were recorded in *Other non-current liabilities* for the years ended December 31, 2019 and 2018, respectively, and $24.8 million was recorded in *Other non-current assets* for both years in the Statements of Consolidated Financial Position. If the unrecognized tax benefits were recognized, the entire $29.2 million would impact the effective tax rate. We do not expect that the amount of unrecognized benefits will change significantly within the next 12 months. At December 31, 2019 and 2018, we had $3.7 million and $2.7 million, respectively, of accrued interest and penalties related to the unrecognized tax benefits recorded in *Other non-current liabilities* in the Statements of Consolidated Financial Position.

Tax years 2016 and forward remain subject to examination for the U.S. and tax years 2008 and forward remain subject to examination for Canada.

NOTE 11 - ENVIRONMENTAL AND MINE CLOSURE OBLIGATIONS

The following is a summary of our environmental and mine closure obligations:

	(In Millions)	
	December 31,	
	2019	2018
Environmental	$ 2.0	$ 2.5
Mine closure[1]	165.3	172.4
Total environmental and mine closure obligations	167.3	174.9
Less current portion	2.4	2.9
Long-term environmental and mine closure obligations	$ 164.9	$ 172.0

[1] Includes $22.0 million and $35.0 million related to our active operations as of December 31, 2019 and 2018, respectively, with the remaining balance attributable to inactive operations, including our indefinitely idled Empire mine and a closed mine formerly operating as LTV Steel Mining Company.

Environmental

Our mining and exploration activities are subject to various laws and regulations governing the 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 include obligations for known environmental remediation exposures at various active and closed mining operations and other sites, and 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 specific amount being more likely, the minimum of the range is accrued. Future expenditures are not discounted unless the amount and timing of the cash disbursements are readily known. Potential insurance recoveries have not been reflected. Additional environmental obligations could be incurred, the extent of which cannot be assessed.

Mine Closure

The accrued closure obligation for our mining operations provides for contractual and legal obligations associated with the eventual closure of the mining operations. We performed a detailed assessment of our asset retirement obligations related to our active mining locations in accordance with our accounting policy, under which we perform an in-depth evaluation of the liability every three years in addition to routine annual assessments. In 2017, we employed a third-party specialist to assist in the triennial in-depth evaluation.

For the assessments performed, we determined the obligations based on detailed estimates adjusted for factors that a market participant would consider (e.g., inflation, overhead and profit) and then discounted the obligation using the current credit-adjusted risk-free interest rate based on the corresponding life of mine. The estimate also incorporates incremental increases in the closure cost estimates and changes in estimates of mine lives. The closure date for each of our active operating mine sites was determined based on the exhaustion date of the remaining iron ore reserves. 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. The amortization of the related asset and accretion of the liability is recognized over the estimated mine lives for our active operations.

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

	(In Millions)	
	December 31,	
	2019	2018
Asset retirement obligation at beginning of year	$ 172.4	$ 168.4
Accretion expense	10.1	9.5
Remediation payments	(0.8)	(1.0)
Revision in estimated cash flows	(16.4)	(4.5)
Asset retirement obligation at end of year	$ 165.3	$ 172.4

The revision in estimated cash flows during the year ended December 31, 2019 for $16.4 million primarily relates to an extension of the life-of-mine plan for Tilden mine based on the economic reserve analysis performed during 2019.

NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The following table presents the fair value of our derivative instruments and the classification of each in the Statements of Consolidated Financial Position:

	(In Millions)							
	Derivative Assets				**Derivative Liabilities**			
	December 31, 2019		December 31, 2018		**December 31, 2019**		December 31, 2018	
Derivative Instrument	**Balance Sheet Location**	**Fair Value**	Balance Sheet Location	Fair Value	**Balance Sheet Location**	**Fair Value**	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments under ASC 815:								
Commodity contracts		**$ —**	*Derivative assets*	$ 0.1	*Other current liabilities*	**$ 3.2**	*Other current liabilities*	$ 3.7
Derivatives not designated as hedging instruments under ASC 815:								
Customer supply agreement	*Derivative assets*	**44.5**	*Derivative assets*	89.3		**—**		—
Provisional pricing arrangements	*Derivative assets*	**1.3**	*Derivative assets*	2.1	*Other current liabilities*	**1.1**		—
Total derivatives not designated as hedging instruments under ASC 815:		**$ 45.8**		$ 91.4		**$ 1.1**		$ —
Total derivatives		**$ 45.8**		$ 91.5		**$ 4.3**		$ 3.7

Derivatives Designated as Hedging Instruments - Cash Flow Hedges

Commodity Contracts

The following table presents our outstanding hedge contracts:

	(Quantities in Millions)					
	December 31, 2019			December 31, 2018		
	Notional Amount	**Unit of Measure**	**Varying Maturity Dates**	Notional Amount	Unit of Measure	Varying Maturity Dates
Natural gas	**20.1**	MMBtu	January 2020 - December 2021	1.8	MMBtu	January 2019 - August 2019
Diesel	**0.8**	Gallons	January 2020	11.0	Gallons	January 2019 - December 2019

Derivatives Not Designated as Hedging Instruments

Customer Supply Agreement

A supply agreement with one customer provides for supplemental revenue or refunds to the customer based on the hot-rolled coil steel price at the time the iron ore product is consumed in the customer's blast furnace. The supplemental pricing is characterized as a freestanding derivative and is required to be accounted for separately once control transfers to the customer. The derivative instrument, which is finalized based on a future price, is adjusted to fair value through *Revenues from product sales and services* each reporting period based upon current market data and forward-looking estimates provided by management until the pellets are consumed and the amounts are settled.

Provisional Pricing Arrangements

Certain of our supply agreements specify provisional price calculations, where the pricing mechanisms generally are based on market pricing, with the final revenue rate based on certain market inputs at a specified period in time in the future, per the terms of the supply agreements. Market inputs are tied to indexed price adjustment factors that are integral to the iron ore supply contracts and vary based on the agreement. The pricing mechanisms typically include adjustments based upon changes in the Platts 62% price, Atlantic Basin pellet premium, Platts international indexed freight rates and changes in specified PPI, including those for industrial commodities, fuel and steel. The pricing adjustments generally operate in the same manner, with each factor typically comprising a portion of the price adjustment, although the weighting of each factor varies based upon the specific terms of each agreement. The price adjustment factors have been evaluated to determine if they qualify as embedded derivatives. The price adjustment factors share the same economic characteristics and risks as the host sales contract and are integral to the host sales contract as inflation adjustments; accordingly, they have not been separately valued as derivative instruments.

Revenue is recognized generally upon delivery to our customers. Revenue is measured at the point that control transfers and represents the amount of consideration we expect to receive in exchange for transferring goods. Changes in the expected revenue rate from the date that control transfers through final settlement of contract terms is recorded in accordance with Topic 815 and is characterized as a derivative instrument and accounted for separately. Subsequently, the derivative instruments are adjusted to fair value through *Revenues from product sales and services* each reporting period based upon current market data and forward-looking estimates provided by management until the final revenue rate is determined.

The 2019 and 2018 amounts represent the difference between the amount we expected to receive when revenue was initially measured at the point control transfers and our subsequent estimate of the final revenue rate based on the price calculation established in the supply agreements. The 2017 amounts represent the difference between the provisional price agreed upon with our customers based on the supply agreement terms and our estimate of the final revenue rate based on the price calculations established in the supply agreements.

The following summarizes the effect of our derivatives that are not designated as hedging instruments in the Statements of Consolidated Operations:

		(In Millions)		
Derivatives Not Designated as Hedging Instruments	**Location of Gain (Loss) Recognized in Income on Derivative**	**Year Ended December 31,**		
		2019	2018	2017
Customer supply agreements	*Revenues from product sales and services*	**$ 78.1**	$ 425.8	$ 163.3
Provisional pricing arrangements	*Revenues from product sales and services*	**(70.6)**	(3.2)	(42.7)
Commodity contracts	*Cost of goods sold and operating expenses*	**—**	—	(1.3)
Total		**$ 7.5**	$ 422.6	$ 119.3

Refer to NOTE 7 - FAIR VALUE OF FINANCIAL INSTRUMENTS for additional information.

NOTE 13 - DISCONTINUED OPERATIONS

The information below sets forth selected financial information related to operating results of our businesses classified as discontinued operations, which include our former Asia Pacific Iron Ore, North American Coal and Canadian operations. While the reclassification of revenues and expenses related to discontinued operations from prior periods have no impact upon previously reported *Net income*, the Statements of Consolidated Operations present the revenues and expenses that were reclassified from the specified line items to *Income (loss) from discontinued operations, net of tax*. The charts below provide an asset group breakout for each financial statement line impacted by discontinued operations.

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Income (loss) from discontinued operations, net of tax			
Asia Pacific Iron Ore	**$ (1.5)**	118.3	21.2
Canadian Operations	**0.3**	(26.5)	(21.3)
Other	**(0.5)**	(3.6)	2.6
	$ (1.7)	$ 88.2	$ 2.5

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Net cash provided (used) by operating activities			
Asia Pacific Iron Ore	**$ (2.1)**	$ (81.3)	$ 79.6
Canadian Operations	**—**	(14.6)	—
	$ (2.1)	$ (95.9)	$ 79.6
Net cash provided (used) by investing activities			
Asia Pacific Iron Ore	**$ 0.1**	$ 19.8	$ (2.8)
Canadian Operations	**0.3**	—	(7.7)
Other	**—**	—	2.1
	$ 0.4	$ 19.8	$ (8.4)

Asia Pacific Iron Ore Operations

Background

During 2018, we committed to a course of action leading to the permanent closure of the Asia Pacific Iron Ore mining operations and sold all of the assets of our Asia Pacific Iron Ore business through a series of sales to third parties. As a result of our exit, management determined that our Asia Pacific Iron Ore operating segment met the criteria to be classified as held for sale and a discontinued operation under *ASC Topic 205, Presentation of Financial Statements*. As such, all current and historical Asia Pacific Iron Ore operating segment results are classified within discontinued operations.

Income (Loss) from Discontinued Operations

For the reasons described above, our previously related Asia Pacific Iron Ore operating segment results for all periods presented, as well as exit costs, are classified as discontinued operations.

	(In Millions)		
	Year Ended December 31,		
Income (Loss) from Discontinued Operations	**2019**	2018	2017
Revenues from product sales and services	**$ —**	$ 129.1	$ 464.2
Cost of goods sold and operating expenses	**—**	(230.7)	(427.9)
Sales margin	**—**	(101.6)	36.3
Other operating expense	**(1.1)**	(3.3)	(9.9)
Other expense	**(0.4)**	(2.3)	(5.2)
Gain on foreign currency translation	**—**	228.1	—
Impairment of long-lived assets	**—**	(2.6)	—
Income (loss) from discontinued operations, net of tax	**$ (1.5)**	$ 118.3	$ 21.2

Gain on Foreign Currency Translation

As a result of the liquidation of the Australian subsidiaries' net assets, the historical changes in foreign currency translation recorded in *Accumulated other comprehensive loss* in the Statements of Consolidated Financial Position totaling $228.1 million was reclassified and recognized as a gain in *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2018.

Canadian Operations

Background

During 2015, we announced that the Bloom Lake Group and the Wabush Group commenced restructuring proceedings in Montreal, Quebec under the CCAA to address the immediate liquidity issues and to preserve and protect their assets for the benefit of all stakeholders while restructuring and/or sale options were explored.

The Bloom Lake Group and the Wabush Group filed a joint plan of compromise and arrangement that was approved by the required majorities of each unsecured creditor class and was sanctioned by the Court in June 2018. During July 2018, amendments were made to the plan to address the manner in which certain distributions under the plan would be effected and the plan was implemented. Under the terms of the amended plan, all employee claims, all claims by the Bloom Lake Group, the Wabush Group and their respective creditors against us as well as all of our claims against the Bloom Lake Group and the Wabush Group were resolved.

Income (Loss) on Discontinued Operations

Our Canadian exit represented a strategic shift in our business. For this reason, all current and historical Eastern Canadian Iron Ore and Ferroalloys operating segment results are classified as discontinued operations.

Amounts Receivable from the Canadian Entities

Prior to the deconsolidations, certain of our wholly-owned subsidiaries made loans to the Canadian Entities for the purpose of funding their operations and had accounts receivable generated in the ordinary course of business. The loans, corresponding interest and the accounts receivable were considered intercompany transactions and eliminated in our consolidated financial statements. Since the deconsolidations, the loans, associated interest and accounts receivable are considered related party transactions and have been recognized in our consolidated financial statements at their estimated fair value. Following the approval of the amended plan, we reversed our outstanding asset of $51.6 million, with a corresponding charge to *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2018.

Income Tax Expense

We have recognized tax expense of $15.9 million for the year ended December 31, 2018, included in *Income (loss) from discontinued operations, net of tax* related to a gain on our Canadian investments. This expense is primarily the result of the receipt during 2018 of CCAA estate distributions which were immediately contributed back into the CCAA estate as required by the amended plan. There was no tax expense or benefit recognized for the years ended December 31, 2019 and 2017.

Guarantees and Contingent Liabilities

During 2018, under the terms of the amended plan, we and certain of our wholly-owned subsidiaries made a cash contribution of C$19.0 million to the Wabush Group pension plans and agreed to contribute into the CCAA estate any remaining distributions or payments we may be entitled to receive as creditors of the Bloom Lake Group and the Wabush Group for distribution to other creditors. The C$19.0 million cash contribution was included in *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2018.

During 2017, we became aware that it was probable the Monitor would assert a preference claim against the Company and/or certain of its affiliates and we estimated a liability, which included the value of our related-party claims against the Bloom Lake Group and the Wabush Group. Following the approval of the amended plan, we reversed our outstanding liability of $55.6 million, with a corresponding credit to *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2018.

During 2017, the Wabush Scully Mine was sold as part of the ongoing CCAA proceedings for the Wabush Group. As part of this transaction, the environmental remediation obligations were transferred to the buyer and we were released from certain guarantees which resulted in a net gain of $31.4 million included in *Income (loss) from discontinued operations, net of tax* in the Statements of Consolidated Operations for the year ended December 31, 2017.

NOTE 14 - SHAREHOLDERS' EQUITY

Share Repurchase Program

In November 2018, we announced that our Board of Directors authorized a program to repurchase outstanding common shares in the open market or in privately negotiated transactions, up to a maximum of $200 million, excluding commissions and fees. In April 2019, we announced that our Board of Directors increased the common share repurchase authorization by an additional $100 million, excluding commissions and fees. During 2019, we repurchased 24.4 million common shares at a cost of $252.9 million in the aggregate, including commissions and fees. During 2018, we repurchased 5.4 million common shares at a cost of approximately $47.5 million in aggregate, including commissions and fees. The share repurchase program was active until December 31, 2019.

Dividends

The below table summarizes our recent dividend activity:

Declaration Date	Record Date	Payment Date	Dividend Declared per Common Share[1]
12/2/2019	1/3/2020	1/15/2020	$ 0.06
9/3/2019	10/4/2019	10/15/2019	$ 0.10
5/31/2019	7/5/2019	7/15/2019	$ 0.06
2/19/2019	4/5/2019	4/15/2019	$ 0.05
10/18/2018	1/4/2019	1/15/2019	$ 0.05

[1] The dividend declared on September 3, 2019 included a special cash dividend of $0.04 per common share.

Common Share Public Offering

On February 9, 2017, we issued 63.3 million common shares in an underwritten public offering at a public offering price of $10.75 per common share. We received net proceeds of $661.3 million. The net proceeds from the issuance of our common shares were used to redeem various tranches of our outstanding long-term debt. Refer to NOTE 6 - DEBT AND CREDIT FACILITIES for further information.

Preferred Stock

We have 3,000,000 Class A preferred shares authorized and 4,000,000 Class B preferred shares authorized; no preferred shares are issued or outstanding.

NOTE 15 - ACCUMULATED OTHER COMPREHENSIVE LOSS

The components of *Accumulated other comprehensive loss* within Cliffs shareholders' equity and related tax effects allocated to each are shown below:

	(In Millions)		
	Pre-tax Amount	**Tax Benefit**	**After-tax Amount**
As of December 31, 2019:			
Postretirement benefit liability	**$ (454.1)**	**$ 138.4**	**$ (315.7)**
Unrealized net loss on derivative financial instruments	**(3.9)**	**0.8**	**(3.1)**
	$ (458.0)	**$ 139.2**	**$ (318.8)**
As of December 31, 2018:			
Postretirement benefit liability	$ (408.1)	$ 127.0	$ (281.1)
Unrealized net loss on derivative financial instruments	(3.5)	0.7	(2.8)
	$ (411.6)	$ 127.7	$ (283.9)
As of December 31, 2017:			
Postretirement benefit liability	$ (387.3)	$ 123.4	$ (263.9)
Foreign currency translation adjustments	225.4	—	225.4
Unrealized net loss on derivative financial instruments	(0.5)	—	(0.5)
	$ (162.4)	$ 123.4	$ (39.0)

The following table reflects the changes in *Accumulated other comprehensive loss* related to Cliffs shareholders' equity:

	(In Millions)			
	Postretirement Benefit Liability, net of tax	**Foreign Currency Translation**	**Derivative Financial Instruments, net of tax**	**Accumulated Other Comprehensive Loss**
January 1, 2017	$ (260.6)	$ 239.3	$ —	$ (21.3)
Other comprehensive loss before reclassifications	(29.8)	(13.9)	(0.5)	(44.2)
Net loss reclassified from accumulated other comprehensive loss	26.5	—	—	26.5
December 31, 2017	(263.9)	225.4	(0.5)	(39.0)
Other comprehensive income (loss) before reclassifications	(42.9)	2.7	(0.6)	(40.8)
Net loss (gain) reclassified from accumulated other comprehensive loss	25.7	(228.1)	(1.7)	(204.1)
December 31, 2018	(281.1)	—	(2.8)	(283.9)
Other comprehensive loss before reclassifications	**(56.7)**	**—**	**(2.3)**	**(59.0)**
Net loss reclassified from accumulated other comprehensive loss	**22.1**	**—**	**2.0**	**24.1**
December 31, 2019	**$ (315.7)**	**$ —**	**$ (3.1)**	**$ (318.8)**

The following table reflects the details about *Accumulated other comprehensive loss* components reclassified from Cliffs shareholders' equity:

	(In Millions)			
Details about Accumulated Other Comprehensive Loss Components	**Amount of (Gain)/Loss Reclassified into Income, Net of Tax**			**Affected Line Item in the Statement of Consolidated Operations**
	Year Ended December 31, 2019	Year Ended December 31, 2018	Year Ended December 31, 2017	
Amortization of pension and OPEB liability:				
Prior service costs[1]	**$ (0.7)**	$ (0.8)	$ (0.4)	*Other non-operating income*
Net actuarial loss[1]	**28.6**	26.2	26.9	*Other non-operating income*
Curtailments[1]	**0.1**	0.3	—	*Other non-operating income*
	28.0	25.7	26.5	Total before taxes
Income tax expense	**(5.9)**	—	—	*Income tax benefit (expense)*
	$ 22.1	$ 25.7	$ 26.5	Net of taxes
Changes in foreign currency translation:				
Gain on foreign currency translation[2]	**$ —**	$ (228.1)	$ —	*Income (loss) from discontinued operations, net of tax*
	$ —	$ (228.1)	$ —	
Changes in derivative financial instruments:				
Commodity contracts	**$ 2.5**	$ (1.7)	$ —	*Cost of goods sold and operating expenses*
Income tax expense	**(0.5)**	—	—	*Income tax benefit (expense)*
	$ 2.0	$ (1.7)	$ —	Net of taxes
Total reclassifications for the period	**$ 24.1**	$ (204.1)	$ 26.5	

[1] These accumulated other comprehensive loss components are included in the computation of net periodic benefit cost. See NOTE 8 - PENSIONS AND OTHER POSTRETIREMENT BENEFITS for further information.

[2] Represents Australian accumulated currency translation adjustments due to the liquidation of our Australian subsidiaries' net assets. See NOTE 13 - DISCONTINUED OPERATIONS for further information.

NOTE 16 - RELATED PARTIES

Hibbing is a co-owned joint venture with companies that are integrated steel producers or their subsidiaries. In 2018, we tendered our resignation as the mine manager of the Hibbing mine and we transitioned this role to the majority owner in August 2019. The following is a summary of the mine ownership of the co-owned iron ore mine at December 31, 2019:

Mine	Cleveland-Cliffs Inc.	ArcelorMittal USA	U.S. Steel
Hibbing	23.0%	62.3%	14.7%

Product revenues from related parties were as follows:

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Product revenues from related parties	**$ 915.3**	$ 1,234.5	$ 806.7
Total product revenues	**1,848.1**	2,172.3	1,644.6
Related party product revenue as a percent of total product revenue	**49.5%**	56.8%	49.1%

The following table presents the classification of related party assets and liabilities in the Statements of Consolidated Financial Position:

	(In Millions)	
	December 31,	
Balance Sheet Location of Assets (Liabilities)	**2019**	2018
Accounts receivable, net	**$ 31.1**	$ 176.0
Derivative assets	**44.5**	89.3
Other current liabilities	**(2.0)**	(45.3)
	$ 73.6	$ 220.0

Derivative assets

A supply agreement with one customer provides for supplemental revenue or refunds to the customer based on the hot-rolled coil steel price at the time the product is consumed in the customer's blast furnace. The supplemental pricing is characterized as a freestanding derivative. Refer to NOTE 12 - DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES for further information.

Other current liabilities

During 2017, our ownership interest in Empire increased to 100% as we reached an agreement to distribute the noncontrolling interest net assets of $132.7 million to ArcelorMittal USA, in exchange for its interest in Empire. The net assets were agreed to be distributed in three installments of $44.2 million each, the balance of which was recorded in *Other current liabilities* in the Statements of Consolidated Financial Position. The final installment was paid in August 2019.

NOTE 17 - EARNINGS PER SHARE

The following table summarizes the computation of basic and diluted earnings per share:

	(In Millions, Except Per Share Amounts)		
	Year Ended December 31,		
	2019	2018	2017
Income from continuing operations	**$ 294.5**	$ 1,039.9	$ 360.6
Loss from continuing operations attributable to noncontrolling interest	**—**	—	3.9
Net income from continuing operations attributable to Cliffs shareholders	**294.5**	1,039.9	364.5
Income (loss) from discontinued operations, net of tax	**(1.7)**	88.2	2.5
Net income attributable to Cliffs shareholders	**$ 292.8**	$ 1,128.1	$ 367.0
Weighted average number of shares:			
Basic	**276.8**	297.2	288.4
Convertible senior notes	**4.4**	3.4	—
Employee stock plans	**3.3**	3.5	4.6
Diluted	**284.5**	304.1	293.0
Earnings (loss) per common share attributable to Cliffs common shareholders - basic:			
Continuing operations	**$ 1.07**	$ 3.50	$ 1.27
Discontinued operations	**(0.01)**	0.30	0.01
	$ 1.06	$ 3.80	$ 1.28
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted:			
Continuing operations	**$ 1.04**	$ 3.42	$ 1.25
Discontinued operations	**(0.01)**	0.29	0.01
	$ 1.03	$ 3.71	$ 1.26

There was no dilution during 2017 related to the common share equivalents for the convertible senior notes as our common shares average price did not rise in value above the conversion price.

NOTE 18 - COMMITMENTS AND CONTINGENCIES

Purchase Commitments

In 2017, we began to incur capital commitments related to the construction of our HBI production plant in Toledo, Ohio. We now expect to reach commercial production ahead of schedule, in the first half of 2020. In total, we expect to spend approximately $830 million plus a contingency of up to 20% on the HBI production plant, excluding capitalized interest, through 2020, of which approximately $700 million was paid as of December 31, 2019. As of December 31, 2019, we have contracts and purchase orders in place for approximately $260 million for the HBI production plant. We expect cash capital expenditures for the HBI production plant of approximately $290 million during 2020.

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 the 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 Matters

We had environmental liabilities of $2.0 million and $2.5 million at December 31, 2019 and 2018, respectively, including obligations for known environmental remediation exposures at active and closed mining operations and other sites. These amounts have been recognized based on the estimated cost of investigation and remediation at each site, and include site studies, design and implementation of remediation plans, legal and consulting fees, and post-remediation monitoring and related activities. Future expenditures are not discounted unless the amount and timing of the cash disbursements are readily known. Potential insurance recoveries have not been reflected. Additional environmental obligations could be incurred, the extent of which cannot be assessed. The amount of our ultimate liability with respect to these matters may be affected by several uncertainties, primarily the ultimate cost of required remediation and the extent to which other responsible parties contribute. Refer to NOTE 11 - ENVIRONMENTAL AND MINE CLOSURE OBLIGATIONS for further information.

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 10 - INCOME TAXES for further information.

NOTE 19 - SUBSEQUENT EVENTS

On February 18, 2020, our Board of Directors declared a quarterly cash dividend on our common shares of $0.06 per share. The cash dividend will be payable on April 15, 2020, to shareholders of record as of the close of business on April 3, 2020.

NOTE 20 - QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The sum of quarterly EPS may not equal EPS for the year due to discrete quarterly calculations.

	(In Millions, Except Per Share Amounts)				
	2019				
	Quarters				
	First	Second	Third	Fourth	Year
Revenues from product sales and services	$ 157.0	$ 743.2	$ 555.6	$ 534.1	$ 1,989.9
Sales margin	30.9	263.0	154.9	126.9	575.7
Net income (loss) from continuing operations attributable to Cliffs shareholders	$ (22.1)	$ 161.4	$ 91.8	$ 63.4	$ 294.5
Loss from discontinued operations, net of tax	—	(0.6)	(0.9)	(0.2)	(1.7)
Net income (loss) attributable to Cliffs common shareholders	$ (22.1)	$ 160.8	$ 90.9	$ 63.2	$ 292.8
Earnings (loss) per common share attributable to Cliffs common shareholders - basic:					
Continuing operations	$ (0.08)	$ 0.59	$ 0.34	$ 0.23	$ 1.07
Discontinued operations	—	—	—	—	(0.01)
	$ (0.08)	$ 0.59	$ 0.34	$ 0.23	$ 1.06
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted:					
Continuing operations	$ (0.08)	$ 0.57	$ 0.33	$ 0.23	$ 1.04
Discontinued operations	—	—	—	—	(0.01)
	$ (0.08)	$ 0.57	$ 0.33	$ 0.23	$ 1.03

The diluted earnings per share calculation for the first quarter of 2019 excludes equity plan awards of 4.2 million and convertible senior notes awards of 7.3 million that were anti-dilutive.

	(In Millions, Except Per Share Amounts)				
	2018				
	Quarters				
	First	Second	Third	Fourth	Year
Revenues from product sales and services	$ 180.0	$ 714.3	$ 741.8	$ 696.3	$ 2,332.4
Sales margin	61.5	284.5	261.6	202.0	809.6
Net income (loss) from continuing operations attributable to Cliffs shareholders	$ (13.4)	$ 229.4	$ 199.8	$ 624.1	$ 1,039.9
Income (loss) from discontinued operations, net of tax	(70.9)	(64.3)	238.0	(14.6)	88.2
Net income (loss) attributable to Cliffs common shareholders	$ (84.3)	$ 165.1	$ 437.8	$ 609.5	$ 1,128.1
Earnings (loss) per common share attributable to Cliffs common shareholders - basic:					
Continuing operations	$ (0.05)	$ 0.77	$ 0.67	$ 2.11	$ 3.50
Discontinued operations	(0.24)	(0.22)	0.80	(0.05)	0.30
	$ (0.29)	$ 0.55	$ 1.47	$ 2.06	$ 3.80
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted:					
Continuing operations	$ (0.05)	$ 0.76	$ 0.64	$ 2.03	$ 3.42
Discontinued operations	(0.24)	(0.21)	0.77	(0.05)	0.29
	$ (0.29)	$ 0.55	$ 1.41	$ 1.98	$ 3.71

Net income (loss) from continuing operations attributable to Cliffs shareholders increased during the three months ended December 31, 2018, relative to the preceding three quarters, due primarily to the release of the deferred tax valuation allowance in the U.S. of $460.5 million.

The diluted earnings per share calculation for the first quarter of 2018 excludes equity plan awards of 3.8 million that were anti-dilutive.

NOTE 21 - SUPPLEMENTARY GUARANTOR INFORMATION

The accompanying condensed consolidating 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.” Certain of our subsidiaries (the "Guarantors") have guaranteed the obligations under the 5.75% 2025 Senior Notes and the 5.875% 2027 Senior Notes issued by Cleveland-Cliffs Inc. See NOTE 6 - DEBT AND CREDIT FACILITIES for further information.

The following presents the condensed consolidating financial information for: (i) the Parent Company and the Issuer of the guaranteed obligations (Cleveland-Cliffs Inc.); (ii) the Guarantor subsidiaries, on a combined basis; (iii) the non-guarantor subsidiaries, on a combined basis; (iv) consolidating eliminations; and (v) Cleveland-Cliffs Inc. and subsidiaries on a consolidated basis. Each Guarantor subsidiary is 100% owned by the Parent Company as of December 31, 2019. The condensed consolidating financial information is presented as if the Guarantor structure at December 31, 2019 existed for all years presented. As a result, the Guarantor subsidiaries within the condensed consolidating financial information as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 include results of subsidiaries that were previously less than wholly-owned and were historically non-guarantors until 100% ownership was obtained.

Each of the Guarantor subsidiaries fully and unconditionally guarantees, on a joint and several basis, the obligations of Cleveland-Cliffs Inc. under the 5.75% 2025 Senior Notes and the 5.875% 2027 Senior Notes. The guarantee of a Guarantor subsidiary will be automatically and unconditionally released and discharged, and such Guarantor subsidiary’s obligations under the guarantee and the related indenture governing the 5.75% 2025 Senior Notes and the 5.875% 2027 Senior Notes (the “Indentures”) will be automatically and unconditionally released and discharged, upon:

(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);

(b) designation of any Guarantor subsidiary as an “excluded subsidiary” (as defined in the Indenture); and

(c) defeasance or satisfaction and discharge of the Indenture.

Each entity in the consolidating financial information follows the same accounting policies as described in the consolidated financial statements. The accompanying condensed consolidating financial information has been presented on the equity method of accounting for all periods presented. Under this method, investments in subsidiaries are recorded at cost and adjusted for the subsidiaries’ cumulative results of operations, capital contributions and distributions, and other changes in equity. Elimination entries include consolidating and eliminating entries for investments in subsidiaries, and intra-entity activity and balances.

Condensed Consolidating Statement of Financial Position
As of December 31, 2019
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current Assets:					
Cash and cash equivalents	$ 349.7	$ 0.1	$ 2.8	$ —	$ 352.6
Accounts receivable, net	4.9	93.0	0.3	(4.2)	94.0
Inventories	—	317.4	—	—	317.4
Derivative assets	—	45.8	—	—	45.8
Income tax receivable, current	58.6	—	—	—	58.6
Other current assets	9.1	13.0	7.4	—	29.5
Total current assets	422.3	469.3	10.5	(4.2)	897.9
Non-current assets:					
Property, plant and equipment, net	11.2	1,867.1	50.7	—	1,929.0
Income tax receivable, non-current	58.6	4.1	—	—	62.7
Deferred income taxes	458.3	—	1.2	—	459.5
Investment in subsidiaries	1,821.1	47.2	—	(1,868.3)	—
Long-term intercompany notes	—	—	121.3	(121.3)	—
Other non-current assets	15.1	121.4	18.2	—	154.7
TOTAL ASSETS	$ 2,786.6	$ 2,509.1	$ 201.9	$ (1,993.8)	$ 3,503.8
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$ 5.7	$ 187.5	$ 4.2	$ (4.2)	$ 193.2
Accrued liabilities	80.7	45.5	0.1	—	126.3
State and local taxes payable	—	37.9	—	—	37.9
Other current liabilities	6.0	38.6	7.4	—	52.0
Total current liabilities	92.4	309.5	11.7	(4.2)	409.4
Non-current liabilities:					
Long-term debt	2,113.8	—	—	—	2,113.8
Pension and OPEB liabilities	80.5	496.9	(265.9)	—	311.5
Environmental and mine closure obligations	—	145.6	19.3	—	164.9
Long-term intercompany notes	121.3	—	—	(121.3)	—
Other non-current liabilities	20.7	120.3	5.3	—	146.3
TOTAL LIABILITIES	2,428.7	1,072.3	(229.6)	(125.5)	3,145.9
Commitments and contingencies					
TOTAL EQUITY	357.9	1,436.8	431.5	(1,868.3)	357.9
TOTAL LIABILITIES AND EQUITY	$ 2,786.6	$ 2,509.1	$ 201.9	$ (1,993.8)	$ 3,503.8

Condensed Consolidating Statement of Financial Position
As of December 31, 2018
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current Assets:					
Cash and cash equivalents	$ 819.8	$ 0.7	$ 2.7	$ —	$ 823.2
Accounts receivable, net	9.2	221.3	0.3	(4.1)	226.7
Inventories	—	181.1	—	—	181.1
Derivative assets	0.1	91.4	—	—	91.5
Income tax receivable, current	117.3	—	—	—	117.3
Other current assets	10.0	16.9	12.9	—	39.8
Total current assets	956.4	511.4	15.9	(4.1)	1,479.6
Non-current assets:					
Property, plant and equipment, net	13.3	1,221.9	50.8	—	1,286.0
Income tax receivable, non-current	117.2	4.1	—	—	121.3
Deferred income taxes	463.6	—	1.2	—	464.8
Investment in subsidiaries	1,262.3	50.8	—	(1,313.1)	—
Long-term intercompany notes	—	—	121.3	(121.3)	—
Other non-current assets	8.0	153.8	16.1	—	177.9
TOTAL ASSETS	$ 2,820.8	$ 1,942.0	$ 205.3	$ (1,438.5)	$ 3,529.6
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$ 5.3	$ 181.4	$ 4.2	$ (4.1)	$ 186.8
Accrued liabilities	92.7	66.1	0.1	—	158.9
State and local taxes payable	—	35.4	0.1	—	35.5
Other current liabilities	4.8	74.1	8.1	—	87.0
Total current liabilities	102.8	357.0	12.5	(4.1)	468.2
Non-current liabilities:					
Long-term debt	2,092.9	—	—	—	2,092.9
Pension and OPEB liabilities	64.3	414.4	(230.0)	—	248.7
Environmental and mine closure obligations	—	152.1	19.9	—	172.0
Long-term intercompany notes	121.3	—	—	(121.3)	—
Other non-current liabilities	15.3	99.5	8.8	—	123.6
TOTAL LIABILITIES	2,396.6	1,023.0	(188.8)	(125.4)	3,105.4
Commitments and contingencies					
TOTAL EQUITY	424.2	919.0	394.1	(1,313.1)	424.2
TOTAL LIABILITIES AND EQUITY	$ 2,820.8	$ 1,942.0	$ 205.3	$ (1,438.5)	$ 3,529.6

Condensed Consolidating Statement of Operations and Comprehensive Income
For the Year Ended December 31, 2019
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues from product sales and services	$ —	$ 1,989.9	$ —	$ —	$ 1,989.9
Cost of goods sold and operating expenses	—	(1,414.2)	—	—	(1,414.2)
Sales margin	—	575.7	—	—	575.7
Other operating income (expense):					
Selling, general and administrative expenses	(100.7)	(18.3)	(0.4)	—	(119.4)
Miscellaneous - net	0.1	(26.0)	(1.1)	—	(27.0)
Total other operating expense	(100.6)	(44.3)	(1.5)	—	(146.4)
Operating income (loss)	(100.6)	531.4	(1.5)	—	429.3
Other income (expense):					
Interest income (expense), net	(99.4)	(2.3)	0.5	—	(101.2)
Loss on extinguishment of debt	(18.2)	—	—	—	(18.2)
Other non-operating income (expense)	(4.0)	(12.9)	19.1	—	2.2
Total other income (expense)	(121.6)	(15.2)	19.6	—	(117.2)
Income (loss) from continuing operations before income taxes	(222.2)	516.2	18.1	—	312.1
Income tax expense	(17.0)	(0.4)	(0.2)	—	(17.6)
Equity in income of subsidiaries	531.6	18.3	—	(549.9)	—
Income from continuing operations	292.4	534.1	17.9	(549.9)	294.5
Income (loss) from discontinued operations, net of tax	0.4	(0.3)	(1.8)	—	(1.7)
Net income attributable to Cliffs shareholders	$ 292.8	$ 533.8	$ 16.1	$ (549.9)	$ 292.8
Other comprehensive income (loss)	(34.9)	(35.8)	16.9	18.9	(34.9)
Total comprehensive income attributable to Cliffs shareholders	$ 257.9	$ 498.0	$ 33.0	$ (531.0)	$ 257.9

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
For the Year Ended December 31, 2018
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues from product sales and services	$ —	$ 2,332.4	$ —	$ —	$ 2,332.4
Cost of goods sold and operating expenses	—	(1,522.8)	—	—	(1,522.8)
Sales margin	—	809.6	—	—	809.6
Other operating income (expense):					
Selling, general and administrative expenses	(86.1)	(27.1)	(0.3)	—	(113.5)
Miscellaneous - net	(0.3)	(26.9)	4.3	—	(22.9)
Total other operating income (expense)	(86.4)	(54.0)	4.0	—	(136.4)
Operating income (loss)	(86.4)	755.6	4.0	—	673.2
Other income (expense):					
Interest income (expense), net	(117.6)	(2.1)	0.8	—	(118.9)
Loss on extinguishment of debt	(6.8)	—	—	—	(6.8)
Other non-operating income (expense)	(3.5)	0.9	19.8	—	17.2
Total other income (expense)	(127.9)	(1.2)	20.6	—	(108.5)
Income (loss) from continuing operations before income taxes	(214.3)	754.4	24.6	—	564.7
Income tax benefit	474.7	—	0.5	—	475.2
Equity in income of subsidiaries	858.2	25.5	—	(883.7)	—
Income from continuing operations	1,118.6	779.9	25.1	(883.7)	1,039.9
Income from discontinued operations, net of tax	9.5	12.3	66.4	—	88.2
Net income attributable to Cliffs shareholders	$ 1,128.1	$ 792.2	$ 91.5	$ (883.7)	$ 1,128.1
Other comprehensive loss	(244.9)	(24.1)	(256.7)	280.8	(244.9)
Total comprehensive income (loss) attributable to Cliffs shareholders	$ 883.2	$ 768.1	$ (165.2)	$ (602.9)	$ 883.2

Condensed Consolidating Statement of Operations and Comprehensive Income
For the Year Ended December 31, 2017
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues from product sales and services	$ —	$ 1,866.0	$ —	$ —	$ 1,866.0
Cost of goods sold and operating expenses	—	(1,398.4)	—	—	(1,398.4)
Sales margin	—	467.6	—	—	467.6
Other operating income (expense):					
Selling, general and administrative expenses	(77.2)	(19.9)	(5.8)	—	(102.9)
Miscellaneous - net	(2.3)	11.0	16.8	—	25.5
Total other operating income (expense)	(79.5)	(8.9)	11.0	—	(77.4)
Operating income (loss)	(79.5)	458.7	11.0	—	390.2
Other income (expense):					
Interest income (expense), net	(126.8)	(1.0)	1.0	—	(126.8)
Loss on extinguishment of debt	(165.4)	—	—	—	(165.4)
Other non-operating income (expense)	(4.0)	(3.0)	17.2	—	10.2
Total other income (expense)	(296.2)	(4.0)	18.2	—	(282.0)
Income (loss) from continuing operations before income taxes	(375.7)	454.7	29.2	—	108.2
Income tax benefit (expense)	251.4	1.3	(0.3)	—	252.4
Equity in income of subsidiaries	512.6	11.8	—	(524.4)	—
Income from continuing operations	388.3	467.8	28.9	(524.4)	360.6
Income (loss) from discontinued operations, net of tax	(21.3)	1.7	22.1	—	2.5
Net income	367.0	469.5	51.0	(524.4)	363.1
Loss attributable to noncontrolling interest	—	3.9	—	—	3.9
Net income attributable to Cliffs shareholders	$ 367.0	$ 473.4	$ 51.0	$ (524.4)	$ 367.0
Other comprehensive income (loss)	(4.0)	12.9	(4.8)	(8.1)	(4.0)
Total comprehensive income attributable to Cliffs shareholders	$ 363.0	$ 486.3	$ 46.2	$ (532.5)	$ 363.0

Condensed Consolidating Statement of Cash Flows
For the Year Ended December 31, 2019
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided (used) by operating activities	$ (50.0)	$ 616.3	$ (3.8)	$ —	$ 562.5
INVESTING ACTIVITIES					
Purchase of property, plant and equipment	(1.2)	(637.8)	—	—	(639.0)
Deposits for property, plant and equipment	—	(14.0)	(3.0)	—	(17.0)
Intercompany investing	(63.9)	(3.7)	(0.1)	67.7	—
Other investing activities	—	10.8	0.8	—	11.6
Net cash used by investing activities	(65.1)	(644.7)	(2.3)	67.7	(644.4)
FINANCING ACTIVITIES					
Repurchase of common shares	(252.9)	—	—	—	(252.9)
Dividends paid	(72.1)	—	—	—	(72.1)
Proceeds from issuance of debt	720.9	—	—	—	720.9
Debt issuance costs	(6.8)	—	—	—	(6.8)
Repurchase of debt	(729.3)	—	—	—	(729.3)
Distributions of partnership equity	—	(44.2)	—	—	(44.2)
Intercompany financing	0.1	63.4	4.2	(67.7)	—
Other financing activities	(14.9)	8.6	(3.4)	—	(9.7)
Net cash provided (used) by financing activities	(355.0)	27.8	0.8	(67.7)	(394.1)
Effect of exchange rate changes on cash	—	—	—	—	—
Decrease in cash and cash equivalents, including cash classified within other current assets related to discontinued operations	(470.1)	(0.6)	(5.3)	—	(476.0)
Less: decrease in cash and cash equivalents from discontinued operations, classified within other current assets	—	—	(5.4)	—	(5.4)
Net increase (decrease) in cash and cash equivalents	(470.1)	(0.6)	0.1	—	(470.6)
Cash and cash equivalents at beginning of year	819.8	0.7	2.7	—	823.2
Cash and cash equivalents at end of year	$ 349.7	$ 0.1	$ 2.8	$ —	$ 352.6

Condensed Consolidating Statement of Cash Flows
For the Year Ended December 31, 2018
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided (used) by operating activities	$ (120.7)	$ 741.0	$ (141.8)	$ —	$ 478.5
INVESTING ACTIVITIES					
Purchase of property, plant and equipment	(1.2)	(207.3)	(0.1)	—	(208.6)
Deposits for property, plant and equipment	—	(82.3)	(5.2)	—	(87.5)
Intercompany investing	399.1	(7.1)	120.7	(512.7)	—
Other investing activities	—	3.1	19.9	—	23.0
Net cash provided (used) by investing activities	397.9	(293.6)	135.3	(512.7)	(273.1)
FINANCING ACTIVITIES					
Repurchase of common shares	(47.5)	—	—	—	(47.5)
Debt issuance costs	(1.5)	—	—	—	(1.5)
Repurchase of debt	(234.5)	—	—	—	(234.5)
Distributions of partnership equity	—	(44.2)	—	—	(44.2)
Intercompany financing	(120.7)	(402.4)	10.4	512.7	—
Other financing activities	(2.1)	(2.2)	(43.2)	—	(47.5)
Net cash used by financing activities	(406.3)	(448.8)	(32.8)	512.7	(375.2)
Effect of exchange rate changes on cash	—	—	(2.3)	—	(2.3)
Decrease in cash and cash equivalents, including cash classified within other current assets related to discontinued operations	(129.1)	(1.4)	(41.6)	—	(172.1)
Less: decrease in cash and cash equivalents from discontinued operations, classified within other current assets	—	—	(17.0)	—	(17.0)
Net decrease in cash and cash equivalents	(129.1)	(1.4)	(24.6)	—	(155.1)
Cash and cash equivalents at beginning of year	948.9	2.1	27.3	—	978.3
Cash and cash equivalents at end of year	$ 819.8	$ 0.7	$ 2.7	$ —	$ 823.2

Condensed Consolidating Statement of Cash Flows
For the Year Ended December 31, 2017
(In Millions)

	Cleveland-Cliffs Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided (used) by operating activities	$ (166.8)	$ 430.0	$ 74.9	$ —	$ 338.1
INVESTING ACTIVITIES					
Purchase of property, plant and equipment	(3.4)	(79.8)	(51.7)	—	(134.9)
Deposits for property, plant and equipment	—	(11.7)	(5.1)	—	(16.8)
Intercompany investments	225.7	(7.3)	(45.1)	(173.3)	—
Other investing activities	(7.7)	3.4	—	—	(4.3)
Net cash provided (used) by investing activities	214.6	(95.4)	(101.9)	(173.3)	(156.0)
FINANCING ACTIVITIES					
Net proceeds from issuance of common shares	661.3	—	—	—	661.3
Proceeds from issuance of debt	1,771.5	—	—	—	1,771.5
Debt issuance costs	(28.6)	—	—	—	(28.6)
Repurchase of debt	(1,720.7)	—	—	—	(1,720.7)
Acquisition of noncontrolling interest	(105.0)	—	—	—	(105.0)
Distributions of partnership equity	—	(52.9)	—	—	(52.9)
Intercompany financing	45.0	(277.6)	59.3	173.3	—
Other financing activities	(5.8)	(4.5)	(16.4)	—	(26.7)
Net cash provided (used) by financing activities	617.7	(335.0)	42.9	173.3	498.9
Effect of exchange rate on cash	—	—	3.3	—	3.3
Increase (decrease) in cash and cash equivalents, including cash classified within other current assets related to discontinued operations	665.5	(0.4)	19.2	—	684.3
Less: increase in cash and cash equivalents from discontinued operations, classified within other current assets	—	—	18.8	—	18.8
Net increase (decrease) in cash and cash equivalents	665.5	(0.4)	0.4	—	665.5
Cash and cash equivalents at beginning of year	283.4	2.5	26.9	—	312.8
Cash and cash equivalents at end of year	$ 948.9	$ 2.1	$ 27.3	$ —	$ 978.3

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, 2019 and 2018, 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, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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 20, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2018, the Company changed its method of accounting for revenue by adopting FASB ASC 606, *Revenue from Contracts with Customers*, on a modified retrospective basis.

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 Long-Lived Assets and Depreciation, Depletion and Amortization of Property, Plant and Equipment -Refer to Notes 3, 5 and 11 to the financial statements

Critical Audit Matter Description

Mineral reserve estimates, combined with estimated annual production levels, are used to determine the mine closure dates utilized in recording the fair value liability for asset retirement obligations for active operating mines. 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. Mineral reserve estimates are also used in evaluating potential impairments of 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 Company performs an in-depth evaluation of its mineral reserve estimates by iron ore mine on a periodic basis, in addition to routine annual assessments. The determination of 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, production costs and capital expenditures, and (3) management's mine plan for the proven and probable mineral reserves (collectively "the mineral reserve inputs"). Changes in any of the judgments or assumptions related to the mineral reserve inputs can have a significant impact with respect to the accrual for asset retirement obligations, the impairment of long-lived asset groups and the amount of depreciation, depletion and amortization expense. The consolidated accrued mine closure obligation balance was $165.3 million as of December 31, 2019, of which $22.0 million related to active operations. The total asset balance associated with the Company's continuing operations for its Mining & Pelletizing reportable segment was $1,643.1 million as of December 31, 2019, of which $1,156.0 million related to long-lived assets. Depreciation, depletion and amortization expense for the Company's Mining & Pelletizing reportable segment was $79.0 million for the year ended December 31, 2019.

Given the significant judgments and assumptions made by management to estimate mineral reserves and the sensitivity of changes to mineral reserve estimates on the Company's recorded asset retirement obligations, 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 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 mineral reserve quantities and the related mine closure dates included the following, among others:

- We tested the operating effectiveness of internal controls related to the Company's estimation of mineral reserve quantities and the related mine closure dates.
- We evaluated the experience, qualifications and objectivity of management's experts, including in-house mine engineers.
- 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 mine production.
    - Evaluating the historical accuracy of management's technical model as compared to actual mine production results.
    - Comparing the mine plan, updated for current year depletion, to
        - Presentations to the Audit Committee.
        - Information by asset group, asset retirement obligation valuation models, and depreciation, depletion and amortization expense calculations.
- For an iron ore mine subject to the Company's periodic in-depth evaluation of its mineral reserve estimate:
    - We evaluated management's determination of the size and scope of the iron ore body, by:
        - Understanding the process used by management to complete research and exploration activities including mineralized resource drill samples.
        - Understanding the methodology utilized by management to apply the research and exploration data to the development of a technical model of the iron ore body.
        - Evaluating the historical accuracy of management's technical model as compared to actual mine production results.
    - We evaluated management's estimates of future iron ore prices, production costs and capital expenditures (the "financial assumptions"), by:
        - Understanding and testing the methodology utilized by management for development of the

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.

        - Evaluated management’s ability to accurately forecast future iron ore prices, production costs and capital expenditures by comparing actual results to management’s historical forecasts.
        - Evaluated the reasonableness of management’s estimates of future iron ore prices to forecasted information included in analyst reports.
        - Evaluated the reasonableness of management’s forecast for production costs and capital expenditures by comparing the forecasts to: (1) historical results and (2) internal communications to management and the Board of Directors.

    - We evaluated management’s mine plan for the proven and probable mineral reserves, by:
        - Understanding the process used by management to develop the mine plan for proven and probable mineral reserves applying key inputs such as the technical model of the iron ore body and the financial assumptions.
        - Comparing the mine plan to
            - Presentations to the Audit Committee.
            - Historical mine plan(s).
            - Information by asset group, asset retirement obligation valuation models, and depreciation, depletion and amortization expense calculations.

/s/ DELOITTE & TOUCHE LLP

Cleveland, Ohio

February 20, 2020

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, 2019 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, 2019.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report that appears herein.

February 20, 2020

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, 2019, 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, 2019, 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, 2019, of the Company and our report dated February 20, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's change to its method of accounting for revenue by adopting FASB ASC 606, *Revenue from Contracts with Customers*.

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 20, 2020

Item 9B. ***Other Information***

None.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

The information required to be furnished by this Item will be set forth in our definitive proxy statement for the 2020 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", and "Information Concerning Director Nominees", 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, 2019 and 2018
- Statements of Consolidated Operations - Years ended December 31, 2019, 2018 and 2017
- Statements of Consolidated Comprehensive Income - Years ended December 31, 2019, 2018 and 2017
- Statements of Consolidated Cash Flows - Years ended December 31, 2019, 2018 and 2017
- Statements of Consolidated Changes in Equity - Years ended December 31, 2019, 2018 and 2017
- 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.

(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
	Plan of purchase, sale, reorganization, arrangement, liquidation or succession
2.1	***Agreement and Plan of Merger, dated as of December 2, 2019, by and among Cleveland-Cliffs Inc., AK Steel Holding Corporation, and Pepper Merger Sub Inc. (filed as Exhibit 2.1 to Cliffs' Form 8-K filed on December 4, 2019 and incorporated herein by reference)
	Articles of Incorporation and By-Laws of Cleveland-Cliffs Inc.
3.1	Third Amended Articles of Incorporation of Cliffs, as filed with the Secretary of State of the State of Ohio on May 13, 2013 (filed as Exhibit 3.1 to Cliffs' Form 8-K on May 13, 2013 and incorporated herein by reference)
3.2	Certificate of Amendment to Third Amended Articles of Incorporation of Cliffs, as filed with the Secretary of State of the State of Ohio on April 26, 2017 (filed as Exhibit 3.1 to Cliffs' Form 8-K on April 27, 2017 and incorporated herein by reference)
3.3	Certificate of Amendment to Third Amended Articles of Incorporation of Cliffs, as amended, as filed with the Secretary of State of the State of Ohio on August 15, 2017 (filed as Exhibit 3.1 to Cliffs' Form 8-K on August 17, 2017 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 between Cliffs Natural Resources Inc. and U.S. Bank National Association, as trustee, dated March 17, 2010 (filed as Exhibit 4.3 to Cliffs' Registration Statement on Form S-3 No. 333-186617 on February 12, 2013 and incorporated herein by reference)
4.2	Form of 6.25% Notes due 2040 Third Supplemental Indenture between Cliffs Natural Resources Inc. and U.S. Bank National Association, as trustee, dated September 20, 2010, 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 between Cliffs Natural Resources Inc. and U.S. Bank National Association, as trustee, dated March 31, 2011 (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 between Cliffs Natural Resources Inc. and U.S. Bank National Association, as trustee, dated May 7, 2013 (as filed as Exhibit 4.1 to Cliffs' Form 10-Q for the period ended June 30, 2013 and incorporated herein by reference)
4.5	Eighth Supplemental Indenture, dated as of December 19, 2017, by and between Cleveland-Cliffs Inc. and U.S. Bank National Association, as trustee, including Form of 1.50% Convertible Senior Notes due 2025 (filed as Exhibit 4.2 to Cliffs' Form 8-K on December 19, 2017 and incorporated herein by reference)
4.6	Indenture, dated as of February 27, 2017, among Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.), the Guarantors party thereto and U.S. Bank National Association, as trustee, including Form of 5.75% Senior Notes due 2025 (filed as Exhibit 4.1 to Cliffs' Form 8-K on August 7, 2017 and incorporated herein by reference)
4.7	First Supplemental Indenture, dated as of August 7, 2017, among Cliffs Natural Resources Inc. (n/k/a Cleveland-Cliffs Inc.), the Guarantors party thereto and U.S. Bank National Association, as trustee, including Form of 5.75% Senior Notes due 2025 (filed as Exhibit 4.2 to Cliffs' Form 8-K filed on August 7, 2017 and incorporated herein by reference)
4.8	Second Supplemental Indenture, dated as of September 29, 2017, among Cliffs Empire II Inc. and Empire Iron Mining Partnership, as additional guarantors, Cleveland-Cliffs Inc. and U.S. Bank National Association, as trustee (filed as Exhibit 4.11 to Cliffs' Form 10-K for period ended December 31, 2017 and incorporated herein by reference)
4.9	Third Supplemental Indenture, dated as of October 27, 2017, among Cliffs TIOP II, LLC, Marquette Range Coal Service Company and Tilden Mining Company L.C., as additional guarantors, Cleveland-Cliffs Inc. and U.S. Bank National Association, as trustee (filed as Exhibit 4.12 to Cliffs' Form 10-K for period ended December 31, 2017 and incorporated herein by reference)
4.10	Fourth Supplemental Indenture, dated as of August 27, 2018, among IronUnits LLC, as additional guarantor, Cleveland-Cliffs Inc. and U.S. Bank National Association, as trustee (filed herewith)
4.11	Indenture, dated as of December 19, 2017, by and 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 4.875% Senior Secured Notes due 2024 (filed as Exhibit 4.1 to Cliffs' Form 8-K filed on December 19, 2017 and incorporated herein by reference)
4.12	First Supplemental Indenture, dated as of August 27, 2018, among IronUnits LLC, as additional guarantor, Cleveland-Cliffs Inc. and U.S. Bank National Association, as trustee (filed herewith)
4.13	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 Note due 2027 (filed as Exhibit 4.1 to Cliffs' Form 8-K filed on May 14, 2019 and incorporated herein by reference)
4.14	Registration Rights Agreement, dated as of May 13, 2019, among Cleveland-Cliffs Inc., the guarantors party thereto and Goldman Sachs & Co. LLC, as the initial purchaser (filed as Exhibit 10.1 to Cliffs' Form 8-K filed on May 14, 2019 and incorporated herein by reference)
4.15	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)
4.16	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934 (filed herewith)
	Material contracts
10.1	Amended and Restated Syndicated Facility Agreement, by and among Bank of America, N.A., as Administrative Agent and Australian Security Trustee, the Lenders that are Parties hereto, as the Lenders, Cleveland-Cliffs Inc., as Parent and a Borrower, and the Subsidiaries of Parent Party hereto, as Borrowers, dated as of February 28, 2018 (filed as Exhibit 10.1 to Cliffs' Form 10-Q for the period ended March 31, 2018 and incorporated herein by reference)
10.2	* 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)
10.3	* 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)
10.4	* Cleveland-Cliffs Inc. 2012 Non-Qualified Deferred Compensation Plan (effective January 1, 2012) dated November 8, 2011 (filed as Exhibit 10.1 to Cliffs' Form 8-K on November 8, 2011 and incorporated herein by reference)
10.5	* 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)
10.6	* Cliffs Natural Resources Inc. Amended and Restated 2014 Nonemployee Directors' Compensation Plan (filed as Exhibit 10.1 to Cliffs' Form 8-K on May 2, 2016 and incorporated herein by reference)
10.7	*Form of Restricted Shares Agreement for Nonemployee Directors (filed as Exhibit 10.1 to Cliffs' Form 10-Q for the period ended June 30, 2018 and incorporated herein by reference)

10.8	*Form of Deferred Shares Agreement for Nonemployee Directors (filed Exhibit 10.2 to Cliffs' Form 10-Q for the period ended June 30, 2018 and incorporated herein by reference)
10.9	* 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)
10.10	* 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)
10.11	* 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)
10.12	* 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)
10.13	* 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)
10.14	* 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)
10.15	* 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)
10.16	* 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)
10.17	* Trust Agreement No. 7, dated as of April 9, 1991, by and between Cliffs Natural Resources 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)
10.18	* 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)
10.19	* 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)
10.20	* 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)
10.21	* 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)
10.22	* 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)
10.23	* 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(oo) to Cliffs' Form 10-K for the period ended December 31, 2008 and incorporated herein by reference)
10.24	* 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)

10.25	* 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)
10.26	*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)
10.27	* 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)
10.28	*Severance Agreement and Release, by and between Timothy K. Flanagan and Cleveland-Cliffs Inc., effective February 12, 2019 (filed as Exhibit 10.1 to Cliffs' Form 10-Q for period ended March 31, 2019 and incorporated herein by reference)
10.29	* 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)
10.30	* 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)
10.31	* 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)
10.32	* Cliffs Natural Resources Inc. Amended and Restated 2012 Incentive Equity Plan (filed as Exhibit 10.1 to Cliffs' Form 8-K on August 4, 2014 and incorporated herein by reference)
10.33	* Form of Cliffs Natural Resources Inc. Amended and Restated 2012 Incentive Equity Plan Non-Qualified Stock Option Award Memorandum (3-Year Vesting – January 2015 Grant) and Stock Option Award Agreement (filed as Exhibit 10.69 to Cliffs' Form 10-K for the period ended December 31, 2014 and incorporated herein by reference)
10.34	* 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)
10.35	* 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)
10.36	* Form of Cleveland-Cliffs Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan Restricted Stock Unit Award Memorandum (Vesting December 31, 2020) 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)
10.37	* 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)
10.38	* Form of Cleveland-Cliffs Inc. Amended and Restated 2015 Equity and Incentive Compensation Plan Cash Incentive Award Memorandum (TSR) (Vesting December 31, 2020) 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)
10.39	* Cliffs Natural Resources Inc. Supplemental Retirement Benefit Plan (as Amended and Restated effective December 1, 2006) dated December 31, 2008 (filed as Exhibit 10(mmm) to Cliffs' Form 10-K for the period ended December 31, 2008 and incorporated herein by reference)
10.40	* Cliffs Natural Resources Inc. 2015 Employee Stock Purchase Plan (filed as Exhibit 4.4 to Cliffs' Registration Statement on Form S-8 on August 20, 2015 and incorporated herein by reference)
10.41	** Pellet Sale and Purchase Agreement, effective as of October 31, 2016, by and among Cliffs Natural Resources Inc., The Cleveland-Cliffs Iron Company and Cliffs Mining Company and ArcelorMittal USA LLC (filed as Exhibit 10.72 to Cliffs' Registration Statement on Form S-1/A No. 333-212054 on August 4, 2016 and incorporated herein by reference)
10.42	** Amended and Restated Pellet Sale and Purchase Agreement, effective as of December 31, 2015, by and among The Cleveland-Cliffs Iron Company, Cliffs Mining Company and AK Steel Corporation (filed as Exhibit 10.59 to Cliffs' Form 10-K/A for the period ended December 31, 2017 and incorporated herein by reference)
10.43	** Pellet Sale and Purchase Agreement, effective as of January 1, 2014, by and among Cliffs Mining Company (f/k/a Cliffs Sales Company) and AK Steel Corporation (filed as Exhibit 10.50 to Cliffs' Form 10-K for the period ended December 31, 2018 and incorporated herein by reference)
21	Subsidiaries of the Registrant (filed herewith)
23	Consent of Independent Registered Public Accounting Firm (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 20, 2020 (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 Keith A. Koci as of February 20, 2020 (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 20, 2020 (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 Keith A. Koci, Executive Vice President, Chief Financial Officer of Cleveland-Cliffs Inc., as of February 20, 2020 (filed herewith)
95	Mine Safety Disclosures (filed herewith)
101	The following financial information from Cleveland-Cliffs Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019 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.

** Confidential treatment requested and/or approved as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

*** Certain immaterial schedules and exhibits to this exhibit have been omitted pursuant to the provisions of Regulation S-K, Item 601(a)(5). A copy of any of the omitted schedules and exhibits will be furnished to the Securities and Exchange Commission upon request.

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/ R. C. Cebula

Name: R. Christopher Cebula

Title: Vice President, Corporate Controller & Chief Accounting Officer

Date: February 20, 2020

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.

Signatures	Title	Date
/s/ C. L. Goncalves C. L. Goncalves	Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 20, 2020
/s/ K. A. Koci K. A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	February 20, 2020
/s/ R. C. Cebula R. C. Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Accounting Officer)	February 20, 2020
* J. T. Baldwin	Director	February 20, 2020
* R. P. Fisher, Jr.	Director	February 20, 2020
* S. M. Green	Director	February 20, 2020
* M. A. Harlan	Director	February 20, 2020
* J. L. Miller	Director	February 20, 2020
* J. A. Rutkowski, Jr.	Director	February 20, 2020
* E. M. Rychel	Director	February 20, 2020
* M. D. Siegal	Director	February 20, 2020
* G. Stoliar	Director	February 20, 2020
* D. C. Taylor	Director	February 20, 2020

* 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/ K. A. Koci

(K. A. Koci, as Attorney-in-Fact)

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Exhibit 21

SIGNIFICANT SUBSIDIARIES
CLEVELAND-CLIFFS INC. AS OF DECEMBER 31, 2019

Name	Cliffs' Effective Ownership	Place of Incorporation
Cliffs Mining Company	100%	Delaware, USA
Cliffs Minnesota Mining Company	100%	Delaware, USA
Cliffs TIOP Holding, LLC	100%	Delaware, USA
Cliffs TIOP, Inc.	100%	Michigan, USA
Cliffs TIOP II, LLC	100%	Delaware, USA
Cliffs UTAC Holding LLC	100%	Delaware, USA
IronUnits LLC	100%	Delaware, USA
Northshore Mining Company	100%	Delaware, USA
The Cleveland-Cliffs Iron Company	100%	Ohio, USA

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in:

Registration Statement No. 333-235855 on Form S-4 (as amended by Amendment No. 1) pertaining to the joint proxy statement/prospectus filed by AK Steel Holding Corporation and Cleveland-Cliffs Inc.;

Registration Statement No. 033-56661 on Form S-8 (as amended by Post-Effective Amendment No.1) pertaining to the Northshore Mining Company and Silver Bay Power Company Retirement Savings Plan and the related prospectus;

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. 333-206487 on Form S-8 pertaining to the Cliffs Natural Resources Inc. 2015 Employee Stock Purchase 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; and

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.

of our reports dated February 20, 2020, 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, 2019.

/s/ DELOITTE & TOUCHE LLP

Cleveland, Ohio
February 20, 2020

Exhibit 24

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Directors and officers of Cleveland-Cliffs Inc., an Ohio corporation ("Company"), hereby constitute and appoint C. Lourenco Goncalves, Keith A. Koci, James D. Graham and R. Christopher Cebula, 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, 2019, 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 18th day of February, 2020.

/s/ C. L. Goncalves
C. L. Goncalves,
Chairman, President and Chief Executive Officer

/s/ Keith A. Koci
K. A. Koci,
Executive Vice President, Chief Financial Officer

/s/ R. C. Cebula
R. C. Cebula,
Vice President, Corporate Controller & Chief Accounting Officer

/s/ J. T. Baldwin
J. T. Baldwin, Director

/s/ R. P. Fisher, Jr.
R. P. Fisher, Jr., Director

/s/ S. M. Green
S. M. Green, Director

/s/ M. A. Harlan
M. A. Harlan, Director

/s/ J. L. Miller
J. L. Miller, Director

/s/ J. A. Rutkowski, Jr.
J. A. Rutkowski, Jr., Director

/s/ E. M. Rychel
E. M. Rychel, Director

/s/ M. D. Siegal
M. D. Siegal, Director

/s/ G. Stoliar
G. Stoliar, Director

/s/ D. C. Taylor
D. C. Taylor, Director

Exhibit 31.1

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 20, 2020

By: /s/ Lourenco Goncalves

Lourenco Goncalves
Chairman, President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Keith A. Koci, 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 20, 2020

By: /s/ Keith A. Koci

Keith A. Koci

Executive Vice President, Chief Financial Officer

Exhibit 32.1

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, 2019, 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 20, 2020

By: /s/ Lourenco Goncalves
Lourenco Goncalves
Chairman, President and Chief Executive Officer

Exhibit 32.2

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, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Form 10-K”), I, Keith A. Koci, 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 20, 2020

By: /s/ Keith A. Koci
Keith A. Koci
Executive Vice President, Chief Financial Officer

Exhibit 95

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, 2019, 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, 2019:

		Year Ended December 31, 2019								
		(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	36	—	—	—	$	726,148	8	(2)	7	10
Empire / 2001012	Iron Ore	—	—	—	—	$	—	—		—	—
Northshore Plant / 2100831	Iron Ore	9	—	—	—	$	122,498	13	(3)	8	10
Northshore Mine / 2100209	Iron Ore	4	—	—	1	$	29,976	5	(4)	5	5
Hibbing / 2101600 (7)	Iron Ore	9	—	—	—	$	49,276	7	(5)	5	6
United Taconite Plant / 2103404	Iron Ore	22	—	—	—	$	240,848	3	(6)	3	2
United Taconite Mine / 2103403	Iron Ore	4	—	—	—	$	5,111	—		—	—

(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, 2019.

(2) This number consists of 8 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(3) This number consists of 13 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(4) This number consists of 3 pending legal actions related to contests of citations and orders referenced in Subpart B of FMSH Act's procedural rules and 2 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(5) This number consists of 7 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(6) This number consists of 3 pending legal actions related to contests of proposed penalties referenced in Subpart C of FMSH Act's procedural rules.

(7) On August 12, 2019, Cliffs Mining Company, our subsidiary, ceased performing manager duties at Hibbing (including operating the mine) and transitioned those duties to ArcelorMittal USA. As a result, data for Hibbing / 2101600 is for the period January 1, 2019 through August 11, 2019.

EXECUTIVE COMMITTEE

Name	Position	Age	Service
Lourenco Goncalves	Chairman, President and Chief Executive Officer	62	6
Clifford T. Smith	Executive Vice President, Chief Operating Officer	60	16
Keith A. Koci	Executive Vice President, Chief Financial Officer	55	1
Terry G. Fedor	Executive Vice President, Operations	55	9
Traci L. Forrester	Executive Vice President, Business Development	48	16
James D. Graham	Executive Vice President, Chief Legal Officer & Secretary	54	13
Maurice D. Harapiak	Executive Vice President, Human Resources & Chief Administration Officer	58	6

DIRECTORS

Lourenco Goncalves [4] (2014)
Chairman, President
and Chief Executive Officer
Cleveland-Cliffs Inc.

Douglas C. Taylor [2,4] (2014)
Former Managing Partner
Casablanca Capital LP

John T. Baldwin [1, 2] (2014)
Former Chief Financial Officer
Worthington Industries, Inc.

Robert P. Fisher, Jr. [1] (2014)
President and Chief Executive Officer
George F. Fisher, Inc.

Former Managing Director
Goldman, Sachs & Co.

Susan M. Green [3, 4] (2007)
Former Deputy General Counsel
U.S. Congress Office of Compliance

M. Ann Harlan [1] (2019)
Former Vice President, General Counsel
and Corporate Secretary
The J.M. Smucker Company

Janet L. Miller [3] (2019)
Former Chief Legal Officer
and Corporate Secretary
University Hospitals

Joseph A. Rutkowski, Jr. [3,4] (2014)
Principal
Winyah Advisors LLC

Former Executive Vice President
Nucor Corporation

Eric M. Rychel [1, 2] (2016)
Executive Vice President,
Chief Financial Officer and Treasurer
Aleris Corporation

Michael D. Siegal [3] (2014)
Executive Chairman
Olympic Steel, Inc.

Gabriel Stoliar [2] (2014)
Managing Partner
Studio Investimentos

Former Executive Vice President
Vale S.A.

Committees Served
1 – Audit
2 – Compensation and Organization
3 – Governance and Nominating
4 – Strategy

Year in parentheses indicates year he/she became a director.

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About Cleveland-Cliffs Inc.

Founded in 1847, Cleveland-Cliffs is the largest and oldest independent iron ore mining company in the United States. Cleveland-Cliffs is a major supplier of iron ore pellets to the North American steel industry from its mines and pellet plants located in Michigan and Minnesota. In 2020, Cleveland-Cliffs expects to be the sole producer of hot briquetted iron (HBI) in the Great Lakes region with the development of its first production plant in Toledo, Ohio. On December 2, 2019, Cleveland-Cliffs agreed to acquire AK Steel, a leading North American producer of sophisticated steel products, which is expected to close in the first quarter of 2020. Driven by the core values of safety, social, environmental and capital stewardship, Cliffs' employees endeavor to provide all stakeholders with operating and financial transparency.

Investor and Corporate Information

Corporate Office

Cleveland-Cliffs Inc.
200 Public Square, Suite 3300
Cleveland, OH 44114
P: 216.694.5700 F: 216.694.5385
clevelandcliffs.com

Transfer Agent and Registrar

Broadridge Corporate Issuer Solutions
P.O. Box 1342
Brentwood, NY 11717
Toll-Free: 1-800-586-1723
Outside the United States:
303-562-9695

Annual Meeting

Date: April 22, 2020
Time: 11:30 a.m. EDT
Place: North Point
901 Lakeside Avenue
Cleveland, OH 44114

Additional Info

Cleveland-Cliffs' Annual Report to the SEC (Form 10-K) and proxy statement are available on Cliffs' website. Copies of these reports and other Company publications also may be obtained by sending requests to the attention of Investor Relations at the corporate office, or by telephone at 800.214.0739, or e-mail: ir@clevelandcliffs.com.

Common Shares

NYSE: CLF

Cleveland-Cliffs Inc.
200 Public Square, Suite 3300 Cleveland, OH 44114-2315
www.clevelandcliffs.com