

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Form S-4

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933



(Exact name of registrant as specified in its charter)

Ohio

*(State or other jurisdiction of
incorporation or organization)*

1000

*(Primary Standard Industrial
Classification Code Number)*

34-1464672

*(I.R.S. Employer
Identification Number)*

**200 Public Square
Suite 3300
Cleveland, Ohio 44114-2315
Telephone: (216) 694-5700**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Keith A. Koci
Executive Vice President, Chief Financial Officer
Cleveland-Cliffs Inc.
200 Public Square, Suite 3300
Cleveland, Ohio 44114-2315
Telephone: (216) 694-5700**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

**Copies To:
Michael J. Solecki
Jones Day
901 Lakeside Avenue
Cleveland, Ohio 44114
Phone: (216) 586-3939
Fax: (216) 579-0212**

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this Registration Statement becomes effective.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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
Non-accelerated filer

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 7(a)(2)(B) of the Securities Act.

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum offering price per unit(1)	Proposed maximum aggregate offering price(1)	Amount of registration fee
5.875% Senior Guaranteed Notes due 2027	\$750,000,000	100%	\$750,000,000	\$97,350
Guarantees of 5.875% Senior Guaranteed Notes due 2027	—	—	—	—(2)

(1) Calculated in accordance with Rule 457(f) under the Securities Act of 1933 solely for purposes of calculating the registration fee.

(2) Pursuant to Rule 457(n) of the Securities Act of 1933, no separate fee is payable for the guarantees.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

TABLE OF ADDITIONAL REGISTRANTS

Exact Name of Registrant as Specified in its Charter⁽¹⁾	State of Incorporation or Organization	Primary Standard Industrial Classification Code Number	IRS Employer Identification Number
AH Management, Inc.	Delaware	3312	51-0390893
AKS Investments, Inc.	Ohio	3312	31-1283531
AK Steel Corporation	Delaware	3312	31-1267098
AK Steel Holding Corporation	Delaware	3312	31-1401455
AK Steel Properties, Inc.	Delaware	3312	51-0390894
AK Tube LLC	Delaware	3312	31-1283531
Cliffs Mining Company	Delaware	1000	34-1120353
Cliffs Minnesota Mining Company	Delaware	1000	42-1609117
Cliffs TIOP Holding, LLC	Delaware	1000	47-2182060
Cliffs TIOP, Inc.	Michigan	1000	34-1371049
Cliffs TIOP II, LLC	Delaware	1000	61-1857848
Cliffs UTAC Holding LLC	Delaware	1000	26-2895214
IronUnits LLC	Delaware	1000	34-1920747
Lake Superior & Ishpeming Railroad Company	Michigan	1000	38-6005761
Mountain State Carbon, LLC	Delaware	3312	31-1267098
Northshore Mining Company	Delaware	1000	84-1116857
PPHC Holdings, LLC	Delaware	3312	31-1283531
Silver Bay Power Company	Delaware	1000	84-1126359
SNA Carbon, LLC	Delaware	3312	31-1267098
The Cleveland-Cliffs Iron Company	Ohio	1000	34-0677332
Tilden Mining Company L.C.	Michigan	1000	34-1804848
United Taconite LLC	Delaware	1000	42-1609118

⁽¹⁾ The address and phone number of each Registrant Guarantor is c/o Cleveland-Cliffs Inc., 200 Public Square, Suite 3300, Cleveland, Ohio 44114, (216) 694-5700.

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such state.

SUBJECT TO COMPLETION, DATED MARCH 20, 2020

\$750,000,000



Offer to Exchange

**All of the Outstanding Restricted 5.875% Senior Guaranteed Notes due 2027
Issued on May 13, 2019
for
Newly Issued and Registered 5.875% Senior Guaranteed Notes due 2027**

On May 13, 2019, we issued \$750 million aggregate principal amount of our restricted 5.875% Senior Guaranteed Notes due 2027, which we refer to herein as the Original Notes. The Original Notes were issued in a private transaction exempt from the registration requirements of the Securities Act of 1933, or the Securities Act.

We are offering to exchange up to \$750 million aggregate principal amount of new 5.875% Senior Guaranteed Notes due 2027, which we refer to herein as the Exchange Notes, for the outstanding Original Notes. We refer herein to the Original Notes and the Exchange Notes, collectively, as the Notes. We refer to the offer to exchange as the Exchange Offer.

The terms of the Exchange Notes will be substantially identical to the terms of the Original Notes, except that the Exchange Notes will be registered under the Securities Act and the transfer restrictions and registration rights and related additional interest provisions applicable to the Original Notes will not apply to the Exchange Notes. The Exchange Notes will be part of the same series as the Original Notes and will be issued under the same indenture. The Exchange Notes will be exchanged for Original Notes in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. We will not receive any proceeds from the issuance of Exchange Notes in the Exchange Offer.

You may withdraw tenders of Original Notes at any time prior to the expiration of the Exchange Offer.

The Exchange Offer expires at 5:00 p.m. New York City time on _____ unless extended, which we refer to as the Expiration Date.

We do not intend to list the Exchange Notes on any securities exchange or to seek approval through any automated quotation system, and no active public market for the Exchange Notes is anticipated.

You should consider carefully the [risk factors](#) beginning on page 16 of this prospectus before deciding whether to participate in the Exchange Offer.

Neither the Securities and Exchange Commission, which we refer to herein as the SEC, nor any state securities commission has approved or disapproved of the Exchange Notes or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2020.

Rather than repeat certain information in this prospectus that we have already included in reports filed with the SEC, this prospectus incorporates important business and financial information about us that is not included in or delivered with this prospectus. We will provide this information to you at no charge upon written or oral request directed to: Cleveland-Cliffs Inc., 200 Public Square, Suite 3300, Cleveland, Ohio, Attention: Investor Relations; Telephone: (216) 694-5700. In order to receive timely delivery of any requested documents in advance of the Expiration Date, you should make your request no later than _____, 2020, which is five full business days before you must make a decision regarding the Exchange Offer.

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NOTICE TO INVESTORS

This prospectus may only be used where it is legal to make the Exchange Offer and by a broker-dealer for resales of Exchange Notes acquired in the Exchange Offer where it is legal to do so.

This prospectus and the information incorporated by reference summarize documents and other information in a manner we believe to be accurate, but we refer you to the actual documents for a more complete understanding of the information we discuss in this prospectus and the information incorporated by reference. In deciding to exchange your Original Notes, you must rely on your own examination of such documents, our business and the terms of the offering and the Exchange Notes, including the merits and risks involved.

We make no representation to you that the Exchange Notes will be a legal investment for you. You should not consider any information in this prospectus to be legal, business or tax advice. You should consult your own attorney, business advisor and tax advisor for legal, business and tax advice regarding an investment in the Exchange Notes. Neither the delivery of the prospectus nor any exchange made pursuant to this prospectus implies that any information set forth in or incorporated by reference in this prospectus is correct as of any date after the date of this prospectus.

Each broker-dealer that receives Exchange Notes for its own account pursuant to the Exchange Offer must acknowledge that it will deliver a prospectus in connection with any resale of Exchange Notes. The letter of transmittal accompanying this prospectus states that by so acknowledging and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of Exchange Notes received in exchange for Original Notes where the Original Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities. We have agreed that, for a period ending on the date on which a broker-dealer is no longer required to deliver a prospectus in connection with market-making or other trading activities, we will make this prospectus available to any broker-dealer for use in connection with these resales. See "Plan of Distribution."

References in this prospectus to the terms "we," "us," "our," "the Company," or "Cliffs" or other similar terms mean Cleveland-Cliffs Inc. and its consolidated subsidiaries unless we state otherwise or the context indicates otherwise. As used in this prospectus, the term "long ton" means a long ton (equal to 2,240 pounds).

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act. We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available over the Internet at the SEC's website at www.sec.gov.

We make available, free of charge, on our website at www.clevelandcliffs.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The information contained on or accessible through our website is not part of this prospectus, other than the documents that we file with the SEC that are specifically incorporated by reference into this prospectus.

INFORMATION WE INCORPORATE BY REFERENCE

We are incorporating by reference certain information that each of Cliffs and AK Steel Holding Corporation, or AK Steel, files or filed with the SEC, which means:

- incorporated documents are considered part of this prospectus;
- we can disclose important information to you by referring you to those documents;
- and
- information that we file with the SEC after the date of this prospectus will automatically update and supersede the information contained in this prospectus and incorporated filings.

Cliffs

We incorporate by reference the documents listed below that Cliffs filed with the SEC under the Exchange Act:

- Annual Report on Form 10-K for the year ended December 31, 2019 (filed with the SEC on February 20, 2020); and
- Current Reports on Form 8-K filed with the SEC on February 26, 2020 (two reports), March 2, 2020, March 3, 2020, March 10, 2020, March 13, 2020 and March 16, 2020.

AK Steel

We incorporate by reference the following information that AK Steel (File No. 001-13696) filed with the SEC under the Exchange Act:

- Annual Report on Form 10-K for the year ended December 31, 2019 (filed with the SEC on February 20, 2020), as amended by Amendment No. 1 to Annual Report on Form 10-K/A for the year ended December 31, 2019 (filed with the SEC on March 10, 2020); and
- Current Reports on Form 8-K filed with the SEC on January 29, 2020, March 3, 2020, March 10, 2020 and March 13, 2020.

We also incorporate by reference each of the documents that Cliffs files with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and until the completion of the Exchange Offer. We do not, however, incorporate by reference in this prospectus any documents or portions thereof that are not deemed "filed" with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K after the date of this prospectus unless, and except to the extent, specified in such Current Reports.

We will provide you with a copy of any of these filings (other than an exhibit to these filings, unless the exhibit is specifically incorporated by reference into the filing requested) at no cost, if you submit a request to us by writing or telephoning us at the following address or telephone number:

Cleveland-Cliffs Inc.
200 Public Square, Suite 3300
Cleveland, Ohio 44114
Attention: Investor Relations
Telephone: 1-216-694-5700

NON-GAAP FINANCIAL MEASURES

We believe that the financial statements and the other financial data included in, or incorporated by reference into, this prospectus have been prepared in a manner that complies, in all material respects, with generally accepted accounting principles in the United States, or GAAP, and the regulations published by the SEC and are consistent with current practice with the exception of the presentation of (i) with respect to Cliffs, earnings before interest, taxes, depreciation and amortization, or 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, or adjusted EBITDA, and cash cost of goods sold and operating expense rate per long ton and (ii) with respect to AK Steel, adjusted EBITDA, adjusted EBITDA margin and adjusted net income attributable to AK Steel, which are non-GAAP financial measures.

With respect to Cliffs, EBITDA, adjusted EBITDA and cash cost of goods sold and operating expense rate per long ton are not measurements of financial performance or condition under GAAP and should not be considered as alternatives to net income, operating income, or any other financial performance measure derived in accordance with GAAP. The presentation of these measures 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.

EBITDA and adjusted EBITDA 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 our 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. Cash cost of goods sold and operating expense rate per long ton is used by management in evaluating operating performance. We believe our presentation of non-GAAP cash cost of goods sold and operating expense rate per long ton 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.

These non-GAAP financial measures are not calculated in the same manner by all companies and, accordingly, are not necessarily comparable to similarly titled measures of other companies and may not be appropriate measures for comparing performance relative to other companies. While we believe that the presentation of the non-GAAP financial measures will enhance an investor's understanding of our operating performance and performance compared to other producers and provide a more accurate view of the cash outflows related to the sale of iron ore, the use of the non-GAAP financial measures as analytical tools has limitations and you should not consider them in isolation, or as substitutes for an analysis of our results of operations as reported in accordance with GAAP. For additional information about EBITDA, adjusted EBITDA and cash cost of goods sold and operating expense rate per long ton, including reconciliations to the most directly comparable GAAP financial measures, see the section titled "Summary—Summary Historical Consolidated Financial Data of Cliffs" of this prospectus.

With respect to AK Steel, adjusted EBITDA, adjusted EBITDA margin and adjusted net income attributable to AK Steel are presented in this prospectus. This presentation excludes the effects of noncontrolling interests, costs associated with the closure of Ashland Works, pension settlement charges and a credit for adjustment to a liability for transportation costs. AK Steel believes that reporting adjusted net income attributable to AK Steel (as a total and on a per share basis) with these items excluded more clearly reflects AK Steel's operating results for the periods presented and provides investors with a better understanding of AK Steel's overall financial performance. Adjustments to net income attributable to AK Steel do not result in an income tax effect as any gross income tax effects are offset by a corresponding change in the deferred income tax valuation allowance.

With respect to AK Steel's presentation, EBITDA is an acronym for earnings before interest, taxes, depreciation and amortization. It is a metric that is sometimes used to compare the results of different companies by removing the effects of different factors that might otherwise make comparisons inaccurate or inappropriate. For purposes of this prospectus, AK Steel has made the adjustments to EBITDA noted in the preceding paragraph. The adjusted results, although not financial measures under GAAP and not identically applied by other companies, facilitate the ability to analyze AK Steel's financial results in relation to those of its competitors and to its prior financial performance by excluding items that otherwise would distort the comparison. Adjusted EBITDA, adjusted EBITDA margin and adjusted net income are not, however, intended as alternative measures of operating results or cash flow from operations as determined in accordance with GAAP and are not necessarily comparable to similarly titled measures used by other companies. You should not rely on adjusted EBITDA, adjusted EBITDA margin and adjusted net income as a substitute for any GAAP financial measure. For additional information about adjusted EBITDA, adjusted EBITDA margin and adjusted net income, including a calculation and reconciliation to the most directly comparable GAAP financial measures, see the section titled "Summary—Summary Historical Consolidated Financial Data of AK Steel" of this prospectus.

We also present pro forma adjusted EBITDA, which reflects historical adjusted EBITDA as reported by Cliffs and AK Steel and the pro forma adjustments reflecting the Merger (as defined herein), including certain expected synergies. For additional information about pro forma adjusted EBITDA, including a calculation and reconciliation to pro forma net income, see the section titled "Summary—Summary Unaudited Pro Forma Condensed Combined Financial Data" of this prospectus.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference, contains, and any prospectus supplement may contain, statements that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may be identified by the use of predictive, future-tense or forward-looking terminology, such as "believes," "anticipates," "expects," "estimates," "intends," "may," "will" or similar terms. These statements speak only as of the date of this prospectus or the date of the document incorporated

by reference, as applicable, and we undertake no ongoing obligation, other than that imposed by law, to update these statements. These statements appear in a number of places in this prospectus, including the documents incorporated by reference, and relate to, among other things, our intent, belief or current expectations of our directors or our officers with respect to: our future financial condition; results of operations or prospects; estimates of our economic iron ore reserves; our business and growth strategies; and our financing plans and forecasts. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties, and that actual results may differ materially from those contained in or implied by the forward-looking statements as a result of various factors, some of which are unknown, including, without limitation:

- 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 hot briquetted iron, or 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;
- unpredictability and severity of catastrophic events, including acts of terrorism or outbreak of war or hostilities or public health crises, as well as management's response to any of the aforementioned factors;

- adverse changes in interest rates and tax laws;
- the potential existence of significant deficiencies or material weakness in our internal control over financial reporting;
- our ability to realize the anticipated benefits of the 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;
- additional debt we assume or issue in connection with the Merger may negatively impact our credit profile and limit our financial flexibility; and
- other risks described in our reports filed with the SEC and in AK Steel's Annual Report on Form 10-K for the year ended December 31, 2019, and in the "Risk Factors" section of this prospectus.

These factors and the other risk factors described in this prospectus, including the documents incorporated by reference, are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could harm our results. Consequently, there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements.

SUMMARY

This summary highlights information about us, the Exchange Offer and the Exchange Notes. This summary is not complete and may not contain all of the information that you should consider prior to deciding whether to participate in the Exchange Offer. For a more complete understanding of us, we encourage you to read this prospectus, including the information incorporated by reference into this prospectus and the other documents to which we have expressly referred you. In particular, we encourage you to read the historical financial statements, and the related notes, incorporated by reference into this prospectus. Investing in the Exchange Notes involves significant risks, as described in the "Risk Factors" section.

Our Company

Founded in 1847, Cliffs is among the largest vertically integrated producers of differentiated iron ore and steel in North America. With an emphasis on non-commoditized products, we are uniquely positioned to supply both customized iron ore pellets and sophisticated steel solutions to a quality-focused customer base, with an industry-leading market share in the automotive industry. A commitment to environmental sustainability is core to our business operations and extends to how we partner with stakeholders across our communities and the steel value chain. Headquartered in Cleveland, Ohio, Cliffs employs approximately 12,000 people across mining and steel manufacturing operations in the United States, Canada and Mexico.

Recent Developments

The Merger

Pursuant to the Agreement and Plan of Merger, dated as of December 2, 2019, or the Merger Agreement, among Cliffs, AK Steel and Pepper Merger Sub Inc., a direct, wholly owned subsidiary of Cliffs, or Merger Sub, on March 13, 2020, Merger Sub merged with and into AK Steel, which we refer to as the Merger, with AK Steel continuing as the surviving corporation and becoming a direct, wholly owned subsidiary of Cliffs. As a result of the Merger, each share of AK Steel common stock issued and outstanding immediately prior to the effective time of the Merger (other than certain excluded shares) was converted into the right to receive 0.400 Cliffs common shares and, if applicable, cash in lieu of any fractional Cliffs common shares. The Merger Agreement and the transactions contemplated thereby, including the issuance of Cliffs common shares in connection with the Merger, were approved by the shareholders of Cliffs and the Merger Agreement was adopted by AK Steel stockholders at respective special meetings held on March 10, 2020.

Debt Exchange Offers and Consent Solicitations

On January 14, 2020, and in connection with the Merger, we commenced exchange offers, or the Debt Exchange Offers, (i) for any and all outstanding 6.375% senior notes due 2025, or the AK Steel 2025 Notes, issued by AK Steel Corporation, a wholly owned subsidiary of AK Steel, for the same aggregate principal amount of new notes issued by Cliffs having the same maturity and interest rate as the AK Steel 2025 Notes, which we refer to as the New Cliffs 2025 Notes, and (ii) for any and all outstanding 7.00% senior notes due 2027 issued by AK Steel Corporation, or the AK Steel 2027 Notes, for the same aggregate principal amount of new notes issued by Cliffs having the same maturity and interest rate as the AK Steel 2027 Notes, which we refer to as the New Cliffs 2027 Notes. Concurrently, AK Steel Corporation commenced consent solicitations, or the First Consent Solicitations, from the holders of the AK Steel 2025 Notes and AK Steel 2027 Notes to eliminate certain of the covenants, restrictive provisions and events of default from the indentures governing such notes, or the First Consent Solicitation Amendments. On January 29, 2020, we and AK Steel announced that the requisite consents had been received and AK Steel Corporation entered into supplemental indentures to effect the First Consent Solicitation Amendments, which became operative following the satisfaction of all of the closing conditions to the Debt Exchange Offers and First Consent Solicitations, including consummation of the Merger, on March 13, 2020.

In connection with the completion of the Debt Exchange Offers, on March 16, 2020, we issued \$231.8 million aggregate principal amount of New Cliffs 2025 Notes and \$335.4 million aggregate principal amount of New Cliffs 2027 Notes in exchange for the same aggregate principal amount of AK Steel 2025 Notes and AK Steel 2027 Notes, respectively, representing all of the AK Steel 2025 Notes and AK Steel 2027 Notes that had been validly tendered in the Debt Exchange Offers and not validly withdrawn as of 6:00 a.m., New York City time, on March 13, 2020, the expiration time for the Debt Exchange Offers.

Tender Offers and Consent Solicitations

On February 26, 2020, and in connection with the Merger, we commenced cash tender offers, or the Tender Offers, for any and all outstanding 7.625% senior notes due 2021, or the AK Steel 2021 Notes, and 7.50% senior secured notes due 2023, or the AK Steel 2023 Notes, issued by AK Steel Corporation. Concurrently with the Tender Offers, AK Steel Corporation commenced consent solicitations, or the Second Consent Solicitations, from the holders of the AK Steel 2021 Notes and AK Steel 2023 Notes to eliminate certain of the restrictive covenants and events of default from the indentures governing such notes, to shorten the period of notice required in connection with a call of the AK Steel 2021 Notes and AK Steel 2023 Notes for redemption and, with respect to the AK Steel 2023 Notes, to release the liens securing the AK Steel 2023 Notes, or the Second Consent Solicitation Amendments. On March 10, 2020, we and AK Steel announced that the requisite consents had been received and AK Steel Corporation entered into supplemental indentures to effect the Second Consent Solicitation Amendments, which became operative following the satisfaction of all of the closing conditions to the Second Consent Solicitations, including consummation of the Merger and the closing of the Secured Notes Offering (as defined below), on March 13, 2020.

In connection with the early settlement of the Tender Offers, on March 13, 2020, we purchased \$364.2 million aggregate principal amount of AK Steel 2021 Notes and \$310.7 million aggregate principal amount of AK Steel 2023 Notes, representing all of the AK Steel 2021 Notes and AK Steel 2023 Notes that had been validly tendered in the Tender Offers and not validly withdrawn as of 5:00 p.m., New York City time, on March 10, 2020, or the Tender Offer Early Participation Deadline, using a portion of the net proceeds of the Secured Notes Offering. The Tender Offers are scheduled to expire at 12:01 a.m., New York City time, on March 25, 2020, unless such date is extended.

This prospectus is not intended to and does not constitute an offer to sell or purchase, or the solicitation of an offer to sell or purchase, or the solicitation of any vote of approval or the solicitation of tenders or consents with respect to any security, other than the Exchange Notes. No offer, solicitation, purchase or sale will be made in any jurisdiction in which such an offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act. In the case of the Tender Offers, the Tender Offers are being made solely pursuant to the offer to purchase and consent solicitation statement, dated February 26, 2020, as amended to date, and only to such persons and in such jurisdictions as is permitted under applicable law.

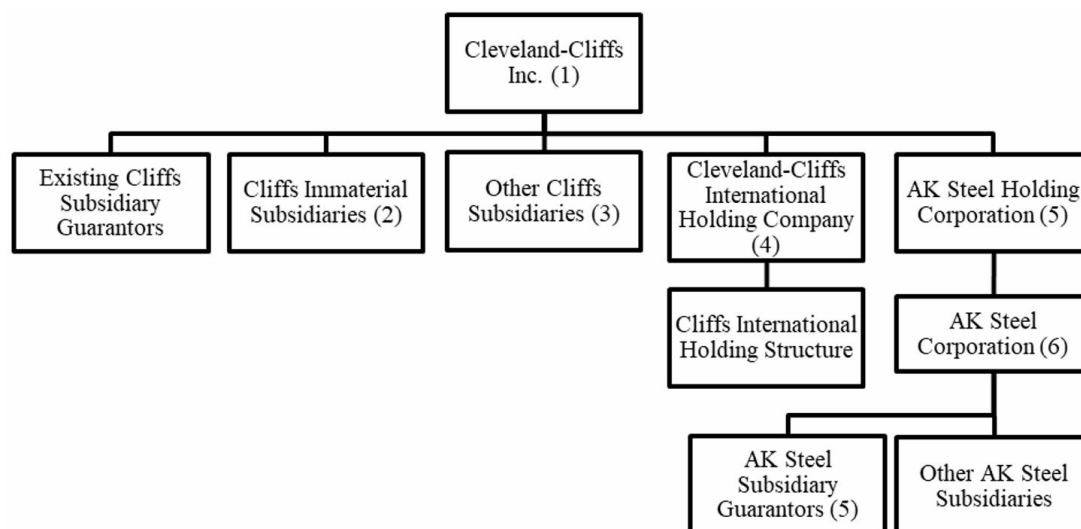
Other Financing

On March 13, 2020, and in connection with the consummation of the Merger, Cliffs issued \$725.0 million aggregate principal amount of 6.75% senior secured notes due 2026, or the New Secured Notes, in an offering, or the Secured Notes Offering, that was exempt from the registration requirements of the Securities Act. We used a portion of the net proceeds from the Secured Notes Offering to repurchase all of the AK Steel 2021 Notes and the AK Steel 2023 Notes that were validly tendered in the Tender Offers and not validly withdrawn as of the Tender Offer Early Participation Deadline. We intend to use the remainder of the net proceeds from the Secured Notes Offering to pay for fees and expenses in connection with the Merger and the Secured Notes Offering and for general corporate purposes.

Additionally, on March 13, 2020, in connection with the consummation of the Merger, we entered into a new asset-based revolving credit facility, or the New ABL Facility, to replace and refinance Cliffs' existing asset-based revolving credit facility and AK Steel Corporation's existing asset-based revolving credit facility.

Our Structure

The following diagram illustrates Cliffs' organizational structure after giving effect to the consummation of the Merger and the related financing transactions. This diagram is provided for illustrative purposes only and does not show all legal entities or obligations of such entities.



- (1) Issuer of existing secured and unsecured senior notes issued by Cliffs, including the Original Notes, borrower under the New ABL Facility and future issuer of the Exchange Notes. Cliffs' 6.25% senior notes due 2040 and 1.50% convertible senior notes due 2025 are unsecured and are not guaranteed by any of Cliffs' subsidiaries. Cliffs' 4.875% senior secured notes due 2024, Cliffs' 5.75% senior notes due 2025, the New Cliffs 2025 Notes, the New Cliffs 2027 Notes, the New Secured Notes and the Original Notes are, and the Exchange Notes will be, guaranteed on a senior basis by each of Cliffs' material direct and indirect wholly owned domestic subsidiaries, subject to certain exceptions. The New ABL Facility is guaranteed by Cliffs' material direct and indirect wholly owned domestic subsidiaries, subject to certain exceptions. See "Description of Other Indebtedness."
- (2) Immaterial subsidiaries are limited to Cliffs' direct and indirect subsidiaries that do not have consolidated total assets or consolidated total revenues in excess of 3.0% of the consolidated total assets or consolidated total revenues of Cliffs and its subsidiaries as of the most recent balance sheet date or for the most recent four-quarter period, respectively, provided that all immaterial subsidiaries taken together may not have consolidated total assets or consolidated total revenues in excess of 7.5% of the consolidated total assets or consolidated total revenues, respectively, of Cliffs and its subsidiaries. Immaterial subsidiaries do not guarantee any of Cliffs' existing senior notes, including the Original Notes, or the New ABL Facility and will not guarantee the Exchange Notes.
- (3) Other non-guarantor subsidiaries are limited to (a) Cliffs' non-wholly owned subsidiaries to the extent the organizational documents (e.g., joint venture or shareholder agreements) of such subsidiaries prohibit such guarantee and (b) Cliffs' indirect subsidiary, Wabush Iron Co. Limited.
- (4) Cliffs' foreign subsidiaries do not guarantee any of Cliffs' existing senior notes, including the Original Notes, or the New ABL Facility and will not guarantee the Exchange Notes. Cliffs' main holding company for these foreign subsidiaries, Cleveland-Cliffs International Holding Company, will also not provide a guarantee so long as substantially all of its assets consist of equity interests in one or more foreign subsidiaries. Also, any pledge of Cleveland-Cliffs International Holding Company voting stock will be limited to 65% of the voting equity interests in Cleveland-Cliffs International Holding Company.
- (5) AK Steel, AK Steel Corporation and the following subsidiaries of AK Steel Corporation are guarantors of Cliffs' 4.875% senior secured notes due 2024, Cliffs' 5.75% senior notes due 2025, the New Cliffs 2025 Notes, the New Cliffs 2027 Notes, the New Secured Notes, the Original Notes and the New ABL Facility, and all will guarantee the Exchange Notes: AH Management, Inc., AKS Investments, Inc., AK Steel Properties, Inc., AK Tube LLC, Mountain State Carbon, LLC, PPHC Holdings, LLC, and SNA Carbon, LLC. For summarized financial information regarding AK Steel, AK Steel Corporation and certain other AK Steel Corporation subsidiaries that will guarantee the Exchange Notes, see Note 21 - Supplementary Guarantor Information

within Item 8. Financial Statements and Supplementary Data in AK Steel's Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein. AK Steel, AK Steel Corporation and certain other AK Steel Corporation subsidiaries that will be guarantors of the Exchange Notes are included within the following columns contained in the condensed consolidating financial statements contained in Note 21: "AK Holding," which contains financial information about AK Steel, "AK Steel," which contains financial information about AK Steel Corporation, and "Guarantor Subsidiaries," which contains aggregated financial information about AK Steel Properties, Inc., AK Tube LLC and Mountain State Carbon, LLC. Financial information about PPHC Holdings, LLC, AH Management, Inc., AKS Investments, Inc. and SNA Carbon LLC, which are not or were not, as applicable, guarantors of AK Steel Corporation's outstanding and previously outstanding senior notes but that will be guarantors of the Exchange Notes, was historically included within the "Other Non-Guarantor Subsidiaries" column in the condensed consolidating financial statements contained in Note 21.

- (6) Issuer of the AK Steel 2021 Notes and the AK Steel 2023 Notes, guarantor of Cliffs' 4.875% senior secured notes due 2024, Cliffs' 5.75% senior notes due 2025, the New Cliffs 2025 Notes, the New Cliffs 2027 Notes, the New Secured Notes, the Original Notes and the New ABL Facility and future guarantor of the Exchange Notes.

Corporate Information

Our principal executive offices are located at 200 Public Square, Suite 3300, Cleveland, Ohio 44114-2315. Our main telephone number is (216) 694-5700, and our website address is www.clevelandcliffs.com. The information contained on or accessible through our website is not part of this prospectus, other than the documents that we file with the SEC that are specifically incorporated by reference into this prospectus.

The Exchange Offer

The following summary contains basic information about the Exchange Offer and is not intended to be complete. It does not contain all the information that may be important to you. For a more complete understanding of the Exchange Offer, including for the meanings of capitalized terms not otherwise defined below, please refer to "The Exchange Offer."

The Exchange Offer	We are offering to exchange up to \$750.0 million aggregate principal amount of our registered 5.875% Senior Guaranteed Notes due 2027, which we refer to herein as the Exchange Notes, for an equal principal amount of our outstanding restricted 5.875% Senior Guaranteed Notes due 2027 issued in a private transaction exempt from the registration requirements of the Securities Act on May 13, 2019, which we refer to herein as the Original Notes. We refer herein to the Original Notes and the Exchange Notes, collectively, as the Notes. We refer herein to the offer to exchange as the Exchange Offer. The terms of the Exchange Notes will be substantially identical to the terms of the Original Notes, except that the Exchange Notes will be registered under the Securities Act and the transfer restrictions and registration rights and related additional interest provisions applicable to the Original Notes will not apply to the Exchange Notes. The Exchange Notes will be part of the same series as the Original Notes and will be issued under the same indenture. Holders of Original Notes do not have any appraisal or dissenters' rights in connection with the Exchange Offer.
Purpose of the Exchange Offer	The Exchange Notes are being offered to satisfy our obligations under the registration rights agreement entered into at the time we issued and sold the Original Notes.
Expiration Date; Withdrawal of Tenders; Return of Original Notes Not Accepted for Exchange	The Exchange Offer will expire at 5:00 p.m., New York City time, on _____, 2020 or on a later date and time to which we extend it. We refer to such time and date as the Expiration Date. Tenders of Original Notes in the Exchange Offer may be withdrawn at any time prior to the Expiration Date. We will exchange the Exchange Notes for validly tendered Original Notes promptly following the Expiration Date. We refer to such date of exchange as the Exchange Date. Any Original Notes that are not accepted for exchange for any reason will be returned by us, at our expense, to the tendering holder promptly after the expiration or termination of the Exchange Offer.
Procedures for Tendering Original Notes	Each holder of Original Notes wishing to participate in the Exchange Offer must follow procedures of The Depository Trust Company's, or DTC, Automated Tender Offer Program, or ATOP, subject to the terms and procedures of that program. The ATOP procedures require that the exchange agent receives, prior to the Expiration Date, a computer-generated message known as an "agent's message" that is transmitted through ATOP and pursuant to which DTC confirms that: <ul style="list-style-type: none">• DTC has received instructions to exchange your Original Notes; and• you agree to be bound by the terms of the letter of transmittal. See "The Exchange Offer—Procedures for Tendering Original Notes."

Consequences of Failure to Exchange Original Notes

You will continue to hold Original Notes, which will remain subject to their existing transfer restrictions, if you do not validly tender your Original Notes or you tender your Original Notes and they are not accepted for exchange. With some limited exceptions, we will have no obligation to register the Original Notes after we consummate the Exchange Offer. See “The Exchange Offer—Terms of the Exchange Offer” and “The Exchange Offer—Consequences of Failure to Exchange.”

Conditions to the Exchange Offer

The Exchange Offer is not conditioned upon any minimum aggregate principal amount of Original Notes being tendered or accepted for exchange. The Exchange Offer is subject to customary conditions, which may be waived by us in our discretion. We currently expect that all of the conditions will be satisfied and that no waivers will be necessary. See “The Exchange Offer—Conditions to the Exchange Offer.”

Exchange Agent

U.S. Bank National Association

Certain U.S. Federal Income Tax Considerations

As described in “Certain U.S. Federal Income Tax Considerations,” the exchange of an Original Note for an Exchange Note pursuant to the Exchange Offer will not constitute a taxable exchange and will not result in any taxable income, gain or loss for U.S. federal income tax purposes, and immediately after the exchange, a holder will have the same adjusted tax basis and holding period in each Exchange Note received as such holder had immediately prior to the exchange in the corresponding Original Note surrendered.

Risk Factors

You should carefully read and consider the risk factors beginning on page [16](#) of this prospectus before deciding whether to participate in the Exchange Offer.

The Exchange Notes

The following is a brief summary of the principal terms of the Exchange Notes and is provided solely for your convenience. It is not intended to be complete. For a more detailed description of the Exchange Notes, see "Description of the Notes."

Issuer	Cleveland-Cliffs Inc.
Securities Offered	Up to \$750.0 million aggregate principal amount of Exchange Notes.
Maturity Date	June 1, 2027.
Interest Rate	The Exchange Notes will bear interest at 5.875% per year.
Accrual of Interest	The Exchange Notes will accrue interest from (and including) the most recent date on which interest has been paid on the Original Notes accepted in the Exchange Offer.
Interest Payment Dates	Interest will be payable in cash on June 1 and December 1 of each year, commencing on June 1, 2020. If the record date for the first interest payment date occurs on or prior to the Exchange Date, the record date for the first interest payment date will be deemed the close of business on the business day immediately prior to such interest payment date.
Optional Redemption	<p>We may redeem any of the Notes beginning on June 1, 2022. The initial redemption price is 102.938% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. The redemption price will decline each year after 2022 and will be 100% of their principal amount, plus accrued interest, beginning on June 1, 2025. We may also redeem some or all of the Notes at any time and from time to time prior to June 1, 2022 at a price equal to 100% of the principal amount thereof plus a "make-whole" premium, plus accrued and unpaid interest, if any, to, but excluding, the redemption date.</p> <p>In addition, at any time and from time to time prior to June 1, 2022, we may redeem in the aggregate up to 35% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of additional Notes) with the net cash proceeds of certain equity offerings, at a redemption price of 105.875%, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, so long as at least 65% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of additional Notes) issued under the indenture remain outstanding after each such redemption. See "Description of the Notes—Optional Redemption."</p>
Change of Control	Upon certain change of control triggering events, we will be required to make an offer to purchase the Notes. The purchase price will equal 101% of the principal amount of the Notes on the date of purchase plus accrued and unpaid interest, if any, to, but excluding, the date of repurchase. We may not have sufficient funds available at the time of any change of control triggering event to make any required debt repayment (including repurchases of the Notes). See "Risk Factors—Risks Relating to the Notes—We may not be able to repurchase the Notes upon a change of control triggering event."

<p>Ranking</p>	<p>The Exchange Notes and guarantees:</p> <ul style="list-style-type: none"> • will be general unsecured senior obligations of Cliffs and the Guarantors; • will rank equally in right of payment with all existing and future senior unsecured indebtedness of Cliffs and the Guarantors (including the Original Notes), and any guarantees thereof by the Guarantors; • will rank senior in right of payment to all existing and future subordinated indebtedness of Cliffs and the Guarantors; • will be effectively subordinated to Cliffs' and the Guarantors' existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness; • will be structurally senior to existing and future indebtedness of Cliffs that is not guaranteed by each Guarantor; and • will be structurally subordinated to all existing and future indebtedness and other liabilities of subsidiaries of Cliffs that do not guarantee the Notes. <p>On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 10.9% of our consolidated revenue and approximately 10.7% of our consolidated income from continuing operations for the year ended December 31, 2019. On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 11.0% of our consolidated assets as of December 31, 2019.</p>
<p>Certain Covenants</p>	<p>The indenture governing the Notes contains covenants that, among other things, limit Cliffs' and its subsidiaries' ability to:</p> <ul style="list-style-type: none"> • create liens on our property that secure indebtedness; • enter into certain sale and leaseback transactions; and • merge, consolidate or amalgamate with another company.
<p>Use of Proceeds</p>	<p>These covenants are subject to a number of important limitations and exceptions. See "Description of the Notes—Certain Covenants."</p> <p>We will not receive any cash proceeds from the issuance of the Exchange Notes. See "Use of Proceeds."</p>
<p>Governing Law</p>	<p>The Notes, the guarantees thereof and the indenture governing the Notes are governed by the laws of the State of New York.</p>
<p>Trustee, Registrar and Paying Agent</p>	<p>U.S. Bank National Association</p>
<p>Risk Factors</p>	<p>See "Risk Factors" and other information in this prospectus for a discussion of factors that should be carefully considered by the holders of the Original Notes before tendering their Original Notes in the Exchange Offer and investing in the Exchange Notes.</p>

Summary Historical Consolidated Financial Data of Cliffs

The table below sets forth our summary historical consolidated financial and other statistical data for the periods presented. We derived the summary historical consolidated financial data and other statistical data as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 from our audited consolidated financial statements, which are incorporated by reference into this prospectus. The summary historical consolidated financial data and other statistical data as of December 31, 2017 are derived from our audited consolidated financial statements not incorporated by reference into this prospectus. Summary historical consolidated financial and other statistical data should be read in conjunction with our consolidated financial statements, the related notes and other financial information incorporated by reference into this prospectus.

The information set forth below is not necessarily indicative of future results and should be read together with the other information contained in Cliffs' Annual Report on Form 10-K for the year ended December 31, 2019, including the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and accompanying notes included in the reports incorporated by reference into this prospectus.

	Year Ended December 31,		
	2019	2018(a)	2017(b)
Financial data (in millions, except per share amounts)			
Revenue from product sales and services	\$ 1,989.9	\$ 2,332.4	\$ 1,866.0
Income from continuing operations	\$ 294.5	\$ 1,039.9	\$ 360.6
Income (loss) from discontinued operations, net of tax(c)	\$ (1.7)	\$ 88.2	\$ 2.5
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
Earnings (loss) per common share attributable to Cliffs common shareholders - basic	\$ 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
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted	\$ 1.03	\$ 3.71	\$ 1.26
Total assets	\$ 3,503.8	\$ 3,529.6	\$ 2,953.4
Long-term debt obligations (including finance leases)	\$ 2,144.6	\$ 2,104.5	\$ 2,311.8
Cash dividends declared to common shareholders			
- Per share	\$ 0.27	\$ 0.05	\$ —
- Total	\$ 75.0	\$ 15.0	\$ —
Repurchases of common shares	\$ (252.9)	\$ (47.5)	\$ —
Common shares outstanding - basic (millions)			
- Average for year	276.8	297.2	288.4
- At year-end	270.1	292.6	297.4

	(In Millions)		
	Year Ended December 31,		
	2019	2018(a)	2017(b)

Iron ore production and sales statistics (long tons)

Production tonnage:

- Mining and Pelletizing	25.7	26.3	25.5
- Mining and Pelletizing (Cliffs' share)	19.9	20.3	18.8

Sales tonnage:

- Mining and Pelletizing(d)	18.6	20.6	18.7
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	(In Millions)		
	Year Ended December 31,		
	2019	2018(a)	2017(b)

Reconciliation of Net Income to EBITDA to Total Adjusted EBITDA

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(c)	\$ (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)(c)	(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

Mining and Pelletizing (per long ton)	Year Ended December 31,		
	2019	2018(a)	2017(b)
Realized product revenue rate(d)	\$ 99.50	\$ 105.64	\$ 88.03
Cash cost of goods sold and operating expense rate(e)(f)	64.45	62.95	59.43
Depreciation, depletion and amortization	4.08	3.32	3.56
Total cost of goods sold and operating expense rate	68.53	66.27	62.99
Sales margin	\$ 30.97	\$ 39.37	\$ 25.04

- (a) During 2018, Cliffs recorded an income tax benefit of \$475.2 million, primarily related to the release of the valuation allowance in the U.S. Additionally, on January 1, 2018, Cliffs adopted Accounting Standards Codification, or ASC, Topic 606, and applied it to all contracts that were not completed using the modified retrospective method. Cliffs recognized the cumulative effect of initially applying ASC Topic 606 as an adjustment of \$34.0 million to the opening balance of *Retained deficit*. The 2017 information has not been retrospectively revised and continues to be reported under the accounting standards in effect for that year.
- (b) During 2017, Cliffs issued 63.25 million Cliffs common shares in an underwritten public offering. Cliffs received net proceeds of \$661.3 million at a public offering price of \$10.75 per Cliffs common share. The net proceeds from the issuance of Cliffs 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 Cliffs' 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, Cliffs purchased certain of its 5.90% 2020 senior notes, 4.80% 2020 senior notes and 4.875% 2021 senior notes. The aggregate principal amount outstanding of debt redeemed was \$1.611 billion, which resulted in a loss on extinguishment of \$165.4 million. During 2017, Cliffs' ownership interest in Empire Iron Mining Partnership increased to 100% as it reached an agreement to distribute the noncontrolling interest net assets of \$132.7 million to ArcelorMittal, in exchange for its interest in Empire Iron Mining Partnership. Cliffs also acquired the remaining 15% equity interest in Tilden Mining Company L.C. owned by United States Steel Corporation for \$105.0 million. Prior to the end of the year, Public Law 115-97, commonly known as the "Tax Cuts and Jobs Act," was signed into law and, among other items, repealed the corporate Alternative Minimum Tax, or AMT, and reduced the federal corporate tax rate to 21% for tax years beginning January 1, 2018. Along with the repeal of AMT, Public Law 115-97 provided that existing AMT credit carryovers are refundable beginning with the filing of the calendar year 2018 tax return. Cliffs had \$235.3 million of AMT credit carryovers that are expected to be fully refunded between 2019 and 2022.
- (c) Refer to Note 13—Discontinued Operations in our Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein, for information regarding discontinued operations.
- (d) Mining and pelletizing sales tonnage does not include intercompany mining and pelletizing sales, which totaled approximately 0.8 million long tons during 2019.
- (e) Excludes revenues and expenses related to freight, which are offsetting and have no impact on sales margin.
- (f) Cash cost of goods sold and operating expense rate per long ton is a non-GAAP financial measure. Below is a reconciliation in dollars of this non-GAAP financial measure to our Mining and Pelletizing segment cost of goods sold and operating expenses.

	(In Millions)		
	Year Ended December 31,		
	2019	2018	2017
Cost of goods sold and operating expenses	\$ (1,469.2)	\$ (1,522.8)	\$ (1,398.4)
Less:			
Freight and reimbursements	(141.8)	(160.1)	(221.4)
Depreciation, depletion & amortization	(79.0)	(68.2)	(66.6)
Cash cost of goods sold and operating expenses	\$ (1,248.4)	\$ (1,294.5)	\$ (1,110.4)

Summary Historical Consolidated Financial Data of AK Steel

The following table presents summary historical consolidated financial data of AK Steel as of and for the years ended December 31, 2019, 2018 and 2017. The summary historical consolidated financial data for each of the years ended December 31, 2019, 2018 and 2017 and as of December 31, 2019 and 2018 have been derived from AK Steel's audited consolidated financial statements and related notes included in AK Steel's Annual Report on Form 10-K for the year ended December 31, 2019, which is incorporated by reference herein. The summary historical consolidated financial data as of the year ended December 31, 2017 have been derived from AK Steel's audited consolidated financial statements and related notes for the year ended December 31, 2017, which have not been incorporated by reference herein.

The information set forth below is not necessarily indicative of future results and should be read together with the other information contained in AK Steel's Annual Report on Form 10-K for the year ended December 31, 2019, including the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the consolidated financial statements and related notes therein. See "Where You Can Find More Information."

	(in millions, except per share amounts or as otherwise noted)					
	Year Ended December 31,					
	2019		2018		2017	
Statement of Operations Data						
Net sales	\$	6,359.4	\$	6,818.2	\$	6,080.5
Operating profit	\$	209.3	\$	364.4	\$	260.2
Net income attributable to AK Steel (a)	\$	11.2	\$	186.0	\$	103.5
Earnings per share attributable to AK Steel stockholders						
- Basic	\$	0.04	\$	0.59	\$	0.33
- Diluted (a)	\$	0.04	\$	0.59	\$	0.32
Other Data						
Total flat-rolled shipments (in thousands of tons)	\$	5,342.2	\$	5,683.4	\$	5,596.2
Selling price per flat-rolled ton	\$	1,078	\$	1,091	\$	1,022
Balance Sheet Data						
Total assets (b)	\$	4,590.6	\$	4,515.7	\$	4,474.8
Long-term debt	\$	1,968.8	\$	1,993.7	\$	2,110.1
Cash dividends declared to AK Steel stockholders						
- Per share	\$	—	\$	—	\$	—
- Total	\$	—	\$	—	\$	—

(a) In 2019, AK Steel recorded a charge of \$69.3 million (\$0.22 per diluted share) to permanently close Ashland Works. In 2019 and 2018, AK Steel recorded pension settlement charges of \$26.9 million (\$0.08 per diluted share) and \$14.5 million (\$0.05 per diluted share). In 2017, AK Steel recorded an asset impairment charge of \$75.6 million (\$0.24 per diluted share) related to the Ashland Works blast furnace and steelmaking operations and a credit of \$19.3 million (\$0.06 per diluted share) for the reversal of a liability for transportation costs.

(b) AK Steel adopted Accounting Standards Update No. 2016-02, Leases (Topic 842), as of January 1, 2019 through the modified retrospective method and recorded additional lease assets and liabilities of \$291.1 million as of January 1, 2019. Prior period amounts have not been adjusted and continue to be reported in accordance with AK Steel's historical accounting treatment.

	(in millions)		
	Year Ended December 31,		
Reconciliation of Adjusted EBITDA	2019	2018	2017
Net income attributable to AK Steel	\$ 11.2	\$ 186.0	\$ 103.5
Net income attributable to noncontrolling interests	51.8	58.1	61.4
Income tax expense (benefit)	6.2	(6.2)	(2.2)
Interest expense, net	145.7	150.7	150.9
Depreciation and amortization	209.8	237.0	236.3
EBITDA	424.7	625.6	549.9
Less: EBITDA of noncontrolling interests (a)	74.4	76.7	77.7
Ashland Works closure	69.3	—	—
Pension settlement charges	26.9	14.5	—
Credit for adjustment of liability for transportation costs	—	—	(19.3)
Asset impairment charge	—	—	75.6
Adjusted EBITDA	\$ 446.5	\$ 563.4	\$ 528.5
Adjusted EBITDA margin	7.0%	8.3%	8.7%

(a) The reconciliation of net income attributable to noncontrolling interests to EBITDA of noncontrolling interests is as follows:

	(in millions)		
	Year Ended December 31,		
	2019	2018	2017
Net income attributable to noncontrolling interests	\$ 51.8	\$ 58.1	\$ 61.4
Depreciation	22.6	18.6	16.3
EBITDA of noncontrolling interests	\$ 74.4	\$ 76.7	\$ 77.7

	(in millions, except per share amounts)		
	Year Ended December 31,		
Reconciliation to Net Income Attributable to AK Steel	2019	2018	2017
Net income attributable to AK Steel, as reported	\$ 11.2	\$ 186.0	\$ 103.5
Ashland Works closure	69.3	—	—
Pension settlement charges	26.9	14.5	—
Credit for adjustment of liability for transportation costs	—	—	(19.3)
Asset impairment charge	—	—	75.6
Adjusted net income attributable to AK Steel	\$ 107.4	\$ 200.5	\$ 159.8
Reconciliation to Diluted Earnings per Share			
Diluted earnings per share, as reported	\$ 0.04	\$ 0.59	\$ 0.32
Ashland Works closure	0.22	—	—
Pension settlement charges	0.08	0.05	—
Credit for adjustment of liability for transportation costs	—	—	(0.06)
Asset impairment charge	—	—	0.24
Adjusted diluted earnings per share	\$ 0.34	\$ 0.64	\$ 0.50

Summary Unaudited Pro Forma Condensed Combined Financial Data

The following table presents summary unaudited pro forma condensed combined financial data of Cliffs after giving effect to the Merger, which is referred to as the summary pro forma financial data. The information under "Pro Forma Statements of Income Data" and "Pro Forma Adjusted EBITDA" in the tables below gives effect to the Merger as if it had been consummated on January 1, 2019, the beginning of the earliest period for which unaudited pro forma condensed combined financial statements have been presented. The information under "Pro Forma Balance Sheet Data" in the table below assumes the Merger had been consummated on December 31, 2019. This summary pro forma financial data was prepared using the acquisition method of accounting with Cliffs considered the accounting acquirer of AK Steel.

The summary pro forma financial data reflects preliminary pro forma adjustments that have been made solely for the purpose of providing the pro forma financial data presented in this prospectus. Cliffs estimated the fair value of AK Steel's assets and liabilities based on discussions with AK Steel's management, due diligence information, preliminary valuation analyses performed by a third-party specialist and reviewed by Cliffs, information presented in AK Steel's SEC filings and other publicly available information. As a result of the foregoing, the pro forma adjustments are preliminary and are subject to change as additional information becomes available and as additional analysis is performed.

A final determination of the fair value of AK Steel's assets and liabilities will be performed. Any changes in the fair values of the net assets or total purchase consideration as compared with the information shown in the pro forma financial data may change the amount of the total purchase consideration allocated to goodwill and other assets and liabilities and may impact the combined company statements of income due to adjustments in depreciation and amortization of the adjusted assets or liabilities and related deferred income tax effects. The final purchase consideration allocation may be materially different than the preliminary purchase consideration allocation presented in the pro forma financial data.

The information presented below should be read in conjunction with the historical consolidated financial statements and related notes of Cliffs and AK Steel, as filed by each with the SEC in their respective Annual Reports on Form 10-K for the fiscal year ended December 31, 2019, which are incorporated by reference into this prospectus, and with the unaudited pro forma condensed combined financial statements of Cliffs and AK Steel, including the related notes, as filed by Cliffs with the SEC in its Current Report on Form 8-K on February 26, 2020, which is incorporated by reference into this prospectus. The summary unaudited pro forma condensed combined financial data are presented for illustrative purposes only and are not necessarily indicative of results that actually would have occurred or that may occur in the future had the Merger been completed on the dates indicated, or the future operating results or financial position of the combined company following the Merger. Future results may vary significantly from the results reflected because of various factors, including those discussed in the section entitled "Risk Factors."

	(In millions, except per share amounts)	
	Year Ended	
	December 31, 2019	
Pro Forma Statements of Income Data:		
Revenues from product sales and services	\$	7,752.2
Income from continuing operations	\$	305.1
Loss from discontinued operations, net of tax	\$	(1.7)
Earnings per common share attributable to common shareholders		
- Basic	\$	0.62
- Diluted	\$	0.61
Cash dividends declared to common shareholders(1)		N/A
(In millions)		
Pro Forma Balance Sheet Data:		
Total assets	\$	8,742.8
Long-term debt	\$	4,307.4

(1) Pro forma dividends per share data is not presented, as the dividend per share for the combined company will be determined by the board of directors of the combined company following the completion of the Merger.

The following table reconciles pro forma net income to pro forma adjusted EBITDA. For additional information regarding the pro forma adjustments, see the unaudited pro forma condensed combined financial statements of Cliffs and AK Steel, including the related notes, as filed by Cliffs with the SEC in its Current Report on Form 8-K on February 26, 2020, which is incorporated by reference into this prospectus.

	(In millions)	
	Pro Forma	
	December 31, 2019	
Pro Forma Adjusted EBITDA:		
Net income	\$	251.6
Net income attributable to noncontrolling interest		51.8
Income tax expense (benefit)		12.4
Interest expense, net		224.0
Depreciation, depletion and amortization		342.5
EBITDA		882.3
EBITDA of noncontrolling interests		(74.4)
Ashland Works closure		69.3
Pension settlement charges		26.9
Impact of discontinued operations		1.3
Loss on extinguishment of debt		17.6
Severance costs		3.5
Adjusted EBITDA		926.5
Expected synergies		120.0
Adjusted EBITDA (inclusive of expected synergies)	\$	1,046.5

RISK FACTORS

The terms of the Exchange Notes will be identical in all material respects to those of the Original Notes, except for the transfer restrictions and registration rights and related additional interest provisions relating to the Original Notes that will not apply to the Exchange Notes. You should carefully consider the risks described below and all of the information contained in and incorporated by reference into this prospectus before making a decision on whether or not to participate in the Exchange Offer. In addition, you should carefully consider, among other things, the matters discussed under "Risk Factors" in our and AK Steel's respective Annual Reports on Form 10-K for the fiscal year ended December 31, 2019. If any of those risks actually occurs, our business, financial condition and results of operations could suffer. The risks discussed below also include forward-looking statements, and our actual results may differ substantially from those discussed in these forward-looking statements. See "Disclosure Regarding Forward-Looking Statements" in this prospectus.

Risks Relating to the Notes

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 the Notes.

As of December 31, 2019, we had approximately \$2.1 billion of outstanding indebtedness, and we expect to incur and/or assume approximately \$2.2 billion of debt in connection with the consummation of the Merger.

As of December 31, 2019, on a pro forma basis, after giving effect to: (i) the consummation of the Merger, including the assumption by Cliffs of AK Steel's outstanding \$99.3 million aggregate principal amount of industrial revenue bonds, or IRBs; (ii) the consummation of the Debt Exchange Offers (based on the participation as of February 21, 2020); (iii) the purchase in the Tender Offers of all outstanding AK Steel 2021 Notes and AK Steel 2023 Notes using the net proceeds from the Secured Notes Offering, along with borrowings under the New ABL Facility and cash on hand (assuming 100% participation at the Tender Offer Early Participation Deadline); and (iv) Cliffs entering into the New ABL Facility and the anticipated application of the proceeds therefrom and cash on hand in connection with the consummation of the Merger, including the repayment of all amounts outstanding under AK Steel's existing revolving credit facility, we would have had approximately \$4.4 billion aggregate principal amount of indebtedness outstanding, approximately \$1.8 billion of which would have been secured indebtedness (excluding \$110.4 million of outstanding letters of credit and \$32.5 million of finance leases), and approximately \$292.2 million of cash on our balance sheet. Our level of indebtedness could have important consequences to you. For example, it could:

- require us to dedicate a substantial portion of our cash flow from operations to the payment of debt service, reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes;
- increase our vulnerability to adverse economic or industry conditions;
- limit our ability to obtain additional financing in the future to enable us to react to changes in our business;
- place us at a competitive disadvantage compared to businesses in our industry that have less indebtedness; or
- limit our ability to pay dividends on or purchase or redeem our capital stock.

Our substantial level of indebtedness could limit our ability to obtain additional financing on acceptable terms or at all for working capital, capital expenditures and general corporate purposes. Our liquidity needs could vary significantly and may be affected by general economic conditions, industry trends, performance 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. However, we may not be able to obtain any such new or additional debt on favorable terms or at all.

Additionally, 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.

Despite our current debt levels, we and our subsidiaries may still incur significant additional debt, and the indenture governing the Notes does not restrict our ability to engage in other transactions that may adversely affect holders of the Notes.

The indenture governing the Notes does not limit the amount of unsecured debt that we may incur and only limits the amount of senior secured debt that we may incur. Accordingly, we and our subsidiaries may be able to incur substantial additional debt, including additional secured debt, in the future. The indenture does not prevent us from incurring certain other liabilities that do not constitute debt (as defined in the indenture). Non-Guarantor subsidiaries, which include our foreign subsidiaries and certain excluded domestic subsidiaries, may incur additional debt under the indenture, which debt (as well as other liabilities at any such subsidiary) would be structurally senior to the Notes. On a pro forma basis, after giving effect to the Merger, the non-Guarantor subsidiaries would have accounted for approximately 10.9% of our consolidated revenue and approximately 10.7% of our consolidated income from continuing operations for the year ended December 31, 2019. On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 11.0% of our consolidated assets as of December 31, 2019. If new debt or other liabilities are added to our current debt levels, the related risks that we and our subsidiaries now face could intensify. In addition, the indenture does not contain any financial covenants or other provisions that would afford the holders of the Notes any substantial protection in the event we participate in a highly leveraged transaction. The indenture also does not limit our ability to pay dividends or make distributions or repurchases of our common shares. Any such transaction could adversely affect you.

Restrictive covenants in the indenture governing the Notes, the agreement governing the New ABL Facility and the agreements and indentures governing our other outstanding indebtedness restrict our ability to operate our business.

The indenture governing the Notes, the agreement governing the New ABL Facility and the agreements and indentures governing our other outstanding indebtedness and indebtedness we may incur in the future contain or may contain covenants that restrict our ability to operate our business.

For example, the restrictions in the agreement governing the New ABL Facility limit our ability, among other things, to:

- pay dividends on or purchase or redeem our capital stock;
- incur certain debt;
- prepay and modify certain debt;
- merge, acquire other entities, enter into joint ventures and partnerships;
- sell or dispose of certain assets;
- make investments in other persons;
- change the nature of the business or accounting methods;
- incur certain liens or encumbrances; and
- enter into certain transactions with affiliates.

Additionally, the restrictions in the indenture governing the Notes and the indentures governing our existing nonconvertible senior notes limit our ability, among other things, to: incur certain secured indebtedness; enter into certain sale and leaseback transactions; and merge, consolidate or amalgamate with another company.

As a result of these covenants and restrictions, we are limited in how we conduct our business and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants. We cannot assure you that we will be able to maintain compliance with these covenants in the future and, if we fail to do so, that we will be able to obtain waivers from the lenders and/or amend the covenants.

We may not be able to generate sufficient cash to service all of our debt, including the Notes, 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, including the Notes, and to fund planned capital expenditures and expansion efforts and any strategic alliances or acquisitions we may make in the future 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, including the Notes.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay investments and capital expenditures, or to sell assets, seek additional capital or restructure or refinance our debt, including the Notes. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. These measures may not be successful and may not permit us to meet our scheduled debt service obligations. If our operating results and available cash are insufficient to meet our debt service obligations, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. We may not be able to consummate those dispositions or to obtain the proceeds that we could realize from them, and these proceeds may not be adequate to meet any debt service obligations then due. Further, we may need to refinance all or a portion of our debt on or before maturity, and we cannot assure you that we will be able to refinance any of our debt on commercially reasonable terms or at all.

The guarantees of the Notes provided by the Guarantors may not be enforceable and, under specific circumstances, federal and state statutes may allow courts to void the Notes guarantees and require holders of Notes to return payments received from the Guarantors.

Under federal bankruptcy law and comparable provisions of state fraudulent transfer laws, a guarantee could be deemed a fraudulent transfer if the guarantor received less than a reasonably equivalent value in exchange for giving the guarantee, and one of the following is also true:

- such guarantor was insolvent on the date that it gave the guarantee or became insolvent as a result of giving the guarantee;
- such guarantor was engaged in business or a transaction, or was about to engage in business or a transaction, for which property remaining with the guarantor was an unreasonably small capital; or
- such guarantor intended to incur, or believed that it would incur, debts that would be beyond the guarantor's ability to pay as those debts matured.

A guarantee could also be deemed a fraudulent transfer if it was given with actual intent to hinder, delay or defraud any entity to which the guarantor was or became, on or after the date the guarantee was given, indebted.

The measures of insolvency for purposes of the foregoing considerations will vary depending upon the law applied in any proceeding with respect to the foregoing. Generally, however, a guarantor would be considered insolvent if, at the time it incurred indebtedness:

- the sum of its debts, including contingent liabilities, is greater than all its assets, at a fair valuation;
- the present fair saleable value of its assets is less than the amount that would be required to pay its probable liability on its existing debts, including contingent liabilities, as they become absolute and mature; or
- it could not pay its debts as they become due.

We cannot predict:

- what standard a court would apply in order to determine whether a Guarantor was insolvent as of the date it issued a guarantee or whether, regardless of the method of valuation, a court would determine that the Guarantor was insolvent on that date; or
- whether a court would determine that the payments under a guarantee would constitute fraudulent transfers or fraudulent conveyances on other grounds.

The indenture governing the Notes contains a “savings clause” intended to limit each Guarantor’s liability under its Notes guarantee to the maximum amount that it could incur without causing the Notes guarantee to be a fraudulent transfer under applicable law. We cannot assure you that this provision will be upheld as intended. For example, in 2009, the U.S. Bankruptcy Court in the Southern District of Florida in *Official Committee of Unsecured Creditors of TOUSA, Inc. v. Citicorp N. Am., Inc.* found this kind of provision in that case to be ineffective, and held the guarantees to be fraudulent transfers and voided them in their entirety.

If a Notes guarantee by a Guarantor is deemed to be a fraudulent transfer, it could be voided altogether, or it could be subordinated to all other debts of the Guarantor. In such case, any payment by the Guarantor pursuant to its Notes guarantee could be required to be returned to the Guarantor or to a fund for the benefit of the creditors of the Guarantor. If a Notes guarantee is voided or held unenforceable for any other reason, holders of the Notes would cease to have a claim against the Guarantor based on the Notes guarantee and would be creditors only of Cliffs and any Guarantor whose Notes guarantee was not similarly voided or otherwise held unenforceable.

In addition, enforcement of any of these guarantees against any Guarantor will be subject to certain defenses available to guarantors generally. These laws and defenses include those that relate to fraudulent conveyance or transfer, voidable preference, corporate purpose or benefit, preservation of share capital, thin capitalization and regulations or defenses affecting the rights of creditors generally. If one or more of these laws and defenses are applicable, a Guarantor may have no liability or decreased liability under its guarantee.

Not all of our subsidiaries will guarantee the Notes, and the assets of our non-Guarantor subsidiaries may not be available to make payments on the Notes.

Not all of our subsidiaries will be required to guarantee the Notes. The Original Notes are, and the Exchange Notes will be, jointly and severally and fully and unconditionally guaranteed on a senior unsecured basis by all of Cliffs’ material wholly owned domestic subsidiaries (other than Excluded Subsidiaries (as defined in the indenture governing the Notes)), including AK Steel and all of its material wholly owned domestic subsidiaries (other than Excluded Subsidiaries).

On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 10.9% of our consolidated revenue and approximately 10.7% of our consolidated income from continuing operations for the year ended December 31, 2019. On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 11.0% of our consolidated assets as of December 31, 2019. In the event that any non-Guarantor subsidiary becomes insolvent, liquidates, reorganizes, dissolves or otherwise winds up, holders of its debt and other liabilities (including its trade creditors) generally will be entitled to payment on their claims from the assets of that subsidiary before any of those assets are made available to Cliffs. Our subsidiaries that do not guarantee the Notes are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay any amounts due pursuant to the Notes or to make any funds available therefor, whether by dividends, loans, distributions or other payments. Consequently, your claims in respect of the Notes will be effectively subordinated to all of the liabilities of our non-Guarantor subsidiaries, including trade payables, and any claims of third-party holders of preferred equity interests, if any, in our non-Guarantor subsidiaries.

Our non-Guarantor subsidiaries may incur obligations that will constrain the ability of our subsidiaries to provide us with cash, which may affect our ability to make payments on our indebtedness, including the Notes.

Our cash flows and our ability to service our debt, including our ability to pay the interest on and principal of the Notes when due, will be dependent upon cash dividends and other distributions or other transfers from our subsidiaries. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our obligations, including the Notes. Each subsidiary is a distinct legal entity and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. Dividends, loans and advances to us from our non-Guarantor subsidiaries may be restricted by covenants in certain debt agreements. Additionally, to the extent our cash is held outside of the United States, repatriation of such cash could be negatively impacted by potential foreign and domestic taxes. If our non-Guarantor subsidiaries incur obligations with these restrictive covenants, it will constrain the ability of our non-Guarantor subsidiaries to provide us with cash, which may affect our ability to make payments on the Notes. In the event that we do not receive distributions from our subsidiaries, we may be unable to make required principal and interest payments on our obligations, including the Notes.

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 either due to factors specific to our business, a prolonged cyclical downturn in the steel industry or mining 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 would likely result in an increase to our cost of financing, limit our access to the capital markets, significantly harm our financial condition and results of operations, hinder our ability to refinance existing indebtedness on acceptable terms and have an adverse effect on the market price of our securities.

We may not be able to repurchase the Notes upon a change of control triggering event.

Upon a change of control triggering event, as defined under the indenture governing the Notes, the holders of Notes will have the right to require us to offer to repurchase all of the Notes then outstanding at a price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. The source of funds for any such repurchase of the Notes will be our available cash or cash generated from operations or other sources, including borrowings, sales of assets or sales of equity. We may not be able to repurchase the Notes upon a change of control triggering event because we may not have sufficient financial resources, including the ability to arrange necessary financing on acceptable terms or at all, to repurchase all of the Notes that are tendered upon a change of control triggering event. Our failure to offer to repurchase all outstanding Notes or to purchase all validly tendered Notes would be an event of default under the indenture. Such an event of default may cause the acceleration of our other debt. Our other debt also may contain restrictions on repayment requirements with respect to specified events or transactions that constitute a change of control under the indenture governing the Notes, which may further limit our ability to purchase all outstanding Notes upon a change of control triggering event.

Investors may not be able to determine when a change of control giving rise to their right to have the Notes repurchased by us has occurred following a sale of “substantially all” of our assets.

Specific kinds of change of control events require us to make an offer to repurchase all outstanding Notes. The definition of “change of control” under the indenture governing the Notes includes a clause relating to the sale, lease or transfer of “all or substantially all” of the assets of Cliffs and its subsidiaries, taken as a whole. There is no precise established definition of the phrase “substantially all” under applicable law. Accordingly, the ability of a holder of Notes to require us to repurchase such Notes as a result of a sale, lease or transfer of less than all of the assets of Cliffs and its subsidiaries, taken as a whole, to another individual, group or entity may be uncertain.

An active trading market for the Exchange Notes may not develop.

There is no existing market for the Exchange Notes and we do not intend to apply for listing of the Exchange Notes on any securities exchange or any automated quotation system. Accordingly, there can be no assurance that a trading market for the Exchange Notes will ever develop or will be maintained. Further, there can be no assurance as to the liquidity of any market that may develop for the Exchange Notes, your ability to sell your Exchange Notes or the price at which you will be able to sell your Exchange Notes. Future trading prices of the Exchange Notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the then-current ratings assigned to the Exchange Notes and the market for similar debt securities. Any trading market that develops would be affected by many factors independent of and in addition to the foregoing, including:

- the time remaining to the maturity of the Exchange Notes;
- the outstanding amount of the Exchange Notes;
- the terms related to optional redemption of the Exchange Notes; and
- the level, direction and volatility of market interest rates generally.

If you fail to exchange your Original Notes, they will continue to be restricted securities and will likely become less liquid.

Original Notes that you do not tender, or we do not accept, will, following the Exchange Offer, continue to be restricted securities, and you may not offer to sell them except pursuant to an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws. We will issue Exchange Notes in exchange for Original Notes pursuant to the Exchange Offer only following the satisfaction of the procedures and conditions set forth in “The Exchange Offer—Procedures for Tendering Original Notes” and “The Exchange Offer—Conditions to the

Exchange Offer.” These procedures and conditions include timely receipt by the exchange agent of a confirmation of book-entry transfer of the Original Notes being tendered and an agent’s message from DTC.

Because we anticipate that all or substantially all holders of Original Notes will elect to exchange their Original Notes in the Exchange Offer, we expect that the market for any Original Notes remaining after the completion of the Exchange Offer will be substantially limited. Any Original Notes tendered and exchanged in the Exchange Offer will reduce the aggregate principal amount of the Original Notes outstanding. If you do not tender your Original Notes, following the Exchange Offer, you generally will not have any further registration rights, and your Original Notes will continue to be subject to certain transfer restrictions. Accordingly, the liquidity of the market for the Original Notes is likely to be adversely affected.

We may choose to redeem the Notes prior to maturity.

We may redeem some or all of the Notes at any time. See “Description of the Notes—Optional Redemption.” If prevailing interest rates are lower at the time of redemption, you may not be able to reinvest the redemption proceeds in a comparable security at an interest rate as high as the interest rate of the Notes being redeemed.

An increase in market interest rates could result in a decrease in the value of the Notes.

In general, as market interest rates rise, notes bearing interest at a fixed rate decline in value because the premium, if any, over market interest rates will decline. Consequently, if market interest rates increase, the market value of your Notes may decline. We cannot predict the future level of market interest rates.

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 Report on Form 10-K for the year ended December 31, 2019, 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 or incorporated by reference into this prospectus and included in Cliffs’ and AK Steel’s respective Annual Reports on Form 10-K for the year ended December 31, 2019, as well as the factors described under “Disclosure Regarding Forward-Looking Statements” in this prospectus. 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, or incorporated by reference into, this prospectus could result in actual operating results being different than the guidance, and such differences may be adverse and material.

Certain Risks Relating to the Merger

We are subject to business uncertainties following the Merger, 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 for a period of time following the completion of the Merger, 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.

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 connection with 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.

The unaudited pro forma condensed combined financial information and unaudited forecasted financial information included or incorporated by reference in this prospectus is presented for illustrative purposes only and does not represent the actual financial position or results of operations of the combined company following the completion of the Merger. Future results of the combined company may differ, possibly materially, from the unaudited pro forma condensed combined financial information and unaudited forecasted financial information included or incorporated by reference in this prospectus.

The unaudited pro forma condensed combined financial statements and unaudited forecasted financial information included or incorporated by reference in this prospectus is presented for illustrative purposes only, contains a variety of adjustments, assumptions and preliminary estimates and does not represent the actual financial position or results of operations of the combined company following the Merger for several reasons. Specifically, Cliffs has not completed the detailed valuation analyses to arrive at the final estimates of the fair values of the assets acquired and liabilities assumed and the related allocation of purchase price and the unaudited pro forma condensed combined financial statements do not reflect the effects of transaction-related costs and integration costs. In addition, the post-Merger integration process may give rise to unexpected liabilities and costs, including costs associated with transaction-related litigation or other claims. Unexpected delays in connection with the post-Merger integration process may significantly increase the related costs and expenses incurred by Cliffs. The actual financial position and results of operations of the combined company following the Merger may be different, possibly materially, from the unaudited pro forma condensed combined financial statements or unaudited forecasted financial information included or incorporated by reference in this prospectus. In addition, the assumptions used in preparing the unaudited pro forma condensed combined financial statements and unaudited forecasted financial information included or incorporated by reference in this prospectus may not prove to be accurate and may be affected by other factors. Any significant changes in the market price of Cliffs common shares may cause a significant change in the purchase price used for Cliffs' accounting purposes.

We may fail to realize all of the anticipated benefits of the Merger, and our integration with AK Steel may not be as successful as anticipated.

The success of the 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 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 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 Internal Revenue Code of 1986, as amended, or the Code, 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 Code 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 Code 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, 2019, AK Steel had U.S. federal net operating loss carryforwards of approximately \$2.1 billion and approximately \$76.3 million in deferred tax assets for state net operating loss carryforwards and tax credit carryforwards. The Merger likely resulted 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 are 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, 2019, we had U.S. federal net operating loss carryforwards of approximately \$2.0 billion and state net operating loss carryforwards of approximately \$1.5 billion. Our ability to utilize the \$2.0 billion U.S. federal net operating loss carryforwards may be limited if we experience an "ownership change" under Section 382 of the Code. 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 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 have triggered change in control or other provisions in certain agreements to which AK Steel is a party.

The completion of the Merger may have triggered change in control or other provisions in certain agreements to which AK Steel is a party and to which the combined company is 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.

USE OF PROCEEDS

The Exchange Offer is intended to satisfy our obligation under the registration rights agreement relating to the Original Notes. We will not receive any cash proceeds from the issuance of the Exchange Notes. The terms of the Exchange Notes will be identical in all material respects to the form and terms of the Original Notes, except for the transfer restrictions and registration rights and related additional interest provisions relating to the Original Notes that will not apply to the Exchange Notes. In consideration for issuing the Exchange Notes as contemplated in this prospectus, we will receive, in exchange, an equal principal amount of the Original Notes. The Original Notes surrendered in exchange for the Exchange Notes will be retired and cannot be reissued.

THE EXCHANGE OFFER

Purpose of the Exchange Offer

We are making the Exchange Offer to satisfy our obligations under the registration rights agreement entered into in connection with the offering of the Original Notes.

Terms of the Exchange Offer

We are offering to exchange, upon the terms and subject to the conditions set forth in this prospectus and in the accompanying letter of transmittal, Exchange Notes for an equal principal amount of Original Notes. The terms of the Exchange Notes will be substantially identical in all material respects to those of the Original Notes, except for the transfer restrictions and registration rights and related additional interest provisions relating to the Original Notes that will not apply to the Exchange Notes. The Exchange Notes will be part of the same series as the Original Notes. The Exchange Notes will be entitled to the benefits of the indenture under which the Original Notes were issued. See "Description of the Notes."

The Exchange Offer is not conditioned upon any minimum aggregate principal amount of Original Notes being tendered or accepted for exchange. As of the date of this prospectus, \$750,000,000 aggregate principal amount of Original Notes are outstanding. Original Notes tendered in the Exchange Offer must be in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.

Based on certain interpretive letters issued by the staff of the SEC to third parties in unrelated transactions, holders of Original Notes, except any holder who is an "affiliate" of ours within the meaning of Rule 405 under the Securities Act, who exchange their Original Notes for Exchange Notes pursuant to the Exchange Offer generally may offer the Exchange Notes for resale, resell the Exchange Notes and otherwise transfer the Exchange Notes without compliance with the registration and prospectus delivery provisions of the Securities Act, provided that the Exchange Notes are acquired in the ordinary course of the holders' business and such holders are not participating in, and have no arrangement or understanding with any person to participate in, a distribution of the Exchange Notes.

Each broker-dealer that receives Exchange Notes for its own account in exchange for Original Notes, where the Original Notes were acquired by the broker-dealer as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus in connection with any resale of the Exchange Notes as described in "Plan of Distribution." In addition, to comply with the securities laws of individual jurisdictions, if applicable, the Exchange Notes may not be offered or sold unless they have been registered or qualified for sale in the jurisdiction or an exemption from registration or qualification is available and complied with. We have agreed, pursuant to the registration rights agreement, to file with the SEC a registration statement (of which this prospectus forms a part) with respect to the Exchange Notes. If you do not exchange Original Notes for Exchange Notes pursuant to the Exchange Offer, your Original Notes will continue to be subject to restrictions on transfer.

If any holder of the Original Notes is an affiliate of ours, is engaged in or intends to engage in or has any arrangement or understanding with any person to participate in the distribution of the Exchange Notes to be acquired in the Exchange Offer, the holder would not be able to rely on the applicable interpretations of the SEC and would be required to comply with the registration requirements of the Securities Act, except for resales made pursuant to an exemption from, or in a transaction not subject to, the registration requirement of the Securities Act and applicable state securities laws.

Expiration Date; Extensions; Termination; Amendments

The Exchange Offer expires on the Expiration Date, which is 5:00 p.m., New York City time, on _____, 2020 unless we, in our sole discretion, extend the period during which the Exchange Offer is open.

We reserve the right to extend the Exchange Offer at any time and from time to time prior to the Expiration Date by giving written notice to U.S. Bank National Association, the exchange agent, and by public announcement communicated by no later than 5:00 p.m., New York City time, on the next business day following the previously scheduled Expiration Date, unless otherwise required by applicable law or regulation, by making a release to Business Wire or other wire service. During any extension of the Exchange Offer, all Original Notes previously tendered will remain subject to the Exchange Offer and may be accepted for exchange by us.

The Exchange Date will promptly follow the Expiration Date. We expressly reserve the right to:

- extend the Exchange Offer, delay acceptance of Original Notes due to an extension of the Exchange Offer or terminate the Exchange Offer and not accept for exchange any Original Notes for any reason, including if any of the conditions set forth under “—Conditions to the Exchange Offer” shall not have occurred and shall not have been waived by us; and
- amend the terms of the Exchange Offer in any manner, whether before or after any tender of the Original Notes.

If any termination or material amendment occurs, we will notify the exchange agent in writing and will either issue a press release or give written notice to the holders of the Original Notes as promptly as practicable. Additionally, in the event of a material amendment or change in the Exchange Offer, which would include any waiver of a material condition thereof, we will extend the offer period, if necessary, so that at least five business days remain in the Exchange Offer following notice of the material amendment or change, as applicable.

Unless we terminate the Exchange Offer prior to 5:00 p.m., New York City time, on the Expiration Date, we will exchange the Exchange Notes for the tendered Original Notes promptly after the Expiration Date, and will issue to the exchange agent Exchange Notes for Original Notes validly tendered, not validly withdrawn and accepted for exchange. Any Original Notes not accepted for exchange for any reason will be returned without expense to the tendering holder promptly after expiration or termination of the Exchange Offer. See “—Acceptance of Original Notes for Exchange; Delivery of Exchange Notes.”

This prospectus and the accompanying letter of transmittal and other relevant materials will be mailed or sent by us to record holders of Original Notes and will be furnished to brokers, banks and similar persons whose names, or the names of whose nominees, appear on the lists of holders for subsequent transmittal to beneficial owners of Original Notes.

Procedures for Tendering Original Notes

To participate in the Exchange Offer, you must properly tender your Original Notes to the exchange agent as described below. We will only issue the Exchange Notes in exchange for the Original Notes that you timely and properly tender. Therefore, you should allow sufficient time to ensure timely delivery of the Original Notes, and you should follow carefully the instructions on how to tender your Original Notes. It is your responsibility to properly tender your Original Notes. No letter of transmittal or other document should be sent to us. Beneficial owners may request their respective brokers, dealers, commercial banks, trust companies or nominees to effect the above transactions for them.

If you have any questions or need help in exchanging your Original Notes, please contact the exchange agent at the address or telephone numbers set forth below.

All of the Original Notes were issued in book-entry form, and all of the Original Notes are currently represented by global certificates registered in the name of Cede & Co., the nominee of DTC. You may tender your Original Notes using ATOP. The exchange agent will make a request to establish an account with respect to the Original Notes at DTC for purposes of the Exchange Offer within two business days after this prospectus is mailed or sent to holders, and any financial institution that is a participant in DTC may make book-entry delivery of Original Notes by causing DTC to transfer the Original Notes into the exchange agent's account at DTC in accordance with DTC's procedures for transfer. In connection with the transfer, DTC will send an “agent's message” to the exchange agent. The agent's message will state that DTC has received instructions from the participant to tender the Original Notes and that the participant agrees to be bound by the terms of the letter of transmittal.

By using the ATOP procedures to exchange the Original Notes, you will not be required to deliver a letter of transmittal to the exchange agent. However, you will be bound by its terms just as if you had signed it. The tender of Original Notes by you pursuant to the procedures set forth in this prospectus will constitute an agreement between you and us in accordance with the terms and subject to the conditions set forth in this prospectus and in the letter of transmittal.

All questions as to the validity, form, eligibility, including time of receipt, and acceptance for exchange of any tender of Original Notes will be determined by us and will be final and binding. We reserve the absolute right to reject any or all tenders not in proper form or the acceptances for exchange of which may, upon advice of our counsel, be unlawful. We also reserve the right to waive any defect, irregularities or conditions of tender as to particular Original Notes. Our interpretation of the terms and conditions of the Exchange Offer, including the instructions in the letter of transmittal, will be final and binding on all parties. Unless waived, all defects or irregularities in connection with tenders of the Original Notes must be cured within such time as we shall determine. Although we intend to notify holders of

defects or irregularities with respect to tenders of the Original Notes, neither we, the exchange agent, the Trustee, nor any other person will incur any liability for failure to give such notification. Tenders of the Original Notes will not be deemed made until such defects or irregularities have been cured or waived. Any Original Notes received by the exchange agent that are not properly tendered and as to which the defects or irregularities have not been cured or waived will be returned to the tendering holder as soon as practicable after the Expiration Date of the Exchange Offer.

In all cases, we will issue the Exchange Notes for the Original Notes that we have accepted for exchange under the Exchange Offer only after the exchange agent receives, prior to the Expiration Date: a book-entry confirmation of such number of the Original Notes into the exchange agent's account at DTC and a properly transmitted agent's message.

If we do not accept any tendered Original Notes for exchange or if the Original Notes are submitted for a greater principal amount than the holder desires to exchange, the unaccepted or non-exchanged Original Notes will be returned without expense to their tendering holder. Such non-exchanged Original Notes will be credited to an account maintained with DTC. These actions will occur as promptly as practicable after the expiration or termination of the Exchange Offer.

Each broker-dealer that receives the Exchange Notes for its own account in exchange for the Original Notes, where those Original Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus in connection with any resale of those Exchange Notes. See "Plan of Distribution."

Terms and Conditions Contained in the Letter of Transmittal

The accompanying letter of transmittal contains, among other things, the following terms and conditions, which are part of the Exchange Offer.

The transferring party tendering Original Notes for exchange will be deemed to have exchanged, assigned and transferred the Original Notes to us and irrevocably constituted and appointed the exchange agent as the transferor's agent and attorney-in-fact to cause the Original Notes to be assigned, transferred and exchanged. The transferor will be required to represent and warrant that it has full power and authority to tender, exchange, assign and transfer the Original Notes and to acquire Exchange Notes issuable upon the exchange of the tendered Original Notes and that, when the same are accepted for exchange, we will acquire good and unencumbered title to the tendered Original Notes, free and clear of all liens, restrictions (other than restrictions on transfer), charges and encumbrances and that the tendered Original Notes are not and will not be subject to any adverse claim. The transferor will be required to also agree that it will, upon request, execute and deliver any additional documents deemed by the exchange agent or us to be necessary or desirable to complete the exchange, assignment and transfer of tendered Original Notes. The transferor will be required to agree that acceptance of any tendered Original Notes by us and the issuance of Exchange Notes in exchange for tendered Original Notes will constitute performance in full by us of our obligations under the registration rights agreement and that we will have no further obligations or liabilities under the registration rights agreement, except in certain limited circumstances. All authority conferred by the transferor will survive the death, bankruptcy or incapacity of the transferor and every obligation of the transferor will be binding upon the heirs, legal representatives, successors, assigns, executors, administrators and trustees in bankruptcy of the transferor.

Upon agreement to the terms of the letter of transmittal pursuant to an agent's message, a holder, or beneficial holder of the Original Notes on behalf of which the holder has tendered, will, subject to that holder's ability to withdraw its tender, and subject to the terms and conditions of the Exchange Offer generally, thereby certify that:

- it is not an affiliate of ours or our subsidiaries or, if the transferor is an affiliate of ours or our subsidiaries, it will comply with the registration and prospectus delivery requirements of the Securities Act to the extent applicable;
- the Exchange Notes are being acquired in the ordinary course of business of the person receiving the Exchange Notes, whether or not the person is the registered holder;
- the transferor has not entered into, engaged in, does not intend to engage in, and has no arrangement or understanding with any other person to engage in a distribution of the Exchange Notes issued to the transferor; and
- the transferor is not restricted by any law or policy of the SEC from trading the Exchange Notes acquired in the Exchange Offer.

Each broker-dealer that receives Exchange Notes for its own account in exchange for Original Notes where such Original Notes were acquired by such broker-dealer as a result of market-making activities or other trading activities must acknowledge that it will deliver a prospectus in connection with any resale of such Exchange Notes. See “Plan of Distribution.”

Withdrawal Rights

Original Notes tendered pursuant to the Exchange Offer may be withdrawn at any time prior to the Expiration Date. For a withdrawal to be effective, a written letter or facsimile transmission notice of withdrawal must be received by the exchange agent at its address set forth in the accompanying letter of transmittal not later than 5:00 p.m., New York City time, on the Expiration Date. Any notice of withdrawal must specify the name of the holder, the principal amount of Original Notes delivered for exchange, a statement that such holder is withdrawing such holder's election to have such Original Notes exchanged and the number of the account at DTC to be credited with withdrawn Original Notes and otherwise comply with the ATOP procedures. The exchange agent will return properly withdrawn Original Notes promptly following receipt of notice of withdrawal. Properly withdrawn Original Notes may be retendered by following the procedures described under “—Procedures for Tendering Original Notes” above at any time on or prior to 5:00 p.m., New York City time, on the Expiration Date. All questions as to the validity of notices of withdrawals, including time of receipt, will be determined by us, and will be final and binding on all parties. None of the Company, the exchange agent, the Trustee or any other person will be under any duty to give notification of any defects or irregularities in any notice of withdrawal of tenders, or incur any liability for failure to give any such notification.

Acceptance of Original Notes for Exchange; Delivery of Exchange Notes

Upon the terms and subject to the conditions of the Exchange Offer, the acceptance for exchange of Original Notes validly tendered and not validly withdrawn and the issuance of the Exchange Notes will be made on the Exchange Date. For purposes of the Exchange Offer, we will be deemed to have accepted for exchange validly tendered Original Notes when and if we have given written notice to the exchange agent. The Original Notes surrendered in exchange for the Exchange Notes will be retired and cannot be reissued.

The exchange agent will act as agent for the tendering holders of Original Notes for the purposes of receiving the Exchange Notes from us and causing the Original Notes to be assigned, transferred and exchanged. Original Notes tendered by book-entry transfer into the exchange agent's account at DTC pursuant to the procedures described above will be credited to an account maintained by the holder with DTC for the Original Notes, promptly after withdrawal, rejection of tender or termination of the Exchange Offer.

Conditions to the Exchange Offer

Notwithstanding any other provision of the Exchange Offer, or any extension of the Exchange Offer, we will not be required to issue Exchange Notes in exchange for any properly tendered Original Notes not previously accepted and may terminate the Exchange Offer by oral or written notice to the exchange agent and by timely public announcement communicated, unless otherwise required by applicable law or regulation, to Business Wire or other wire service, or, at our option, modify or otherwise amend the Exchange Offer, if, in our reasonable determination:

- there is threatened, instituted or pending any action or proceeding before, or any injunction, order or decree shall have been issued by, any court or governmental agency or other governmental regulatory or administrative agency or of the SEC;
 - seeking to restrain or prohibit the making or consummation of the Exchange Offer;
 - assessing or seeking any damages as a result thereof; or
 - resulting in a material delay in our ability to accept for exchange or exchange some or all of the Original Notes pursuant to the Exchange Offer; or
- the Exchange Offer violates any applicable law or any applicable interpretation of the staff of the SEC.

These conditions are for our sole benefit and may be asserted by us with respect to the entirety or any portion of the Exchange Offer regardless of the circumstances, including any action or inaction by us giving rise to the condition, or may be waived by us in whole or in part at any time or from time to time in our sole discretion. The failure by us at any time to exercise any of the foregoing rights will not be deemed a waiver of any right, and each right will be deemed an ongoing right that may be asserted at any time or from time to time. We reserve the right, notwithstanding the satisfaction of these conditions, to terminate or amend the Exchange Offer.

Any determination by us concerning the fulfillment or non-fulfillment of any conditions will be final and binding upon all parties.

In addition, we will not accept for exchange any Original Notes tendered, and no Exchange Notes will be issued in exchange for any Original Notes, if at such time, any stop order has been issued or is threatened with respect to the registration statement of which this prospectus forms a part, or with respect to the qualification of the indenture under which the Original Notes were issued under the Trust Indenture Act of 1939.

Exchange Agent

U.S. Bank National Association has been appointed as the exchange agent for the Exchange Offer. Questions relating to the procedure for tendering, as well as requests for additional copies of this prospectus or the accompanying letter of transmittal, should be directed to the exchange agent addressed as follows:

By Overnight Delivery or Mail (Registered or Certified Mail Recommended):

U.S. Bank National Association
Attn: Corporate Actions
111 Fillmore Avenue
St. Paul, MN 55107-1402

Originals of all documents sent by facsimile should be promptly sent to the exchange agent by mail, by hand or by overnight delivery service. The Trustee and the exchange agent are not responsible for and make no representation as to the validity, accuracy or adequacy of this prospectus and any of its contents, and are not be responsible for any of our statements or the statements of any other person in this prospectus or in any document issued or used in connection with it or the Exchange Offer. The Trustee and the exchange agent make no recommendation to any holder whether to tender Original Notes pursuant to the Exchange Offer or to take any other action.

Solicitation of Tenders; Expenses

We have not retained any dealer-manager or similar agent in connection with the Exchange Offer and we will not make any payments to brokers, dealers or others for soliciting acceptances of the Exchange Offer. We will, however, pay the exchange agent reasonable and customary fees for its services and will reimburse it for actual and reasonable out-of-pocket expenses. The expenses to be incurred in connection with the Exchange Offer, including the fees and expenses of the exchange agent and printing, accounting and legal fees, will be paid by us.

No person has been authorized to give any information or to make any representations in connection with the Exchange Offer other than those contained in this prospectus. If given or made, the information or representations should not be relied upon as having been authorized by us. Neither the delivery of this prospectus nor any exchange made in the Exchange Offer will, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or any earlier date as of which information is given in this prospectus.

The Exchange Offer is not being made to, nor will tenders be accepted from or on behalf of, holders of Original Notes in any jurisdiction in which the making of the Exchange Offer or the acceptance would not be in compliance with the laws of the jurisdiction. However, we may, at our discretion, take any action as we may deem necessary to make the Exchange Offer in any jurisdiction.

Appraisal or Dissenters' Rights

Holders of Original Notes will not have appraisal or dissenters' rights in connection with the Exchange Offer.

Transfer Taxes

We will pay all transfer taxes, if any, applicable to the transfer of Original Notes to us and the issuance of Exchange Notes in the Exchange Offer— unless we are instructed to issue or cause to be issued Exchange Notes, or Original Notes not tendered or accepted in the Exchange Offer are requested to be returned, to a person other than the tendering holder. If transfer taxes are imposed for any such other reason, the amount of those transfer taxes, whether imposed on the registered holder or any other person, will be payable by the tendering holder.

If satisfactory evidence of payment of or exemption from those transfer taxes is not submitted with the letter of transmittal, if applicable, the amount of those transfer taxes will be billed directly to the tendering holder and/or withheld from any amounts due to such holder.

Income Tax Considerations

We advise you to consult your own tax advisors as to your particular circumstances and the effects of any U.S. federal, state, local or non-U.S. tax laws to which you may be subject.

The discussion in this prospectus is based upon the provisions of the Code, Treasury regulations promulgated thereunder, administrative rulings and pronouncements and judicial decisions, all as in effect on the date of this prospectus and all of which are subject to change, possibly with retroactive effect, or to different interpretations.

As described in "Certain U.S. Federal Income Tax Considerations," the exchange of an Original Note for an Exchange Note pursuant to the Exchange Offer will not constitute a taxable exchange and will not result in any taxable income, gain or loss for U.S. federal income tax purposes, and immediately after the exchange, a holder will have the same adjusted tax basis and holding period in each Exchange Note received as such holder had immediately prior to the exchange in the corresponding Original Note surrendered.

Consequences of Failure to Exchange

As a consequence of the offer or sale of the Original Notes pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws, holders of Original Notes who do not exchange Original Notes for Exchange Notes in the Exchange Offer will continue to be subject to the restrictions on transfer of the Original Notes. In general, the Original Notes may not be offered or sold unless such offers and sales are registered under the Securities Act, or exempt from, or not subject to, the registration requirements of the Securities Act and applicable state securities laws.

UPON COMPLETION OF THE EXCHANGE OFFER, DUE TO THE RESTRICTIONS ON TRANSFER OF THE ORIGINAL NOTES AND THE ABSENCE OF SIMILAR RESTRICTIONS APPLICABLE TO THE EXCHANGE NOTES, IT IS HIGHLY LIKELY THAT THE MARKET, IF ANY, FOR ORIGINAL NOTES WILL BE LESS LIQUID THAN THE MARKET FOR EXCHANGE NOTES. CONSEQUENTLY, HOLDERS OF ORIGINAL NOTES WHO DO NOT PARTICIPATE IN THE EXCHANGE OFFER COULD EXPERIENCE SIGNIFICANT DIMINUTION IN THE VALUE OF THEIR ORIGINAL NOTES COMPARED TO THE VALUE OF THE EXCHANGE NOTES.

DESCRIPTION OF OTHER INDEBTEDNESS

The following summaries of certain provisions of our indebtedness do not purport to be complete and are subject to, and qualified in their entirety by reference to, all of the provisions of the corresponding agreements, including the definitions of certain terms therein that are not otherwise defined in this prospectus.

Asset-Based Revolving Credit Facility

On March 13, 2020, Cliffs entered into an asset-based revolving credit facility with various financial institutions. The New ABL Facility will mature upon the earlier of March 13, 2025 or 91 days prior to the maturity of certain other material debt of the Company, and provides for up to \$2.0 billion in borrowings, including a \$550.0 million sublimit for the issuance of letters of credit and a \$125.0 million sublimit for swingline loans. Availability under the New ABL Facility is limited to an eligible borrowing base determined by applying customary advance rates to eligible accounts receivable, inventory and certain mobile equipment.

Guarantees

The New ABL Facility and certain bank products and hedge obligations are guaranteed by Cliffs and certain of its existing wholly owned U.S. subsidiaries and are required to be guaranteed by certain of Cliffs' future wholly owned U.S. subsidiaries. Amounts outstanding under the New ABL Facility and certain bank and hedging obligations are secured by (i) a first-priority security interest in the ABL Collateral (as defined in the New ABL Facility) and (ii) a second-priority security interest in the Notes Collateral (as defined in the New ABL Facility). The priority of the security interests in the ABL Collateral and the Notes Collateral of the lenders under the New ABL Facility and the holders of the Senior Secured Notes are set forth in intercreditor provisions contained in an intercreditor agreement among the parties thereto.

The ABL Collateral generally consists of the following assets: accounts receivable and other rights to payment, inventory, as-extracted collateral, investment property, tax refunds, certain general intangibles and commercial tort claims, certain mobile equipment, commodities accounts, deposit accounts, securities accounts and other related assets, letter of credit rights and proceeds and products of each of the foregoing.

Interest Rates

Borrowings under the New ABL Facility bear interest, at Cliffs' 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 $\frac{1}{2}$ of 1%, the LIBOR rate based on a one-month interest period plus 1%, the floating rate announced by Bank of America, N.A. 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.

Optional and Mandatory Prepayments

Optional Prepayments: At any time, in whole or in part, without premium or prepayment penalty, other than customary breakage costs.

Mandatory Prepayments: If at any time the outstanding amount of loans under the New ABL Facility exceeds the borrowing base established thereunder, as applicable, then prepayment is mandatory to the extent of the excess.

Covenants

The New ABL Facility contains affirmative and negative covenants customary for such financings including, but not limited to, covenants limiting Cliffs' ability to:

- pay dividends on or purchase or redeem Cliffs' capital stock;
- incur certain debt;
- prepay and modify certain debt;
- merge, acquire other entities, enter into joint ventures and partnerships;
- sell or dispose of certain assets;
- make certain investments in other persons;

- change the nature of the business or accounting methods;
- incur certain liens or encumbrances; and
- enter into certain transactions with affiliates.

Additionally, the New ABL Facility requires Cliffs and certain of Cliffs' consolidated subsidiaries, collectively, to meet a springing minimum fixed charge coverage ratio. If the average excess availability under the New ABL Facility is less than the greater of (x) \$100.0 million and (y) 10% of the line cap (generally defined as the lesser of the maximum revolver amount and the borrowing base as of such date), then Cliffs will have to maintain a fixed charge coverage ratio (which is generally the ratio of EBITDA (as defined in the New ABL Facility) less capital expenditures and other agreed deductions to fixed charges) measured on a quarter-end basis of equal to or greater than 1.0:1.0 until excess availability is not less than the greater of (x) \$100.0 million and (y) 10% of the line cap under the New ABL Facility for 60 consecutive days.

Default

The New ABL Facility contains events of default customary for such financings, including:

- failure to make payments under the New ABL Facility;
- failure to comply with the covenants under the New ABL Facility;
- entry of a material judgment against the loan parties or their subsidiaries;
- bankruptcy;
- cross default to material indebtedness;
- failure to make payments under certain pension and multi-employer plans;
- material misrepresentations;
- change in control; and
- default under the related loan documents.

Cliffs Senior Notes

As of March 20, 2020, Cliffs had an aggregate principal amount of \$3,736.2 million of senior notes outstanding (excluding \$99.3 million aggregate principal amount of IRBs due 2020 through 2028). The specific principal amounts, maturity and interest rates of these debt securities are set forth in the following table:

	Principal Amount (in millions)
7.625% 2021 Senior Notes	\$ 42.0 ⁽¹⁾
7.50% 2023 Senior Notes	69.3 ⁽¹⁾
4.875% 2024 Senior Secured Notes	400.0
1.50% 2025 Convertible Senior Notes	316.3
5.75% 2025 Senior Notes	473.3
6.375% 2025 Senior Notes	231.8
6.375% 2025 Senior Notes	38.4 ⁽¹⁾
6.75% 2026 Senior Secured Notes	725.0
5.875% 2027 Senior Guaranteed Notes	750.0
7.00% 2027 Senior Notes	335.4
7.00% 2027 Senior Notes	56.3 ⁽¹⁾
6.25% 2040 Senior Notes	298.4
Total	\$ 3,736.2 ⁽²⁾

(1) Issued by AK Steel Corporation.

(2) Does not include \$99.3 million aggregate principal amount of AK Steel Corporation's IRBs due 2020 through 2028 outstanding as of March 20, 2020.

DESCRIPTION OF THE NOTES

The Original Notes were, and the Exchange Notes will be, issued under an indenture dated as of May 13, 2019, which we refer to as the “indenture,” among Cleveland-Cliffs Inc., the Guarantors party thereto and U.S. Bank National Association, as trustee, which we refer to as the “Trustee.” The terms of the Exchange Notes will be substantially identical to the terms of the Original Notes, except that the Exchange Notes will be registered under the Securities Act of 1933, as amended, which we refer to as the “Securities Act,” and the transfer restrictions and registration rights and related additional interest provisions applicable to the Original Notes will not apply to the Exchange Notes. The terms of the Exchange Notes will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended.

Unless the context requires otherwise, all references in this “Description of the Notes” to “Cliffs,” “we,” “us,” “our,” “the Company” and “the Issuer” refer to Cleveland-Cliffs Inc. and not to any of its subsidiaries. The Exchange Notes and the Original Notes are collectively referred to in this “Description of the Notes” as the “notes.” The following description is only a summary of the material provisions of the notes and the indenture. For more information on how you may obtain a copy of those documents, see “Where You Can Find More Information.” We urge you to read those documents because they, not this description, define your rights as holders of the notes. The registered holder of a note will be treated as the owner of a note for all purposes. Only registered holders will have rights under the indenture. Capitalized terms used in this “Description of the Notes” section and not otherwise defined have the meanings set forth under “—Certain Definitions.”

General

The Original Notes were issued in an aggregate principal amount of \$750,000,000. The Company will issue up to \$750,000,000 aggregate principal amount of Exchange Notes in the Exchange Offer. The Original Notes and the Exchange Notes will be treated as a single class for all purposes of the indenture, including for purposes of determining whether the required percentage of holders have given approval or consent to an amendment or waiver or joined in directing the Trustee to take certain actions on behalf of the holders. The notes will mature on June 1, 2027.

Cliffs is permitted to issue more notes under the indenture in an unlimited aggregate principal amount (the “Additional Notes”), subject to compliance with the covenants set forth in the indenture; provided that if any such Additional Notes are not fungible with the notes for U.S. federal income tax purposes, such Additional Notes will have separate CUSIP or ISIN numbers. The notes and the Additional Notes, if any, will be treated as a single class for all purposes of the indenture, including waivers, amendments, redemptions and offers to purchase. Unless the context otherwise requires, for all purposes of the indenture and this “Description of the Notes,” references to the notes include the notes and any Additional Notes actually issued.

Cliffs is a holding company whose only material assets consist of the stock of its subsidiaries. The notes will be senior obligations of Cliffs and will be guaranteed on a senior unsecured basis by substantially all of Cliffs’ material direct and indirect wholly-owned domestic Subsidiaries.

Interest will accrue on the notes at the rate per annum of 5.875% from the Issue Date or from the most recent date to which interest has been paid or provided for, payable semi-annually on June 1 and December 1 of each year, beginning on June 1, 2020 to the persons in whose names the notes are registered in the security register at the close of business on the May 15 or November 15 preceding the relevant interest payment date, except that interest payable at maturity shall be paid to the same persons to whom principal of the notes is payable. Interest will be computed on the notes on the basis of a 360-day year of twelve 30-day months. The notes will be issued only in fully registered form without coupons in minimum denominations of \$2,000 and integral multiples of \$1,000 above that amount. The notes will not be entitled to any sinking fund.

The indenture does not limit our ability, or the ability of the Guarantors, to incur additional indebtedness. The indenture and the notes will not contain any covenants (other than those described herein) designed to afford holders of the notes protection in a highly leveraged or other transaction involving us that may adversely affect holders of the notes.

Ranking

The notes:

- will be general unsecured senior obligations of Cliffs;

- will rank equally in right of payment with all existing and future senior unsecured indebtedness of Cliffs;
- will rank senior in right of payment to all existing and future subordinated indebtedness of Cliffs;
- will be effectively subordinated to Cliffs' ABL Obligations and Secured Notes Obligations and any other existing or future secured indebtedness of Cliffs to the extent of the value of the assets securing such indebtedness;
- will be guaranteed on a senior unsecured basis by each Guarantor and, therefore, will be structurally senior to the non-guaranteed Unsecured Notes Obligations and any other existing and future indebtedness of Cliffs that is not guaranteed by each Guarantor; and
- will be structurally subordinated to all existing and future indebtedness and other liabilities of Subsidiaries of Cliffs that do not guarantee the notes.

Guarantees

The notes will be guaranteed on a senior unsecured basis by each of Cliffs' direct and indirect wholly-owned domestic Subsidiaries (other than Excluded Subsidiaries) (each, a "Guarantor," and together with any such Subsidiary that executes a Guarantee (or the indenture if included therein) after the Issue Date in accordance with the provisions of the indenture, the "Guarantors"). The Guarantors, as primary obligors and not merely as sureties, will jointly and severally, irrevocably and unconditionally, guarantee, on a senior unsecured basis, the full and punctual payment when due, whether at maturity, by acceleration or otherwise, of all Obligations of Cliffs under the indenture and the notes, whether for payment of principal of, premium, if any, or interest on the notes, expenses, indemnification or otherwise, on the terms set forth in the indenture by executing the indenture.

Each of the Guarantees:

- will be a general unsecured obligation of the applicable Guarantor;
- will rank equally in right of payment with all existing and future senior unsecured indebtedness of such Guarantor, and any guarantees thereof by such Guarantor;
- will rank senior in right of payment to all existing and future subordinated indebtedness of such Guarantor;
- will be effectively subordinated to such Guarantor's ABL Obligations and Secured Notes Obligations and any other existing and future secured indebtedness of such Guarantor to the extent of the value of the assets securing such indebtedness; and
- will be structurally subordinated to all existing and future indebtedness and other liabilities of Subsidiaries of Cliffs that do not guarantee the notes.

Not all of the Company's Subsidiaries will guarantee the notes. In the event of a bankruptcy, liquidation, reorganization or similar proceeding of any of such non-Guarantor Subsidiaries, the non-Guarantor Subsidiaries will pay the holders of their indebtedness and their trade creditors before they will be able to distribute any of their assets to the Company or a Guarantor. As a result, all of the existing and future liabilities of the Company's non-Guarantor Subsidiaries, including any claims of trade creditors, will be effectively senior to the notes.

The indenture does not limit the amount of liabilities that may be incurred by the Company or its Subsidiaries, including the non-Guarantors. On a pro forma basis, after giving effect to the Merger, the non-Guarantor subsidiaries would have accounted for approximately 10.9% of our consolidated revenue and approximately 10.7% of our consolidated income from continuing operations for the year ended December 31, 2019. On a pro forma basis, after giving effect to the Merger, our non-Guarantor subsidiaries would have accounted for approximately 11.0% of our consolidated assets as of December 31, 2019.

The obligations of each Guarantor under its Guarantee will be limited as necessary to prevent the Guarantee from constituting a fraudulent conveyance or similar limitation under applicable law. This provision may not, however, be effective to protect a Guarantee from being voided under fraudulent transfer law, or may reduce the applicable Guarantor's obligation to an amount that effectively makes its Guarantee worthless. If a Guarantee was rendered voidable, it could be subordinated by a court to all other indebtedness (including guarantees and other contingent liabilities) of the Guarantor, and, depending on the amount of such indebtedness, a Guarantor's liability on its Guarantee could be reduced to zero. See "Risk Factors—Risks Related to the Notes—The guarantees of the notes provided by

the Guarantors may not be enforceable and, under specific circumstances, federal and state statutes may allow courts to void the notes guarantees and require holders of notes to return payments received from the Guarantors.”

Any Guarantor that makes a payment under its Guarantee will be entitled upon payment in full of all guaranteed obligations under the indenture to a contribution from each other Guarantor in an amount equal to such other Guarantor's pro rata portion of such payment based on the respective net assets of all the Guarantors at the time of such payment as determined in accordance with GAAP.

Each Guarantor may consolidate with or merge with or into, or sell all or substantially all of its assets to, Cliffs or another Guarantor without limitation or any other Person upon the terms and conditions set forth in the indenture. See “—Certain Covenants—Consolidation, Merger and Sale of Assets.”

The indenture provides that each Guarantee by a Guarantor will be automatically and unconditionally released and discharged, and such Subsidiary's obligations under the Guarantee and the indenture will be automatically and unconditionally released and discharged, upon:

- (1) (a) any sale, exchange, transfer or disposition of (whether by merger, consolidation or the sale of) the Capital Stock of the applicable Guarantor after which such Guarantor is no longer a Subsidiary or the sale of all or substantially all the assets (other than by lease) of such Guarantor, whether or not such Guarantor is the surviving corporation in such transaction, to a Person which is not Cliffs or a Subsidiary; provided that (x) such sale, exchange, transfer or disposition is made in compliance with the indenture, including the covenant described under “—Certain Covenants—Consolidation, Merger and Sale of Assets,” and (y) all the obligations of such Guarantor under all Debt of Cliffs or its Subsidiaries terminate upon consummation of such transaction; (b) Cliffs exercising its legal defeasance option or covenant defeasance option as described under “—Legal Defeasance and Covenant Defeasance” or Cliffs' obligations under the indenture being discharged in accordance with the terms of the indenture; or (c) the applicable Guarantor becoming or constituting an Excluded Subsidiary; and
- (2) such Guarantor delivering to the Trustee an officer's certificate and an opinion of counsel, each stating that all conditions precedent provided for in the indenture relating to release and discharge of such Guarantor's Guarantee have been complied with.

The indenture provides that Cliffs will cause each of its Subsidiaries that is a U.S. Subsidiary (other than an Excluded Subsidiary) to execute and deliver to the Trustee a supplemental indenture pursuant to which such Subsidiary will guarantee payment of the notes. Each Guarantee will be limited to an amount not to exceed the maximum amount that can be guaranteed by that Subsidiary without rendering the Guarantee, as it relates to such Subsidiary, voidable under applicable law relating to fraudulent conveyance or fraudulent transfer or similar laws affecting the rights of creditors generally. Each Guarantee shall be released in accordance with the provisions of the indenture described above.

Optional Redemption

Except as set forth in the next paragraph, we will not be entitled to redeem the notes at our option prior to June 1, 2022.

We may, at our option, at any time and from time to time, prior to June 1, 2022, redeem the notes on not less than 30 nor more than 60 days' prior notice mailed (or to the extent permitted or required by applicable DTC procedures or regulations with respect to global notes, sent electronically) to the holders of the notes, with a copy provided to the Trustee. The notes will be redeemable at a redemption price, to be calculated by us, equal to the sum of (1) 100 percent of the principal amount of the notes to be redeemed and (2) the Applicable Premium as of the date of redemption, and, plus, without duplication, accrued and unpaid interest to, but excluding, the date of redemption (subject to the right of holders on the relevant record date to receive interest due on the relevant interest payment date).

In addition, on and after June 1, 2022, we will be entitled at our option on one or more occasions to redeem all or a portion of the notes (which, for the avoidance of doubt, includes Additional Notes, if any) at the redemption prices (expressed in percentages of principal amount on the redemption date), plus accrued and unpaid interest, if any, to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), if redeemed during the twelve-month period set forth below:

Period	Redemption price
June 1, 2022	102.938%
June 1, 2023	101.958%
June 1, 2024	100.979%
June 1, 2025 and thereafter	100.000%

Notwithstanding the foregoing, at any time and from time to time prior to June 1, 2022, we may redeem in the aggregate up to 35% of the original aggregate principal amount of the notes (calculated after giving effect to any issuance of Additional Notes) with the net cash proceeds of one or more Equity Offerings by us at a redemption price (expressed as a percentage of principal amount thereof) of 105.875%, plus accrued and unpaid interest, if any, to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date); provided, however, that at least 65% of the original aggregate principal amount of the notes (calculated after giving effect to any issuance of Additional Notes) must remain outstanding after each such redemption; provided, further, that such redemption shall occur within 90 days after the date on which any such Equity Offering is consummated upon not less than 30 nor more than 60 days' notice mailed (or to the extent permitted or required by applicable DTC procedures or regulations with respect to global notes, sent electronically) to each holder of notes being redeemed and otherwise in accordance with the procedures set forth in the indenture.

Notice of any redemption upon any Equity Offering may be given prior to the completion thereof. In addition, any redemption described above or notice thereof may, at the Issuer's discretion, be subject to one or more conditions precedent, including, but not limited to, completion of the related Equity Offering in the case of a redemption upon completion of an Equity Offering.

On and after any redemption date, interest will cease to accrue on the notes called for redemption. Prior to any redemption date, we are required to deposit with a paying agent money sufficient to pay the redemption price of and accrued and unpaid interest on the notes to be redeemed on such date. If we are redeeming less than all the notes, the Trustee under the indenture will select the notes to be redeemed on a pro rata basis or by lot (or, in the case of notes in global form, the notes will be selected for redemption based on a method that most nearly approximates a pro rata selection as required by the procedures of the depository). Any unredeemed portion of a note must be equal to a minimum denomination of \$2,000 in principal amount or integral multiples of \$1,000 in excess thereof.

Any redemption notice may, at our discretion, be subject to one or more conditions precedent, including completion of a refinancing transaction or other corporate transaction. If any condition precedent has not been satisfied, we will provide written notice to the Trustee prior to the close of business two Business Days prior to the redemption date. Upon receipt of such notice by the Trustee, the notice of redemption shall be rescinded and the redemption of the notes shall not occur. Upon receipt, the Trustee shall provide such notice to each holder of the notes in the same manner in which the notice of redemption was given.

We may, from time to time, purchase notes in the open market or otherwise, subject to compliance with applicable securities laws.

Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event, unless we have exercised our right to redeem the notes as described under "—Optional Redemption" by giving irrevocable notice to the Trustee in accordance with the indenture, each holder of the notes will have the right to require us to purchase all or a portion of such holder's notes pursuant to the offer described below (the "Change of Control Offer"), at a purchase price equal to 101 percent of the principal amount thereof plus accrued and unpaid interest, if any, to, but excluding, the date of purchase (the "Change of Control Payment"), subject to the rights of holders of the notes on the relevant record date to receive interest due on the relevant interest payment date.

Unless we have exercised our right to redeem the notes, within 30 days following the date upon which the Change of Control Triggering Event occurred with respect to the notes, or at our option, prior to any Change of Control but after the public announcement of the pending Change of Control, we will be required to send, by first class mail (or to the extent permitted or required by applicable DTC procedures or regulations with respect to global notes, electronically), a notice to each holder of the notes, with a copy to the Trustee, which notice will govern the terms of the Change of Control Offer. Such notice will state, among other things, the purchase date, which must be no earlier than 30 days nor later than 60 days from the date such notice is mailed or otherwise sent, other than as may be required by law (the "Change of Control Payment Date"). The notice, if mailed or otherwise sent prior to the date of consummation of the Change of Control, will state that the Change of Control Offer is conditioned on the Change of Control being consummated on or prior to the Change of Control Payment Date.

On the Change of Control Payment Date, we will, to the extent lawful:

- accept or cause a third party to accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;
- deposit or cause a third party to deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the Trustee the notes properly accepted together with an officer's certificate stating the aggregate principal amount of notes or portions of notes being repurchased and that all conditions precedent to the Change of Control Offer and to the repurchase by us of notes pursuant to the Change of Control Offer have been complied with.

We will not be required to make a Change of Control Offer with respect to the notes if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for such an offer made by us and such third party purchases all the notes properly tendered and not withdrawn under its offer.

We will comply in all material respects with the requirements of Rule 14e-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control Offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control Offer provisions of the notes by virtue of any such conflict.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of the properties or assets of Cliffs and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise, established definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of Cliffs and its subsidiaries taken as a whole to another Person or group may be uncertain.

Certain Covenants

Restrictions on Liens

We will not, nor will we permit any Subsidiary (other than the Canadian Entities) to, incur, issue, assume or guarantee any Debt secured by a Lien (other than Permitted Liens) upon any of its Property (whether such Property is now owned or hereafter acquired) without in any such case effectively providing that the notes shall be secured equally and ratably with such Debt until such time as such Debt is no longer secured by such Lien; *provided* that if the Debt so secured is subordinated by its terms to the notes or a note Guarantee, the Lien securing such Debt will also be so subordinated by its terms to the notes and the applicable note Guarantee at least to the same extent. Any Lien created for the benefit of the Holders of the notes pursuant to the foregoing sentence shall provide by its terms that such Lien shall be automatically and unconditionally released and discharged upon the release and discharge of the Lien securing the Debt that gave rise to the obligation to equally and ratably secure the notes.

In addition to the foregoing, if any of our Unsecured Notes Obligations become secured by a Lien upon any Property of ours or of any Subsidiary (whether such Property is now owned or hereafter acquired), the notes shall be secured equally and ratably with such Unsecured Notes Obligations for so long as such Unsecured Notes Obligations are secured by such Lien upon any Property of us or any Subsidiary, as applicable. Any Lien created for the benefit

of the Holders of the notes pursuant to the foregoing sentence shall provide by its terms that such Lien shall be automatically and unconditionally released and discharged upon the release and discharge of the Lien securing the Unsecured Notes Obligations.

Restrictions on Sale and Leaseback Transactions

Sale and leaseback transactions by us or any Subsidiary (other than the Canadian Entities) of any Property (whether now owned or hereafter acquired) are prohibited unless:

- (i) we or such Subsidiary would be entitled under the indenture to issue, assume or guarantee Debt secured by a Lien upon such Property at least equal in amount to the Attributable Debt in respect of such transaction without equally and ratably securing the notes, provided that such Attributable Debt shall thereupon be deemed to be Debt subject to the provisions described above under “—Certain Covenants—Restrictions on Liens;” or
- (ii) within 180 days, an amount in cash equal to such Attributable Debt is applied to the retirement of funded Debt (debt that matures at or is extendible or renewable at the option of the obligor to a date more than twelve months after the date of the creation of such Debt) ranking pari passu with the notes, an amount not less than the greater of:
 - the net proceeds of the sale of the Property leased pursuant to the arrangement, or
 - the fair market value of the Property so leased.

The restrictions described above do not apply to a sale and leaseback transaction between us and a Guarantor or between Guarantors, or that involves the taking back of a lease for a period of less than three years.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a “successor person”) unless:

- (1) we are the surviving corporation or the successor person (if other than Cliffs) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the notes and under the indenture;
- (2) immediately after giving effect to the transaction, no event of default, and no event which, after notice or passage of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and
- (3) certain other conditions provided for in the indenture are met.

No Guarantor will consolidate with or merge with or into, or convey, transfer or lease all or substantially all of its properties and assets to a successor person unless:

- (i) (a) the successor person is the Company or a Guarantor or a Person that becomes a Guarantor concurrently with the transaction; (b) such Guarantor is the surviving entity or the successor person is validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes such Guarantor’s obligations on its Guarantee and under the indenture; (c) immediately after giving effect to the transaction, no default or event of default, and no event which, after notice or passage of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and (d) certain other conditions provided for in the indenture are met; or
- (ii) the transaction constitutes a sale or other disposition (including by way of consolidation or merger) of the Guarantor or the sale or disposition of all or substantially all of the properties and assets of the Guarantor (in each case other than to the Company or a Guarantor) in a transaction not otherwise prohibited or restricted by the indenture.

Notwithstanding the above, any Subsidiary of Cliffs may consolidate with, merge into or transfer all or part of its properties and assets to Cliffs or a Guarantor.

Reports to Holders

Whether or not Cliffs is then required to file reports with the SEC, Cliffs shall file with the SEC all such reports and other information as it would be required to file with the SEC by Section 13(a) or 15(d) under the Exchange Act if it were subject thereto within the time periods specified by the SEC's rules and regulations for an accelerated filer (including any extension as would be permitted by Rule 12b-25 under the Exchange Act).

Additional Guarantees

If the Company or any Subsidiary acquires or creates another Subsidiary that is a U.S. Subsidiary on or after the Issue Date (other than an Excluded Subsidiary), then, within 60 days of the date of such acquisition or creation, as applicable, such Subsidiary must become a Guarantor and execute a supplemental indenture and deliver an officer's certificate to the Trustee as to the satisfaction of all conditions precedent to such execution under the indenture.

Events of Default

The term "event of default" with respect to the notes means any of the following:

- (1) a default in the payment of any interest on the notes, when such payment becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by Cliffs with the Trustee or with a paying agent prior to the expiration of such period of 30 days);
- (2) default in the payment of principal or premium on the notes when such payment becomes due and payable;
- (3) subject to the immediately succeeding paragraph, a default in the performance or breach of any other covenant or warranty by us in the indenture, which default continues uncured for a period of 60 days after written notice thereof has been given, by registered or certified mail, to us by the Trustee or to us and the Trustee by the holders of at least 25 percent in principal amount of the notes, as provided in the indenture;
- (4) any Guarantee of a Guarantor that is a Significant Subsidiary ceases to be in full force and effect (except as contemplated by the terms of the indenture and the Guarantees) or is declared null and void in a judicial proceeding or any Guarantor that is a Significant Subsidiary denies or disaffirms its obligations under the indenture;
- (5) there occurs a default under any Debt of the Company or any of its Significant Subsidiaries (or the payment of which is guaranteed by the Company or any of the Guarantors), whether such Debt or guarantee now exists, or is created after the Issue Date, if that default:
 - (a) is caused by a failure to pay any such Debt at its final stated maturity (after giving effect to any applicable grace period) (a "Payment Default"); or
 - (b) results in the acceleration of such Debt prior to its final stated maturity,

and, in either case, the aggregate principal amount of any such Debt, together with the aggregate principal amount of any other such Debt under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates \$75.0 million or more;

- (6) failure by the Company or any of its Significant Subsidiaries to pay final and non-appealable judgments entered by a court or courts of competent jurisdiction aggregating in excess of \$75.0 million (net of any amount covered by insurance issued by a national insurance company that has not contested coverage), which judgments are not paid, discharged or stayed for a period of 60 days, other than the Arbitration Award or any judgment related to the Arbitration Award; or
- (7) certain events of bankruptcy, insolvency or reorganization of Cliffs or any Guarantor.

If an event of default (other than an event of default relating to certain events of bankruptcy, insolvency or reorganization of the Company or any Guarantor) occurs and is continuing, the Trustee by written notice to the Company, or the holders of at least 25% in aggregate principal amount of the then outstanding notes by written notice to the Company and the Trustee, may, and the Trustee at the request of such holders shall, declare all such notes to be due and payable. If an event of default relating to certain events of bankruptcy, insolvency or reorganization of the Company or any Guarantor occurs, then all outstanding notes will become due and payable immediately without further action or notice.

Subject to certain limitations, holders of a majority in aggregate principal amount of the then outstanding notes may direct the Trustee in its exercise of any trust or power. Subject to the provisions of the indenture relating to the duties of the Trustee, in case an event of default occurs and is continuing, the Trustee will be under no obligation to exercise any of the rights or powers under the indenture, the notes and the Guarantees at the request or direction of any holders of notes unless such holders have offered to the Trustee indemnity or security satisfactory to it against any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, or interest when due, no holder may pursue any remedy with respect to the indenture or the notes unless:

- (1) such holder has previously given the Trustee notice that an event of default is continuing;
- (2) holders of at least 25% in aggregate principal amount of the then outstanding notes have requested the Trustee in writing to pursue the remedy;
- (3) such holders have offered the Trustee security or indemnity satisfactory to it against any loss, liability or expense;
- (4) the Trustee has not complied with such request within 60 days after the receipt of the written request and the offer of security or indemnity; and
- (5) holders of a majority in aggregate principal amount of the then outstanding notes have not given the Trustee a direction inconsistent with such request within such 60-day period.

The holders of a majority in aggregate principal amount of the then outstanding notes by written notice to the Trustee may, on behalf of the holders of all of the notes, rescind an acceleration or waive any existing default or event of default and its consequences under the indenture except a continuing default or event of default in the payment of interest or premium on, or the principal of, the notes.

Modification and Waiver

We may modify and amend the indenture, the notes and the Guarantees with the consent of the holders of at least a majority in aggregate principal amount of the outstanding notes. We may not make any modification or amendment without the consent of each holder of notes then outstanding if that amendment will:

- (1) reduce the principal amount of notes whose holders must consent to an amendment, supplement or waiver;
- (2) reduce the rate of or extend the time for payment of interest (including default interest) on any note;
- (3) reduce the principal or change the stated maturity date of any note or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any note;
- (4) waive a default in the payment of the principal of, premium or interest, if any, on any debt security (except a rescission of acceleration of the notes by the holders of at least a majority in aggregate principal amount of the then outstanding notes and a waiver of the payment default that resulted from such acceleration);
- (5) make the principal of, premium or interest on any note payable in currency other than that stated in the notes;
- (6) make any change to certain provisions of the indenture relating to, among other things, the right of holders of notes to receive payment of the principal of, premium and interest on those notes and to institute suit for the enforcement of any such payment and to waivers or amendments;
- (7) waive a redemption payment that is made at the option of Cliffs, with respect to any note; or
- (8) release any Guarantor from any of its obligations under its Guarantee or the indenture, except in accordance with the terms of the indenture.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding notes may on behalf of the holders of all notes waive any past default or any existing default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or interest, if any, on any note; provided, however, that the holders of a majority in principal amount of the notes may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration.

Notwithstanding the foregoing, without the consent of any holder of notes, the Company, the Guarantors (with respect to the Guarantees) and the Trustee may amend or supplement the indenture, the notes and the Guarantees (except that no existing Guarantor need execute a supplemental indenture pursuant to clause (7) below):

- (1) to cure any ambiguity, defect or inconsistency;
- (2) to provide for uncertificated notes in addition to or in place of certificated notes;
- (3) to provide for the assumption of the Company's or a Guarantor's obligations to holders of notes and Guarantees in the case of a merger or consolidation or sale of all or substantially all of the Company's or such Guarantor's assets, as applicable;
- (4) to make any change that would provide any additional rights or benefits to the holders of notes or that does not materially and adversely affect the legal rights under the indenture, the notes and the Guarantees of any such holder;
- (5) to conform the text of the indenture, the Guarantees or the notes to any provision of this Description of the Notes;
- (6) to provide for the issuance of Additional Notes in accordance with the limitations set forth in the indenture as of the Issue Date;
- (7) to allow any Guarantor to execute a supplemental indenture and/or a Guarantee with respect to the notes, or to add any additional obligors under the indenture, the notes or the Guarantees;
- (8) to add collateral to secure the notes;
- (9) to comply with the provisions under "—Certain Covenants—Consolidation, Merger and Sale of Assets";
- (10) to evidence and provide for the acceptance of an appointment by a successor Trustee; and
- (11) to provide for the issuance of the Exchange Notes in the Exchange Offer.

Satisfaction and Discharge

The indenture will be discharged and will, subject to certain surviving provisions, cease to be of further effect as to all notes issued thereunder and the Guarantees thereof when:

- (1) we deliver to the Trustee all outstanding notes issued under the indenture (other than notes replaced because of mutilation, loss, destruction or wrongful taking) for cancellation; or
- (2) all notes outstanding under the indenture have become due and payable, whether at maturity or as a result of the mailing or sending of a notice of redemption or will become due and payable within one year (including as result of the mailing or sending of a notice of redemption), and we irrevocably deposit with the Trustee as funds in trust solely for the benefit of the holders of notes, cash in U.S. dollars, noncallable U.S. Government Obligations, or a combination thereof, sufficient to pay at maturity or upon redemption all notes outstanding under the indenture, including interest thereon; and
- (3) certain other conditions specified in the indenture are met.

The Trustee will acknowledge satisfaction and discharge of the indenture on our demand accompanied by an officer's certificate and an opinion of counsel, upon which the Trustee shall have no liability in relying, stating that all conditions precedent to satisfaction and discharge have been complied with.

Legal Defeasance and Covenant Defeasance

Legal Defeasance. The indenture provides that we may be discharged from any and all obligations in respect of the notes (except for certain obligations to register the transfer or exchange of notes, to apply funds, to replace stolen, lost or mutilated notes, and to maintain paying agencies and certain provisions relating to the treatment of funds held by paying agents), the Guarantees and the indenture and all obligations of the Guarantors discharged with respect to their Guarantees. We will be so discharged upon the deposit with the Trustee, in trust, of money and/or U.S. Government Obligations, that, through the payment of interest and principal in accordance with their terms, will provide not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of

a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of notes on the stated maturity of those payments in accordance with the terms of the indenture and the notes.

This defeasance will occur only if, among other things, such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other material agreement to which Cliffs is bound and we have delivered to the Trustee an officer's certificate and an opinion of counsel stating that we have received from, or there has been published by, the U.S. Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the beneficial owners of the notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, upon compliance with certain conditions as described below:

- (1) we may omit to comply with the covenants described under the heading “—Certain Covenants—Consolidation, Merger and Sale of Assets,” “—Certain Covenants—Restrictions on Liens” and “—Certain Covenants—Restrictions on Sale and Leaseback Transactions”; and
- (2) any omission to comply with those covenants will not constitute an event which, after notice or passage of time, or both, would become a default or an event of default (“covenant defeasance”).

The conditions include:

- (1) depositing with the Trustee in trust money and/or U.S. Government Obligations that, through the payment of interest and principal in accordance with their terms, will provide not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of notes on the stated maturity of those payments in accordance with the terms of the indenture and the notes;
- (2) that such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other agreement to which Cliffs or the Guarantors are bound; and
- (3) delivering to the Trustee an opinion of counsel to the effect that the beneficial owners of the notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default. In the event we exercise our option to effect covenant defeasance and the notes are declared due and payable because of the occurrence of any event of default, the amount of money and/or U.S. Government Obligations on deposit with the Trustee will be sufficient to pay amounts due on the notes at the time of their stated maturity but may not be sufficient to pay amounts due on the notes at the time of the acceleration resulting from the event of default. However, we shall remain liable for those payments.

Governing Law

The indenture, the notes and the Guarantees are governed by, and construed in accordance with, the internal laws of the State of New York.

Certain Definitions

Following are the meanings of certain defined terms used in the indenture. Reference is made to those documents for a full disclosure of all defined terms used therein.

“ABL Agent” means Bank of America, N.A., acting in its capacity as collateral agent under the ABL Credit Facility, or any successor thereto in such capacity.

"ABL Credit Facility" means the agreement, dated as of February 28, 2018, among the Company, the Subsidiaries of the Company that borrow or guarantee obligations under such agreement from time to time, as "Credit Parties", the lenders parties thereto from time to time and Bank of America, N.A., as agent (or its successor in such capacity), together with the related notes, letters of credit, guarantees and security documents, and as the same may be amended, restated, amended and restated, supplemented or modified from time to time and any renewal, increase, extension, refunding, restructuring, replacement or refinancing thereof (whether with the original administrative agent and lenders or another administrative agent, collateral agent or agents or one or more other lenders or additional borrowers or guarantors and whether provided under the original ABL Credit Facility or one or more other credit or other agreements or indentures).

"ABL Credit Facility Obligations" means all ABL Obligations under the ABL Credit Facility.

"ABL Obligations" means (i) Debt outstanding under the ABL Credit Facility, and all other Obligations (not constituting Debt) of the Company or any Guarantor under the ABL Credit Facility and (ii) Bank Product Obligations owed to an agent, arranger or lender or other secured party under such Debt Facility (even if the respective agent, arranger or lender or other secured party subsequently ceases to be an agent arranger or lender or other secured party under the ABL Credit Facility for any reason) or any of their respective affiliates, assigns or successors.

"Adjusted Treasury Rate" means, with respect to any redemption date, (i) the yield, under the heading which represents the average for the immediately preceding week, appearing in the most recently published statistical release designated "H.15(519)" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under "Treasury Constant Maturities," for the maturity corresponding to the Comparable Treasury Issue (if no maturity is within three months before or after June 1, 2022, yields for the two published maturities most closely corresponding to the Comparable Treasury Issue shall be determined and the Adjusted Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month) or (ii) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per year equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date, in each case calculated on the third Business Day immediately preceding the redemption date, plus 0.50%.

"Applicable Premium" means with respect to a note at any redemption date the excess of (if any) (A) the present value at such redemption date of (1) the redemption price of such note on June 1, 2022 (such redemption price being described in the second paragraph under "—Optional Redemption" plus (2) all required remaining scheduled interest payments due on such note through June 1, 2022, excluding in each case accrued and unpaid interest to, but excluding, the redemption date, computed by the Company using a discount rate equal to the Adjusted Treasury Rate, over (B) the principal amount of such note on such redemption date.

"Arbitration Award" means that certain arbitration award granted pursuant to Case No. 18209/VRO/AGF/ZF by the ICC International Court of Arbitration in favor of Worldlink Resources Limited against Cliffs Quebec Iron Mining ULC, The Bloom Lake Iron Ore Mine Limited Partnership and Bloom Lake General Partner Limited.

"Attributable Debt" means the present value (discounted at the rate of interest implicit in the terms of the lease) of the obligation of a lessee for net rental payments during the remaining term of any lease (including any period for which such lease has been extended or may, at the option of the lessor, be extended).

"Bank Product" means any one or more of the following financial products or accommodations extended to the Company or its Subsidiaries by a holder of ABL Credit Facility Obligations or an affiliate of such person: (a) credit cards (including commercial cards (including so-called "purchase cards", "procurement cards" or "p-cards")), (b) credit card processing services, (c) debit cards, (d) stored value cards, (e) cash management services, (f) supply chain financing, or (g) transactions under Hedge Agreements.

"Bank Product Agreements" means those agreements entered into from time to time by the Company or its Subsidiaries in connection with the obtaining of any of the Bank Products.

"Bank Product Obligations" means (a) all obligations, liabilities, reimbursement obligations, fees, or expenses owing by the Company and its Subsidiaries to any holder of ABL Credit Facility Obligations or any of their respective affiliates pursuant to or evidenced by a Bank Product Agreement and irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, (b) all Hedging Obligations and (c) all amounts that ABL Agent or any holder of ABL Credit Facility Obligations is obligated to pay as a result of ABL Agent or such holder of the ABL Credit Facility Obligations purchasing participations from, or

executing guarantees or indemnities or reimbursement obligations with respect to the Bank Products to the Company or any of its Subsidiaries.

“Bankruptcy Code” means Title 11 of the United States Code entitled “Bankruptcy,” as now and hereafter in effect, or any successor statute.

“Borrowing Base” means as of any date of determination, the sum of (a) 85% of the face amount of all accounts, payment intangibles and other receivables of the Company and its Subsidiaries, plus (b) 80% of the gross book value of all inventory and as-extracted collateral of the Company and its Subsidiaries, plus (c) 100% of the gross book value of all Mobile Equipment of the Company and its Subsidiaries, minus any applicable reserves, in each case determined in accordance with GAAP.

“Business Day” means a day other than a Saturday, Sunday or other day on which banking institutions are authorized or required by law to close in New York City or the place of payment.

“Calculation Date” means the date on which the event for which the calculation of the Consolidated Secured Leverage Ratio shall occur.

“Canadian Entities” means (a) Cliffs Quebec Iron Mining ULC (f/k/a Cliffs Quebec Iron Mining Limited), an unlimited liability company organized under the laws of British Columbia, Canada, (b) Wabush Iron Co. Limited, an Ohio corporation, (c) The Bloom Lake Iron Ore Mine Limited Partnership, a limited partnership formed under the laws of Ontario, (d) Bloom Lake General Partner Limited, an Ontario corporation, (e) Wabush Resources Inc., a corporation organized under the laws of Canada, (f) each other Subsidiary of Cliffs organized under the laws of Canada or any province thereof, including, for the avoidance of doubt, Wabush Mines, an unincorporated joint venture, and Knoll Lake Minerals Limited, a company organized under the laws of Canada and (g) Northern Land Company Limited, a company organized under the laws of Newfoundland & Labrador.

“Capital Stock” means:

- (1) in the case of a corporation, corporate stock or shares;
- (2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) or corporate stock;
- (3) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited);
and
- (4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distribution of assets of, the issuing Person.

“Change of Control” means the occurrence of any of the following:

- (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the assets of Cliffs and its subsidiaries taken as a whole to any “person” or “group” (as those terms are used in Section 13(d)(3) of the Exchange Act) other than to Cliffs or one of its subsidiaries;
- (2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any “person” or “group” (as those terms are used in Section 13(d)(3) of the Exchange Act, it being agreed that an employee of Cliffs or any of its subsidiaries for whom shares are held under an employee stock ownership, employee retirement, employee savings or similar plan and whose shares are voted in accordance with the instructions of such employee shall not be a member of a “group” (as that term is used in Section 13(d)(3) of the Exchange Act) solely because such employee’s shares are held by a trustee under said plan) becomes the “beneficial owner” (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of Voting Stock representing more than 50 percent of the voting power of our outstanding Voting Stock or of the Voting Stock of any of Cliffs’ direct or indirect parent companies;
- (3) we consolidate with, or merge with or into, any Person, or any Person consolidates with, or merges with or into, us, in any such event pursuant to a transaction in which any of our outstanding Voting Stock or Voting Stock of such other Person is converted into or exchanged for cash, securities or other property, other than any such transaction where our Voting Stock outstanding immediately prior to such transaction

constitutes, or is converted into or exchanged for, Voting Stock representing at least a majority of the voting power of the Voting Stock of the surviving Person immediately after giving effect to such transaction; or

(4) the adoption of a plan relating to our liquidation or dissolution.

Notwithstanding the foregoing, a transaction will not be deemed to involve a Change of Control solely because we become a direct or indirect wholly-owned subsidiary of a holding company if the direct or indirect holders of the Voting Stock of such holding company immediately following that transaction are substantially the same as the holders of our Voting Stock immediately prior to that transaction.

“Change of Control Triggering Event” means, with respect to the notes, (i) the rating of the notes is lowered by each of the Rating Agencies on any date during the period (the “Trigger Period”) commencing on the earlier of (a) the occurrence of a Change of Control and (b) the first public announcement by us of any Change of Control (or pending Change of Control), and ending 60 days following consummation of such Change of Control (which Trigger Period will be extended following consummation of a Change of Control for so long as any of the Rating Agencies has publicly announced that it is considering a possible ratings change), and (ii) the notes are rated below Investment Grade by each of the Rating Agencies on any day during the Trigger Period; provided that a Change of Control Triggering Event will not be deemed to have occurred in respect of a particular Change of Control if each Rating Agency making the reduction in rating does not publicly announce or confirm or inform the Trustee at our request that the reduction was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the Change of Control.

Notwithstanding the foregoing, no Change of Control Triggering Event will be deemed to have occurred in connection with any particular Change of Control unless and until such Change of Control has actually been consummated.

“Comparable Treasury Issue” means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the notes from the redemption date to June 1, 2022, that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of a maturity most nearly equal to June 1, 2022.

“Comparable Treasury Price” means, with respect to any redemption date, if clause (ii) of the definition of Adjusted Treasury Rate is applicable, the average of three, or such lesser number as is obtained by the Company, Reference Treasury Dealer Quotations for such redemption date.

“Consolidated EBITDA” means, with respect to any Person and its consolidated Subsidiaries in reference to any period, Consolidated Net Income for such period plus, without duplication,

- (a) all amounts deducted in arriving at such Consolidated Net Income amount in respect of (i) the sum of all interest charges for such period determined on a consolidated basis in accordance with GAAP, (ii) federal, state and local income taxes as accrued for such period, (iii) depreciation of fixed assets and amortization of intangible assets for such period, (iv) non-cash items decreasing Consolidated Net Income for such period, including, without limitation, non-cash compensation expense, (v) transaction costs, fees and expenses associated with the issuance of Debt or the extension, renewal, refunding, restructuring, refinancing or replacement of Debt (whether or not consummated) (but excluding any such costs amortized through or otherwise included or to be included in interest expense for any period), (vi) Debt extinguishment costs, (vii) losses on discontinued operations, (viii) amounts attributable to minority interests and (ix) any additional non-cash losses, expenses and charges, minus, without duplication,
- (b) the sum of (i) cash payments made during such period in respect of items added to the calculation of Consolidated Net Income pursuant to clause (a)(iv) or clause (a)(ix) above during such period or any previous period, and (ii) non-cash items increasing Consolidated Net Income for such period.

“Consolidated Net Income” means with respect to any Person and its consolidated Subsidiaries in reference to any period, the net income (or net loss) of such Person and its Subsidiaries for such period computed on a consolidated basis in accordance with GAAP; provided that there shall be excluded, without duplication, from Consolidated Net Income (to the extent otherwise included therein):

- (i) the net income (or net loss) of any Person accrued prior to the date it becomes a Subsidiary of, or has merged into or consolidated with, such person or another Subsidiary of such Person;

- (ii) the net income (or net loss) of any Person (other than a Subsidiary) in which such Person or any of its Subsidiaries has an equity interest in, except to the extent of the amount of dividends or other distributions actually paid to the such Person or its Subsidiaries during such period;
- (iii) any net after-tax gains or losses (less all fees and expenses or charges relating thereto) attributable to asset sales or dispositions, in each case other than in the ordinary course of business;
- (iv) any net after-tax extraordinary gains or losses;
- (v) the cumulative effect of a change in accounting principles; and
- (vi) any gains or losses due to fluctuations in currency values and the related tax effects calculated in accordance with GAAP.

“Consolidated Net Tangible Assets” means the aggregate amount of assets (less applicable reserves and other properly deductible items) after deducting therefrom (a) all current liabilities (excluding any indebtedness for money borrowed having a maturity of less than 12 months from the date of the most recent consolidated balance sheet of Cliffs but which by its terms is renewable or extendable beyond 12 months from such date at the option of the borrower) and (b) all goodwill, trade names, patents, unamortized debt discount and expense and any other like intangibles, all as set forth on the most recent consolidated balance sheet of Cliffs and computed in accordance with GAAP.

“Consolidated Secured Leverage Ratio” means, with respect to any specified Person on any Calculation Date, the ratio of (1) the sum of the aggregate outstanding amount of Debt of such Person and its Subsidiaries secured by a Lien, determined on a consolidated basis as of the last day of the most recent fiscal quarter for which internal financial statements are available immediately preceding the Calculation Date, in effect on such Calculation Date, to (2) the Consolidated EBITDA of such Person and its consolidated Subsidiaries for the most recently ended four fiscal quarters for which internal financial statements are available immediately preceding the Calculation Date.

For purposes of calculating the Consolidated Secured Leverage Ratio:

- (1) (A) acquisitions that have been made by the specified Person or any of its Subsidiaries, including through mergers or consolidations, or any Person or any of its Subsidiaries acquired by the specified Person or any of its Subsidiaries, and including any related financing transactions and including increases in ownership of Subsidiaries, (B) discontinued operations (as determined in accordance with GAAP), and (C) operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, in each case, during the four-quarter reference period or subsequent to such reference period and on or prior to the Calculation Date will be given pro forma effect (as determined in good faith by the chief financial officer of the Company calculated on a basis that is consistent with Regulation S-X under the Securities Act of 1933, as amended) as if they had occurred on the first day of the four-quarter reference period;
- (2) (A) in the event that such Person or any Subsidiary incurs, assumes, guarantees, redeems, repays, retires or extinguishes any Debt (other than Debt incurred or repaid under any revolving credit facility in the ordinary course of business for working capital purposes), subsequent to the end of the most recent fiscal quarter for which internal financial statements are available but on or prior to or simultaneously with the Calculation Date, then the Consolidated Secured Leverage Ratio shall be calculated giving pro forma effect to such incurrence, assumption, guarantee, redemption, repayment, retirement or extinguishment of Debt, as if the same had occurred on the last day of such most recent fiscal quarter and (B) the Consolidated Secured Leverage Ratio shall be calculated assuming that any revolving Debt Facility (including the ABL Credit Facility) is fully drawn; and
- (3) the U.S. dollar-equivalent principal amount of any Debt denominated in a foreign currency will reflect the currency translation effects, determined in accordance with GAAP, of Hedging Obligations for currency exchange risks with respect to the applicable currency in effect on the date of determination of the U.S. dollar equivalent principal amount of such Debt.

“Debt” means indebtedness for money borrowed that in accordance with applicable generally accepted accounting principles would be reflected on the balance sheet of the obligor as a liability as of the date on which Debt is to be determined.

“Debt Facility” or “Debt Facilities” means, with respect to the Company or any of its Subsidiaries, one or more debt facilities (which may be outstanding, at the same time and including, without limitation, the ABL Credit Facility)

or commercial paper facilities with banks or other lenders providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables), letters of credit or bankers' acceptances or issuances of debt securities evidenced by notes, debentures, bonds or similar instruments, in each case, as amended, restated, supplemented, modified, renewed, refunded, replaced or refinanced (including by means of sales of debt securities to institutional investors, including convertible or exchangeable debt securities) in whole or in part from time to time (and whether or not with the original trustee, administrative agent, holders and lenders or another trustee, administrative agent or agents or other holders or lenders or additional borrowers or guarantors and whether provided under the ABL Credit Facility or any other credit agreement or other agreement or indenture).

"DTC" means The Depository Trust Company or any successor securities clearing agency.

"Equity Offering" means any public or private issuance and sale of Cliffs' common shares by Cliffs. Notwithstanding the foregoing, the term "Equity Offering" shall not include:

- (1) any issuance and sale with respect to common shares registered on Form S-4 or Form S-8; or
- (2) any issuance and sale to any Subsidiary of Cliffs.

"Exchange Notes" means the debt securities of the Company to be issued pursuant to the indenture in exchange for, and in an aggregate principal amount not to exceed, the aggregate principal amount of the notes to be exchanged, in compliance with the terms of the applicable Registration Rights Agreement, which debt securities will have terms substantially identical in all material respects to the notes to be exchanged (except that such debt securities will not contain terms with respect to transfer restrictions).

"Excluded Subsidiaries" means (i) any direct or indirect Foreign Subsidiary of the Company, (ii) any non-Foreign Subsidiary if substantially all of its assets consist of the Voting Stock or indebtedness of one or more direct or indirect Foreign Subsidiaries of the Company, (iii) any non-Foreign Subsidiary of a Foreign Subsidiary, (iv) any Subsidiary that is an Immaterial Subsidiary, (v) any non-Wholly-Owned Subsidiary, to the extent, and for so long as, a guarantee by such Subsidiary of the obligations of Cliffs under any of the Secured Notes Documents would be prohibited by the terms of any organizational document, joint venture agreement or shareholder's agreement applicable to such Subsidiary; provided that such prohibition existed on the Issue Date or, with respect to any Subsidiary formed or acquired after the Issue Date (and, in the case of any Subsidiary acquired after the Issue Date, for so long as such prohibition was not incurred in contemplation of such acquisition), on the date such Subsidiary is so formed or acquired, (vi) any parent entity of any non-Wholly-Owned Subsidiary, to the extent, and for so long as, a guarantee by such Subsidiary of the obligations of Cliffs under any of the Secured Notes Documents would be prohibited by the terms of any organizational document, joint venture agreement or shareholder's agreement applicable to the non-Wholly Owned Subsidiary to which such Subsidiary is a parent; provided that (A) such prohibition existed on the Issue Date or, with respect to any Subsidiary formed or acquired after the Issue Date (and, in the case of any Subsidiary acquired after the Issue Date, for so long as such prohibition was not incurred in contemplation of such acquisition), on the date such Subsidiary is so formed or acquired and (B) a direct or indirect parent company of such parent entity (1) shall be a Guarantor and (2) shall be a holding company not engaged in any business activities or having any assets or liabilities other than (x) its ownership and acquisition of the Capital Stock of the applicable joint venture (or any other entity holding an ownership interest in such joint venture), together with activities directly related thereto, (y) actions required by law to maintain its existence and (z) activities incidental to its maintenance and continuance and to the foregoing activities; (vii) Cleveland-Cliffs International Holding Company, so long as substantially all of its assets consist of equity interests in, or indebtedness of, one or more Foreign Subsidiaries, (viii) Wabush Iron Co. Limited and (ix) any Subsidiary of a Person described in the foregoing clauses (i), (ii), (iii), (iv), (v), (vi), (vii) or (viii), provided in each case that such Subsidiary has not guaranteed any Obligations of the Company or any co-borrowers or guarantors under (y) any of the Secured Notes Documents or (z) the ABL Credit Facility (other than any Obligations of a co-borrower or guarantor that is a Foreign Subsidiary).

"Existing Indebtedness" means Debt of the Company and, as applicable, any of its Subsidiaries (other than Debt under the ABL Credit Facility and the Secured Notes) in existence on the Issue Date, until such amounts are repaid.

"Foreign Subsidiary" means any Subsidiary of the Company that was not formed under the laws of the United States or any state of the United States or the District of Columbia.

"GAAP" means generally accepted accounting principles in the United States, consistently applied, as set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified

Public Accountants and statements and pronouncements of the Financial Accounting Standards Board, or in such other statements by such other entity as may be approved by a significant segment of the accounting profession of the United States, which were in effect as of December 31, 2018.

“Guarantee” means any guarantee of the obligations of the Company under the indenture and the notes by any Person in accordance with the provisions of the indenture.

“Hedge Agreement” means a “swap agreement” as that term is defined in Section 101(53B)(A) of the Bankruptcy Code.

“Hedging Obligations” means any and all obligations or liabilities, whether absolute or contingent, due or to become due, now existing or hereafter arising of the Company or any of their Subsidiaries arising under, owing pursuant to, or existing in respect of Hedge Agreements entered into with one or more of the holders of ABL Credit Facility Obligations or one or more of their affiliates.

“Immaterial Subsidiary” means, as of any date, any Subsidiary of Cliffs (that is not an Excluded Subsidiary of the type described in clause (i), (ii), (iii), (v), (vi), (vii), (viii) or (ix) in the definition thereof) that, together with its Subsidiaries, does not have (i) consolidated total assets in excess of 3.0% of the consolidated total assets of Cliffs and its Subsidiaries on a consolidated basis as of the date of the most recent consolidated balance sheet of Cliffs or (ii) consolidated total revenues in excess 3.0% of the consolidated total revenues of Cliffs and its Subsidiaries on a consolidated basis for the most recently ended four fiscal quarters for which internal financial statements of Cliffs are available immediately preceding such calculation date; provided that any such Subsidiary, when taken together with all other Immaterial Subsidiaries does not, in each case together with their respective Subsidiaries, have (i) consolidated total assets with a value in excess of 7.5% of the consolidated total assets of Cliffs and its Subsidiaries on a consolidated basis or (ii) consolidated total revenues in excess of 7.5% of the consolidated total revenues of Cliffs and its Subsidiaries on a consolidated basis.

“Investment Grade” means a rating of Baa3 or better by Moody’s (or its equivalent under any successor rating category of Moody’s) and a rating of BBB- or better by S&P (or its equivalent under any successor rating category of S&P), and the equivalent investment grade credit rating from any replacement rating agency or rating agencies selected by us under the circumstances permitting us to select a replacement agency and in the manner for selecting a replacement agency, in each case as set forth in the definition of “Rating Agency.”

“Issue Date” means the date of original issuance of notes under the indenture.

“Liens” means any mortgage, pledge, lien or other encumbrance.

“Mobile Equipment” means all of the right, title and interest of the Company or any of its Subsidiaries in any forklifts, trailers, graders, dump trucks, water trucks, grapple trucks, lift trucks, flatbed trucks, fuel trucks, other trucks, dozers, cranes, loaders, skid steers, excavators, back hoes, shovels, drill crawlers, other drills, scrapers, graders, gondolas, flat cars, ore cars, shuttle cars, conveyors, locomotives, miners, other rail cars, and any other vehicles, mobile equipment and other equipment similar to any of the foregoing.

“Moody’s” means Moody’s Investors Service, Inc., a subsidiary of Moody’s Corporation, and its successors.

“Obligations” means all principal, premium, interest (including any interest accruing subsequent to the filing of a petition in bankruptcy, reorganization or similar proceeding at the rate provided for in the documentation with respect thereto, whether or not such interest is an allowed claim under any such proceeding or under applicable state, federal or foreign law), penalties, fees, indemnifications, reimbursements (including reimbursement obligations with respect to letters of credit and banker’s acceptances), damages and other liabilities, and guarantees of payment of such principal, premium, interest, penalties, fees, indemnifications, reimbursements, damages and other liabilities, payable under the documentation governing any indebtedness.

“Permitted Liens” means:

- (i) Liens securing ABL Obligations, provided that the incurrence by the Company and the Guarantors of Debt (including the issuance of letters of credit) under the ABL Credit Facility (with letters of credit being deemed to have a principal amount equal to the face amount thereof) shall not exceed, in aggregate principal amount outstanding at any one time, the greater of (x) \$700.0 million and (y) the Borrowing Base;
- (ii) Liens securing Secured Notes Obligations;

- (iii) [intentionally omitted];
- (iv) Liens existing on assets at the time of acquisition thereof, or incurred to secure the payment of all or part of the cost of the purchase or construction price of Property, or to secure Debt incurred or guaranteed for the purpose of financing all or part of the purchase or construction price of Property or the cost of improvements on Property, which Debt is incurred or guaranteed prior to, at the time of, or within 180 days after the later of such acquisition or completion of such improvements or construction or commencement of commercial operation of the assets;
- (v) Liens in favor of Cliffs or any Guarantor or, with respect to any Foreign Subsidiary, Liens in favor of Cliffs or any Subsidiary;
- (vi) Liens on Property of a Person existing at the time such Person is merged into or consolidated with us or a Subsidiary or at the time of a purchase, lease or other acquisition of the Property of a Person as an entirety or substantially as an entirety by us or a Subsidiary;
- (vii) Liens on our Property or that of a Subsidiary in favor of the United States of America or any State thereof, or any political subdivision thereof, or in favor of any other country, or any political subdivision thereof, to secure certain payments pursuant to any contract or statute or to secure any indebtedness incurred or guaranteed for the purpose of financing all or any part of the purchase price or the cost of construction of the Property subject to such Liens (including, but not limited to, Liens incurred in connection with pollution control industrial revenue bond or similar financing);
- (viii) (a) pledges or deposits under worker's compensation laws, unemployment insurance and other social security laws or regulations or similar legislation, or to secure liabilities to insurance carriers under insurance arrangements in respect of such obligations, or good faith deposits, prepayments or cash payments in connection with bids, tenders, contracts or leases, or to secure public or statutory obligations, surety and appeal bonds, customs duties and the like, or for the payment of rent, in each case incurred in, the ordinary course of business and (b) Liens securing obligations incurred in the ordinary course of business to secure performance of obligations with respect to statutory or regulatory requirements, performance or return-of-money bonds, contractual arrangements with suppliers, reclamation bonds, surety bonds or other obligations of a like nature and incurred in a manner consistent with industry practice;
- (ix) Liens imposed by law, such as landlords' carriers', vendors', warehousemen's and mechanics', materialmen's and repairmen's, supplier of materials, architects' and other like Liens arising in the ordinary course of business;
- (x) pledges or deposits under workmen's compensation or similar legislation or in certain other circumstances;
- (xi) Liens in connection with legal proceedings;
- (xii) Liens for taxes or assessments or governmental charges or levies not yet due or delinquent, or which can thereafter be paid without penalty, or which are being contested in good faith by appropriate proceedings;
- (xiii) Liens consisting of restrictions on the use of real property that do not interfere materially with the property's use;
- (xiv) Liens on Property or shares of Capital Stock or other assets of a Person at the time such Person becomes a Subsidiary of the Company, provided such Liens were not created in contemplation thereof and do not extend to any other Property of the Company or any Subsidiary;
- (xv) Liens on Property at the time the Company or any of its Subsidiaries acquires such Property, including any acquisition by means of a merger or consolidation with or into the Company or a Subsidiary of such Person, provided such Liens were not created in contemplation thereof and do not extend to any other Property of the Company or any Subsidiary;
- (xvi) contract mining agreements and leases or subleases granted to others that do not materially interfere with the ordinary conduct of business of the Company or any of its Subsidiaries;

- (xvii) easements, rights of way, zoning and similar restrictions, reservations (including severances, leases or reservations of oil, gas, coal, minerals or water rights), restrictions or encumbrances in respect of real property or title defects that were not incurred in connection with indebtedness and do not in the aggregate materially impair their use in the operation of the business of the Company and its Subsidiaries;
- (xviii) Liens in favor of collecting or payor banks having a right of setoff, revocation, refund or chargeback with respect to money or instruments of the Company or any Subsidiary on deposit with or in possession of such bank;
- (xix) deposits made in the ordinary course of business to secure liability to insurance carriers;
- (xx) Liens arising from UCC (or equivalent statute) financing statement filings regarding operating leases or consignments entered into by the Company or any Subsidiary in the ordinary course of business;
- (xxi) Liens securing Existing Indebtedness;
- (xxii) Liens securing Bank Product Obligations;
- (xxiii) options, put and call arrangements, rights of first refusal and similar rights relating to investments in joint ventures and partnerships;
- (xxiv) rights of owners of interests in overlying, underlying or intervening strata and/or mineral interests not owned by the Company or any of its Subsidiaries, with respect to tracts of real property where the Company or the applicable Subsidiary's ownership is only surface or severed mineral or is otherwise subject to mineral severances in favor of one or more third parties;
- (xxv) royalties, dedication of reserves under supply agreements, mining leases, or similar rights or interests granted, taken subject to, or otherwise imposed on properties consistent with normal practices in the mining industry and any precautionary UCC financing statement filings in respect of leases or consignment arrangements (and not any Debt) entered into in the ordinary course of business;
- (xxvi) surface use agreements, easements, zoning restrictions, rights of way, encroachments, pipelines, leases, subleases, rights of use, licenses, special assessments, trackage rights, transmission and transportation lines related to mining leases or mineral rights and/or other real property including any re-conveyance obligations to a surface owner following mining, royalty payments, and other obligations under surface owner purchase or leasehold arrangements necessary to obtain surface disturbance rights to access the subsurface mineral deposits and similar encumbrances on real property imposed by law or arising in the ordinary course of business which, in the aggregate, are not substantial in amount and which do not materially detract from the value of the affected property or materially interfere with the ordinary conduct of business of the Company or any Subsidiary;
- (xxvii) any refinancing, extension, renewal or replacement (or successive refinancings, extensions, renewals or replacements), in whole or in part, of any Lien (a "Refinanced Lien") referred to in any of the foregoing clauses ("Permitted Refinancing Lien"); provided that any such Permitted Refinancing Lien shall not extend to any other Property, secure a greater principal amount (or accreted value, if applicable) or have a higher priority than the Refinanced Lien;
- (xxviii) Liens securing Debt of the Company or any Subsidiary having an aggregate principal amount, as of the Calculation Date, not to exceed the greater of (A) \$1,100.0 million minus the outstanding aggregate principal amount of Debt incurred pursuant to clause (ii) above and (B) an amount that, on a pro forma basis upon giving effect to the incurrence thereof (and application of the net proceeds therefrom), would cause the Company's Consolidated Secured Leverage Ratio to exceed 3.0:1.0; and
- (xxix) other Liens, in addition to those permitted in clauses (i) through (xxviii) above, securing Debt of the Company or any Subsidiary having an aggregate principal amount, as of the Calculation Date, not to exceed the greater of (A) \$250.0 million and (B) 15% of the Company's Consolidated Net Tangible Assets.

"Person" means any individual, corporation, partnership, limited liability company, business trust, association, joint-stock company, joint venture, trust, incorporated or unincorporated organization or government or any agency or political subdivision thereof.

“Property” means any property or asset, whether real, personal or mixed, or tangible or intangible.

“QIBs” means qualified institutional buyers within the meaning of Rule 144A.

“Rating Agency” means each of Moody’s and S&P; provided, that if any of Moody’s or S&P ceases to provide rating services to issuers or investors, we may appoint another “nationally recognized statistical rating organization” within the meaning of Section 3(a)(62) of the Exchange Act as a replacement for such Rating Agency.

“Registration Rights Agreement” means (i) with respect to the notes, the registration rights agreement dated the Issue Date among the Company, the Guarantors and Goldman Sachs & Co. LLC, as initial purchaser with respect to the notes, as the same may be amended, supplemented or modified from time to time, and (ii) with respect to any Additional Notes issued after the Issue Date pursuant to an exemption from registration under the Securities Act, the registration rights agreement among the Company, the Guarantors and the initial purchasers with respect to such Additional Notes, as the same may be amended, supplemented or modified from time to time.

“Reference Treasury Dealer” means each of Goldman Sachs & Co. LLC and its respective successors and assigns, and any other nationally recognized investment banking firm selected by the Company and identified to the Trustee by written notice from the Company that is a primary U.S. Government securities dealer.

“Reference Treasury Dealer Quotations” means with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Quotation Agent, of the bid and asked prices for the comparable Treasury Issue, expressed in each case as a percentage of its principal amount, quoted in writing to the Quotation Agent by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day immediately preceding such redemption date.

“Regulation S” means Regulation S under the Securities Act.

“Rule 144A” means Rule 144A under the Securities Act.

“S&P” means Standard & Poor’s Ratings Services, a division of Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and its successors.

“Secured Notes” means the 4.875% Senior Secured Notes due 2024 of Cliffs issued on December 19, 2017, the Obligations of which are guaranteed by the Guarantors.

“Secured Notes Documents” means any documents or instrument evidencing or governing any Secured Notes Obligations.

“Secured Notes Obligations” means Debt outstanding under the Secured Notes and all other Obligations (not constituting Debt) of the Company or any Guarantor under the Secured Notes.

“Significant Subsidiary” means any Subsidiary that would be a “significant subsidiary” as defined in Article 1, Rule 1-02(w)(1) or (2) of Regulation S-X promulgated under the Securities Act, as such regulation is in effect on the Issue Date.

“Subsidiary” means any corporation, partnership or other legal entity (a) the accounts of which are consolidated with ours in accordance with GAAP and (b) of which, in the case of a corporation, more than 50 percent of the outstanding voting stock is owned, directly or indirectly, by us or by one or more other Subsidiaries, or by us and one or more other Subsidiaries or, in the case of any partnership or other legal entity, more than 50 percent of the ordinary equity capital interests is, at the time, directly or indirectly owned or controlled by us or by one or more of the Subsidiaries or by us and one or more of the Subsidiaries.

“Treasury Rate” means the yield to maturity at the time of computation of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15(519) which has become publicly available at least two Business Days prior to the date fixed for redemption (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the then remaining average life to June 1, 2022, provided, however, that if the average life to June 1, 2022, of the notes is not equal to the constant maturity of a United States Treasury security for which a weekly average yield is given, the Treasury Rate shall be obtained by linear interpolation (calculated to the nearest one-twelfth of a year) from the weekly average yields of United States Treasury securities for which such yields are given, except that if the average life to June 1, 2022, of the notes is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year shall be used.

“UCC” means the Uniform Commercial Code (or any similar equivalent legislation) as in effect from time to time in the State of New York.

“Unsecured Notes Obligations” means the Company’s 4.875% Senior Notes due 2021, 1.50% Convertible Senior Notes due 2025 and the 6.25% Senior Notes due 2040 and all other Obligations under such Debt.

“U.S. Government Obligations” means debt securities that are:

- direct obligations of The United States of America for the payment of which its full faith and credit is pledged; or
- obligations of a person controlled or supervised by and acting as an agency or instrumentality of The United States of America the full and timely payment of which is unconditionally guaranteed as full faith and credit obligation by The United States of America,

which, in either case, are not callable or redeemable at the option of the issuer itself and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Obligation or a specific payment of interest on or principal of any such U.S. Government Obligation held by such custodian for the account of the holder of a depository receipt. Except as required by law, such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Obligation evidenced by such depository receipt.

“U.S. Subsidiary” of any specified Person means a Subsidiary of such Person that is organized under the laws of any state of the United States or the District of Columbia.

“Voting Stock” of any specified Person as of any date means the capital stock of such Person that is at the time entitled to vote generally in the election of the board of directors of such Person.

“Wholly-Owned Subsidiary” of any specified Person means a Subsidiary of such Person all of the outstanding Capital Stock or other ownership interests of which (other than directors’ qualifying shares or investments by foreign nationals mandated by applicable law) shall at the time be owned by such Person or by one or more Wholly-Owned Subsidiaries of such Person and one or more Wholly-Owned Subsidiaries of such Person.

Book-Entry Delivery and Settlement

The global notes

The Exchange Notes issued in exchange for the Original Notes will be issued in the form of one or more registered notes in global form, without interest coupons (the “global notes”), as follows:

- notes sold to QIBs will be represented by the Rule 144A global note; and
- notes sold in offshore transactions to non-U.S. persons in reliance on Regulation S will be represented by the Regulation S global note.

Upon issuance, each of the global notes will be deposited with the Trustee for the notes as custodian for the DTC and registered in the name of Cede & Co., as nominee of DTC.

Ownership of beneficial interests in each global note will be limited to persons who have accounts with DTC (“DTC participants”) or persons who hold interests through DTC participants.

We expect that under procedures established by DTC:

- upon deposit of each global note with DTC’s custodian, DTC will credit portions of the principal amount of the global note to the accounts of the DTC participants designated by the initial purchaser; and
- ownership of beneficial interests in each global note will be shown on, and transfer of ownership of those interests will be effected only through, records maintained by DTC (with respect to interests of DTC participants) and the records of DTC participants (with respect to other owners of beneficial interests in the global note).

Beneficial interests in the Regulation S global note initially will be credited within DTC to Euroclear Bank SA/NV (“Euroclear”) and Clearstream Banking, S.A. (“Clearstream”), on behalf of the owners of such interests.

Investors may hold their interests in the Regulation S global note directly through Euroclear or Clearstream, if they are participants in those systems, or indirectly through organizations that are participants in those systems. Investors may also hold their interests in the Regulation S global note through organizations other than Euroclear or Clearstream that are DTC participants. Each of Euroclear and Clearstream will appoint a DTC participant to act as its depositary for the interests in the Regulation S global note that are held within DTC for the account of each settlement system on behalf of its participants.

Beneficial interests in the global notes may not be exchanged for notes in physical, certificated form except in the limited circumstances described below.

Book-entry procedures for the global notes

All interests in the global notes will be subject to the operations and procedures of DTC, Euroclear and Clearstream. We provide the following summaries of those operations and procedures solely for the convenience of investors. The operations and procedures of each settlement system are controlled by that settlement system and may be changed at any time. Neither we nor the initial purchaser are responsible for those operations or procedures.

DTC has advised us that it is:

- a limited purpose trust company organized under the laws of the State of New York;
- a “banking organization” within the meaning of the New York State Banking Law;
- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- a “clearing agency” registered under section 17A of the Exchange Act.

DTC was created to hold securities for its participants and to facilitate the clearance and settlement of securities transactions between its participants through electronic book-entry changes to the accounts of its participants. DTC’s participants include securities brokers and dealers, including the initial purchaser; banks and trust companies; clearing corporations and other organizations. Indirect access to DTC’s system is also available to others such as banks, brokers, dealers and trust companies; these indirect participants clear through or maintain a custodial relationship with a DTC participant, either directly or indirectly. Investors who are not DTC participants may beneficially own securities held by or on behalf of DTC only through DTC participants or indirect participants in DTC.

So long as DTC’s nominee is the registered owner of a global note, that nominee will be considered the sole owner or holder of the notes represented by that global note for all purposes under the indenture. Except as provided below, owners of beneficial interests in a global note:

- will not be entitled to have notes represented by the global note registered in their names;
- will not receive or be entitled to receive physical, certificated notes; and
- will not be considered the owners or holders of the notes under the indenture for any purpose, including with respect to the giving of any direction, instruction or approval to the Trustee under the indenture.

As a result, each investor who owns a beneficial interest in a global note must rely on the procedures of DTC to exercise any rights of a holder of notes under the indenture (and, if the investor is not a participant or an indirect participant in DTC, on the procedures of the DTC participant through which the investor owns its interest).

Payments of principal, premium (if any) and interest with respect to the notes represented by a global note will be made by the Trustee to DTC’s nominee as the registered holder of the global note. Neither we nor the Trustee will have any responsibility or liability for the payment of amounts to owners of beneficial interests in a global note, for any aspect of the records relating to or payments made on account of those interests by DTC, or for maintaining, supervising or reviewing any records of DTC relating to those interests.

Payments by participants and indirect participants in DTC to the owners of beneficial interests in a global note will be governed by standing instructions and customary industry practice and will be the responsibility of those participants or indirect participants and DTC. Transfers between participants in DTC will be effected under DTC’s procedures and will be settled in same-day funds. Transfers between participants in Euroclear or Clearstream will be effected in the ordinary way under the rules and operating procedures of those systems.

Cross-market transfers between DTC participants, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected within DTC through the DTC participants that are acting as depositaries for Euroclear and Clearstream. To deliver or receive an interest in a global note held in a Euroclear or Clearstream account, an investor must send transfer instructions to Euroclear or Clearstream, as the case may be, under the rules and procedures of that system and within the established deadlines of that system. If the transaction meets its settlement requirements, Euroclear or Clearstream, as the case may be, will send instructions to its DTC depository to take action to effect final settlement by delivering or receiving interests in the relevant global notes in DTC, and making or receiving payment under normal procedures for same-day funds settlement applicable to DTC. Euroclear and Clearstream participants may not deliver instructions directly to the DTC depositaries that are acting for Euroclear or Clearstream.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant that purchases an interest in a global note from a DTC participant will be credited on the business day for Euroclear or Clearstream immediately following the DTC settlement date. Cash received in Euroclear or Clearstream from the sale of an interest in a global note to a DTC participant will be received with value on the DTC settlement date but will be available in the relevant Euroclear or Clearstream cash account as of the business day for Euroclear or Clearstream following the DTC settlement date.

DTC, Euroclear and Clearstream have agreed to the above procedures to facilitate transfers of interests in the global notes among participants in those settlement systems. However, the settlement systems are not obligated to perform these procedures and may discontinue or change these procedures at any time. Neither we nor the Trustee will have any responsibility for the performance by DTC, Euroclear or Clearstream or their participants or indirect participants of their obligations under the rules and procedures governing their operations.

Certificated notes

Notes in physical, certificated form will be issued and delivered to each person that DTC identifies as a beneficial owner of the related notes only if:

- DTC notifies us at any time that it is unwilling or unable to continue as depository for the global notes and a successor depository is not appointed within 90 days;
- DTC ceases to be registered as a clearing agency under the Exchange Act and a successor depository is not appointed within 90 days;
- we, at our option, notify the Trustee that we elect to cause the issuance of certificated notes and any participant requests a certificated note in accordance with DTC procedures; or
- certain other events provided in the indenture should occur.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of certain U.S. federal income tax considerations relating to the exchange of unregistered Original Notes for registered Exchange Notes pursuant to the Exchange Offer, but does not purport to be a complete analysis of all the potential tax considerations relating to the Exchange Offer. This summary is based upon the provisions of the Code, Treasury regulations promulgated thereunder, administrative rulings and pronouncements, and judicial decisions, all as in effect on the date of this prospectus and all of which are subject to change or to different interpretations, possibly with retroactive effect, which may result in U.S. federal income tax consequences different than those set forth below.

This discussion does not address all of the U.S. federal income tax considerations that may be relevant to a holder in light of such holder's particular circumstances or to holders subject to special rules, such as banks or other financial institutions, entities or arrangements classified as partnerships or other pass-through entities for U.S. federal income tax purposes or investors in such entities, regulated investment companies, real estate investment trusts, expatriates or former U.S. citizens or U.S. residents, insurance companies, brokers or dealers in securities or commodities, holders that use a mark-to-market method of accounting for their securities holdings, U.S. holders whose functional currency is not the U.S. dollar, holders subject to the alternative minimum tax, tax-exempt organizations, controlled foreign corporations (within the meaning of the Code), passive foreign investment companies (within the meaning of the Code), persons deemed to sell the Notes under the constructive sale provisions of the Code, persons holding the Notes in tax-deferred accounts, or persons holding the Notes as part of a "straddle," "hedge," "conversion transaction," integrated security transaction or other risk reduction transaction. In addition, this discussion is limited to persons that hold the Notes as "capital assets" within the meaning of the Code (generally, property held for investment). This discussion does not address U.S. federal tax laws other than those pertaining to the U.S. federal income tax (such as the gift tax, the estate tax and the Medicare tax) or the effect of any applicable state, local or non-U.S. tax laws. This summary is not binding on the Internal Revenue Service, which we refer to as the IRS. We have not sought and will not seek any rulings from the IRS with respect to the statements made in this summary, and there can be no assurance that the IRS will not take a position contrary to these statements or that a contrary position taken by the IRS would not be sustained by a court.

The exchange of an Original Note for an Exchange Note pursuant to the Exchange Offer will not constitute a taxable exchange of the Original Note for U.S. federal income tax purposes. Rather, the Exchange Note a holder receives will be treated as a continuation of the holder's investment in the corresponding Original Note surrendered in the exchange. Consequently, a holder will not recognize any taxable income, gain or loss upon the receipt of an Exchange Note pursuant to the Exchange Offer, the holder's holding period for an Exchange Note will include the holding period for the Original Note exchanged pursuant to the Exchange Offer, and the holder's tax basis in an Exchange Note will be the same as the adjusted tax basis in the Original Note immediately before such exchange.

THIS SUMMARY OF CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. HOLDERS ARE URGED TO CONSULT THEIR OWN TAX ADVISOR WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSIDERATIONS ARISING UNDER OTHER U.S. FEDERAL TAX LAWS, THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR ANY APPLICABLE INCOME TAX TREATY.

CERTAIN ERISA CONSIDERATIONS

The following summary regarding certain aspects of the United States Employee Retirement Income Security Act of 1974, as amended, or "ERISA," and the Code is based on ERISA, the Code, judicial decisions and United States Department of Labor and IRS regulations and rulings that are in existence on the date of this prospectus. This summary is general in nature and does not address every issue pertaining to ERISA and the Code that may be applicable to us, the Exchange Notes or a particular investor. Accordingly, each prospective investor, including plan fiduciaries, should consult with his, her or its own advisors or counsel with respect to the advisability of an investment in the Exchange Notes, and potentially adverse consequences of such investment, including, without limitation, certain ERISA-related issues that affect or may affect the investor with respect to this investment and the possible effects of changes in the applicable laws.

ERISA and the Code impose certain requirements on employee benefit plans that are subject to Title I of ERISA, plans subject to Section 4975 of the Code and entities that are deemed to hold the assets of such plans, each such employee benefit plan, plan or entity, a Plan, and on those persons who are "fiduciaries" with respect to Plans. A fiduciary of a Plan subject to Title I of ERISA should consider whether an investment in the Exchange Notes satisfies ERISA's general fiduciary requirements, including, but not limited to, the requirement of investment prudence and diversification and the requirement that such a Plan's investments be made in accordance with the documents governing the Plan.

An investor who is considering acquiring the Exchange Notes with the assets of a Plan must consider whether the acquisition and holding of the Exchange Notes will constitute or result in a non-exempt prohibited transaction. Section 406(a) of ERISA and Sections 4975(c)(1)(A), (B), (C) and (D) of the Code prohibit certain transactions that involve a Plan and a "party in interest" as defined in Section 3(14) of ERISA or a "disqualified person" as defined in Section 4975(e)(2) of the Code with respect to such Plan. Examples of such prohibited transactions include, but are not limited to, sales or exchanges of property (such as the Exchange Notes) or extensions of credit between a Plan and a party in interest or disqualified person. Section 406(b) of ERISA and Sections 4975(c)(1)(E) and (F) of the Code generally prohibit a fiduciary with respect to a Plan from dealing with the assets of the Plan for its own benefit (for example when a fiduciary of a Plan uses its position to cause the Plan to make investments in connection with which the fiduciary (or a party related to the fiduciary) receives a fee or other consideration). Such parties in interest or disqualified persons could include, without limitation, the Company, the initial purchaser, and the trustee or any of their respective affiliates.

ERISA and the Code contain certain exemptions from the prohibited transactions described above, and the Department of Labor has issued several exemptions, although certain exemptions do not provide relief from the prohibitions on self-dealing contained in Section 406(b) of ERISA and Sections 4975(c)(1)(E) and (F) of the Code. Such exemptions include Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code pertaining to certain transactions with non-fiduciary service providers; Department of Labor Prohibited Transaction Class Exemption, or PTCE, 95-60, applicable to transactions involving insurance company general accounts; PTCE 90-1, regarding investments by insurance company pooled separate accounts; PTCE 91-38, regarding investments by bank collective investment funds; PTCE 84-14, regarding investments effected by a qualified professional asset manager; and PTCE 96-23, regarding investments effected by an in-house asset manager. There can be no assurance that any of these exemptions or any other exemption will be available with respect to the acquisition or holding of the Exchange Notes, even if the specified conditions are met. Under Section 4975 of the Code, excise taxes or other penalties and liabilities may be imposed on disqualified persons who participate in non-exempt prohibited transactions (other than a fiduciary acting only as such). A fiduciary of a Plan that engages in such non-exempt prohibited transactions may also be subject to penalties and liabilities under ERISA and the Code. Furthermore, each person acting on behalf of a Plan that acquires the Exchange Notes acknowledges that none of us, the initial purchaser, the Trustee, the registrar or the paying agent nor any of their respective affiliates has provided or will provide investment advice, or is otherwise acting in a fiduciary capacity, in connection with the acquisition of the Exchange Notes by any Plan. In addition, each such person acknowledges that the Plan investor's fiduciary is exercising its own independent judgment in evaluating the acquisition of the Exchange Notes.

As a general rule, governmental plans, as defined in Section 3(32) of ERISA, or Governmental Plans, church plans, as defined in Section 3(33) of ERISA, that have not made an election under Section 410(d) of the Code, or Church Plans, and non-U.S. plans are not subject to the requirements of ERISA or Section 4975 of the Code. Accordingly, assets of such plans generally may be invested in the Exchange Notes without regard to the fiduciary and prohibited transaction considerations under ERISA and Section 4975 of the Code described above. However, Governmental Plans, Church Plans or non-U.S. plans may be subject to other United States federal, state or local laws or non-U.S. laws that regulate their investments, or a Similar Law. A fiduciary of a Governmental Plan, a Church

Plan or a non-U.S. plan should make its own determination as to the requirements, if any, under any Similar Law applicable to the acquisition of the Exchange Notes.

The Exchange Notes may be acquired by a Plan, a Governmental Plan, a Church Plan, or a non-U.S. Plan, but only if the acquisition will not result in a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of Similar Law. Therefore, any investor in the Exchange Notes will be deemed to represent and warrant to us and the Trustee that (1) (a) it is not (i) a Plan, (ii) a Governmental Plan, (iii) a Church Plan, or (iv) a non-U.S. Plan, (b) it is a Plan and the acquisition and holding of the Exchange Notes will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or (c) it is a Governmental Plan, a Church Plan or a non-U.S. Plan that is not subject to (i) ERISA, (ii) Section 4975 of the Code or (iii) any Similar Law that prohibits or imposes excise or penalty taxes on the acquisition or holding of the Exchange Notes; and (2) it will notify us and the Trustee immediately if, at any time, it is no longer able to make the representations contained in clause (1) above. Any purported transfer of the Exchange Notes to a transferee that does not comply with the foregoing requirements shall be null and void *ab initio*.

This Exchange Offer is not a representation by us or the initial purchaser that an acquisition of the Exchange Notes meets all legal requirements applicable to investments by Plans, Governmental Plans, Church Plans or non-U.S. plans or that such an investment is appropriate for any particular Plan, Governmental Plan, Church Plan or non-U.S. plan.

PLAN OF DISTRIBUTION

Any broker-dealer that holds Original Notes that were acquired for its own account as a result of market-making activities or other trading activities (other than Original Notes acquired directly from us) may exchange such Original Notes pursuant to the Exchange Offer. Any such broker-dealer, however, may be deemed to be an "underwriter" within the meaning of the Securities Act and must, therefore, deliver a prospectus meeting the requirements of the Securities Act in connection with any resales of Exchange Notes received by such broker-dealer in the Exchange Offer. Such prospectus delivery requirement may be satisfied by the delivery by such broker-dealer of this prospectus. We have agreed to make this prospectus, as amended or supplemented, available to any broker-dealer for use in connection with such resales.

We will not receive any proceeds from any sale of Exchange Notes by broker-dealers. Exchange Notes received by broker-dealers for their own account in the Exchange Offer may be sold from time to time in one or more transactions in the over-the-counter market, in negotiated transactions, through the writing of options on the Exchange Notes or a combination of such methods of resale, at market prices prevailing at the time of resale, at prices related to such prevailing market prices or negotiated prices. Any of these resales may be made directly to purchasers or to or through brokers or dealers who may receive compensation in the form of commissions or concessions from these broker-dealers and/or the purchasers of Exchange Notes. Any broker-dealer that resells Exchange Notes that were received by it for its own account in the Exchange Offer and any broker-dealer that participates in a distribution of the Exchange Notes may be deemed to be an "underwriter" within the meaning of the Securities Act and any profit on any such resale of Exchange Notes and any commission or concessions received by any such person may be deemed to be underwriting compensation under the Securities Act. The accompanying letter of transmittal states that, by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act.

We have agreed to pay all expenses incident to the Exchange Offer, including the expenses of one counsel for the holders of the Original Notes and will indemnify the holders of the Original Notes against certain liabilities, including liabilities under the Securities Act.

LEGAL MATTERS

Jones Day will pass upon the validity of the Exchange Notes.

EXPERTS

Cliffs

The consolidated financial statements, incorporated in this Prospectus by reference from the Cleveland-Cliffs Inc. Annual Report on Form 10-K for the year ended December 31, 2019, and the effectiveness of Cleveland-Cliffs Inc.'s and its subsidiaries' internal control over financial reporting, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference (which reports (1) express an unqualified opinion on the consolidated financial statements and include an explanatory paragraph referring to Cleveland-Cliffs Inc.'s change to its method of accounting for revenue by adopting FASB ASC 606, *Revenue from Contracts with Customers*, and (2) express an unqualified opinion on the effectiveness of internal control over financial reporting). Such consolidated financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

AK Steel

Ernst & Young LLP, independent registered public accounting firm, has audited the consolidated financial statements included in AK Steel Holding Corporation's Annual Report on Form 10-K for the year ended December 31, 2019, and the effectiveness of AK Steel Holding Corporation's internal control over financial reporting as of December 31, 2019, as set forth in their reports, which are incorporated by reference herein. AK Steel Holding Corporation's financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.



CLEVELAND-CLIFFS INC.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 20. Indemnification of Directors and Officers.

Ohio

Cleveland-Cliffs Inc. ("Cliffs"), AKS Investments, Inc. and The Cleveland-Cliffs Iron Company are incorporated under the laws of the State of Ohio.

Cliffs and The Cleveland-Cliffs Iron Company will indemnify, to the full extent permitted by law, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at such corporation's request as a director, officer, employee or agent of another corporation, domestic or foreign, nonprofit or for profit, partnership, joint venture, trust or other enterprise; provided, however, that such corporation will indemnify any such agent (as opposed to any director, officer or employee) to an extent greater than required by law only if and to the extent that the directors may, in their discretion, so determine. The indemnification each company gives will not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any law, Cliffs' Third Amended Articles of Incorporation, as amended, or the articles of incorporation of The Cleveland-Cliffs Iron Company or any agreement, vote of shareholders or of disinterested directors or otherwise, both as to action in official capacities and as to action in another capacity while such person is a director, officer, employee or agent, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of heirs, executors and administrators of such a person.

Cliffs and The Cleveland-Cliffs Iron Company may, to the full extent permitted by law and authorized by the directors, purchase and maintain insurance on behalf of any persons described in the paragraph above against any liability asserted against and incurred by any such person in any such capacity, or arising out of the status as such, whether or not we would have the power to indemnify such person against such liability.

Pursuant to its regulations, AKS Investments, Inc. shall, to the full extent permitted by law, indemnify any person who, because such person is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation, was or is a party or is threatened to be made a party to (i) any threatened, pending or completed action, suit or proceeding (other than an action by the corporation), against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement and reasonably incurred by such persons in connection with the action, suit or proceeding, or (ii) any threatened, pending or completed action, suit or proceeding by or in the right of the corporation to procure a judgment in its favor, against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action.

Under the Ohio Revised Code, Ohio corporations are authorized to indemnify directors, officers, employees and agents within prescribed limits and must indemnify them under certain circumstances. The Ohio Revised Code does not provide statutory authorization for a corporation to indemnify directors, officers, employees and agents for settlements, fines or judgments in the context of derivative suits. However, it provides that directors (but not officers, employees or agents) are entitled to mandatory advancement of expenses, including attorneys' fees, incurred in defending any action, including derivative actions, brought against the director, provided that the director agrees to cooperate with the corporation concerning the matter and to repay the amount advanced if it is proved by clear and convincing evidence that the director's act or failure to act was done with deliberate intent to cause injury to the corporation or with reckless disregard for the corporation's best interests.

The Ohio Revised Code does not authorize indemnification to a director, officer, employee or agent after a finding of negligence or misconduct in a derivative suit absent a court order. Indemnification is permitted, however, to the extent such person succeeds on the merits. In all other cases, if a director, officer, employee or agent acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, indemnification is discretionary except as otherwise provided by a corporation's articles, code of regulations or by contract except with respect to the advancement of expenses of directors.

Under the Ohio Revised Code, a director is not liable for monetary damages unless it is proved by clear and convincing evidence that his or her action or failure to act was undertaken with deliberate intent to cause injury to the

corporation or with reckless disregard for the best interests of the corporation. There is, however, no comparable provision limiting the liability of officers, employees or agents of a corporation. The statutory right to indemnification is not exclusive in Ohio, and Ohio corporations may, among other things, procure insurance for such persons.

Delaware

AH Management, Inc., AK Steel Corporation, AK Steel Holding Corporation, AK Steel Properties, Inc., Cliffs Mining Company, Cliffs Minnesota Mining Company, Northshore Mining Company and Silver Bay Power Company are incorporated under the laws of the State of Delaware.

Under Section 102(b)(7) of the General Corporation Law of the State of Delaware (the "DGCL"), a certificate of incorporation may, subject to certain limitations, contain a provision limiting or eliminating a director's personal liability to the corporation or its stockholders for monetary damages for a director's breach of fiduciary duty, provided that such provision shall not eliminate or limit the liability of a director for: (1) any breach of the director's duty of loyalty to the corporation or its stockholders; (2) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (3) unlawful payment of dividends or unlawful stock repurchases, as set forth in the DGCL; or (4) any transaction from which the director derived an improper personal benefit.

Section 145 of the DGCL empowers Delaware corporations to indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise. The indemnity may include expenses (including attorney fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the corporation's best interests and, for criminal proceedings, had no reasonable cause to believe his or her conduct was unlawful. A Delaware corporation may indemnify directors, officers, employees and agents in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the person is adjudged to be liable to the corporation in the performance of his or her duty. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against expenses that such officer or director actually and reasonably incurred.

The certificates of incorporation of Cliffs Mining Company, Cliffs Minnesota Mining Company, AH Management, Inc., AK Steel Corporation, AK Steel Holding Corporation and AK Steel Properties, Inc. provide for the limitation or elimination of directors' liability to the corporation or its stockholders for breaches of fiduciary duties and the indemnification by the corporation to each person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation or its board of directors, as applicable, as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, in each case to the full extent permitted by the DGCL. Cliffs Mining Company's Certificate of Incorporation also provides for the right of any such person to the payment by the corporation of expenses incurred by such person in defending a proceeding to which he or she is or was, or is threatened to be made, a party or is involved by reason of the fact that he or she is or was serving in the capacities described above, upon delivery by such person of an undertaking to repay such amount if it is ultimately determined that he or she is not entitled to indemnification.

The by-laws of Cliffs Mining Company, Cliffs Minnesota Mining Company, Northshore Mining Company, Silver Bay Power Company, AH Management, Inc. and AK Steel Properties, Inc. and the certificates of incorporation of AK Steel Corporation and AK Steel Holding Corporation provide for the indemnification of directors and officers of the corporation, or of another enterprise at the corporation's request, to the full extent permitted by the DGCL.

The certificates of incorporation of AK Steel Corporation and AK Steel Holding Corporation and the by-laws of AH Management, Inc. and AK Steel Properties, Inc. provide for the right of any such person to the prepayment by the corporation of expenses (including attorneys' fees) incurred in appearing at, participating in or defending any threatened, pending or completed action, suit or proceeding upon receipt by the corporation of a written undertaking by or on behalf of the director or officer to repay such amount unless it ultimately shall be determined that such person is entitled to be indemnified by the corporation.

Cliffs Mining Company, Cliffs Minnesota Mining Company, AH Management, Inc., AK Steel Corporation, AK Steel Holding Corporation and AK Steel Properties, Inc. are also authorized to purchase and maintain insurance on behalf of any of its directors, officers, employees or agents or those of another corporation, partnership, joint venture,

trust or other enterprise against any expense, liability or loss, whether or not it would have the power to indemnify such person under Delaware law.

AK Tube LLC, Cliffs TIOP Holding, LLC, Cliffs TIOP II, LLC, Cliffs UTAC Holding LLC, IronUnits LLC, Mountain State Carbon, LLC, PPHC Holdings, LLC, SNA Carbon, LLC and United Taconite LLC are limited liability companies formed under the laws of the State of Delaware.

Section 18-108 of the Delaware Limited Liability Company Act (the "LLC Act") empowers Delaware limited liability companies to indemnify and hold harmless any member or manager of the limited liability company or other person from and against any and all claims and demands whatsoever.

The operating agreements of Cliffs TIOP Holding, LLC and Cliffs TIOP II, LLC provide for: (i) the exculpation of an officer or member from liability to the company or another person who has an interest in or claim against the company for any act or omission performed or omitted in good faith on behalf of the company and in a manner reasonably believed to be within the scope of such person's authority; (ii) the indemnification of such persons to the full extent permitted by Delaware law; and (iii) the advancement of expenses incurred in defending a claim or proceeding, upon receipt of an undertaking by or on behalf of any such person to repay such amounts if it is ultimately determined that such person is not entitled to indemnification.

The limited liability company agreements of Cliffs UTAC Holding LLC and IronUnits LLC limit the liability of, and provide for indemnification against any losses incurred by, each company's members, managers and officers for such persons' negligence arising out of or in connection with the limited liability company agreement or the company's business or affairs, but excluding liability primarily attributable to any such person's malfeasance, fraud or willful misconduct. Cliffs UTAC Holding LLC and IronUnits LLC also have the authority to reimburse members, managers and officers for reasonable, out-of-pocket expenses as they are incurred in connection with any proceeding arising out of or in connection with their limited liability company agreements or their businesses or affairs.

The limited liability company agreements of each of United Taconite LLC and SNA Carbon, LLC eliminate the liability of its members, board designees and such other persons (including employees) as the board may designate from time to time for actions taken in good faith. They also provide for indemnification for losses or damages sustained with respect to a proceeding to which such person was made or is threatened to be made a party in such person's capacity as a member, board designee or otherwise and advancement of reasonable, related expenses to the full extent permitted by Delaware law. United Taconite LLC also has the authority to purchase and maintain insurance on behalf of such persons against any liability asserted against or incurred by them.

AK Tube LLC's limited liability company agreement indemnifies the member to the fullest extent permitted by the LLC Act. The company may, to the extent and in such manner as determined by the member, but to no extent greater than is permitted under the law, indemnify its employees and other agents permitted to be indemnified by the LLC Act.

Mountain State Carbon, LLC's amended and restated limited liability company agreement provides for the exculpation of an officer, manager, employee, member or affiliate thereof for mistakes of judgment or for action or inaction which such person reasonably believed to be in or not opposed to the best interest of the company (except for willful misconduct, gross negligence or reckless disregard of their duties) and, with respect to any criminal action, such party reasonably believes his conduct was lawful. Mountain State Carbon, LLC must also indemnify such persons against all liabilities and expenses reasonably incurred in connection with the investigation, defense or disposition of any proceeding in which such person may be involved or threatened, except with respect to any matter which constitutes willful misconduct, gross negligence or reckless disregard of such person's duties, or criminal intent. The agreement also provides for the reimbursement of indemnified costs and the advancement of such expenses, provided that such person agrees in writing to return such amounts in the event it is ultimately determined that such person was not entitled to indemnification or reimbursement of expenses.

PPHC Holdings, LLC's limited liability company agreement provides for the indemnification, to the fullest extent permitted by law, of the member, officers, directors, and any other person who was or is a party or threatened to be made a party to a threatened, pending or completed action, suit or proceeding by reason of such person's relationship with the company against expenses (including attorneys' fees), liability and loss actually and reasonably incurred or suffered by such person in connection with such proceeding. However, an officer is not indemnified for (i) breach of the duty of loyalty or care, (ii) acts or omissions involving gross negligence intentional misconduct or a knowing violation of law or (iii) transactions from which the officer received an improper benefit. PPHC Holdings LLC shall pay expenses incurred by indemnified persons in defending a proceeding in advance upon receipt of a written undertaking of such

person to repay such advances to the extent it is ultimately determined by a court that such person is not entitled to be indemnified by the company with respect to such expenses. PPHC Holdings LLC also has the authority to purchase insurance on behalf of the company and on behalf of others to the extent the power to do so is not prohibited by law.

Michigan

Cliffs TIOP, Inc. and Lake Superior & Ishpeming Railroad Company are incorporated under the laws of the State of Michigan.

Under Section 561 of the Michigan Business Corporation Act ("MBCA"), a Michigan corporation may indemnify a person who was or is a party or is threatened to be made a party to a threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal, other than an action by or in the right of the corporation, by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, partner, trustee, employee or agent of another enterprise, against expenses, including attorney's fees, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred in connection therewith if the person acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation or its shareholders and, with respect to a criminal action or proceeding, if the person had no reasonable cause to believe his or her conduct was unlawful.

Under Section 562 of the MBCA, a Michigan corporation may also provide similar indemnity to such a person for expenses, including attorney's fees, and amounts paid in settlement actually and reasonably incurred by the person in connection with actions or suits by or in the right of the corporation if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the interests of the corporation or its shareholders, except in respect of any claim, issue or matter in which the person has been found liable to the corporation, unless the court determines that the person is fairly and reasonably entitled to indemnification in view of all relevant circumstances, in which case indemnification is limited to reasonable expenses incurred. To the extent that such person has been successful on the merits or otherwise in defending any such action, suit or proceeding referred to above or any claim, issue or matter therein, he or she is entitled to indemnification for expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

Under Section 563 of the MBCA if a director or officer of a corporation has been successful on the merits or otherwise in defense of an action, suit, or proceeding referred to in Section 561 or 562, or in defense of a claim, issue, or matter in the action, suit, or proceeding, the corporation shall indemnify him or her against actual and reasonable expenses, including attorneys' fees, incurred by him or her in connection with the action, suit, or proceeding and an action, suit, or proceeding brought to enforce the mandatory indemnification.

Under Section 564a of the MBCA, an indemnification under Section 561 or 562, unless ordered by the court or otherwise required by Section 563, shall be provided by the corporation only as authorized upon a determination that such officer, director, employee, or agent is proper because the applicable standard of conduct set forth in Sections 561 and 562 have been met. Section 564a(1) sets forth the following ways such determination may be made: (a) by a majority vote of a quorum of the board consisting of directors who are not parties or threatened to be made parties to the action, suit, or proceeding; (b) if a quorum cannot be obtained under subdivision (a), by majority vote of a committee duly designated by the board and consisting solely of two or more directors not at the time parties or threatened to be made parties to the action, suit, or proceeding; (c) in a written opinion by independent legal counsel selected by the board; (d) by all independent directors who are not parties or threatened to be made parties to the action, suit, or proceeding; or (e) by the shareholders, but shares held by directors, officers, employees or agents who are parties or threatened to be made parties to the action, suit or proceeding may not be voted.

The MBCA also permits a Michigan corporation to purchase and maintain on behalf of such a person insurance against liabilities incurred in such capacities.

The bylaws of each of Cliffs TIOP, Inc. and Lake Superior & Ishpeming Railroad Company state that directors and officers shall be indemnified by the company against expenses, including attorney's fees, reasonably incurred by him or her in connection with any action, suit or proceeding (whether civil or criminal) to which he or she may be made a party by reason of his or her being, or having been a director or officer of the company. This includes the cost of reasonable settlement where such settlement is approved by the corporation. The corporation shall not indemnify any director or officer with respect to matters as to which such person shall have been finally adjudged to have been liable for negligence or misconduct in the performance of his or her duty as such director or officer.

Tilden Mining Company L.C. is a limited liability company formed under the laws of the State of Michigan. Section 216 of the Michigan Limited Liability Company Act ("MLLCA") permits a Michigan limited liability company to indemnify, hold harmless and defend any manager from and against any and all losses, expenses, claims and demands sustained by reason of any acts or omissions as a manager, as provided in an operating agreement, subject to certain exceptions. Section 216 of the MLLCA further permits a limited liability company to purchase and maintain insurance on behalf of a manager against any liability or expense asserted against or incurred by him or her in any such capacity or arising out of his or her status as such whether or not the company could indemnify him or her against such liability or expense.

Section 6.03 of the operating agreement of Tilden Mining Company L.C. provides that that its members shall hold harmless and indemnify the company's manager against expenses (i) arising out of any act of, or any purported assumption of, any obligation or responsibility by an indemnifying member or any of its directors, officers, employees or representatives done or undertaken pursuant to actual or apparent authority on behalf of the manager in connection with the company, with certain exceptions; (ii) arising out of any breach by an indemnifying member of its obligations or agreements under the Operating Agreement; or (iii) attributable to any obligations or liabilities of Tilden Mining Company L.C. providing for specific recourse to such indemnifying member.

Item 21. Exhibits And Financial Statement Schedules.

(a) Exhibits. The following exhibits are filed as part of this Registration Statement:

Exhibit No.	Description of Exhibit
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 (incorporated by reference to Exhibit 3.1 to Cliffs' Current Report on Form 8-K filed on May 13, 2013)
3.2	Certificate of Amendment to Third Amended Articles of Incorporation of Cliffs, as filed with the Secretary of the State of Ohio on April 26, 2017 (incorporated by reference to Exhibit 3.1 to Cliffs' Current Report on Form 8-K filed on April 27, 2017)
3.3	Certificate of Amendment to Third Amended Articles of Incorporation, as amended, of Cliffs, as filed with the Secretary of the State of Ohio on August 15, 2017 (incorporated by reference to Exhibit 3.1 to Cliffs' Current Report on Form 8-K filed on August 17, 2017)
3.4	Regulations of Cliffs (incorporated by reference to Exhibit 3.2 to Cliffs' Annual Report on Form 10-K for the year ended December 31, 2011)
4.1	Indenture, dated as of May 13, 2019, among Cliffs, the guarantors party thereto and U.S. Bank National Association, as trustee (including Form of 5.875% Senior Guaranteed Notes due 2027) (incorporated by reference to Exhibit 4.1 to Cliffs' Current Report on Form 8-K filed on May 14, 2019)
4.2	Registration Rights Agreement, dated as of May 13, 2019, among Cliffs, the guarantors party thereto and Goldman Sachs & Co. LLC, as the initial purchaser (incorporated by reference to Exhibit 10.1 to Cliffs' Current Report on Form 8-K filed on May 14, 2019)
5.1	Opinion of Jones Day
23.1	Consent of Deloitte & Touche LLP
23.2	Consent of Ernst & Young LLP
23.3	Consent of Jones Day (included in Exhibit 5.1)
24.1	Power of Attorney with respect to Cleveland-Cliffs Inc.
24.2	Power of Attorney with respect to AH Management, Inc.
24.3	Power of Attorney with respect to AKS Investments, Inc.
24.4	Power of Attorney with respect to AK Steel Corporation
24.5	Power of Attorney with respect to AK Steel Holding Corporation
24.6	Power of Attorney with respect to AK Steel Properties, Inc.
24.7	Power of Attorney with respect to AK Tube LLC
24.8	Power of Attorney with respect to Cliffs Mining Company
24.9	Power of Attorney with respect to Cliffs Minnesota Mining Company
24.10	Power of Attorney with respect to Cliffs TIOP Holding, LLC
24.11	Power of Attorney with respect to Cliffs TIOP, Inc.
24.12	Power of Attorney with respect to Cliffs TIOP II, LLC
24.13	Power of Attorney with respect to Cliffs UTAC Holding LLC
24.14	Power of Attorney with respect to IronUnits LLC
24.15	Power of Attorney with respect to Lake Superior & Ishpeming Railroad Company
24.16	Power of Attorney with respect to Mountain State Carbon, LLC
24.17	Power of Attorney with respect to Northshore Mining Company
24.18	Power of Attorney with respect to PPHC Holdings, LLC
24.19	Power of Attorney with respect to Silver Bay Power Company
24.20	Power of Attorney with respect to SNA Carbon, LLC
24.21	Power of Attorney with respect to The Cleveland-Cliffs Iron Company
24.22	Power of Attorney with respect to Tilden Mining Company L.C.
24.23	Power of Attorney with respect to United Taconite LLC
25.1	Form T-1 of U.S. Bank National Association, under the Trust Indenture Act of 1939
99.1	Form of Letter of Transmittal

Item 22. Undertakings.

The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(8) To respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11, or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(9) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLEVELAND-CLIFFS INC.

By: /s/ James D. Graham

Name: James D. Graham

Title: Executive Vice President, Chief Legal
Officer & Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ C. Lourenco Goncalves</u> C. Lourenco Goncalves	Chairman, President and Chief Executive Officer (Principal Executive Officer) and Director	March 20, 2020
<u>/s/ Keith A. Koci</u> Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	March 20, 2020
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Senior Vice President, Chief Administration Officer, Steel Mills & Chief Accounting Officer (Principal Accounting Officer)	March 20, 2020
* <u>John T. Baldwin</u>	Director	March 20, 2020
* <u>Robert P. Fisher, Jr.</u>	Director	March 20, 2020
<u>William K. Gerber</u>	Director	
* <u>Susan M. Green</u>	Director	March 20, 2020
* <u>M. Ann Harlan</u>	Director	March 20, 2020
* <u>Ralph S. Michael, III</u>	Director	March 20, 2020
* <u>Janet L. Miller</u>	Director	March 20, 2020
* <u>Eric M. Rychel</u>	Director	March 20, 2020
* <u>Gabriel Stoliar</u>	Director	March 20, 2020
<u>Douglas C. Taylor</u>	Director	
* <u>Arlene M. Yocum</u>	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated directors of the Registrant and filed herewith as Exhibit 24.1 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AH MANAGEMENT, INC.

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Scott M. Lauschke	President (Principal Executive Officer) and Director	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020
* _____ Clifford T. Smith	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.2 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AKS INVESTMENTS, INC.

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Clifford T. Smith	President (Principal Executive Officer) and Director	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Maurice D. Harapiak	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.3 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AK STEEL CORPORATION

By: /s/ James D. Graham
Name: James D. Graham
Title: Vice President, General Counsel and
Corporate Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* <u>Clifford T. Smith</u>	President and Chief Operating Officer (Principal Executive Officer) and Director	March 20, 2020
* <u>Celso L. Goncalves, Jr.</u>	Vice President, Treasurer (Principal Financial Officer)	March 20, 2020
* <u>R. Christopher Cebula</u>	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)	March 20, 2020
* <u>Terry G. Fedor</u>	Director	March 20, 2020
* <u>Keith A. Koci</u>	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.4 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AK STEEL HOLDING CORPORATION

By: /s/ James D. Graham
Name: James D. Graham
Title: Vice President, General Counsel and
Corporate Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Clifford T. Smith	President and Chief Operating Officer (Principal Executive Officer) and Director	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Vice President, Treasurer (Principal Financial Officer)	March 20, 2020
* _____ R. Christopher Cebula	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)	March 20, 2020
* _____ Terry G. Fedor	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.5 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AK STEEL PROPERTIES, INC.

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Scott M. Lauschke	President (Principal Executive Officer)	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020
* _____ Maurice D. Harapiak	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020
* _____ Clifford T. Smith	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.6 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

AK TUBE LLC

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Edward J. Urbaniak, Jr.	President (Principal Executive Officer)	March 20, 2020
* _____ Michael C. Tuomey	Vice President, Finance (Principal Financial Officer)	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Accounting Officer)	March 20, 2020
* _____ Clifford T. Smith	President of AKS Investments, Inc., the Sole Member of the Registrant	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and sole member of the Registrant and filed herewith as Exhibit 24.7 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS MINING COMPANY

By: /s/ James D. Graham

Name: James D. Graham

Title: Executive Vice President, Chief Legal
Officer & Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Director	March 20, 2020
* _____ Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.8 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS MINNESOTA MINING COMPANY

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer)	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.9 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS TIOP HOLDING, LLC

By: /s/ James D. Graham

Name: James D. Graham

Title: General Counsel and Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer)	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Clifford T. Smith	President of The Cleveland-Cliffs Iron Company, the Sole Member of the Registrant	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and sole member of the Registrant and filed herewith as Exhibit 24.10 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS TIOP, INC.

By: /s/ James D. Graham

Name: James D. Graham

Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.11 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS TIOP II, LLC

By: /s/ James D. Graham
Name: James D. Graham
Title: General Counsel and Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer)	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Terry G. Fedor	President of Cliffs TIOP Holding, LLC, the Sole Member of the Registrant	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and sole member of the Registrant and filed herewith as Exhibit 24.12 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

CLIFFS UTAC HOLDING LLC

By: /s/ James D. Graham

Name: James D. Graham

Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Manager	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Keith A. Koci	Manager	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and managers of the Registrant and filed herewith as Exhibit 24.13 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

IRONUNITS LLC

By: /s/ James D. Graham

Name: James D. Graham

Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Clifford T. Smith	President (Principal Executive Officer) and Manager	March 20, 2020
* _____ R. Christopher Cebula	Vice President, Corporate Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Manager	March 20, 2020
* _____ Keith A. Koci	Manager	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and managers of the Registrant and filed herewith as Exhibit 24.14 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

LAKE SUPERIOR & ISHPEMING RAILROAD
COMPANY

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.15 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

MOUNTAIN STATE CARBON, LLC

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Traci L. Forrester	Chief Executive Officer, Chief Operating Officer and President (Principal Executive Officer)	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Vice President, Controller and Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Keith A. Koci	Manager	March 20, 2020
* _____ Clifford T. Smith	Manager	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and managers of the Registrant and filed herewith as Exhibit 24.16 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

NORTHSHORE MINING COMPANY

By: /s/ James D. Graham
Name: James D. Graham
Title: Executive Vice President, Chief Legal
Officer & Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* <u>Terry G. Fedor</u>	President (Principal Executive Officer) and Director	March 20, 2020
* <u>R. Christopher Cebula</u>	Vice President, Corporate Controller & Chief Accounting Officer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* <u>Keith A. Koci</u>	Director	March 20, 2020
* <u>Clifford T. Smith</u>	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.17 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

PPHC HOLDINGS, LLC

By: /s/ James D. Graham

Name: James D. Graham

Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ O'neil D. Griffiths	President and Chief Executive Officer (Principal Executive Officer)	March 20, 2020
* _____ Joseph S. Faraca	Chief Financial Officer (Principal Financial Officer)	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Accounting Officer)	March 20, 2020
* _____ Maurice D. Harapiak	Manager	March 20, 2020
* _____ Keith A. Koci	Manager	March 20, 2020
* _____ Clifford T. Smith	Manager	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and managers of the Registrant and filed herewith as Exhibit 24.18 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

SILVER BAY POWER COMPANY

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Traci L. Forrester	Director	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.19 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

SNA CARBON, LLC

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Traci L. Forrester	President (Principal Executive Officer)	March 20, 2020
* _____ Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Clifford T. Smith	President and Chief Operating Officer of AK Steel Corporation, the Sole Member of the Registrant	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and sole member of the Registrant and filed herewith as Exhibit 24.20 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

THE CLEVELAND-CLIFFS IRON COMPANY

By: /s/ James D. Graham

Name: James D. Graham

Title: Executive Vice President, Chief Legal
Officer & Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Clifford T. Smith	President (Principal Executive Officer) and Director	March 20, 2020
* _____ Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Accounting Officer)	March 20, 2020
* _____ Terry G. Fedor	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.21 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

TILDEN MINING COMPANY L.C.

By: /s/ James D. Graham

Name: James D. Graham

Title: Executive Vice President, Chief Legal Officer & Secretary of The Cleveland-Cliffs Iron Company, the Manager of the Registrant

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* <u>Clifford T. Smith</u>	President of The Cleveland-Cliffs Iron Company, the Manager of the Registrant (Principal Executive Officer)	March 20, 2020
* <u>R. Christopher Cebula</u>	Vice President, Corporate Controller & Chief Accounting Officer of The Cleveland-Cliffs Iron Company, the Manager of the Registrant (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* <u>Terry G. Fedor</u>	President of Cliffs TIOP, Inc., one of the Members of the Registrant	March 20, 2020
* <u>Terry G. Fedor</u>	President of Cliffs TIOP II, LLC, one of the Members of the Registrant	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and members of the Registrant and filed herewith as Exhibit 24.22 on behalf of the Registrant.

By: /s/ James D. Graham

James D. Graham, as Attorney-in-Fact

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cleveland, State of Ohio, on March 20, 2020.

UNITED TACONITE LLC

By: /s/ James D. Graham
Name: James D. Graham
Title: Secretary

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Terry G. Fedor	President (Principal Executive Officer) and Director	March 20, 2020
* _____ R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)	March 20, 2020
* _____ Keith A. Koci	Director	March 20, 2020
* _____ Clifford T. Smith	Director	March 20, 2020

* The undersigned, by signing his name hereto, does sign and execute this Registration Statement on Form S-4 pursuant to a Power of Attorney executed on behalf of the above-indicated officers and directors of the Registrant and filed herewith as Exhibit 24.23 on behalf of the Registrant.

By: /s/ James D. Graham
James D. Graham, as Attorney-in-Fact

JONES DAY

NORTH POINT • 901 LAKESIDE AVENUE • CLEVELAND, OHIO 44114.1190

TELEPHONE: +1.216.586.3939 • FACSIMILE: +1.216.579.0212

March 20, 2020

Cleveland-Cliffs Inc.
200 Public Square, Suite 3300
Cleveland, Ohio 44114

Re: Registration Statement on Form S-4 Filed by Cleveland-Cliffs
Inc.
Relating to the Exchange Offer (as defined below)

Ladies and Gentlemen:

We have acted as counsel to Cleveland-Cliffs Inc., an Ohio corporation (the “**Company**”), and the Guarantors (as defined below) in connection with the Registration Statement on Form S-4 to which this opinion has been filed as an exhibit (the “**Registration Statement**”). The Registration Statement relates to the proposed issuance and exchange (the “**Exchange Offer**”) of up to \$750,000,000 aggregate principal amount of 5.875% Senior Guaranteed Notes due 2027 of the Company (the “**Exchange Notes**”) for an equal principal amount of 5.875% Senior Guaranteed Notes due 2027 of the Company outstanding on the date hereof (the “**Outstanding Notes**”). The Outstanding Notes were, and the Exchange Notes will be, issued pursuant to an Indenture, dated as of May 13, 2019 (as amended, supplemented or otherwise modified from time to time, the “**Indenture**”), by and among the Company, the guarantors listed on Annex A hereto (each, a “**Guarantor**” and, collectively, the “**Guarantors**”) and U.S. Bank National Association, as trustee (the “**Trustee**”). The Outstanding Notes are, and the Exchange Notes will be, guaranteed (each, a “**Guarantee**”) on a joint and several basis by the Guarantors.

In connection with the opinions expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of such opinions.

Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein, we are of the opinion that:

1. The Exchange Notes, when they are executed by the Company, authenticated by the Trustee in accordance with the Indenture and issued and delivered in exchange for the Outstanding Notes in accordance with the terms of the Exchange Offer, will constitute valid and binding obligations of the Company.
2. The Guarantee of the Exchange Notes of each Guarantor, when it is issued and delivered in exchange for the Guarantee of the Outstanding Notes of that Guarantor in accordance with the terms of the Exchange Offer, will constitute a valid and binding obligation of that Guarantor.

The opinions set forth above are subject to the following limitations, qualifications and assumptions:

For purposes of the opinions expressed herein, we have assumed that (i) the Trustee has authorized, executed and delivered the Indenture and that the Indenture is a valid, binding and enforceable obligation of the Trustee and (ii) the Outstanding Notes have been, and the Exchange Notes will be, duly authenticated by the Trustee in accordance with the Indenture.

AMSTERDAM • ATLANTA • BEIJING • BOSTON • BRISBANE • BRUSSELS • CHICAGO • CLEVELAND • COLUMBUS • DALLAS • DETROIT
DUBAI • DÜSSELDORF • FRANKFURT • HONG KONG • HOUSTON • IRVINE • LONDON • LOS ANGELES • MADRID • MELBOURNE
MEXICO CITY • MIAMI • MILAN • MINNEAPOLIS • MOSCOW • MUNICH • NEW YORK • PARIS • PERTH • PITTSBURGH • SAN DIEGO
SAN FRANCISCO • SÃO PAULO • SAUDI ARABIA • SHANGHAI • SILICON VALLEY • SINGAPORE • SYDNEY • TAIPEI • TOKYO • WASHINGTON

The opinions expressed herein are limited by (i) bankruptcy, insolvency, reorganization, fraudulent transfer and fraudulent conveyance, voidable preference, moratorium or other similar laws, and related regulations and judicial doctrines from time to time in effect relating to or affecting creditors' rights and remedies generally, and (ii) general equitable principles and public policy considerations, whether such principles and considerations are considered in a proceeding at law or in equity.

As to facts material to the opinions and assumptions expressed herein, we have relied upon oral or written statements and representations of officers and other representatives of the Company and the Guarantors. The opinions expressed herein are limited to (i) the laws of the State of New York, (ii) the laws of the State of Ohio, (iii) the laws of the State of Michigan, (iv) the General Corporation Law of the State of Delaware and (v) the Delaware Limited Liability Company Act, in each case as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to Jones Day under the caption "Legal Matters" in the prospectus constituting a part of such Registration Statement. In giving such consent, we do not hereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act of 1933 or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Jones Day

ANNEX A

<u>Name of Guarantor</u>	<u>State of Incorporation or Organization</u>
AH Management, Inc.	Delaware
AKS Investments, Inc.	Ohio
AK Steel Corporation	Delaware
AK Steel Holding Corporation	Delaware
AK Steel Properties, Inc.	Delaware
AK Tube LLC	Delaware
Cliffs Mining Company	Delaware
Cliffs Minnesota Mining Company	Delaware
Cliffs TIOP Holding, LLC	Delaware
Cliffs TIOP, Inc.	Michigan
Cliffs TIOP II, LLC	Delaware
Cliffs UTAC Holding LLC	Delaware
IronUnits LLC	Delaware
Lake Superior & Ishpeming Railroad Company	Michigan
Mountain State Carbon, LLC	Delaware
Northshore Mining Company	Delaware
PPHC Holdings, LLC	Delaware
Silver Bay Power Company	Delaware
SNA Carbon, LLC	Delaware
The Cleveland-Cliffs Iron Company	Ohio
Tilden Mining Company L.C.	Michigan
United Taconite LLC	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-4 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 the Annual Report on Form 10-K of Cleveland-Cliffs Inc. for the year ended December 31, 2019. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Deloitte & Touche LLP

Cleveland, Ohio
March 20, 2020

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-4) and related Prospectus of Cleveland-Cliffs Inc. and to the incorporation by reference therein of our reports dated February 20, 2020, with respect to the consolidated financial statements of AK Steel Holding Corporation, and the effectiveness of internal control over financial reporting of AK Steel Holding Corporation, included in AK Steel Holding Corporation's Annual Report (Form 10-K) for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Cincinnati, Ohio
March 20, 2020

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Cleveland-Cliffs Inc., an Ohio corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ C. Lourenco Goncalves</u> C. Lourenco Goncalves	Chairman, President and Chief Executive Officer (Principal Executive Officer) and Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Senior Vice President, Chief Administration Officer, Steel Mills & Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ John T. Baldwin</u> John T. Baldwin	Director
<u>/s/ Robert P. Fisher, Jr.</u> Robert P. Fisher, Jr.	Director
<u>William K. Gerber</u>	Director
<u>/s/ Susan M. Green</u> Susan M. Green	Director
<u>/s/ M. Ann Harlan</u> M. Ann Harlan	Director
<u>/s/ Ralph S. Michael, III</u> /s/ Ralph S. Michael, III	Director
<u>/s/ Janet L. Miller</u> Janet L. Miller	Director
<u>/s/ Eric M. Rychel</u> Eric M. Rychel	Director
<u>/s/ Gabriel Stoliar</u> Gabriel Stoliar	Director
<u>Douglas C. Taylor</u>	Director
<u>/s/ Arlene M. Yocum</u> Arlene M. Yocum	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of AH Management, Inc., a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Scott M. Lauschke</u> Scott M. Lauschke	President (Principal Executive Officer) and Director
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of AKS Investments, Inc., an Ohio corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President (Principal Executive Officer) and Director
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Maurice D. Harapiak</u> Maurice D. Harapiak	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of AK Steel Corporation, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President and Chief Operating Officer (Principal Executive Officer) and Director
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Vice President, Treasurer (Principal Financial Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of AK Steel Holding Corporation, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President and Chief Operating Officer (Principal Executive Officer) and Director
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Vice President, Treasurer (Principal Financial Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of AK Steel Properties, Inc., a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Scott M. Lauschke</u> Scott M. Lauschke	President (Principal Executive Officer)
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director
<u>/s/ Maurice D. Harapiak</u> Maurice D. Harapiak	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned member and officers of AK Tube LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Edward J. Urbaniak, Jr.</u> Edward J. Urbaniak, Jr.	President (Principal Executive Officer)
<u>/s/ Michael C. Tuomey</u> Michael C. Tuomey	Vice President, Finance (Principal Financial Officer)
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Accounting Officer)
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President of AKS Investments, Inc., the Sole Member of the Registrant

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Cliffs Mining Company, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Cliffs Minnesota Mining Company, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned member and officers of Cliffs TIOP Holding, LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President of The Cleveland-Cliffs Iron Company, the Sole Member of the Registrant

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Cliffs TIOP, Inc., a Michigan corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned member and officers of Cliffs TIOP II, LLC, a Delaware limited liability (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer)
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President of Cliffs TIOP Holding, LLC, the Sole Member of the Registrant

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned managers and officers of Cliffs UTAC Holding LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Manager
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Keith A. Koci</u> Keith A. Koci	Manager

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned managers and officers of IronUnits LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President (Principal Executive Officer) and Manager
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Corporate Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Manager
<u>/s/ Keith A. Koci</u> Keith A. Koci	Manager

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Lake Superior & Ishpeming Railroad Company, a Michigan corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned managers and officers of Mountain State Carbon, LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Chief Executive Officer, Chief Operating Officer and President (Principal Executive Officer)
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Vice President, Controller and Treasurer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Keith A. Koci</u> Keith A. Koci	Manager
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Manager

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Northshore Mining Company, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned managers and officers of PPHC Holdings, LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ O'neil D. Griffiths</u> O'neil D. Griffiths	President and Chief Executive Officer (Principal Executive Officer)
<u>/s/ Joseph S. Faraca</u> Joseph S. Faraca	Chief Financial Officer (Principal Financial Officer)
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Accounting Officer)
<u>/s/ Maurice D. Harapiak</u> Maurice D. Harapiak	Manager
<u>/s/ Keith A. Koci</u> Keith A. Koci	Manager
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Manager

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of Silver Bay Power Company, a Delaware corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned member and officers of SNA Carbon, LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Traci L. Forrester</u> Traci L. Forrester	President (Principal Executive Officer)
<u>/s/ Celso L. Goncalves, Jr.</u> Celso L. Goncalves, Jr.	Treasurer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President and Chief Operating Officer of AK Steel Corporation, the Sole Member of the Registrant

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of The Cleveland-Cliffs Iron Company, an Ohio corporation (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	President (Principal Executive Officer) and Director
<u>/s/ Keith A. Koci</u> Keith A. Koci	Executive Vice President, Chief Financial Officer (Principal Financial Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Vice President, Corporate Controller & Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned members, and officers of the manager, of Tilden Mining Company L.C., a Michigan limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

Signature

/s/ Clifford T. Smith

Clifford T. Smith

/s/ R. Christopher Cebula

R. Christopher Cebula

/s/ Terry G. Fedor

Terry G. Fedor

/s/ Terry G. Fedor

Terry G. Fedor

Title

President of The Cleveland-Cliffs Iron Company, the Manager of the Registrant (Principal Executive Officer)

Vice President, Corporate Controller & Chief Accounting Officer of The Cleveland-Cliffs Iron Company, the Manager of the Registrant (Principal Financial Officer and Principal Accounting Officer)

President of Cliffs TIOP, Inc., one of the Members of the Registrant

President of Cliffs TIOP II, LLC, one of the Members of the Registrant

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned directors and officers of United Taconite LLC, a Delaware limited liability company (the "Registrant"), hereby constitute and appoint C. Lourenco Goncalves, Clifford T. Smith, Keith A. Koci and James D. Graham, with full power of substitution and resubstitution, as the true and lawful attorney-in-fact or attorneys-in-fact of the undersigned to execute and file with the Securities and Exchange Commission under the Securities Act of 1933 (the "Securities Act") one or more registration statements on Form S-4 (the "Registration Statement") relating to the registration of certain of the Registrant's securities, with any and all amendments, supplements and exhibits thereto, including post-effective amendments or supplements or any additional registration statement filed pursuant to Rule 462 promulgated under the Securities Act, or any other document with any state securities commission or other regulatory authority with respect to the securities covered by such Registration Statement, with full power and authority to do and perform any and all acts and things necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the undersigned, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and approving all that said attorneys-in-fact or any of them and any substitute therefor may lawfully do or cause to be done by virtue thereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

Executed as of the 20th day of March, 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Terry G. Fedor</u> Terry G. Fedor	President (Principal Executive Officer) and Director
<u>/s/ R. Christopher Cebula</u> R. Christopher Cebula	Controller (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Keith A. Koci</u> Keith A. Koci	Director
<u>/s/ Clifford T. Smith</u> Clifford T. Smith	Director

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM T-1

**Statement of Eligibility Under
The Trust Indenture Act of 1939 of a
Corporation Designated to Act as Trustee**
Check if an Application to Determine Eligibility of
a Trustee Pursuant to Section 305(b)(2)

U.S. BANK NATIONAL ASSOCIATION

(Exact name of Trustee as specified in its charter)

31-0841368

I.R.S. Employer Identification No.

800 Nicollet Mall
Minneapolis, Minnesota
(Address of principal executive offices)

55402
(Zip Code)

Elizabeth A. Thuning
U.S. Bank National Association
1350 Euclid Avenue
Cleveland, Ohio 44115
(216) 623-5992
(Name, address and telephone number of agent for service)

Cleveland-Cliffs Inc.

(Exact name of obligor as specified in its charter)

Ohio
(State or other jurisdiction of incorporation or organization)

34-1464672
(I.R.S. Employer Identification No.)

200 Public Square, Suite 3300
Cleveland, Ohio
(Address of Principal Executive Offices)

44114
(Zip Code)

5.875% Senior Guaranteed Notes due 2027

(Title of the Indenture Securities)

FORM T-1

Item 1. GENERAL INFORMATION. Furnish the following information as to the Trustee.

- a) *Name and address of each examining or supervising authority to which it is subject.*
Comptroller of the Currency
Washington, D.C.
- b) *Whether it is authorized to exercise corporate trust powers.*
Yes

Item 2. AFFILIATIONS WITH OBLIGOR. *If the obligor is an affiliate of the Trustee, describe each such affiliation.*

None

Items 3-15 *Items 3-15 are not applicable because to the best of the Trustee's knowledge, the obligor is not in default under any Indenture for which the Trustee acts as Trustee.*

Item 16. LIST OF EXHIBITS: *List below all exhibits filed as a part of this statement of eligibility and qualification.*

- 1. A copy of the Articles of Association of the Trustee.*
- 2. A copy of the certificate of authority of the Trustee to commence business, attached as Exhibit 2.
- 3. A copy of the certificate of authority of the Trustee to exercise corporate trust powers, attached as Exhibit 3.
- 4. A copy of the existing bylaws of the Trustee.**
- 5. A copy of each Indenture referred to in Item 4. Not applicable.
- 6. The consent of the Trustee required by Section 321(b) of the Trust Indenture Act of 1939, attached as Exhibit 6.
- 7. Report of Condition of the Trustee as of December 31, 2019 published pursuant to law or the requirements of its supervising or examining authority, attached as Exhibit 7.

* Incorporated by reference to Exhibit 25.1 to Amendment No. 2 to registration statement on S-4, Registration Number 333-128217 filed on November 15, 2005.

** Incorporated by reference to Exhibit 25.1 to registration statement on form S-3ASR, Registration Number 333-199863 filed on November 5, 2014.

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, as amended, the Trustee, U.S. BANK NATIONAL ASSOCIATION, a national banking association organized and existing under the laws of the United States of America, has duly caused this statement of eligibility to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of Cleveland, State of Ohio on the 20th of March, 2020.

By: /s/ Elizabeth A. Thuning

Elizabeth A. Thuning

Vice President

Exhibit 2



Office of the Comptroller of the Currency

Washington, DC 20219

CERTIFICATE OF CORPORATE EXISTENCE

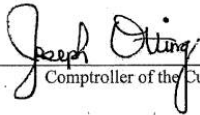
I, Joseph Otting, Comptroller of the Currency, do hereby certify that:

1. The Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.

2. "U.S. Bank National Association," Cincinnati, Ohio (Charter No. 24), is a national banking association formed under the laws of the United States and is authorized thereunder to transact the business of banking on the date of this certificate.

IN TESTIMONY WHEREOF, today,
June 11, 2019, I have hereunto
subscribed my name and caused my seal
of office to be affixed to these presents at
the U.S. Department of the Treasury, in
the City of Washington, District of
Columbia




Comptroller of the Currency



CERTIFICATION OF FIDUCIARY POWERS

I, Joseph Otting, Comptroller of the Currency, do hereby certify that:

1. The Office of the Comptroller of the Currency, pursuant to Revised Statutes 324, et seq, as amended, and 12 USC 1, et seq, as amended, has possession, custody, and control of all records pertaining to the chartering, regulation, and supervision of all national banking associations.
2. "U.S. Bank National Association," Cincinnati, Ohio (Charter No. 24), was granted, under the hand and seal of the Comptroller, the right to act in all fiduciary capacities authorized under the provisions of the Act of Congress approved September 28, 1962, 76 Stat. 668, 12 USC 92a, and that the authority so granted remains in full force and effect on the date of this certificate.

IN TESTIMONY WHEREOF, today,
June 11, 2019, I have hereunto subscribed
my name and caused my seal of office to be
affixed to these presents at the U.S.
Department of the Treasury, in the City of
Washington, District of Columbia.



Joseph Otting
Comptroller of the Currency

Exhibit 6

CONSENT

In accordance with Section 321(b) of the Trust Indenture Act of 1939, the undersigned, U.S. BANK NATIONAL ASSOCIATION, hereby consents that reports of examination of the undersigned by Federal, State, Territorial or District authorities may be furnished by such authorities to the Securities and Exchange Commission upon its request therefor.

Dated: March 20, 2020

By: /s/ Elizabeth A. Thuning _____

Elizabeth A. Thuning

Vice President

Exhibit 7

**U.S. Bank National Association
Statement of Financial Condition
As of 12/31/2019**

(\$000's)

		12/31/2019
Assets		
Cash and Balances Due From Depository Institutions	\$	22,256,667
Securities		120,982,766
Federal Funds		881,341
Loans & Lease Financing Receivables		297,660,359
Fixed Assets		5,895,381
Intangible Assets		12,915,451
Other Assets		25,412,255
Total Assets	\$	486,004,220
Liabilities		
Deposits	\$	374,303,872
Fed Funds		1,094,396
Treasury Demand Notes		—
Trading Liabilities		769,407
Other Borrowed Money		41,653,916
Acceptances		—
Subordinated Notes and Debentures		3,850,000
Other Liabilities		14,940,126
Total Liabilities	\$	436,611,717
Equity		
Common and Preferred Stock	\$	18,200
Surplus		14,266,915
Undivided Profits		34,306,761
Minority Interest in Subsidiaries		800,627
Total Equity Capital	\$	49,392,503
Total Liabilities and Equity Capital	\$	486,004,220

CLEVELAND-CLIFFS INC.

LETTER OF TRANSMITTAL

Offer to Exchange up to \$750,000,000 Aggregate Principal Amount of Newly Issued 5.875% Senior Guaranteed Notes due 2027 (CUSIP No. 185899 AH4) for a Like Principal Amount of Outstanding Restricted 5.875% Senior Guaranteed Notes due 2027 Issued on May 13, 2019 (CUSIP Nos. 185899 AC5 and U1852L AB3).

THE EXCHANGE OFFER WILL EXPIRE AT 5:00 P.M., NEW YORK CITY TIME, ON , 2020, UNLESS EXTENDED (SUCH DATE, AS THE SAME MAY BE EXTENDED, THE "EXPIRATION DATE"). ORIGINAL NOTES TENDERED IN THE EXCHANGE OFFER MAY BE WITHDRAWN AT ANY TIME PRIOR TO THE EXPIRATION DATE.

The Prospectus, dated , 2020 (the "Prospectus"), and this corresponding Letter of Transmittal, relate to the offer of Cleveland-Cliffs Inc. (the "Company") to exchange (the "Exchange Offer") up to \$750,000,000 aggregate principal amount of its 5.875% Senior Guaranteed Notes due 2027 (the "Exchange Notes"), which will be issued in a transaction registered under the Securities Act of 1933 (the "Securities Act"), for a like principal amount of the Company's outstanding restricted 5.875% Senior Guaranteed Notes due 2027 (the "Original Notes");

The Original Notes were issued pursuant to an indenture (as supplemented, the "Indenture"), dated as of May 13, 2019, among the Company, the guarantors party thereto and U.S. Bank National Association, as trustee (the "Trustee").

Capitalized terms used but not defined in this Letter of Transmittal have the meanings assigned to them in the Prospectus. All terms and conditions contained in, or otherwise referred to in, the Prospectus are deemed to be incorporated in, and form a part of, this Letter of Transmittal. Therefore you are urged to read carefully the Prospectus and the items referred to therein. The terms and conditions contained in the Prospectus, together with the terms and conditions governing this Letter of Transmittal and the instructions herein, are collectively referred to herein as the "terms and conditions."

No representation is made as to the correctness or accuracy of the CUSIP Numbers listed in this Letter of Transmittal or printed on the Notes. Neither the Company, the exchange agent nor the Trustee shall be responsible for the selection or use of the CUSIP Numbers. They are provided solely for the convenience of the Holders.

The exchange agent for the Exchange Offer is:

U.S. BANK NATIONAL ASSOCIATION

Questions relating to the procedure for tendering, as well as requests for additional copies of the Prospectus or this Letter of Transmittal, should be directed to the exchange agent addressed as follows:

By Mail or in Person

U. S. Bank National Association
Attn: Corporate Actions
111 Fillmore Avenue
St. Paul, MN 55107-1402

By Email or Facsimile Transmission (for Eligible Institutions Only)

Email: cts.specfinance@usbank.com
Facsimile: (651) 466-7367

For Information and to confirm by telephone

(800) 934-6802

This Letter of Transmittal is to be used by Holders of the Original Notes. Tender of Original Notes is to be made using the Automated Tender Offer Program ("ATOP") of The Depository Trust Company ("DTC") pursuant to the procedures set forth in the Prospectus under the caption "The Exchange Offer—Procedures for Tendering Original Notes." DTC participants that are accepting the Exchange Offer must transmit their acceptance to DTC, which will verify the acceptance and execute a book-entry delivery to the exchange agent's DTC account. DTC will then send a computer-generated message known as an "agent's message" to the exchange agent for its acceptance. For you to validly tender your Original Notes in the Exchange Offer, the exchange agent must receive, prior to the Expiration Date, an agent's message under the ATOP procedures that confirms that:

DTC has received your instructions to tender your Original Notes; and

you agree to be bound by the terms and conditions of this Letter of Transmittal.

By using the ATOP procedures to tender Original Notes, you will not be required to deliver this Letter of Transmittal to the exchange agent. However, you will be bound by its terms and conditions, and you will be deemed to have made the acknowledgments and the representations and warranties it contains, just as if you had signed it. The tender of Original Notes by you pursuant to the procedures set forth in this Letter of Transmittal and the Prospectus will constitute an agreement between you and the Company in accordance with the terms and subject to the conditions set forth in this Letter of Transmittal and the Prospectus. If you have questions or need help, or if you would like additional copies of the Prospectus and this Letter of Transmittal, you should contact the exchange agent at its telephone number or address set forth above.

The Exchange Notes will be issued in full exchange for Original Notes in the Exchange Offer, if consummated, on the exchange date and will be delivered in book-entry form.

As used in this Letter of Transmittal, the term "Holder" means any person in whose name Original Notes are held of record by DTC or its nominee and who desires to deliver such notes by book-entry transfer at DTC.

Please read the accompanying instructions carefully.

Ladies and Gentlemen:

According to the terms and conditions of the Exchange Offer, I hereby tender to the Company the principal amount of Original Notes credited by me to the exchange agent's account at DTC using ATOP. At the time these Original Notes are accepted by the Company and exchanged for the same principal amount of Exchange Notes, I will sell, assign and transfer to the Company all right, title and interest in and to the Original Notes I have tendered. I am aware that the exchange agent also acts as the agent of the Company. Upon agreement to the terms and conditions of this Letter of Transmittal pursuant to an agent's message, I irrevocably constitute and appoint the exchange agent as my agent and attorney-in-fact for the tendered Original Notes with full power of substitution to:

- cause the Original Notes to be assigned, transferred and exchanged;
- transfer ownership of the Original Notes on the account books maintained by DTC, to the Company and deliver all accompanying evidences of transfer and authenticity to the Company; and
- present the Original Notes for transfer on the books of the Company, receive all benefits and exercise all rights of beneficial ownership of these Original Notes according to the terms and conditions of the Exchange Offer. The power of attorney granted in this paragraph is irrevocable and coupled with an interest.

I represent and warrant that I have full power and authority to tender, exchange, assign and transfer the Original Notes that I am tendering and to acquire Exchange Notes issuable upon the exchange of the tendered Original Notes. I represent and warrant that the Company will acquire good and unencumbered title to such Original Notes, free and clear of all liens, restrictions (other than restrictions on transfer), charges and encumbrances, and that such Original Notes are not and will not be subject to any adverse claim at the time the Company acquires them. I further represent that:

- I am not an "affiliate" (as defined in Rule 405 under the Securities Act) of the Company or its subsidiaries, or, if I am an affiliate of the Company or its subsidiaries, I will comply with the registration and prospectus delivery requirements of the Securities Act to the extent applicable;
- any Exchange Notes I will acquire in exchange for the Original Notes I have tendered will be acquired in the ordinary course of business;
- I have not entered into, engaged in, do not intend to engage in, and have no arrangement or understanding with any person to engage in, a distribution of any Exchange Notes issued to me;
- I am not a broker-dealer who acquired the Original Notes for my own account; and
- I am not restricted by any law or policy of the U.S. Securities and Exchange Commission (the "SEC") from trading the Exchange Notes acquired in the Exchange Offer.

I understand that the Exchange Offer is being made in reliance on interpretations contained in letters issued to third parties by the staff of the SEC. These letters provide that the Exchange Notes issued in exchange for the Original Notes in the Exchange Offer may be offered for resale, resold, and otherwise transferred by a Holder of Exchange Notes, unless that person is an "affiliate" of the Company within the meaning of Rule 405 under the Securities Act, without compliance with the registration and prospectus delivery provisions of the Securities Act. The Exchange Notes must be acquired in the ordinary course of the Holder's business and the Holder must not be engaging in, must not intend to engage in, and must not have any arrangement or understanding with any person to participate in, a distribution of the Exchange Notes.

If I am a broker-dealer that will receive Exchange Notes for my own account in exchange for Original Notes that were acquired as a result of market-making activities or other trading activities, I acknowledge that I will deliver the Prospectus in connection with any resale of the Exchange Notes. However, by this acknowledgment and by delivering the Prospectus, I will not be deemed to admit that I am an "underwriter" within the meaning of the Securities Act.

Upon request, I will execute and deliver any additional documents deemed by the exchange agent or the Company to be necessary or desirable to complete the exchange, assignment and transfer of the Original Notes I have tendered.

I understand that the Company will be deemed to have accepted validly tendered Original Notes when and if the Company gives written notice of acceptance to the exchange agent and such acceptance will constitute performance in full by the Company of its obligations under the registration rights agreement, except in the limited circumstances defined in such agreement.

If, for any reason, any tendered Original Notes are not accepted for exchange in the Exchange Offer, the unaccepted Original Notes will be returned without expense to the tendering Holder. Such non-exchanged Original Notes will be credited to an account maintained with DTC. These actions will occur as promptly as practicable after the expiration or termination of the Exchange Offer.

All authority granted or agreed to be granted by this Letter of Transmittal will survive my death, bankruptcy or incapacity, and every obligation under this Letter of Transmittal is binding upon my heirs, legal representatives, successors, assigns, executors, administrators and trustees in bankruptcy.

I understand that tenders of Original Notes according to the procedures described in the Prospectus under the heading "The Exchange Offer—Procedures for Tendering Original Notes" and in the instructions included in this Letter of Transmittal constitute a binding agreement between myself and the Company subject to the terms and conditions of the Exchange Offer.

CHECK HERE IF YOU ARE A BROKER-DEALER AND WISH TO RECEIVE 10 ADDITIONAL COPIES OF THE PROSPECTUS AND 10 COPIES OF ANY AMENDMENTS OR SUPPLEMENTS THERETO.

Name:

Address:

Name of Tendering Institution:

Account Number:

Transaction Code Number:

By crediting the Original Notes to the exchange agent's account at DTC using ATOP and by complying with applicable ATOP procedures with respect to the Exchange Offer, the participant in DTC confirms on behalf of itself and the beneficial owners of such Original Notes all provisions of this Letter of Transmittal (including all representations and warranties) applicable to it and such beneficial owner.

**INSTRUCTIONS FORMING PART OF
THE TERMS AND CONDITIONS OF THE EXCHANGE OFFER**

1. BOOK-ENTRY CONFIRMATIONS. Any confirmation of a book-entry transfer to the exchange agent's account at DTC of Original Notes tendered by book-entry transfer, as well as an agent's message, and any other documents required by this Letter of Transmittal, must be received by the exchange agent at its address set forth on the cover page of this Letter of Transmittal prior to 5:00 p.m., New York City time, on the Expiration Date.

THE COMPANY WILL NOT ACCEPT ANY ALTERNATIVE, CONDITIONAL OR CONTINGENT TENDERS. EACH TENDERING HOLDER BY DELIVERY OF AN AGENT'S MESSAGE WAIVES ANY RIGHT TO RECEIVE ANY NOTICE OF THE ACCEPTANCE OF SUCH TENDER.

Delivery of documents to DTC or to the Trustee does not constitute delivery to the exchange agent .

2. VALIDITY OF TENDERS. The Company has the sole right to decide any questions about the validity, form, eligibility, time of receipt, acceptance or withdrawal of tendered Original Notes, and its decision will be final and binding. The Company's interpretation of the terms and conditions of the Exchange Offer, including the instructions contained in this Letter of Transmittal and in the Prospectus, will be final and binding on all parties.

The Company has the absolute right to reject any or all of the tendered Original Notes if:

- the Original Notes are not properly tendered; or
- in the opinion of counsel, the acceptance of those Original Notes would be unlawful.

The Company may also decide to waive any conditions of the Exchange Offer or any defects or irregularities of tenders of Original Notes and accept such Original Notes for exchange whether or not similar defects or irregularities are waived in the case of other Holders. Any defect or irregularity in the tender of Original Notes that is not waived by the Company must be cured within the period of time set by the Company.

It is your responsibility to identify and cure any defect or irregularity in the tender of your Original Notes. Your tender of Original Notes will not be considered to have been made until any defect or irregularity is cured or waived. Neither the Company, the exchange agent, the Trustee, nor any other person is required to notify you that your tender was defective or irregular, and no one will be liable for any failure to notify you of such a defect or irregularity in your tender of Original Notes. Tenders of the Original Notes will not be deemed made until such defects or irregularities have been cured or waived. Any Original Notes received by the exchange agent that are not properly tendered and as to which the defects or irregularities have not been cured or waived will be returned to the tendering Holder as soon as practicable after the Expiration Date of the Exchange Offer.

3. PARTIAL TENDERS. Tenders of Original Notes pursuant to the Exchange Offer will be accepted only in principal amounts equal to \$2,000 and integral multiples of \$1,000 in excess thereof. A Holder will be deemed to have tendered the entire aggregate principal amount represented by the Original Notes credited to the exchange agent's account at DTC using ATOP. Any untendered Original Notes and any Exchange Notes issued in exchange for tendered and accepted Original Notes will be credited to accounts at DTC.

4. TRANSFER TAXES. The Company will pay all transfer taxes, if any, applicable to the exchange of Original Notes in the Exchange Offer. However, transfer taxes will be payable by you (or by the tendering Holder if you are delivering this letter on behalf of a tendering Holder) if a transfer tax is imposed for any reason other than the exchange of Original Notes according to the Exchange Offer. If satisfactory evidence of the payment of those taxes or an exemption from payment is not submitted with this Letter of Transmittal or at the time the related agent's message is delivered, the amount of those transfer taxes will be billed directly to the tendering Holder. Until those transfer taxes are paid, the Company will not be required to deliver any Exchange Notes required to be delivered to, or at the direction of, such tendering Holder.

Except as provided in this Instruction 4, it is not necessary for transfer tax stamps to be attached to the Original Notes listed in this Letter of Transmittal.

5. WAIVER OF CONDITIONS. The Company may choose, at any time and for any reason, to waive or, subject to certain requirements, amend or modify certain of the conditions to the Exchange Offer. The conditions applicable to

tenders of Original Notes in the Exchange Offer are described in the Prospectus under the heading “The Exchange Offer—Conditions to the Exchange Offer.”

6. Withdrawal Rights. Original Notes tendered pursuant to the Exchange Offer may be withdrawn at any time prior to the Expiration Date. For a withdrawal to be effective, a written letter or facsimile transmission notice of withdrawal must be received by the exchange agent at its address set forth in this Letter of Transmittal not later than 5:00 p.m., New York City time, on the Expiration Date. Any notice of withdrawal must specify the name and number of the account at DTC to be credited with withdrawn Original Notes and otherwise comply with the ATOP procedures. The exchange agent will return properly withdrawn Original Notes promptly following receipt of notice of withdrawal. Properly withdrawn Original Notes may be retendered by following the procedures described in the Prospectus under the heading “The Exchange Offer—Procedures for Tendering Original Notes” at any time on or prior to 5:00 p.m., New York City time, on the Expiration Date. All questions as to the validity of notices of withdrawals, including time of receipt, will be determined by the Company, and will be final and binding on all parties. None of the Company, the exchange agent, the Trustee or any other person will be under any duty to give notification of any defects or irregularities in any notice of withdrawal of tenders, or incur any liability for failure to give any such notification.

7. REQUESTS FOR ASSISTANCE OR ADDITIONAL COPIES. If you have questions, need assistance or would like to receive additional copies of the Prospectus or this Letter of Transmittal, you should contact the exchange agent at the address listed on the cover page of this Letter of Transmittal. You may also contact your broker, dealer, commercial bank, trust company or other nominee for assistance concerning the Exchange Offer.

IMPORTANT: BY USING THE ATOP PROCEDURES TO TENDER ORIGINAL NOTES, YOU WILL NOT BE REQUIRED TO DELIVER THIS LETTER OF TRANSMITTAL TO THE EXCHANGE AGENT. HOWEVER, YOU WILL BE BOUND BY ITS TERMS AND CONDITIONS, AND YOU WILL BE DEEMED TO HAVE MADE THE ACKNOWLEDGMENTS AND THE REPRESENTATIONS AND WARRANTIES IT CONTAINS, JUST AS IF YOU HAD SIGNED IT.