



MP Materials Corporation Annual Report 2021

Form 10-K (NYSE:MP)

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

(Mark One)

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

For the fiscal year ended December 31, 2020

or

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

For the transition period from _____ to _____

Commission file number 001-39277

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MP MATERIALS CORP.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

84-4465489

(I.R.S. Employer
Identification No.)6720 Via Austi Parkway, Suite 450
Las Vegas, Nevada 89119
(702) 844-6111**Securities registered pursuant to Section 12(b) of the Act:**

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value of \$0.0001 per share	MP	New York Stock Exchange
Warrants to purchase Common Stock	MPWS	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: NoneIndicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☒ Emerging growth company ☒If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

As of June 30, 2020, the aggregate market value of the voting common stock held by non-affiliates of the registrant was approximately \$344 million. Such aggregate market value was computed by reference to the closing price of the common stock as reported on the New York Stock Exchange on June 30, 2020. As of March 15, 2021, the number of shares of the registrant's common stock outstanding was 170,738,350.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive 2021 proxy statement, anticipated to be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year, are incorporated by reference into Part III of this Form 10-K.

MP MATERIALS CORP. AND SUBSIDIARIES
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements included in this Annual Report on Form 10-K for the year ended December 31, 2020 (this “Annual Report”), that are not historical facts are forward-looking statements under Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities and Exchange Act of 1934, as amended. Forward-looking statements may be identified by the use of the words such as “estimate,” “plan,” “shall,” “may,” “project,” “forecast,” “intend,” “expect,” “anticipate,” “believe,” “seek,” “target,” or similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding estimates and forecasts of other financial and performance metrics and projections of market opportunity. These statements are based on various assumptions, whether or not identified in this Annual Report, and on the current expectations of our management and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on by any investor as, a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. Many actual events and circumstances are beyond our control.

These forward-looking statements are subject to a number of risks and uncertainties, including:

- unanticipated costs or delays associated with our Stage II optimization project;
- uncertainties relating to our commercial arrangements with Shenghe Resources (Singapore) International Trading Pte. Ltd., an affiliate of Shenghe Resources Holding Co., Ltd., a global rare earth company listed on the Shanghai Stock Exchange;
- the ability to convert current commercial discussions with customers for the sale of rare earth oxide products into contracts;
- potential changes in China’s political environment and policies;
- fluctuations in demand for, and prices of, rare earth minerals and products;
- uncertainties relating to the COVID-19 pandemic;
- the intense competition within the rare earths mining and processing industry;
- uncertainties regarding the growth of existing and emerging uses for rare earth products;
- potential power shortages at the Mountain Pass facility;
- increasing costs or limited access to raw materials that may adversely affect our profitability;
- fluctuations in transportation costs or disruptions in transportation services;
- inability to meet individual customer specifications;
- diminished access to water;
- uncertainty in our estimates of rare earth oxide reserves;
- uncertainties regarding our ability to vertically integrate into further downstream processing and reach full revenue potential;
- risks associated with work stoppages;
- a shortage of skilled technicians and engineers;
- loss of key personnel;
- risks associated with the inherent dangers involved in mining activity;
- risks associated with events outside of our control, such as natural disasters, wars or health epidemics or pandemics;
- risks related to technology systems and security breaches;
- risks associated with our intellectual property rights;
- ability to compete with substitutions for rare earth minerals;
- ability to maintain satisfactory labor relations;
- risks relating to extensive and costly environmental regulatory requirements; and
- those factors discussed within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report.

If any of these risks materialize or our assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements.

These and other factors that could cause actual results to differ from those implied by the forward-looking statements in this Annual Report are more fully described within [“Part I, Item 1A. Risk Factors.”](#) The risks described within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report are not exhaustive. Other sections of this Annual Report describe additional factors that could adversely affect our business, financial condition or results of operations. New risk factors emerge from time to time and it is not possible to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

In addition, statements of belief and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us, as applicable, as of the date of this Annual Report, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

PART I

ITEM 1. BUSINESS

Overview

We own and operate the Mountain Pass facility, one of the world's largest integrated rare earth mining and processing facilities and the only major rare earths resource in the Western Hemisphere. Our wholly-owned subsidiary, MP Mine Operations LLC, a Delaware limited liability company ("MPMO"), acquired the Mountain Pass mine and processing facilities in July 2017. Our wholly-owned subsidiary, Secure Natural Resources LLC, a Delaware limited liability company ("SNR"), holds the mineral rights to the Mountain Pass mine and surrounding areas as well as intellectual property rights related to the processing and development of rare earth minerals. Since acquiring Mountain Pass, we have implemented a disciplined operating approach that has produced superior product output and performance compared to that of the prior ownership, while generating cash flows from the sale of our rare earth concentrate. We are now beginning to reinvest those cash flows into the further optimization of the facility to enable integrated separation operations, thereby ensuring upstream supply of rare earth oxides ("REO") and setting a foundation for long-term growth and value creation for stakeholders.

Our mission is to maximize shareholder returns over the long-term by executing a disciplined business strategy to re-establish a secure and sustainable domestic supply chain for critical sectors of the modern global economy. We believe we can generate positive outcomes for U.S. national security and industry, the U.S. workforce, and the environment.

The Company was incorporated on January 24, 2020, as a Delaware corporation under the name "Fortress Value Acquisition Corp." ("FVAC") and formed for the purpose of effecting a merger, capital stock exchange, asset acquisition, stock purchase, reorganization or similar business combination with one or more businesses. On November 17, 2020, in connection with the consummation of the Business Combination (as discussed and defined below), we changed our name to "MP Materials Corp." References herein to "MPMC," the "Company," "we," "our," and "us," refer to MP Materials Corp. and its subsidiaries.

Business Combination

On November 17, 2020, the Company consummated the transactions contemplated by the Agreement and Plan of Merger, dated as of July 15, 2020, as amended on August 26, 2020 (the "Merger Agreement"), by and among FVAC, FVAC Merger Corp. I, a Delaware corporation and a direct, wholly-owned subsidiary of FVAC ("MPMO Merger Corp."), FVAC Merger LLC II, a Delaware limited liability company that is treated as a corporation for U.S. federal income tax purposes and a direct, wholly-owned subsidiary of FVAC ("SNR Merger Company"), FVAC Merger LLC III, a Delaware limited liability company and a direct wholly-owned subsidiary of FVAC ("MPMO Merger LLC"), FVAC Merger LLC IV, a Delaware limited liability company and a direct wholly-owned subsidiary of FVAC ("SNR Merger LLC"), MPMO and SNR. Pursuant to the Merger Agreement, among other things, MPMO and SNR each became indirect wholly-owned subsidiaries of FVAC.

In accordance with the Merger Agreement, among other things, (a) MPMO and SNR, prior to the consummation of the transactions contemplated by the Merger Agreement, completed reorganizations, pursuant to which, among other things, (i) an affiliate of an MPMO equityholder formed a new Delaware corporation ("MPMO HoldCo"), and SNR formed a new Delaware limited liability company that is treated as a corporation for U.S. federal income tax purposes ("SNR HoldCo"), (ii) each of MPMO HoldCo and SNR HoldCo formed wholly-owned subsidiaries, MPMO Transition Sub, LLC and SNR Transition Sub, LLC, respectively, and (iii) each of MPMO and SNR merged with MPMO Transition Sub, LLC and SNR Transition Sub, LLC, respectively, with MPMO and SNR as the surviving company of each merger and becoming wholly-owned subsidiaries of MPMO HoldCo and SNR HoldCo, respectively; (b) through two consecutive mergers constituting part of the same overall transaction, MPMO Merger Corp., merged with and into MPMO HoldCo, with MPMO HoldCo being the surviving corporation, and immediately thereafter MPMO HoldCo merged with and into MPMO Merger LLC, with MPMO Merger LLC being the surviving company (such mergers, the "MPMO Mergers"); and (c) through two consecutive mergers constituting part of the same overall transaction, SNR Merger Company merged with and into SNR HoldCo, with SNR HoldCo being the surviving company, and immediately thereafter SNR HoldCo merged with and into SNR Merger LLC, with SNR Merger LLC being the surviving company (together with the MPMO Mergers and the other transactions and ancillary agreements contemplated by the Merger Agreement, the "Business Combination").

On November 17, 2020, immediately prior to the consummation of the Business Combination and pursuant to the Parent Sponsor Warrant Exchange Agreement, entered into by FVAC and Fortress Acquisition Sponsor LLC (the "Sponsor") on July 15, 2020, the Sponsor exchanged all 5,933,333 of its private placement warrants, each of which was exercisable to purchase one FVAC Class A common stock at \$11.50 per share, for an aggregate of 890,000 shares of FVAC Class F common stock that, upon the consummation of the Business Combination, were converted into FVAC Class A common stock (which is not subject to vesting or forfeiture restrictions under the amended and restated letter agreement dated July 15, 2020, and amended and

restated on August 26, 2020, by and among FVAC and the holders of FVAC Class F common stock) (which, after the consummation of the Business Combination is referred to as "Common Stock").

On November 17, 2020, in connection with the consummation of the Business Combination, the Company issued, in a private placement transaction (the "PIPE Financing"), an aggregate of 20,000,000 shares of Common Stock for an aggregate purchase price of \$200.0 million, to the PIPE Investors pursuant to the terms of respective subscription agreements entered into separately between the Company and each PIPE Investor, each dated July 15, 2020 (collectively, the "Subscription Agreements").

On November 17, 2020, in connection with the consummation of the Business Combination, the Company amended and restated FVAC's first amended and restated certificate of incorporation (such first amended and restated certificate of incorporation, the "FVAC Charter" and, such second amended and restated certificate of incorporation, the "Second Amended and Restated Certificate of Incorporation") to:

- a) change the name of the Company from "Fortress Value Acquisition Corp." to "MP Materials Corp.";
- b) increase the total number of authorized shares of all classes of capital stock from 221,000,000 shares to 500,000,000, consisting of (i) 450,000,000 shares of the Common Stock and (ii) 50,000,000 shares of preferred stock;
- c) provide for the board of directors of MPMC to be divided into three classes, with only one class of directors being elected each year and members of each class (except for those directors appointed to Class I and Class II in connection with the Business Combination) serving a three-year term;
- d) remove or amend those provisions of the FVAC Charter which terminated or otherwise ceased to be applicable following the completion of the Business Combination, including removal of certain provisions relating to the Company's prior status as a blank check company and the Company's Class F Common Stock that no longer apply;
- e) provide that the Company will not be governed by Section 203 of the Delaware General Corporation Law ("DGCL") and included a provision that is substantially similar to Section 203 of the DGCL, but excludes the Sponsor, JHL Capital Group and any Exempt Transferee (as defined in the Second Amended and Restated Certificate of Incorporation) and their respective affiliates or successors or any "group", or any member of any such group, to which such persons are a party from the definition of "interested stockholder," and to make certain related changes;
- f) to provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation other than with respect to any complaint asserting a cause of action arising under the United States federal securities laws for which the federal courts of the United States of America will be the exclusive jurisdiction to the fullest extent permitted by law; and
- g) require that any amendments relating to Article V (Board of Directors) of the Second Amended and Restated Certificate of Incorporation may only be amended, in addition to any vote required by applicable law, by the affirmative vote of the holders of at least 66.7% of the voting power of all the then-outstanding shares of stock of MPMC entitled to vote in the election of directors, voting together as a single class.

The Business

We own and operate one of the world's largest integrated rare earth mining and processing facilities and the only major rare earths resource in the Western Hemisphere.

Rare earth elements ("REE") are fundamental building blocks of the modern economy, impacting trillions of dollars in global gross domestic product ("GDP") through the enablement of end products across industries including transportation, clean energy, robotics, national defense and consumer electronics, among others. Neodymium ("Nd") and praseodymium ("Pr") are rare earth elements which in combination form neodymium-praseodymium ("NdPr"), which represents the Company's primary revenue opportunity. NdPr is most often utilized in NdPr magnets, which are also commonly referred to as "neo," "NdFeB," "NIB," or permanent magnets and are made predominantly from an alloy of NdPr, iron, and boron. NdPr magnets are the most widely used type of rare earth magnets and are critical for many advanced technologies that are experiencing strong secular growth, including electric vehicles, drones, defense systems, medical equipment, wind turbines, robotics and many others. The rapid growth of these and other advanced motion technologies is expected to drive substantial demand growth for NdPr.

We produce our materials at Mountain Pass, one of the world's richest rare earth deposits, co-located with integrated state-of-the-art processing and separation facilities. We believe Mountain Pass is the only such integrated facility in the Western Hemisphere and one of the few separation facilities outside of Asia. Current ownership and management acquired the Mountain Pass assets in 2017, restarted operations from cold-idle status and embarked on a deliberate, two-stage plan to optimize the facility and position the Company for growth and profitability. Approximately \$1.7 billion has been invested in the Mountain Pass facility since 2011, in addition to the investments in utilities and active infrastructure completed between the 1960s and

2008. We commenced mining, comminution, beneficiation, and tailings management operations, which we designated Stage I of our multi-stage optimization plan, between December 2017 and February 2018. We currently produce a rare earth concentrate that we sell to Shenghe Resources (Singapore) International Trading Pte. Ltd. ("Shenghe"), an affiliate of Shenghe Resources Holding Co., Ltd., a leading global rare earth company that is publicly listed in China, which, in turn, sells that product to end customers in China. These customers separate the constituent REE contained in our concentrate and sell the separated products to various end users. We believe our concentrate represents approximately 15% of the rare earth content consumed in the global market during the last 12 months. Upon completion of our Stage II optimization project, we anticipate separating REO at our Mountain Pass site and selling our products directly to end users, at which time we expect to no longer sell our concentrate.

As technological innovation drives significant anticipated global growth in demand for REO, we also believe global economic trends, geopolitical realities and sustainability mandates are combining to further support an opportunity for us to create shareholder value. We believe businesses are increasingly prioritizing diversification and security of their global supply chains so as to reduce reliance on a single producer or region for critical supplies. This trend has national security implications as well, illustrated by recent U.S. Presidential directives seeking the onshoring of production in industries deemed critical, including rare earth minerals. For example, on February 24, 2021, President Biden signed an executive order requiring the U.S. government to review supply chains for critical minerals and other identified strategic materials, including rare earth elements, in an effort to ensure that the U.S. is not reliant on other countries, such as China. This executive order calls for a review of a broader set of U.S. supply chains covering the defense, health care, information technology, energy, transportation and agriculture sectors. According to the CRU Group ("CRU"), China accounted for approximately 79% of global REO production in 2020. We believe an even higher percentage of the NdPr magnet supply chain is based in China. Finally, public and private interests are increasingly demanding sustainability throughout production value chains to limit negative environmental and societal impacts from business activity, including pollution and acceleration of climate change. As the only scaled source in North America for critical rare earths, with a processing facility designed to operate with best-in-class sustainability and a competitive cost structure, we believe we are well-positioned to thrive in a transforming global economy.

Our mission is to maximize shareholder returns over the long-term by executing a disciplined business strategy to re-establish a secure and sustainable domestic supply chain for critical sectors of the modern global economy. We believe we can generate positive outcomes for U.S. national security and industry, the U.S. workforce, and the environment.

History of Ownership and Current Operations

MPMO acquired the Mountain Pass mine and the rare earth processing and separation facilities located at the mine out of bankruptcy in July 2017. In the five years prior to our acquisition, the prior owner of Mountain Pass, Molycorp, Inc. ("Molycorp"), invested over \$1.7 billion of capital, primarily to construct new rare earth processing and separation facilities on the Mountain Pass mine site. During its tenure, Molycorp encountered operating challenges, struggling to achieve stable production at their designed capacity due to execution issues in concentrate production and challenges in implementing a revised process flow, which we believe sacrificed the natural advantages of Mountain Pass bastnaesite ore and its inherent suitability to low-cost processing. In the refining process further downstream, Molycorp removed the critical oxidizing roasting circuit, which previously had been used at Mountain Pass since 1966, and is a well-accepted process throughout the world. We believe this was done to maximize the production of cerium, one of the lower-value rare earth minerals in the Mountain Pass ore.

We believe that Molycorp also implemented a novel, complicated, reagent-intensive, and, ultimately, unreliable multi-stage leaching and cracking process, which resulted in low recovery of NdPr and high operating costs.

We acquired Mountain Pass with the vision of reincorporating proven process technologies to create an integrated, secure domestic supply chain company at the center of the electric transportation ecosystem to power the coming electric vehicle ("EV") revolution and to provide a sustainable source of supply for critical sectors of the modern global economy. Our business plan, in contrast to Molycorp, focuses primarily on producing the higher-value rare earths, neodymium and praseodymium, and optimizing costs through the reintroduction of the oxidizing roasting circuit. We plan to eliminate the cracking process and focus on a single-stage leach, providing flexibility to reduce the production of cerium, maximize NdPr production and dramatically reduce costs.

Since acquiring Mountain Pass, we have implemented a disciplined operating approach that has already produced superior product output and performance compared to that of the prior ownership, while also generating cash flows from the sale of our rare earth concentrate. Now, we are beginning to reinvest those cash flows into the further optimization of our facility to enable integrated separation operations, thereby ensuring upstream supply of REO and setting a foundation for long-term growth and value creation for stakeholders.

Prior to acquiring the Mountain Pass facility, we entered into contractual arrangements with Shenghe in 2017 whereby Shenghe agreed to offtake our products under the original offtake agreement (the "Original Offtake Agreement") and agreed to provide technical assistance under the technical services agreement (the "TSA"). The TSA with Shenghe has been terminated by mutual agreement, but the offtake arrangement continues under an amended and restated offtake agreement (the "A&R Offtake Agreement"). U.S. employees of the Company lead the Company's operating, engineering, strategic and management activities.

Upon completion of our Stage II optimization plan, processing at our Mountain Pass facility will include five primary process steps: (i) mining and crushing; (ii) milling and flotation; (iii) leaching and impurity removal; (iv) separation and extraction; and (v) product finishing. Having completed Stage I of our optimization plan, we are engaged in the first two of these steps. The first step includes mining the primarily bastnaesite ore followed by comminution, which involves crushing and grinding the ore into a milled slurry. In the second step, the milled bastnaesite slurry is then processed by froth flotation, whereby the bastnaesite floats to the surface while the gangue, or non-desired, elements are suppressed and disposed as tailings. We believe we are unique among scaled rare earth producers in our use of a dry tailings process that allows recycling of the water used in our milling and flotation circuit and eliminates the need for high-risk wet tailings ponds and traditional impoundment dams. This reclaimed water accounts for 95% of our current water consumption, resulting in approximately 5% of the fresh water use of a comparable milling and flotation circuit. As a result, we believe our milling and flotation operations enable us to achieve best-in-class sustainability relative to other producers of REE.

MP MATERIALS' PROCESS
REVIVING ROASTING PROCESS PIONEERED AT MOUNTAIN PASS

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Stage I Execution Successful

Current ownership and management began implementing its Stage I optimization plan following the 2017 acquisition of Mountain Pass. Utilizing technical assistance from Shenghe and our own engineers, management implemented changes in the milling, flotation and tailings management processes; implemented a new, advanced reagent scheme that improved mineral recovery and enabled operation at lower temperatures; and implemented operational best practices. Together, these changes have increased plant uptime to approximately 95% and have driven enhanced flotation reliability, throughput, recovery and production as well as tailings facility reliability and throughput at a significantly lower cost per processed ton. We already have established our ability to achieve approximately 3.2x the production volume of rare earth concentrate versus our predecessor using the same capital equipment, whose insufficient concentrate production drove downtime throughout the facility. We also believe that our Stage I optimization initiatives have enabled us to achieve world-class production cost levels for rare earth concentrate. All of these achievements have enabled us to become operating cash flow positive, despite significant Chinese trade tariffs on ore and concentrates in place over the optimization period. These trade tariffs have since been suspended, further enhancing the earnings power of our Stage I operations.

Stage II Underway

Our Stage II optimization plan is focused on advancing from concentrate production to the separation of individual REO. Engineering, procurement, preliminary construction, and other recommissioning activities are underway and involve upgrades and enhancements to the existing facility process flow to produce separated REO more reliably, at significantly lower cost and with an expected smaller environmental footprint than the prior operator of the Mountain Pass facility. As part of Stage II, we are in the process of reintroducing a roasting circuit, reorienting the plant process flow, increasing product finishing capacity,

improving wastewater management, and making other improvements to materials handling and storage. The reintroduction of the oxidizing roasting circuit also allows subsequent stages of the production process to occur at lower temperatures, and with significantly lower volumes of materials and reagents, which supports lower operating and maintenance costs and higher uptime than our predecessor – in many ways mirroring the types of changes we implemented successfully in Stage I. Upon completion of Stage II, we expect to be a low-cost producer of NdPr, which represents a majority of the value contained in our ore.

The roasting step that oxidizes the rare earth concentrate in a rotary kiln is crucial to ensuring the cost-competitiveness of our site. Roasting of bastnaesite concentrate was pioneered at Mountain Pass in 1966 and roasted concentrate continued to be processed until a new process flow was instituted by the prior owner after 2008. Under the prior owner's operation, this practice was discontinued to maximize production of cerium, a lower-value rare earth. We believe this decision was a key factor in the deterioration of operating and financial performance under prior ownership. One of the unique attributes of bastnaesite is the ability to convert the trivalent form of cerium in the mixed rare earth concentrate to tetravalent cerium, which has a low propensity to dissolve, enabling cerium to be separated expediently along with other insoluble gangue elements without selective extraction. As compared to the process employed by the prior owner of Mountain Pass, the removal of low-value cerium early in our separations process allows for up to a 40% reduction in the mass of material to be separated and finished, thus dramatically reducing the energy, reagents, and wastewater required to produce the higher-value NdPr. We believe these changes are well-documented in academic literature, have been extensively piloted in both small and large scale by our team and outside laboratories, were used for decades at Mountain Pass prior to Molycorp's ownership and operational changes, and are standard processes for other bastnaesite ore mines throughout the world.

We have substantially completed our process redesign and engineering for Stage II and we hold all intellectual property and expertise necessary to operate independently of our relationship with Shenghe. We believe that our Stage II optimization project will enable us to materially increase the recovery of NdPr from our concentrate, increase NdPr production and dramatically lower the cost of production, in each case, as compared to the prior owner's operations.

Our currently idled natural gas-powered combined heat and power ("CHP") facility includes two 15 megawatt ("MW") natural gas-fired turbines (that are each capable of producing up to 12MW at our altitude and subject to weather conditions) to produce electricity and steam. We plan to restart the CHP facility in 2021, enabling us to produce low-cost electricity and steam while enhancing the reliability and redundancy of our utility supply. The CHP and required water pre-treatment asset recommissioning is expected to generate significant annualized run-rate savings prior to completion of Stage II. When we are fully operational upon completion of Stage II, we believe that our cost of electricity will be approximately half the cost of electricity from the grid per MW consumed, not including the value of the steam produced.

The Mountain Pass site also is equipped with a chlor-alkali facility to manufacture reagents used in our rare earth separation and processing. Following completion of Stage II, we may decide to bring the chlor-alkali facility back online, which would further integrate our operations, yield additional cost savings and supply redundancy, and further enhance our sustainability profile. Reagents produced from the chlor-alkali facility would be used in the leach, solvent extraction, brine neutralization and finishing processes, while excess reagents could be sold.

We hold the necessary permits to operate our Mountain Pass facility, including conditional use and minor use permits from San Bernardino County, California, and an associated environmental impact report, all of which were issued in 2004, which allow continued operation of the Mountain Pass facility through 2042. We hold numerous other permits and approvals, including permits to operate from the Lahontan Regional Water Quality Control Board for groundwater treatment. We may have to obtain new permits, including, without limitation, air permits issued by the Mojave Desert Air Quality Management District and construction and occupancy permits issued by San Bernardino County to complete the Stage II optimization project.

Combined with other site-specific technical and operational advantages, we believe the execution of our Stage II optimization plan will ensure we become a global low-cost producer of NdPr oxide, just as we are of concentrate at present.

Stage III Downstream Expansion Opportunity

Aside from our co-located refining facility, there are very few integrated rare earth mining and refining plants of scale globally, and none outside of China. This is a core driver behind our mission to restore this critical production capability to the U.S. We also seek to facilitate the restoration of the full magnetics supply chain to the U.S. by participating in the further downstream integration of our rare earth materials into high-strength rare earth permanent magnets. Upon completion of the Stage II optimization plan, we expect to be a cost-competitive, high-volume producer of separated REO. We believe we will then be in position to consider opportunities to integrate further downstream into the business of upgrading NdPr into metal alloys and magnets, ultimately expanding our presence as a global source for rare earth magnetics.

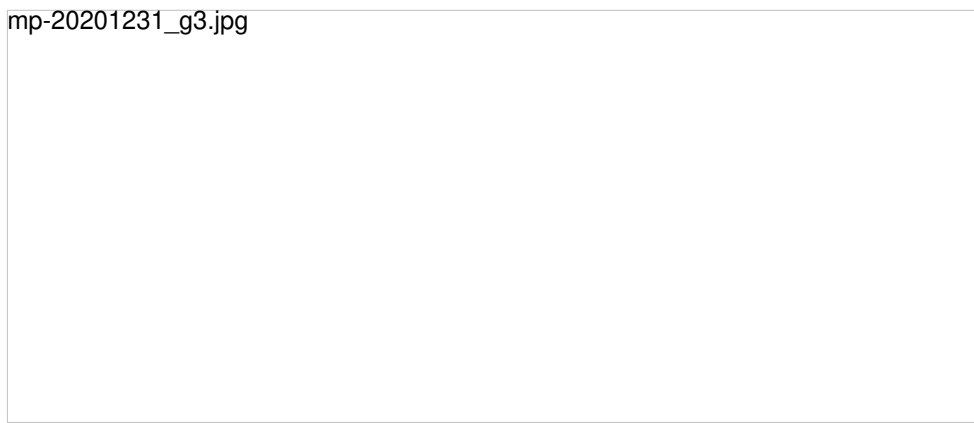
Downstream integration would be completed either via building a captive integrated magnet supply chain or investing in this capability via an acquisition, partnership or joint venture. The integration of magnet production would establish us as the first and only fully-integrated source of supply for rare earth magnets in the Western Hemisphere. In addition to offering end-market magnet customers a complete Western supply chain solution, we believe downstream integration would also create a material incremental value creation opportunity. We believe that the ability to capture significant value from magnet production requires a scaled, steady, cost-effective source of supply of NdPr, which we believe only we are positioned to provide in the Western Hemisphere. Because we will be creating that supply, an owned or partnered magnet production operation would benefit from lower costs and higher margins compared to stand-alone magnet producers. We also believe integration into magnet production would provide some protection from commodity pricing volatility, while also enhancing our business profile as the producer of a critical industrial output in addition to a producer of resources.

While we remain primarily focused on the execution of our Stage II optimization plan over the near term, we intend to focus our business development efforts on a “buy, build, and/or joint venture” strategy designed to capture value downstream in electrification.

Rare Earth Industry Overview and Market Opportunity

The REE group includes 17 elements, primarily the 15 lanthanide elements. Cerium, lanthanum, neodymium, and praseodymium are considered “light REE” that are more predominant in bastnaesite; samarium, europium, and gadolinium are often referred to as “medium REE”; while terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium are considered “heavy REE.” Two additional elements, yttrium and scandium are often classified with the heavy REE though they are not lanthanides. Depending upon the rare-earth carrying material, the mixture of light, medium and heavy REE will differ.

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The aggregate global market for REO totaled approximately 161,000 metric tons in 2020 and is expected to grow at a compound annual growth rate (“CAGR”) of approximately 4.2% through 2030, according to research by CRU. REO are used in a diverse array of end markets, including:

- **Clean-Energy and Transportation Technologies:** traction motors in EVs and hybrid electric vehicles (“HEVs”), generators in wind power turbines, and linear motors in mag-lev trains;
- **High-Technology Applications:** miniaturization of smart phones and other mobile devices, computing devices, speakers and microphones, as well as fiber optics, lasers, robotics, medical devices and optical temperature sensors in medical and industrial environments;
- **Critical Defense Applications:** guidance and control systems, communications, global positioning systems, radar and sonar, drones, and railguns; and
- **Essential Industrial Infrastructure:** advanced catalyst applications in oil refining, pollution-control systems in traditional internal-combustion automobiles, glass polishing, and LED lighting and phosphors.

REO Demand Forecast

CRU estimates that the NdPr segment of the REO market—which makes up the significant majority of the market value—is expected to grow at a 7.0% CAGR through 2030, well in excess of the overall REO market. This anticipated growth will be driven by secular growth in demand for NdPr magnets used to enable emerging technology applications including EVs and

electrified transportation modes such as trains, as well as defense and alternative energy solutions such as robotics and wind turbines. These categories comprise approximately 29.3% of the total NdPr market today, but are expected to grow at a significantly higher CAGR as the global economy increasingly embraces sustainable solutions that replace traditional technologies like the internal combustion engine.

Electric Vehicle Market Opportunity

NdPr magnets are critical components in permanent magnet traction motors, the dominant EV motor technology with a more than 90% market share among leading automotive original equipment manufacturers (“OEMs”). EVs are primarily differentiated from vehicles powered by internal combustion engines by their rechargeable power sources and their electric motors. While the EV battery market is evolving, with multiple approaches to battery composition, in EV motors NdPr magnets are already the widely accepted technology standard. NdPr magnets are superior to other types of magnets for this application due to their unequalled efficiency in converting energy into motion with a superior energy-to-weight ratio versus alternatives.

According to research by CRU, annual production of EVs is expected to grow eightfold between 2019 and 2035. Given the intensity of NdPr’s use in permanent magnet traction motors, CRU estimates that EV production alone would consume nearly 100% of today’s annual global production of NdPr, versus consuming just 9% in 2019. Global EV production will not be able to meet this expected increase in demand without an additional, stable supply of NdPr.

Wind Turbine Opportunity

NdPr magnets also are a key component of direct-drive wind turbines, which are gaining market share in wind power installations. The use of rare earth magnets eliminates the need for a gearbox in the wind turbine, making them lighter, cheaper, more reliable, easier to maintain, and capable of generating electricity at lower wind speeds. The wind turbine market is anticipated to account for approximately 28.8% of the global growth in the use of NdPr in rare earth magnets from 2020 to 2030, according to CRU. Every MW of direct-drive wind power installed generates approximately 650kg of incremental NdPr demand.

According to CRU, the anticipated rapid increase in demand for rare earth products, particularly NdPr, has the potential to cause supply shortages within the next few years. As EVs, wind turbines and other advanced applications generate an increasing percentage of global GDP, we believe individual nations and enterprises will require a competitive, diversified and reliable supply chain for REO. We believe that our onshoring of a North American supply chain for REO will help meet the demand for EVs and other emerging industries while lowering single point-of-failure risk.

Supply Chain, Geopolitical and Sustainability Forces Driving Market Opportunity

We believe global economic trends, geopolitical realities and sustainability mandates are reshaping the business and investing landscape to create tailwinds supporting our market opportunity. More importantly, we believe these trends together create a need to establish a fully onshore REO supply chain in the U.S., consistent with our mission. Over the past several decades, U.S. companies have moved critical manufacturing and supply chain operations to lower-cost markets. While this trend has enabled U.S. companies to realize lower production costs and furthered the globalization of the macroeconomy, the strategy of “offshoring” has created supply chain complexities that increased business risk. This circumstance was made more visible during the global COVID-19 pandemic, when businesses across many industries were forced to take rapid action to mitigate disruption of their global supply chains due to variable, cross-border restrictions on economic and business activity. Mitigating actions include increasing the diversification of supply chains, both in number of suppliers and source locations, including back into the U.S. As a result, we believe many companies will be re-evaluating their approach to building supply chains, seeking an appropriate balance between assuring diversity and security of supply and managing cost.

China Dominance of REO Market

Governments are taking steps to strengthen national presence in key industries, including rare earths, and seeking to secure domestic supply chains for their domestic industrial base. China has dominated the global supply of rare earth products for the last 20 years and accounted for approximately 79% of global REO production in 2020. Other than Mountain Pass and deposits in Australia and Myanmar, there are limited reliable sources of REE supply outside of China. Since 2013, stricter regulations on mining production as well as tighter environmental standards and export controls resulted in the formation of six large government-backed production groups in China. This consolidation has resulted in more streamlined management and tighter control of rare earth supply flows and pricing. Export controls on both product and technology, production quotas, and direct and indirect subsidies have ensured that China’s market share of REO production exceeds its share of global reserves. Further, given China’s significant investment in downstream REO-consuming processes such as metallization and magnet manufacturing, Chinese domestic demand is projected to rapidly increase, which could create a shortage of REO available to

consumers outside of China. Chinese government actions and strategic political visits to rare earth facilities have in the past heightened international supply concerns, including China's potential implementation of export restrictions in conjunction with international disputes.

China also dominates downstream rare earth production, manufacturing substantially all of the world's supply of rare earth alloys/metals and a significant majority of high-end NdPr magnets. Currently, no production-scale capacity for rare earth metalmaking or permanent magnet production exists in the U.S. The remaining global high-end NdPr alloy/metal and magnet production is conducted primarily in Japan or Japanese-aligned facilities elsewhere in Asia, primarily in Vietnam, Philippines, and Thailand.

United States Actions to Restore Domestic Supply of Key Minerals

The U.S. is taking action to secure domestic sources of REE supply and we believe that we are uniquely positioned to answer several of the U.S. government's calls to action regarding critical materials supply. On December 20, 2017, former President Trump issued executive order 13817, "A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals," calling on agencies across the government to develop a strategy to reduce the susceptibility of the United States to critical mineral supply disruptions. On February 16, 2018, the United States Secretary of the Interior presented a list of 35 minerals deemed critical under the definition provided in the executive order, including the entirety of the REE group. On July 22, 2019, former President Trump issued five Presidential Determinations reiterating the importance of domestic production capability of rare earth products and rare earth permanent magnets to the national defense.

In addition, the Biden Administration has indicated their commitment to EVs and clean energy initiatives, including to critical minerals used in these applications. For example, on February 24, 2021, President Biden signed an executive order requiring the U.S. government to review supply chains for critical minerals and other identified strategic materials, including rare earth elements, in an effort to ensure that the U.S. is not reliant on other countries, such as China. This executive order calls for a review of a broader set of U.S. supply chains covering the defense, health care, information technology, energy, transportation and agriculture sectors.

In April 2020, we were selected by the U.S. Department of Defense (the "DoD") for a preliminary contract to support the initial phase of a DoD effort to restore domestic heavy rare earths production and separation capabilities to the U.S. The construction of a heavy rare earths separation facility at Mountain Pass would be independent of, but complementary to, our Stage II optimization project. The heavy rare earths award contract was formally issued to us on July 10, 2020, and our efforts are now underway, though there is no guarantee that we will receive a contract for subsequent phases of the DoD's heavy rare earths efforts, or that we will receive any additional U.S. government funding beyond the initial grant. In addition, in November 2020, we were awarded a Defense Production Act Title III technology investment agreement to establish domestic processing for separated light rare earth elements whereby the DoD has agreed to contribute \$9.6 million towards our Stage II optimization project.

Environmental, Social, and Governance ("ESG") Mandates Impacting Global Capital Allocation Throughout Value Chain

Public and private interests are increasingly demanding sustainability throughout production value chains to limit negative environmental and societal impacts from business activity, including pollution and acceleration of climate change. According to a survey by the Global Impact Investing Network, assets devoted to investments focused on ESG factors increased to \$715 billion in April 2020, a 42% increase from \$502 billion in April 2019.

REO will play a critical role in enabling the global expansion of sustainable industries like EVs and alternative energy solutions, but we also believe that governments, investors and our customers will increasingly demand that REO be produced sustainably. For example, current practices prevalent in the industry for extracting REO from hard rock utilize a wet tailings process that requires excessive groundwater usage and poses significant environmental and safety risks. We are differentiated among large REE producers in our use of a dry tailings process, which allows the water used in our milling and flotation circuit to be recycled and eliminates the need for high-risk wet tailings ponds and traditional impoundment dams. As part of our optimization plan to restore fully integrated development of REO, we are designing what we believe to be additional environmentally responsible production methods into our process that we believe will enable us to achieve best-in-class sustainability. While sustainable production processes can be more costly than traditional mining and processing approaches, we believe the high ore grade at Mountain Pass combined with our scale will enable us to make these investments and still achieve our objective of being a low-cost producer.

We believe our Company advances 11 of the United Nations' 17 Sustainable Development Goals, across environmental areas including clean energy and sustainable mining, as well as social areas including ownership culture, employee empowerment and securing of strategic resources.

Overall, we believe the trends toward onshoring of supply chains, protection of U.S. national interests in vital industries and heightened focus on sustainable production and investing support our unique opportunity to become a lower-risk solution for customers in Western and allied nations for the supply of critical rare earth materials.

Our Strengths

Our Location: We are the only integrated, scaled producer in the Western Hemisphere, with significant cost advantages.

As worldwide demand for rare earth products increases, the supply of REO is limited by available production capacity, which is currently concentrated in China. A confluence of geopolitical and economic factors is causing downstream customers, such as automotive OEMs, to be increasingly focused on supply risk, highlighting the need to develop domestic production of REE and products. The U.S. government is actively seeking to end the country's reliance on foreign REE sources, and we believe that our constructive relationship with key regulators and the relative stability of U.S. policies provides us with an advantage relative to non-U.S. REE producers. Within North America, our Mountain Pass facility is the only scaled source for critical rare earths in operation and there are high barriers to entry in the ex-China REE market. We believe it would take years and significant capital for any meaningful domestic competition to develop.

Moreover, the location of our facility affords significant cost and operational advantages that we believe are difficult to replicate, including:

- the benefits of a fully-integrated, world-class facility leveraging greater than \$1.7 billion of prior capital investments;
- efficient accessibility to/from our facility, which is located approximately 50 miles southwest of Las Vegas, Nevada and immediately adjacent to Interstate 15, within truck drive time of one hour to a major rail-head and four hours to the Ports of Los Angeles and Long Beach;
- ready access to sufficient water supply; and
- a rural setting without competing commercial interests.

We believe the self-contained nature of our operations—with mining, milling, separations, and finishing all on one site—creates additional cost advantages and operational risk mitigation.

Our Platform: Positioned to play a prominent role in the transformation of America's industrial economy.

Since restarting operations in 2017 from cold-idle status, we have increased production of our rare earth concentrate to over 38,000 metric tons of equivalent REO annually, which we believe represented approximately 15% of global REE production during the last twelve months. Our financial performance during the year ended December 31, 2020, has been achieved without significant capital investment, as the primary cost of building the Mountain Pass processing facility was borne by prior ownership. As a result, we believe we are in a strong operating and capital position to execute on Stage II and ultimately to integrate downstream processing of REO via a Stage III downstream expansion strategy, which would create the opportunity to drive additional revenue growth and profits, and position us as a competitively advantaged provider of a key industrial output.

Our current operating success and strategic plan create a strong foundation at a critical moment in the global economy. As the adoption of electric transportation grows, U.S. leadership in automotive, defense, and aerospace manufacturing and within the healthcare industry is increasingly at-risk without a stable, competitive domestic magnetism industry. Commercial and government customers are increasingly demanding redundancy, visibility and cost competitiveness in their supply chains. For example, the DoD in the National Defense and Authorization Act of 2019 required that NdPr magnets (and the relevant supply chain) be sourced from Allied nations, identifying REE and permanent magnets as critical to the defense and industrial security of the United States. We believe automotive OEMs will demand supply chain redundancy as they transition their engine, transmission and motor manufacturing facilities to build EV components. In addition, we believe end consumers will demand that the materials used to build these vehicles be extracted sustainably. We believe we are positioned to address these converging demands to provide customers with a lower-risk solution for rare earth supply, as a low-cost, domestic, environmentally-friendly producer of materials crucial to a sustainable economy.

Our Resource: We own and operate one of the richest rare earth deposits in the world.

More than 60 years of operations have proven that our ore body is one of the world's largest and highest-grade rare earth resources. The low-volume nature of rare earth mining coupled with the exceptional scale and quality of the ore body results in a resource with significant viability well into the future. Our bastnaesite ore is well-suited to the proven separation technologies upon which our Stage II optimization plan is based. Further, bastnaesite contains significantly lower levels of radioactive thorium and uranium than most other REE-bearing ore types, reducing costs and operational risks.

As of July 1, 2020, SRK Consulting (U.S.), Inc. ("SRK"), an independent consulting firm that we have retained to assess our reserves, estimates total proven reserves of 0.03 million short tons of REO contained in 0.3 million short tons of ore at Mountain Pass, with an average ore grade of 8.19%, and probable reserves of 1.47 million short tons of REO contained in 20.8 million short tons of ore, with an average ore grade of 7.04%. Our total proven and probable reserves are estimated to have an average ore grade of 7.06%. In each case, these estimates use the estimated economical cutoff of 3.83% total rare earth oxide ("TREO"). Based on these estimated reserves and our expected annual production rate of REO upon completion of our Stage II optimization project, our expected mine life is approximately 24 years.

The open pit mine is located on approximately 2,222 fee simple acres with approximately 15,000 acres of mineral rights. We believe there is opportunity to grow the reserve base over time with exploratory drilling, which has not been conducted since 2011.

Our Sustainable Operations: We believe we operate the most environmentally responsible rare earth facility in the world.

Mountain Pass is a state-of-the-art rare earth facility operating with what we believe to be best-in-class environmental standards. Our paste tailings process—where waste from beneficiation is de-watered and that water is recycled back into the process, allowing the remaining solids to be deposited into a lined impoundment—dramatically reduces water consumption, the risk of seepage issues and our environmental footprint and eliminates the need for "tailings ponds" often associated with mining operations that can present a higher risk than paste disposal. Upon the potential restart of our chlor-alkali facility, we expect to consume waste brine from the separations process to produce the key reagents used in separation and finishing. We expect this "closed loop" process will reduce third-party reagent consumption, reduce processing or disposal costs of brine, and further reduce our environmental impact. Clean natural gas will fuel our CHP facility that, upon restart, will provide power and steam to the entire site, which we believe will improve energy efficiency and remove dependence on grid-based power. Our facilities are fully permitted and, we believe, comply with all federal and California environmental regulations, which are among the highest environmental standards in the world. As we grow, we will seek out and obtain such permits and licenses necessary to ensure our facilities continue to comply with required standards. As global industry increasingly considers and works to reduce the environmental impact of operations—and while consumers increasingly understand the "net" environmental impact of adopting green technologies—we believe our sustainable process for producing key materials for the clean-energy economy is a distinct advantage.

According to independent research conducted by the Institute of Energy and Climate Research of the German government research center Forschungszentrum Jülich, rare earth production from the Mountain Pass deposit "demonstrates superiority... in terms of environmental effects" compared to the Mount Weld deposit in Australia and the Bayan Obo deposit in China. The research studied the impact of rare earth production on environmental categories including climate change, freshwater ecotoxicity and particulate matter formation.

Our Operating Approach: We are focused on achieving status as the industry's low-cost producer, led by a mission-driven management team invested in long-term success.

We have a unique mission in the minerals industry: to re-establish a secure and sustainable supply chain in the U.S. for critical sectors of the modern global economy. The team who purchased Mountain Pass out of bankruptcy and leads the Company today is substantially invested alongside public stockholders of the Company and is committed to the fulfillment of this mission. We believe that fulfillment of this mission will maximize shareholder returns over the long-term and generate positive outcomes for U.S. national security and industry, the U.S. workforce, and the environment.

We believe that fulfilling our mission requires execution of a disciplined business strategy. The rare earths market is highly competitive and, given its concentration in China, is potentially subject to anti-competitive behavior. As a result, we are pursuing a strategy that is differentiated from our predecessor and focused on long-term outcomes. For example, since restarting operations at Mountain Pass, Stage I of our optimization plan was designed to re-establish stable, scaled production of rare earth concentrate, leveraging the current processing facility. That plan has resulted in the restoration of Mountain Pass as an important producer in the global REE market and has generated revenue and Adjusted EBITDA growth that has strengthened our capital position. We also believe we are a low-cost producer of REE concentrate.

Our Stage II optimization plan is designed to make separated REO more reliably, at significantly lower cost and with an expected smaller environmental footprint, which we believe positions us to ultimately act as a low-cost producer of REO, extending the value of our domestic supply chain and eliminating the need to sell our concentrate to Chinese REO producers. In so doing, we have made intentional strategic choices to focus primarily on NdPr versus lower-value REE such as cerium, in contrast to our predecessor's strategy. We believe our strategic choices will make our higher-value NdPr less costly to produce and will generate less waste, improving our sustainability profile.

Our Business Strategy

Offer the Western Hemisphere a trusted, sustainable source of supply for materials that enable the development of critical industries.

Upon the completion of Stage II, Mountain Pass will be one of the largest, most advanced and efficient fully-integrated REO processing facilities in the world, and the only such facility located in North America. We hope to reinvigorate the industrial history of the rare earths supply chain that originated in the United States, and provide a domestic alternative to both current and future users of rare earths that helps them avoid the risks associated with the single point-of-failure currently represented by China in the global supply chain.

The global effort to curb carbon emissions and reverse climate change often focuses on the impact of the transportation system, and we believe that our products will play a significant role in advancing those efforts. To date, 15 states in the U.S. plus the District of Columbia have adopted or committed to adopting zero emission vehicle mandates. We have seen similar mandates in other countries globally. The NdPr products that we intend to produce at Mountain Pass are essential to the dominant permanent magnet motor technology deployed in approximately 95% of current EVs. We are committed to protecting biodiversity and our environmental management plans cover biodiversity impacts, waste and noise management, air and water pollution, and natural resource and toxic chemical usage. We believe that our commitment to environmentally responsible production of REO will be a strong competitive advantage in building relationships with EV manufacturers, who share our commitment to sustainability.

To meet the anticipated growth in demand for EVs, we believe automotive OEMs will redesign their supply chains to ensure a ready and stable supply of rare earth products. We believe nearly 30% of domestic factories for U.S. automotive OEMs could become obsolete as internal-combustion engine demand wanes. We aim to capitalize on and accelerate this opportunity by seeking to partner with our future customers in their efforts to reposition the capital and labor in their supply chain.

Recommission the largest, most advanced and efficient fully-integrated REO processing facility in the world.

With Stage I of our optimization plan complete, our immediate strategic focus is on Stage II, which includes installing a redesigned roasting circuit, repositioning our leach and impurity removal circuits, and increasing product finishing capacity at Mountain Pass. Our ability to leverage the process experience of our engineering team and implement a culture of achievement, combined with process know-how from a world class global rare earth operator, have led to successful implementation of our optimization plans to date. Over the last 12 months, we have achieved consistent recovery and have maintained mill uptime of approximately 95% with REO production that is approximately 3.2x the highest ever production in a 12-month period by the former operator using the same capital equipment. We expect to leverage this track record, as well as our commitment to best practices and methodical execution, to successfully manage our Stage II optimization plan.

Leverage our low-cost position to maximize earnings power in all commodity price environments.

The success of our business will reflect our ability to manage our costs. Stage II is designed to enable us to manage our cost structure through a revised facility process flow. This process flow will allow us to use significantly less energy and raw materials per ton of separated REO. Installing the roasting circuit to oxidize our rare earth concentrate in a rotary kiln is crucial to ensuring the cost-competitiveness of our site. Additionally, the recommissioning of our natural gas-powered CHP facility will reduce energy, heating and steam costs as well as minimize or eliminate our reliance on the regional electric power grid. The potential re-commissioning of the chlor-alkali facility would enable us to produce our own hydrochloric acid and sodium hydroxide at the Mountain Pass facility and recycle our acid and base inputs, thereby reducing our reliance on external sources of reagents.

Optimization of logistics is also central to maintaining a low-cost position relative to other global producers. Our location offers significant transportation advantages that create meaningful cost efficiencies in securing incoming supplies and shipping our final products. Additionally, upon the completion of Stage II, our integrated site will no longer incur the packaging, handling and transportation costs incurred by competitors who lack co-located processing.

Secure customer relationships and develop a leading rare earth marketing and distribution platform.

We plan to build an efficient and effective marketing and sales organization to engage our customers and better capitalize on the benefits of our position as a sole source of rare earths supply in the Western Hemisphere. We intend to invest significant time and resources with the largest North American consumers of rare earth products, with the objective of building strong relationships and identifying opportunities for collaboration.

Further our mission and ability to capture the full rare earth value chain through downstream integration into NdPr magnet production and exploration of other adjacencies.


Beyond re-establishing a supply chain for REO in the Western Hemisphere through the completion of our strategic plans, we expect to recognize compelling longer-term opportunities to further our mission through the capture of additional value by pairing our attractive access to a large domestic rare earth supply with growing industry demands for magnetic materials. We intend to explore long-term vertical integration through further downstream processing of our REO into rare earth metals, alloys and finished magnets. Such integration could take many forms, including joint ventures with customers, brownfield/greenfield development, or strategic transactions or acquisitions. In addition, we intend to explore future opportunities to invest in, develop, and/or sponsor new downstream opportunities for REO, rare earth metals and alloys and rare earth products that contribute to the sustainability revolution of the industrial economy.

We believe our successes to date at Mountain Pass demonstrate a competency in identifying undervalued assets, creating a disciplined, execution-focused strategy, and assembling the management talent to create value. We intend to apply our experience and skill sets across the rare earth value chain, while allocating capital effectively and responsibly, toward opportunities demonstrated to be in the best interest of stockholders and consistent with our mission.

The Mountain Pass Facility

At the Mountain Pass facility, we own an open-pit mine containing one of the world's most fully developed rare earth deposits outside of China. In addition to the mine, the Mountain Pass facility includes crushing, milling, flotation and separation facilities, and associated infrastructure. Some of these facilities are currently in a cold-idle state and must be recommissioned for us to reach our anticipated planned production rates. The Mountain Pass facility is located approximately 50 miles southwest of Las Vegas, Nevada near Mountain Pass, San Bernardino County, California. The Mountain Pass facility directly abuts Interstate 15 and may be accessed by existing hard-surface roads.

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The Mountain Pass facility represents the only developed commercial source of rare earth material in the Western hemisphere. Molybdenum Corporation of America began REE mining operations at the Mountain Pass facility in 1952. REE production at the Mountain Pass facility, as well as milling and separation processes, continued under Unocal Corporation, which purchased Molybdenum Corporation of America in 1977, until 1998. In 1998, all chemical processing operations were

suspended, primarily due to leaks in a wastewater pipeline that transported waste salt water to evaporation ponds on the Ivanpah dry lake bed. Subsequently, in 2005, ChevronTexaco Corporation acquired Unocal Corporation and then, in 2008, Molycorp Minerals, LLC acquired the Mountain Pass facility from Chevron Mining Inc. Operations relating to mining, milling and separations resumed under Molycorp until they were placed into cold-idle status after Molycorp declared bankruptcy in June 2015. In July 2017, we acquired the Mountain Pass facility real property and associated assets from Molycorp. After the acquisition, we engaged the services of approximately 8 contractors who were former employees of Molycorp, covering various disciplines, retained through the bankruptcy to satisfy environmental obligations and support the bankruptcy trustee's efforts to sell the Molycorp assets.

We hold the necessary permits to operate the Mountain Pass facility, including conditional use and minor use permits from San Bernardino County, California, and an associated environmental impact report, all of which were issued in 2004, which allow continued operation of the Mountain Pass facility through 2042. Since restarting operations at the facility in the fourth quarter of 2017, our activities have focused on the milling and flotation processes, leading to production of a bastnaesite concentrate, rich in REE, with our first concentrate sales in the first quarter of 2018. We now consistently achieve world-class results in our flotation facility, as measured by throughput, uptime, REO recovery, and final product grade.

The Mountain Pass facility is located on 2,222 acres of owned property, and we own mining and mill site claims over a further 15,000 acres of adjacent land. Approximately 938 acres of the 2,222 fee simple acres are currently in use (e.g., existing buildings, infrastructure or active disturbance). Portions of the fee lands are subject to mineral reservations in favor of the United States for some properties and the State of California for other properties. The specific minerals reserved on those parcels vary according to the type of land patent or conveyance document through which the land was acquired or conveyed. The lands surrounding the Mountain Pass facility are mostly public lands managed by the Bureau of Land Management and the National Park Service. In addition, we hold 525 unpatented lode and mineral mining claims and mill sites under the provisions of The Mining Law of 1872. SNR acquired our mineral rights at the Mountain Pass facility from Molycorp in 2016 and MPMO acquired our Mountain Pass facility real property and associated assets from Molycorp in 2017. These mining claims and mill sites provide land for mining, ancillary facilities and expansion capacity around the Mountain Pass facility.

The Mountain Pass facility includes an open-pit mine, infrastructure supporting mining and processing operations, overburden stockpiles, a crusher and mill/flotation plant, leach assets, separation plants, product finishing facilities, a tailings filter plant, tailings storage areas and on-site evaporation ponds, as well as laboratory facilities to support research and development activities, offices, maintenance shops, warehouses and support buildings.

The bastnaesite ore body at the Mountain Pass facility has been mined as a principal source of REE over a period of over 60 years. The Mountain Pass REE deposit is located within an uplifted block of Precambrian metamorphic and igneous rocks that are bounded to the south and east by basin-fill deposits in California's Ivanpah Valley. The two main groups of rocks in the Mountain Pass area are Early Proterozoic high-grade metamorphic rocks and Middle Proterozoic ultrapotassic rocks and monazitic carbonatites, which carbonatites are associated with higher levels of REE. The currently defined zone of REE mineralization exhibits a strike length of approximately 2,750 feet in a north-northwest direction and extends for approximately 1,500 feet down dip from surface. The true thickness of the greater than 3.0% REO zone ranges from 15 feet to 250 feet. The percentage of each rare earth material contained in the Mountain Pass facility bastnaesite ore is estimated to be as follows:

Element	Estimated Distribution of TREO Content
Cerium	49.1 %
Lanthanum	33.4 %
Neodymium	11.5 %
Praseodymium	4.3 %
SEG+	1.7 %

Rare Earth Reserves

SEC Guidelines

The SEC has established guidelines contained in Industry Guide No. 7 (the "SEC Industry Guide") to assist registered companies as they estimate ore reserves. These guidelines set forth technical, legal and economic criteria for determining whether our ore reserves can be classified as proven and probable.

"Reserves" are defined by the SEC Industry Guide as that part of a mineral deposit that could be economically and legally extracted or produced at the time of the reserve determination. The SEC Industry Guide divides reserves between "proven (measured) reserves" and "probable (indicated) reserves," which are defined as follows:

"Proven (measured) reserves" are reserves for which:

- quantity is computed from dimensions revealed in outcrops, trenches, workings or drillholes; grade and/or quality are computed from the results of detailed sampling; and
- sites for inspection sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.

"Probable (indicated) reserves" are reserves for which:

- quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced.

The degree of assurance for probable (indicated) reserves, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation.

Methodology

When estimating proven and probable reserves, we rely on interpretations made during current and prior mining campaigns at our Mountain Pass facility, the U.S. Geological Survey and various consulting companies, including SRK, to identify the regional and mine area geology and hydrogeology, regional and local structure, deposit geology, current pit slope stability conditions and REE recoveries.

SRK compiled a drillhole database from prior drilling at the Mountain Pass site that includes a total of 137 drillholes with a cumulative length of 79,453.3 feet. Individual drillholes range in length from 56 feet to 2,012 feet, and averaged 580 feet. The majority of core samples in the deposit area analyzed by SRK range from 50 feet to 250 feet along strike of the ore body and 150 feet to 350 feet down dip. The sample data for proven ore reserves consists of survey data, lithologic data and assay results.

Based on the review of historic sample preparation and analytical procedures, SRK initiated a sample check assay program of 1% of the assay database. The material remaining from previous drilling programs consisted of split core stored at the Mountain Pass facility. SRK examined the existing split core using third-party preparation and analytical laboratories. In SRK's opinion, based on the sample check assay program, our historic data was acceptable for use in preparing their report.

SRK generated a resource estimate as an intermediate step in the estimation of mineral reserves. The mineral resource estimate was based on composites derived from drillhole sample assay results. Grade interpolation was based on the geology, drillhole spacing and geostatistical analysis of the data. The resources were classified by their proximity to the sample locations and number of drillholes. SRK considers the resource model and resource classification to be consistent with Canadian Institute of Mining and Metallurgy guidelines. The distances utilized for resource classification are based on omni-directional variogram results, as follows:

- Measured mineral resources: Blocks in the model estimated using a minimum of two drillholes which are at maximum average distance of 50 ft;
- Indicated mineral resources: Blocks in the model estimated using a minimum of two drillholes which are at maximum average distance of 200 ft; and
- Inferred mineral resources: Blocks in the model that do not meet the criteria for indicated resources but are within a maximum distance of 300 ft from a drillhole.
- Stockpiles resources as of June 30, 2020, are based on detailed grade control, established bulk density and accurate survey data, and have been depleted forward according to a detailed short-term mine plan and blending schedule. Stockpiles are considered to be measured mineral resources.

Where appropriate, estimated resources are constrained by any known or anticipated restrictive geologic features.

Mineral resources were then converted to mineral reserves through the application of appropriate modifying factors such as mining dilution, mining recovery, cut-off grade calculation, pit optimization and costs, as represented in a life of mine production plan. Measured mineral resources, included in the life of mine plan, that met all criteria established for modifying factors were converted to proven reserves. Indicated mineral resources, included in the life of mine plan, that met all criteria

established for modifying factors were converted to probable reserves. Inferred mineral resources were treated as waste for the purposes of estimating the mineral reserves.

Results

As of July 1, 2020, SRK estimates total proven reserves of 0.03 million short tons of REO contained in 0.3 million short tons of ore at Mountain Pass, with an average ore grade of 8.19%, and probable reserves of 1.47 million short tons of REO contained in 20.8 million short tons of ore, with an average ore grade of 7.04%. Our total proven and probable reserves are estimated to have an average ore grade of 7.06%. In each case, these estimates use the estimated economical cutoff of 3.83% TREO.

Based on these estimated reserves and our expected annual production rate of REO upon completion of our Stage II optimization project, our expected mine life is approximately 24 years. Today, we hold total proven and probable reserves of 1.5 million short tons of REO contained in 21.1 million short tons of ore, although we believe there is opportunity to grow the reserve base over time with exploratory drilling.

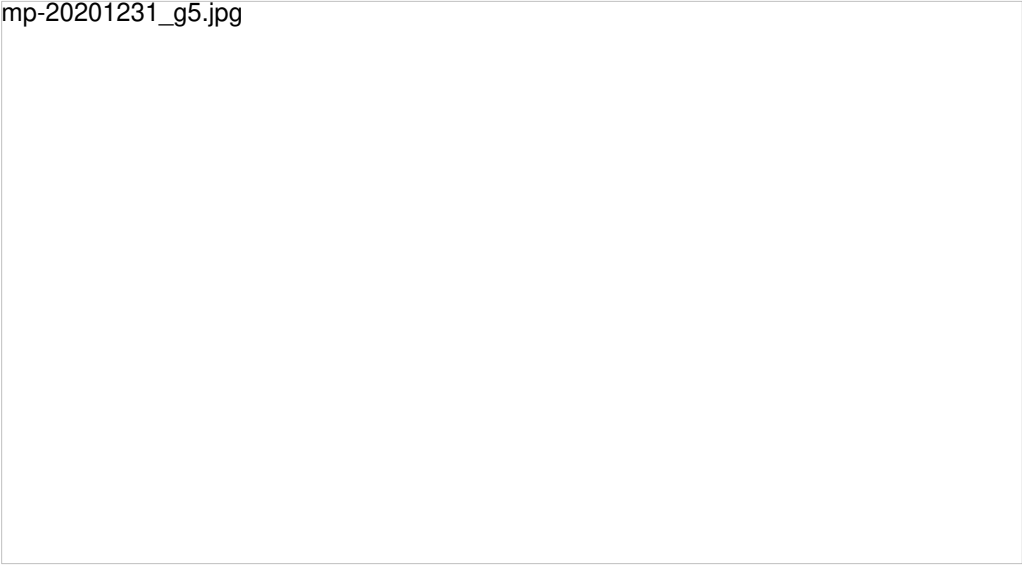
The following table provides information as of July 1, 2020, on the amount of our proven and probable REO reserves.

Category of Reserves	Average Ore Grade (%)	Ore (Short Tons)	Contained REO (Short Tons)
Proven	8.19 %	327,314	26,807
Probable	7.04 %	20,814,014	1,465,308

In making the estimate above, SRK (i) assumed we have a 100% working interest in the Mountain Pass facility; (ii) included only measured and indicated resources (inferred resources are treated as waste); (iii) assumed full mining recovery; (iv) assumed that mine reserves are fully diluted; (v) assumed production of a rare earth concentrate (60% TREO content) for third-party sale; (vi) assumed an average selling price consistent with historical results resulting in an economic cut-off grade of 3.83% REO within the pit design; (vii) assumed a variable metallurgical recovery factor, based on ore grade, derived from historic results; (viii) utilized June 30, 2020, topography; (ix) included ore stockpiles as proven reserves; (x) assumed all mineral within our patented claim area could be extracted, including mineral outside our currently permitted mining boundaries; and (xi) rounded values to the nearest significant number.

Pricing assumptions were derived from a three-year average of historic pricing for rare earth concentrate, as quoted by Asia Metals (TREO greater than or equal to 70%), for the period from June 30, 2017, to June 10, 2020.

mp-20201231_g5.jpg



This pricing data was then adjusted to reflect typical forecast concentrate production from Mountain Pass, including the following:

- prices quoted as renminbi per tonne were converted to U.S. dollar ("US\$") based on exchange rates queried from Bloomberg;
- average sales price per tonne of REO was calculated and then adjusted to the targeted concentrate grade for Mountain Pass;
- 13% Chinese value added tax was deducted from the sales price; and
- 3% sales charge was deducted from the price.

Based on the above, the adjusted benchmark prices to the Company over this period are presented in the table below. Further, during the period from approximately August 2018 through May 2020, imports of rare earth concentrates to China were subject to a tariff. This tariff was originally implemented at a 10% level in the second round of retaliatory tariffs imposed by China as part of the ongoing trade dispute between the United States and China. The tariff was increased to 25% in June 2019. The current status of this import tariff is that it was suspended as of May 19, 2020, for a period of one year. For comparative purposes, we have included a calculation for a 25% tariff, consistent with the tariff from June 2019 through May 2020, in the table below.

Chinese Tariff Assumption	Units ⁽¹⁾	Spot (June 10, 2020)	1-Year Trailing Average	2-Year Trailing Average	3-Year Trailing Average
With Tariff	US\$/dry metric tonne	1,298	1,507	1,577	1,720
Without Tariff	US\$/dry metric tonne	1,731	2,010	2,103	2,294
With Tariff	US\$/dry short ton	1,178	1,368	1,431	1,561
Without Tariff	US\$/dry short ton	1,571	1,823	1,908	2,081

(1) Units pertain to total dry weight of rare earth concentrate

For the purposes of the reserve calculation, SRK selected the three-year trailing average without a deduction for the tariff (i.e., US\$2,081/dry short ton). The selection of the three-year trailing average is consistent with SEC guidance for pricing assumptions for metals and mining reserve calculations under the SEC Industry Guide. SRK did not include a tariff as no tariff is the current status of the market; however, there remains uncertainty as to the outlook of this tariff. If this tariff is re-introduced in 2021, it will result in a lower price for us for any rare earth concentrate sold into China.

SRK checked these calculated pricing assumptions against actual monthly pricing received by the Company. Variability between the actual price and benchmark price was high, ranging from as close as +/-1% to as much as 31% lower than the benchmark and 16% higher than the benchmark. However, comparing the actual prices to benchmark prices for each month, on average, has resulted in us receiving an average price 3% lower than the calculated benchmark price for that month and a median price 1% lower than the calculated benchmark providing support that this formula presents a reasonable estimate for salable concentrate price.

There are numerous uncertainties inherent in estimating quantities and qualities of REO reserves and costs to mine recoverable reserves, including many factors beyond our control. We will regularly evaluate our REO reserve estimates. This may be done in conjunction with additional exploration drilling programs. We also gain information from blast hole cuttings generated during operations. The estimates of REO reserves as to both quantity and quality will also be updated to reflect new drilling or other data received. Estimates of economically recoverable REO reserves, however, necessarily depend upon a number of variable factors and assumptions, all of which may vary considerably from actual results, such as:

- geological, mining and processing conditions and/or effects from prior mining that may not be fully identified by available data or that may differ from experience;
- the strategic approach to mining and processing the deposit may change depending upon market demand, corporate strategy and other prevailing economic conditions;
- assumptions concerning future prices of rare earth products, foreign exchange rates, process recovery rates, transportation costs, operating costs, capital costs, and reclamation costs; and
- assumptions concerning future effects of regulation, including the issuance of required permits and taxes by governmental agencies and foreign government policy relating to import or export of rare earth products.

Actual REO tonnage recovered from identified REO reserves and revenues and expenditures with respect to the same may vary materially from estimates. Further, period-to-period, our future estimates of REO reserves may fluctuate significantly as macroeconomic conditions and our level of understanding with respect to the deposit change. These estimates may not accurately reflect our actual REO reserves. Any inaccuracy in our estimates related to our REO reserves could result in lower than expected revenues and higher than expected costs.

Reserve Estimate

SRK completed a review of the operation including, among other things, the size of the underlying ore body and a life of mine plan for the Mountain Pass mine. The purpose of this review was to complete an estimate of the mineral reserve for the operation utilizing assumptions consistent with current operating conditions (i.e., production and sale of a rare earth concentrate). Below is a summary of some of the information from the reserve estimate.

Key project data

Mine type	Open pit
Process description	Crushing, milling, flotation
Open pit mine life	24 years
Mill throughput	2,455 average short tons per day
Initial capital costs ⁽¹⁾	\$0
Sustaining capital costs	\$149 million

(1) SRK excluded the restart of on-site rare earth separation activities from its estimates and therefore no initial capital expenditure is required given the operation is already actively producing rare earth concentrate for sale.

	Average Ore Grade (%)	Ore (Millions of Short Tons)	Contained REO (Millions of Pounds)
Contained minerals			
Proven	8.19 %	0.327	54
Probable	7.04 %	20.814	2,930

Human Capital Management

We are dedicated to our employees and are committed to safeguarding their health and safety, promoting diversity and inclusion, and developing skills that empower every employee to further our mission. Our diverse workforce is encouraged to use their creativity to drive efficiency, and this value proposition shows—since the formation of MP Materials, we have exceeded a 95% employee retention rate. With our employees at the forefront, we prioritize investments to ensure our team is healthy, driven, and proud to work with us.

We strive to create an ownership culture and work environment that enables us to attract, train, promote, and retain a diverse group of talented employees who together can help us gain a competitive advantage and achieve our operational objectives. We believe our relationship with our employees is good. In addition, we are not subject to any collective bargaining agreements.

Workforce Composition and Benefits

Since relaunching production at Mountain Pass in July 2017, we have increased our full-time employee base from eight contractors in 2017 to 277 employees as of December 31, 2020, of which 208 were field-based employees and 69 were office-based employees. As part of our previously discussed optimization plan, we are committed to creating employment opportunities for U.S. workers and anticipate hiring approximately 200 additional full-time employees as part of Stage II.

We believe employee benefits are an essential component of the Company's competitive total compensation package. These benefits are designed to attract and retain our employees and include medical, dental, and vision insurance, life insurance, optional accidental death and disability insurance, HSA/FSA, a pharmacy program, and our 401(k) plan. According to independent Milliman benchmarks, our employer contribution to employee healthcare costs is between 68% and 102% higher than national and regional averages and between 21% and 52% higher than competitors in our industry, depending on the type of plan and coverage selected by our employees and their families.

Health and Safety

The health, well-being and safety of our employees, suppliers and communities is our top priority. We are committed to maintaining a strong safety culture and to emphasizing the importance of our employees' role in identifying, mitigating and communicating safety risks. In this regard, our policies and operational practices reflect a "speak up" culture where all levels of employees are responsible for safety. We believe that the achievement of superior safety performance is both an important short-term and long-term strategic initiative in managing our operations. Safety is included as a significant component of the annual bonus calculation for executives and non-executives, reinforcing our commitment to safety across our organization.

In February 2020, our senior management team initiated a COVID-19 action and implementation plan to address the critical safety, operational and business risks associated with the pandemic. In March 2020, we launched our work-from-home plan for team members working in our corporate offices and revised critical work practices to promote safe operations for our Mountain Pass-based employees in order to keep as many of our employees working as possible. As part of our efforts with our Mountain Pass team, we staggered shift times and breaks to support appropriate distancing protocols; provided personal protective equipment across our team; and initiated an enhanced disinfection program, which included sanitizer, cleaning supplies and electrostatic sprayers, with a focus on shared locations and equipment. As we maneuvered through the pandemic, we ensured employee take-home pay was maintained along with all existing benefits, despite temporary reductions in scheduled hours for certain job functions. We also worked diligently with our employees to accommodate their requests to use the Families First Coronavirus Relief Act and the Family Medical Leave Act.

Through these efforts, as well as our continued commitment to monitor, assess and implement guidance and best practices recommended by the World Health Organization and Centers for Disease Control, we have been able to maintain the continuity of the essential services that we provide to our customers, while also managing the spread of the virus and promoting the health, well-being and safety of our employees, suppliers and communities.

Diversity and Inclusion

We believe that a diverse and inclusive workforce produces better overall decision-making for employees, which benefits the organization. In addition to the requisite skills, we seek to assemble a workforce that is diverse in terms of race, gender, culture and other factors. Currently, the Company provides training to its employees on diversity and inclusion and expects to implement new initiatives to promote and enhance this aspect of our human capital management in the upcoming year.

Training and Development

We are dedicated to the continual training and development of our employees, especially of those in field operations, to ensure we develop future managers and leaders from within our organization. Our training starts on an employee's first day with on-boarding procedures that focus on safety, responsibility, ethical conduct and inclusive teamwork. In addition, we have an electrical and instrumentation apprenticeship program in which we pay for our employees to attend trade school to increase their opportunity for future advancement.

In addition to on-boarding training, we provide extensive ongoing training and career development focused on:

- compliance with our Code of Business Conduct and Ethics and laws applicable to our business;
- skills and competencies directly related to employee positions; and
- responsibility for personal safety and the safety of fellow employees, others on location and the environment.

Customers

Currently, we sell our rare earth concentrate to Shenghe based on our arrangement under the A&R Offtake Agreement. Shenghe is contractually obligated under the A&R Offtake Agreement to purchase all of our rare earth concentrate product on a "take-or-pay basis" (such that they are obliged to pay for product even if they are unable or unwilling to take delivery). Shenghe sells the rare earth concentrate it acquires under the A&R Offtake Agreement to customers in China, which process and resell these refined products. Over the next few years, we intend to commence our downstream expansion and enter into short- and long-term sales contracts with existing and new customers for separated REO. For certain REE where the market demand is high, we may decide not to enter into letters of intent or contracts prior to commencing production.

Suppliers

We use certain proprietary chemical reagents in our flotation process, which we currently purchase from third-party suppliers. These products are subject to pricing volatility, supply availability and other restrictions and guidelines. In the event of a supply disruption or any other restriction, we believe that alternative reagents could be sourced. The solvent extraction

process is highly reliant upon standard commodity reagents, particularly hydrochloric acid and sodium hydroxide. Supplier matters are discussed in further detail within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report on Form 10-K for the year ended December 31, 2020 (this “Annual Report”).

Patents, Trademarks and Licenses

We rely on a combination of trade secret protection, nondisclosure and licensing agreements, patents and trademarks to establish and protect our proprietary intellectual property rights. We utilize trade secret protection and nondisclosure agreements to protect our proprietary rare earth technology. Intellectual property matters are discussed in further detail within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report.

Competition

The rare earths mining and processing markets are capital intensive and highly competitive. Outside of the six major rare earth producers in China, and those consolidated under their production quotas—there are only two other producers operating at scale, MPMC and Lynas Rare Earths Ltd., which processes its rare earth materials in Malaysia. Our competitors may have greater financial resources, as well as other strategic advantages to maintain, improve and possibly expand their facilities. Additionally, our Chinese competitors have historically been able to produce at relatively low costs due to domestic economic and regulatory factors, including less stringent environmental regulations. Competition is discussed in further detail within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report.

Environmental, Health and Safety Matters

We are subject to numerous and extensive federal, state and local laws, regulations, permits and other legal requirements applicable to the mining and mineral processing industry, including those pertaining to employee health and safety, air emissions, water usage, wastewater and stormwater discharges, air quality standards, greenhouse gas (“GHG”) emissions, waste management, plant and wildlife protection, handling and disposal of hazardous and radioactive substances, remediation of soil and groundwater contamination, land use, reclamation and restoration of properties, the discharge of materials into the environment and groundwater quality and availability. These laws, regulations, permits and legal requirements have had, and will continue to have, a significant effect on our results of operations, earnings and competitive position. Environmental laws and regulation continue to evolve which may require us to meet stricter standards and give rise to greater enforcement, result in increased fines and penalties for non-compliance, and result in a heightened degree of responsibility for companies and their officers, directors and employees. Future laws, regulations, permits or legal requirements, as well as the interpretation or enforcement of existing requirements, may require substantial increases in capital or operating costs to achieve and maintain compliance or otherwise delay, limit or prohibit operations, or other restrictions upon, our current or future operations or result in the imposition of fines and penalties for failure to comply. Complying with these regulations is complicated and requires significant attention and resources. Our employees have a significant amount of experience working with various federal, state and local authorities to address compliance with such laws, regulations and permits; however, we cannot assure you that at all times we have been or will be in compliance with such requirements.

We expect to continue to incur significant sums for ongoing operating environmental expenditures, including salaries, and the costs for monitoring, compliance, remediation, reporting, pollution control equipment and permitting. In addition, we plan to invest significant capital to maintain and upgrade certain infrastructure to ensure we operate in a safe and environmentally sustainable manner.

Permits and Approvals

We hold the necessary permits to operate our facility, including conditional use and minor use permits from San Bernardino County, California, and an associated environmental impact report, all of which were issued in 2004, which allow continued operation of the Mountain Pass facility through 2042. We hold numerous other permits and approvals, including permits to operate from the Lahontan Regional Water Quality Control Board and groundwater treatment. We may be required to obtain new permits, including, without limitation, air permits issued by the Mojave Desert Air Quality Management District and construction and occupancy permits issued by San Bernardino County government, to complete Stage II and our general growth plans. To obtain, maintain and renew these and other environmental permits and perform any required monitoring activities, we may be required to conduct environmental studies and collect and present to governmental authorities data pertaining to the potential impact that our current or future operations may have upon the environment. Permits and approvals are discussed in further detail within [“Part I, Item 1A. Risk Factors”](#) of this Annual Report.

Mine Health and Safety Laws

The Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, and the regulations adopted by the California Occupational Safety and Health Administration, impose stringent health and safety standards on numerous aspects of mining operations, including training of mine personnel, mining procedures, blasting, the equipment used in mining operations and other matters. In 2006, the Mine Safety and Health Administration ("MSHA") promulgated new emergency mine safety rules addressing mine safety equipment, training and emergency reporting requirements. In addition, the Mine Improvement and New Emergency Response Act of 2006 required improvements in mine safety practices, increased criminal penalties and established a maximum civil penalty for non-compliance, and expanded the scope of federal oversight, inspection and enforcement activities. Mine health and safety laws are discussed in further detail within ["Part I, Item 1A. Risk Factors"](#) of this Annual Report.

The Mountain Pass facility maintains a comprehensive safety program. Our employees and contractors are required to complete 24 hours of initial training, as well as attend annual refresher sessions, which cover potential hazards that may be present at the facility. During the training, our commitment to a safe work environment is reinforced through our Stop Work Authority program, which allows any employee or contractor at the facility to stop work that they deem to be unsafe.

Workers' Compensation

We are required to compensate employees for work-related injuries. The states in which we operate consider changes in workers' compensation laws from time-to-time. Our costs will vary based on the number of accidents that occur at the Mountain Pass facility and our costs of addressing these claims. We are insured under various state workers' compensation programs for our operations at the Mountain Pass facility and our offices in Las Vegas, Nevada.

Surface Mining Control and Reclamation

Our San Bernardino County conditional use permit, approved mining plan, reclamation plan and state laws and regulations establish operational, reclamation and closure standards for all aspects of our surface mining operations. Comprehensive environmental protection and reclamation standards must be met during the course of, and upon completion of, mining activities, and our failure to meet such standards may subject us to fines, penalties or other sanctions.

Although we expect the Mountain Pass facility to remain open for significantly longer than the expiration of our 21-year county-approved mine plan, the plan requires that we restore the surface area upon completion of mining. In addition, we must provide financial assurances to secure the performance of these reclamation obligations. To satisfy these financial assurance requirements, we typically obtain surety bonds, which are renewable on an annual basis.

As of December 31, 2020, we have procured \$38.4 million in surety bonds that are issued to federal agencies, State of California agencies and the County of San Bernardino to secure the performance of our reclamation obligations. As of December 31, 2020, we had \$8.7 million in cash collateral posted as cash-in-trust to secure these obligations.

Water Usage and Pollution Control

The federal Clean Water Act ("CWA") and similar state and local laws regulate aspects of surface mining and processing operations by imposing restrictions on the discharge of pollutants, including tailings and other material, into waters of the United States. These requirements are complex and subject to amendments, legal challenges and changes in implementation. Recent court decisions, regulatory actions and proposed legislation have created uncertainty over the jurisdiction and permitting requirements of the CWA. Individual or general permits under Section 404 of the CWA are required if we discharge dredged or fill materials into jurisdictional waters of the United States. In addition, our Lahontan Regional Water Quality Control Board permit establishes standards for wastewater that can be discharged to the on-site evaporation ponds. Regular monitoring by the Lahontan Regional Water Quality Control Board, as well as compliance with reporting requirements and performance standards, are preconditions for the issuance and renewal of our permits. The Company spends significant sums on an annual basis to monitor, pump, sample, and maintain wells to track underground water table contamination and on shipping and analysis of well samples. We also maintain surety bonds with the Lahontan Regional Water Quality Control Board to secure our satisfaction of these as well as potential closure and post-closure activities.

Air Pollution Control

The federal Clean Air Act ("CAA") and similar state and local laws and regulations directly and indirectly regulate our surface mining and processing operations. We currently maintain and operate numerous air pollution control devices required by or necessary to comply with permits from the California Mojave Desert Air Quality Management District. We generally

must obtain permits before we install new sources of air pollution, which may require us to do air quality studies and obtain emission offset credits, which can be costly and time consuming to procure. We expect that our new and expanded facilities and growth plans will require us to secure additional approvals or other permits to allow for our planned growth and to obtain emission credits or offsets for nitrogen oxides, particulate matter (10 microns), sulfur oxide and volatile organic compounds. The increased emissions from these facilities may trigger permitting under Title V of the CAA. Furthermore, although we are currently in compliance with all emissions regulations of the California Air Resources Board, if emissions regulations change we could be required to retrofit or replace off-road, on-road and forklift vehicles to achieve emission standards for nitrogen oxides and particulate matter (10 microns).

Our operations also emit GHGs and we expect to produce emissions exceeding the minimum required for participation in the California cap-and-trade program once the CHP facility is in sustained operation. The amount of credits we will receive and any excess credits we expect to need to purchase are under evaluation. Moreover, the regulation of GHG emissions is in various stages of development and it is possible that both the federal government and California will promulgate additional requirements. Any new GHG regulations could require us to modify existing permits or obtain new permits, implement additional pollution control technology, curtail operations or increase significantly our operating costs. Any further regulation of GHG emissions could adversely affect our business, financial condition, reputation, operating performance and product demand. However, such regulations might also present opportunities for our industry to the extent they increase the demand for rare earth products used in clean-technology applications, such as EVs, HEVs and wind power turbines.

The Mountain Pass facility consumes significant amounts of energy and, accordingly, is subject to fluctuations in energy costs. These costs may increase significantly in part as an indirect result of GHG and other air emission regulations applicable to third-party power suppliers.

Hazardous and Radioactive Substances and Wastes

The Comprehensive Environmental, Response, Compensation and Liability Act ("CERCLA") and analogous state laws impose liability, without regard to fault or the legality of the original conduct, on certain classes of persons that are considered to have contributed to the actual or threatened release of a "hazardous substance" into the environment. In addition, these laws impose liability for the costs to investigate and remediate contamination or natural resource damage on a joint and several basis on persons who are or were responsible for such releases of hazardous substances, which can include waste generators, site owners, lessees and others. Accordingly, we may be subject to liability under CERCLA and similar state laws for properties that we currently own, lease or operate or that we or our predecessors previously owned, leased or operated, and sites to which our predecessors or we sent waste materials.

Rare earth-bearing minerals often contain naturally occurring radioactive substances, such as thorium and uranium. The mining and processing of REE involves the handling and disposal of such substances, which requires us to comply with extensive safety, health and environmental laws, regulations and permits regarding radioactive substances. We may incur significant costs, obligations or liabilities with respect to such requirements, and any future changes in such requirements (or the interpretation or enforcement thereof) may have a material adverse effect on our business or results of operations. One such permit we currently maintain for our operations is a Radioactive Materials License issued and administered by the California Department of Health Services Radiologic Health Branch. The license applies to the use of sealed radioactive sources used for gauging volumes of materials, as well as certain other activities. A failure to maintain or renew this license could materially adversely affect our business or results of operations.

We generate, manage and dispose of solid and hazardous waste associated with processing and remediation activities. In addition, the demolition of structures in connection with facility expansion and modernization will result in the generation of additional waste. We must comply with a variety of environmental laws, rules and regulations concerning the management, storage and disposal of such wastes. Moreover, in connection with our modernization and expansion effort at the Mountain Pass facility, we will incur additional costs to handle, store and dispose of such wastes.

Endangered Species Act and Mine Reclamation Plan

The federal Endangered Species Act and counterpart state legislation protect species threatened with possible extinction. Such laws and related regulations may have the effect of prohibiting or delaying us from obtaining mining permits and may impose restrictions on pipeline or road building and other mining or construction activities in areas containing the affected species or their habitats. Before we disturb any new land, we conduct a biological survey of the area to determine if nesting birds, protected vegetation, or protected animals are or have been present.

To date, none of the surveys have identified the presence of any species with conservation status or protected habitats on or near our ore reserve. The Golden Eagle is protected in the surrounding area, though we have not had any nesting on the site.

One of our offsite freshwater fields and related infrastructure is located within a critical desert tortoise habitat. We support this habitat by providing fresh water to support the Ivanpah Desert Tortoise Research Facility which breeds and releases tortoises into the wild. Our planned development activities are not anticipated to encroach on the habitat of any threatened or endangered species. In particular, our Stage II optimization plan will not affect any undisturbed land. Our offsite freshwater wells are also within certain protected flora and fauna habitats.

Under the Mining Conditional Use Permit and Mine Reclamation Plan granted by San Bernardino County for the Mountain Pass facility, we stockpile topsoil and vegetation to be used for revegetation as part of the approved reclamation plan. Revegetation will be supplemented by broadcast seeding with native and locally adapted seed and planting of established seedlings and/or shrubs. As part of the approved reclamation plan, which may be updated from time to time, we are complying with the County Development Code regarding the removal or salvage of Joshua Tree, Yucca, and various Cacti. We currently have no conservation status vegetation on or near the ore reserve.

Use of Explosives

In connection with our surface mining activities, we engage contractors who store explosives and blasting agents offsite prior to use on-site, which are subject to regulation, including under the federal Safe Explosives Act and the MSHA. Violation of these regulatory requirements may result in fines, imprisonment, revocation of permits and/or seizure or forfeiture of explosive materials.

Other Environmental Laws

We are required to comply with numerous other federal, state and local environmental laws and regulations in addition to those previously discussed. These additional laws include, for example, the California Environmental Quality Act, the National Environmental Policy Act, the Emergency Planning and Community Right-to-Know Act and the California Accidental Release Prevention Program.

Available Information

Our website is located at www.mpmaterials.com. Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, earnings releases, and financial statements are made available free of charge on the investor relations section of our website as soon as reasonably practicable after we electronically file such materials with, or furnish such materials to, the SEC. Our Code of Business Conduct and Ethics is also available on the investor relations section of our website. The information contained on our website, or accessible from our website, is not incorporated into, and should not be considered part of, this Form 10-K or any other documents we file with, or furnish to, the SEC. The SEC maintains an internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. Annual reports, quarterly reports, current reports, amendments to those reports, earnings releases, financial statements and our various corporate governance documents, including our Code of Business Conduct and Ethics, are also available free of charge upon written request.

Investors and others should note that we may announce material financial information to our investors using our investor relations website (<https://investors.mpmaterials.com/overview>), SEC filings, press releases, public conference calls and webcasts. We use these channels as well as social media to communicate with our stockholders and the public about our company, our services and other issues. It is possible that the information we post on social media could be deemed to be material information. Therefore, we encourage investors, the media, and others interested in our company to review the information we post on the social media channels listed on our investor relations website.

ITEM 1A. RISK FACTORS

Investing in our securities involves a high degree of risk. Investors should carefully consider the risks described below and all of the other information we file with the Securities and Exchange Commission (the “SEC”) before deciding to invest in our common stock. If any of the events or developments described below occur, our business, prospects, financial condition, or results of operations could be materially or adversely affected. As a result, the market price of our common stock could decline, and investors could lose all or part of their investment. The risks and uncertainties described below are not the only risks and uncertainties that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. 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 [“Cautionary Note Regarding Forward-Looking Statements”](#) above.

Risk Factor Summary

Our business is subject to a number of risks and uncertainties, including those highlighted immediately following this summary. Some of these risks are:

- The production of rare earth products is a capital-intensive business and the completion of our Stage II optimization project at the Mountain Pass facility will require the commitment of substantial resources; unanticipated costs or delays associated with our ongoing Stage II optimization project could have a material adverse effect on our financial condition or results of operations.
 - The actual amount of capital required for the Stage II optimization project at the Mountain Pass facility may vary materially from our current estimates, in which case we may need to raise additional funds, which could delay completion and have a material adverse effect on our business and financial condition.
 - Our continued growth depends on our ability to complete the Stage II optimization project at the Mountain Pass facility, which is our only rare earth mining and processing facility.
 - We currently rely on Shenghe to purchase all of our rare earth concentrate product on a “take-or-pay” basis and sell that product to end users in China; we cannot assure you that they will continue to honor their contractual obligations to purchase and sell our products, or that they will make optimum efforts to market and sell our products.
 - We may not be able to convert current commercial discussions with customers for the sale of REO products into contracts, which may have a material adverse effect on our financial position and results of operations.
 - Changes in China’s political environment and policies, including changes in export policy or the interpretation of China’s export policy and policy on rare earths production or the import of rare earth feedstock may adversely affect our financial condition and results of operations.
 - We may be adversely affected by fluctuations in demand for, and prices of, rare earth minerals and products.
 - The COVID-19 pandemic could have an adverse effect on our business.
 - We operate in a highly competitive industry.
 - Industry consolidation may result in increased competition, which could result in a reduction in revenue.
 - The success of our business will depend, in part, on the growth of existing and emerging uses for rare earth products.
 - An increase in the global supply of rare earth products, dumping, predatory pricing and other tactics designed to inhibit our further downstream integration by our competitors may materially adversely affect our profitability.
 - Our operations are subject to extensive and costly environmental requirements; and current and future laws, regulations and permits impose significant costs, liabilities or obligations or could limit or prevent our ability to continue our current operations or to undertake new operations.
 - We may be unable to obtain, maintain, exchange or renew permits necessary for the development or operation of the Mountain Pass facility, which could have a material adverse effect on our business, results of operations and financial condition.
 - We are subject to the Federal Mine Safety and Health Act of 1977 and the California Occupational Safety and Health Program, and regulations adopted pursuant thereto, which impose stringent health and safety standards on numerous aspects of our operations.
 - Our operations may affect the environment or cause exposure to hazardous substances, any of which could result in material costs, obligations or liabilities.
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Risks Relating to our Business and Industry

The production of rare earth products is a capital-intensive business and the completion of our Stage II optimization project at the Mountain Pass facility will require the commitment of substantial resources. Unanticipated costs or delays associated with our ongoing Stage II optimization project could have a material adverse effect on our financial condition or results of operations.

The completion of our Stage II optimization project at the Mountain Pass facility will require the commitment of substantial resources and capital expenditures. We now expect to incur a total of approximately \$220 million in capital costs to complete the project and reach anticipated production rates for the separation of REO by the end of 2022. Our estimated expenses may increase as consultants, personnel and equipment associated with our efforts are added. The progress of our Stage II optimization project, the amounts and timing of expenditures and the success of this project will depend in part on the following: (a) the operational resumption of a portion of the existing process, plant and equipment, certain of which is currently in a cold-idle state, and the further enhancement and development of such existing process, plant and equipment; (b) our ability to timely procure new equipment or repair existing equipment, certain of which may involve long lead-times; (c) maintaining, and procuring, as required, applicable federal, state and local permits; (d) the results of consultants' analysis and recommendations; (e) negotiating contracts for equipment, earthwork, construction, equipment installation, labor and completing infrastructure and construction work; (f) impact of planned and unplanned shut-downs and delays in our production; (g) impact of stoppages or delays on construction projects; (h) disputes with contractors or other third parties; (i) negotiating sales and offtake contracts for our planned production; (j) the execution of any joint venture agreements or similar arrangements with strategic partners; (k) the impact of COVID-19 or similar pandemics on our business, our strategic partners' or suppliers' businesses, logistics or the global economy; and (l) other factors, many of which are beyond our control.

Most of these activities require significant lead times and must be advanced concurrently. Unanticipated costs or delays associated with our Stage II optimization project could have a material adverse effect on our financial condition or results of operations and could require us to seek additional capital, which may not be available on commercially acceptable terms or at all.

The actual amount of capital required for the Stage II optimization project at the Mountain Pass facility may vary materially from our current estimates, in which case we may need to raise additional funds, which could delay completion and have a material adverse effect on our business and financial condition.

The anticipated funding required to complete the Stage II optimization project at the Mountain Pass facility is based on certain estimates and assumptions we have made about the additional equipment, labor, permits and other factors required to complete the project. If any of these estimates or assumptions change, the actual timing and amount of capital required to complete the Stage II optimization project may vary materially from what we anticipate. Additional funds may be required in the event of significant departures from our current plans, unforeseen delays, cost overruns, engineering design changes or other unanticipated events or expenses. There can be no assurance that additional financing will be available to us, or, if available, that it can be obtained on a timely basis and on commercially acceptable terms.

Our continued growth depends on our ability to complete the Stage II optimization project at the Mountain Pass facility, which is our only rare earth mining and processing facility.

Our only rare earth mining and processing facility at this time is the Mountain Pass facility. Our continued growth is based on successfully completing the Stage II optimization project and reaching anticipated production rates for the separation of REE in accordance with our expected timeframe. The deterioration or destruction of any part of the Mountain Pass facility, or a delay in the procurement of any necessary equipment, may significantly hinder our ability to reach or maintain anticipated production rates within the expected time frame or at all. If we are unsuccessful in reaching and maintaining expected production rates for REO at the Mountain Pass facility, including by failing to reach anticipated throughput, recoveries, uptimes, yields, or any combination thereof, within expected time frames or at all, we may not be able to build a sustainable or profitable business as currently expected or at all.

We currently rely on Shenghe to purchase all of our rare earth concentrate product on a "take-or-pay" basis and sell that product to end users in China. We cannot assure you that they will continue to honor their contractual obligations to purchase and sell our products, or that they will make optimum efforts to market and sell our products.

Our current ability to generate revenues from the sale of our rare earth concentrate is reliant on our arrangement under our A&R Offtake Agreement with Shenghe. While Shenghe is obligated under the A&R Offtake Agreement to purchase all of the rare earth concentrate product on a "take-or-pay" basis (such that they are obliged to pay for product even if they are unable or

unwilling to take delivery), we cannot guarantee that Shenghe will continue to purchase all of the products that it is contractually bound to purchase.

Additionally, Shenghe sells the rare earth concentrate it acquires under our A&R Offtake Agreement to customers in China who separate and extract the individual rare earth elements from our rare earth concentrate. We do not control the amount and timing of resources that Shenghe will dedicate to their sales efforts, which could impact the duration of the A&R Offtake Agreement.

Under the A&R Offtake Agreement, Shenghe is entitled to retain their gross profits from the sales of our products, and those gross profits are credited against the prepayment funding provided by Shenghe. When Shenghe has recouped all of its prepayment funding, the A&R Offtake Agreement will terminate. Any decline or delay in Shenghe's sales efforts will prolong the duration of the A&R Offtake Agreement. As of December 31, 2020, the balance of the prepayment funding was \$71.8 million. See ["Our Relationship with Shenghe" within Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."](#)

The loss of business from our arrangement with Shenghe would materially and adversely affect our results of operations until such time, if ever, as we are able to replace the lost business. To the extent we remain reliant on Shenghe, we are also subject to the risks faced by Shenghe where such risks impede their ability to stay in business, make timely payments to us, perform their obligations to us, or sell our products to their end-customers.

We may not be able to convert current commercial discussions with customers for the sale of REO products into contracts, which may have a material adverse effect on our financial position and results of operations.

Currently, we sell all of our rare earth concentrate product to Shenghe on a take-or-pay basis under our A&R Offtake Agreement. That A&R Offtake Agreement will terminate after Shenghe has recovered the full amount of the funding it has provided to us, which funding effectively constitutes a prepayment for products to be supplied by us under the A&R Offtake Agreement. After the A&R Offtake Agreement terminates, we will no longer have a contractual agreement requiring Shenghe to purchase rare earth products from the Mountain Pass facility. See ["Our Relationship with Shenghe" within Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."](#)

We are actively working on our Stage II optimization project, which includes installing a concentrate drying and roasting circuit, reconfiguring and restarting the product leaching circuit, recommissioning separation and extraction circuits, improving management capability, and enlarging product finishing capacity to re-establish the full capability to produce separated, individual rare earth products at Mountain Pass. Upon reaching anticipated production rates for REO and other planned downstream products at the Mountain Pass facility, we expect to produce approximately 20,000 metric tons of separated REO per year, excluding cerium concentrate, consisting of approximately 6,075 metric tons of NdPr per year. Prior to reaching expected production rates for REO and other planned downstream products at the Mountain Pass facility, we intend to enter into short- and long-term sales contracts with new customers. However, there can be no assurance that these customers will enter into sales contracts for REO. The failure to enter into such contracts may have a material adverse effect on our financial position and results of operations.

Changes in China's political environment and policies, including changes in export policy or the interpretation of China's export policy and policy on rare earths production or the import of rare earth feedstock may adversely affect our financial condition and results of operations.

Because all of our rare earth concentrate product is currently sold to Shenghe under our A&R Offtake Agreement, which subsequently sells the product to customers in China, the possibility of adverse changes in trade or political relations with China, political instability in China, increases in labor or shipping costs, the occurrence of prolonged adverse weather conditions or a natural disaster such as an earthquake or typhoon, or the continuation of COVID-19 or the outbreak of another global pandemic disease could severely interfere with the sale and/or shipment of our products and would have a material adverse effect on our operations.

Our sales may be adversely affected by the current and future political environment in China and the policies of the China Central Government. China's government has exercised and continues to exercise substantial control over nearly all sectors of the Chinese economy through regulation and state ownership. Our ability to ship products to China may be adversely affected by changes in Chinese laws and regulations, including those relating to taxation, import and export tariffs, raw materials, environmental regulations, land use rights, property and other matters. Under its current leadership, China's government has been pursuing economic reform policies that encourage private economic activity and greater economic decentralization. There is no assurance, however, that China's government will continue to pursue these policies, or that it will not significantly alter these policies from time to time without notice. The United States government has called for substantial changes to foreign

trade policy with China and has raised (as well as has proposed to further raise in the future), tariffs on several Chinese goods. China has retaliated with increased tariffs on United States goods. Any further changes in United States trade policy could trigger retaliatory actions by affected countries, including China, resulting in trade wars. Any changes in United States and China relations, including through changes in policies by the Chinese government could adversely affect our financial condition and results of operations, including: changes in laws, regulations or the interpretation thereof, confiscatory taxation, governmental royalties, restrictions on currency conversion, imports or sources of supplies, or the expropriation or nationalization of private enterprises.

In addition, there may be circumstances where we may have to incur premium freight charges to expedite the delivery of our products to customers or as a result of being required to ship to alternative ports due to local Chinese government regulations or delays at the ports that we typically utilize. If we incur a significant amount of freight charges, our gross profit will be negatively affected if we are unable to pass on those charges to customers. In addition, we may be adversely affected by shipments to such alternative ports, including that these shipments may be delayed for any reason or as they are affected by domestic or international laws and regulations, taxation, import and export tariffs, environmental regulations, customs and other matters.

We may be adversely affected by fluctuations in demand for, and prices of, rare earth minerals and products.

Because our revenue is, and will for the foreseeable future be, from the sale of rare earth products, changes in demand for, and the market price of, and taxes and other tariffs and fees imposed upon rare earth minerals and products could significantly affect our profitability. Our financial results may be significantly adversely affected by declines in the prices of rare earth minerals and products. Rare earth minerals and product prices may fluctuate and are affected by numerous factors beyond our control such as interest rates, exchange rates, taxes, inflation or deflation, fluctuation in the relative value of the U.S. dollar against foreign currencies on the world market, shipping and other transportation and logistics costs, global and regional supply and demand for rare earth minerals and products, potential industry trends, such as competitor consolidation or other integration methodologies, and the political and economic conditions of countries that produce and procure rare earth minerals and products. Furthermore, supply side factors have a significant influence on price volatility for rare earth minerals. Supply of rare earth minerals is dominated by Chinese producers. The Chinese Central Government regulates production via quotas and environmental standards, and, to a lesser extent, regulation of imports, and has and may continue to change such production quotas, environmental standards, and import regulations. Over the past few years, there has been significant restructuring of the Chinese market in line with Chinese Central Government policy; however, periods of over supply or speculative trading of rare earth minerals can lead to significant fluctuations in the market price of rare earth minerals.

A prolonged or significant economic contraction in the United States or worldwide could put downward pressure on market prices of rare earth minerals and products. Protracted periods of low prices for rare earth minerals and products could significantly reduce revenues and the availability of required development funds in the future. This could cause substantial reductions to, or a suspension of, REO production operations, impair asset values and reduce our proven and probable rare earth ore reserves.

Demand for our products may be impacted by demand for downstream products incorporating rare earths, including hybrid and electric vehicles, wind turbines, robotics, medical equipment, military equipment and other high-growth, advanced motion technologies, as well as demand in the general automotive and electronic industries. Lack of growth in these markets may adversely affect the demand for our products.

In contrast, extended periods of high commodity prices may create economic dislocations that may be destabilizing to rare earth minerals supply and demand and ultimately to the broader markets. Periods of high rare earth mineral market prices generally are beneficial to our financial performance. However, strong rare earth mineral prices also create economic pressure to identify or create alternate technologies that ultimately could depress future long-term demand for rare earth minerals and products, and at the same time may incentivize development of competing mining properties.

The COVID-19 pandemic could have an adverse effect on our business.

The current COVID-19 pandemic is significantly impacting the national and global economy and commodity and financial markets. The full extent and impact of the COVID-19 pandemic is unknown and to date has included, among other things, extreme volatility in financial markets, a slowdown in economic activity, extreme volatility in commodity prices and a global recession. The response to COVID-19 has led to significant restrictions on travel, temporary business closures, quarantines, global stock market volatility and a general reduction in consumer activity and sentiment, globally. The outbreak has affected our business and operations and may continue to do so, by among others, increasing the cost of operations and reducing employee productivity, limiting travel of our personnel, adversely affecting the health and welfare of our personnel, or preventing or delaying important third party service providers from performing normal and contracted activities crucial to the

operation of our business. In addition, in the fourth quarter of 2020, we began to see shipping delays and container shortages from congestion at port facilities, which has been exacerbated by COVID-19. Congestion at U.S. and international ports could affect the capacity at ports to receive deliveries of products or the loading of shipments onto vessels.

The outbreak has resulted in significant governmental measures being implemented to control the spread of the virus, including, among others, restrictions on manufacturing and the movement of employees in many regions of China, the U.S. and other countries. These disruptions could continue to impact the rare earth market, particularly the supply chain in China and the U.S., which in turn could impact our business or business prospects as under our A&R Offtake Agreement with Shenghe, we rely on Shenghe to purchase all of our rare earth concentrate products and sell those products to customers in China. See [“Our Relationship with Shenghe” within Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”](#)

Decisions beyond our control, such as canceled events, restricted travel, barriers to entry, temporary closures or limited availability of county, state or federal government agencies, or other factors may affect our ability to perform mining operations, corporate activities, and other actions that would normally be accomplished without such limitations. The extent to which the COVID-19 outbreak will impact our operations, our business and the economy is highly uncertain. We cannot predict the impact of the COVID-19 pandemic, but it may materially and adversely affect our business, financial condition and results of operations.

We operate in a highly competitive industry.

The rare earth mining and processing markets are capital intensive and competitive. Production of rare earths is dominated by our Chinese competitors. These competitors may have greater financial resources, as well as other strategic advantages to operate, maintain, improve and possibly expand their facilities. Additionally, our Chinese competitors have historically been able to produce at relatively low costs due to domestic economic and regulatory factors, including less stringent environmental and governmental regulations and lower labor and benefit costs. For instance, many of our Chinese competitors dispose of the waste material from beneficiation in wet tailings dams, which are significantly less expensive to operate and potentially more harmful to the environment than the dry tailings method that we employ. Even upon successful completion of our Stage II optimization project at the Mountain Pass facility, if we are not able to achieve our anticipated costs of production, then any strategic advantages that our competitors may have over us, including, without limitation, lower labor, compliance and production costs, could have a material adverse effect on our business.

Industry consolidation may result in increased competition, which could result in a reduction in revenue.

Some of our competitors have made, or may make, acquisitions or enter into partnerships or other strategic relationships to achieve competitive advantages. In addition, new entrants not currently considered competitors may enter our market through acquisitions, partnerships or strategic relationships. We expect these trends to continue as demand for rare earth materials increases. Industry consolidation may result in competitors with more compelling product offerings or greater pricing flexibility than we have, or business practices that make it more difficult for us to compete effectively, including on the basis of price, sales, technology or supply. These competitive pressures could have a material adverse effect on our business.

The success of our business will depend, in part, on the growth of existing and emerging uses for rare earth products.

The success of our business will depend, in part, on the growth of existing and emerging uses for rare earth products. Our strategy is to develop rare earth products, including NdPr, which are used in critical existing and emerging technologies, such as hybrid and electric vehicles, wind turbines, robotics, medical equipment, military equipment and other high-growth, advanced motion technologies. The success of our business depends on the continued growth of these end markets and successfully commercializing rare earth products, including NdPr, in such markets. If the market for these critical existing and emerging technologies does not grow as we expect, grows more slowly than we expect, or if the demand for our products in these markets decreases, then our business, prospects, financial condition and operating results could be harmed. In addition, the market for these technologies, particularly in the automotive industry, tends to be cyclical, which exposes us to increased volatility, and it is uncertain as to how such macroeconomic factors will impact our business. Any unexpected costs or delays in the commercialization of NdPr or any of our other expected products, or less than expected demand for the critical existing and emerging technologies that use rare earth products, could have a material adverse effect on our financial condition or results of operations.

An increase in the global supply of rare earth products, dumping, predatory pricing and other tactics designed to inhibit our further downstream integration by our competitors may materially adversely affect our profitability.

The pricing and demand for rare earth products is affected by a number of factors beyond our control, including growth of economic development and the global supply and demand for REO products. According to CRU, China accounted for approximately 79% of global REO production in 2020. China also dominates the manufacture of metals and NdFeB magnets from rare earths, capabilities that are not currently present in the United States, and the Chinese Central Government regulates production via quotas and environmental standards. Over the past few years, there has been significant restructuring of the Chinese markets in line with China Central Government policy. Assuming that we reach anticipated production rates for REO and other planned downstream products and subsequently become fully operational and integrated, the increased competition may lead our competitors to engage in predatory pricing or other behaviors designed to inhibit our further downstream integration. Any increase in the amount of rare earth products exported from other nations and increased competition may result in price reductions, reduced margins or loss of potential market share, any of which could materially adversely affect our profitability. As a result of these factors, we may not be able to compete effectively against current and future competitors.

A power shortage at the Mountain Pass facility could temporarily delay mining and processing operations and increase costs, which may materially adversely impact our business.

Our facilities currently rely on electricity provided by a single utility company in Southern California. Instability in electrical supply could cause sporadic outages and brownouts. Any such outages or brownouts could have a negative impact on our production. The natural gas-powered CHP plant that was installed at the Mountain Pass facility to produce electricity and steam and to minimize or eliminate reliance on the regional electric power grid is currently idle. Subject to any required permit approvals and other required certifications, we plan to restart the CHP facility in 2021, and we have incorporated the assumed cost savings associated with recommissioning the CHP facility in the estimation of our reserves, however there can be no assurance that we will be successful in these efforts. If the CHP plant remains idle or is unable to provide sufficient energy for the operation of our Mountain Pass facility, we will incur higher operating costs, remain subject to the effects of occasional power outages and brownouts and could experience temporary interruptions of mining and processing operations. We then may be unable to fill customer orders in a timely manner and may be subject to higher power costs at the Mountain Pass facility. As a result, our revenue could be adversely impacted and our relationships with our customers could suffer, adversely impacting our ability to generate future revenue and otherwise perform our contractual obligations. In addition, if power to the Mountain Pass facility is disrupted during certain phases of our REO extraction process, we may incur significant expenses that may adversely affect our business.

Increasing costs or limited access to raw materials may adversely affect our profitability.

We will use significant amounts of chemical reagents to process REO. Even though the Mountain Pass facility includes a chlor-alkali facility, we intend to purchase chemical reagents on the open market for some period of time. Prior to potentially commencing production of these chemicals on-site, during any disruption to such production or for chemicals we cannot produce, we will need to purchase chemical reagents in the open market and as a result, we could be subject to significant volatility in the cost and availability of these chemicals and to restrictions on chemical use imposed by environmental regulations or law. We may not be able to pass increased prices for these chemicals through to our customers in the form of price increases. A significant increase in the price, or decrease in the availability of these chemicals before we potentially restart our production of them on-site, or restrictions imposed by environmental regulations or law on chemical use, could materially increase our operating costs and adversely affect our profit margins and production volumes.

Fluctuations in transportation costs or disruptions in transportation services or damage or loss during transport could decrease our competitiveness or impair our ability to supply rare earth minerals or products to our customers, which could adversely affect our results of operations.

We currently transport our rare earth concentrate product to China to be purchased by Shenghe under our A&R Offtake Agreement. In the future, we will need to transport our products to our future customers wherever they may be located. Finding affordable and dependable transportation is important because it allows us to supply customers around the world. Labor disputes, embargoes, government restrictions, work stoppages, pandemics, derailments, damage or loss events, adverse weather conditions, other environmental events, seasonal changes in supply and demand for transportation, changes to rail or ocean freight systems, domestic or international laws or regulations, permits or other approvals, or other events and activities beyond our control could interrupt or limit available transport services, which could result in customer dissatisfaction and loss of sales and could materially adversely affect our results of operations. Such events and conditions, including flooding and other natural disasters, could also impact the facilities of our customers which could have a material adverse effect on our ability to deliver our product to our customers.

We will need to process REO to exacting specifications in order to provide future customers with a consistently high quality product. An inability to perfect the mineral extraction processes to meet individual customer specifications may have a material adverse effect on our financial condition or results of operations.

Upon the completion of our Stage II optimization project, we expect to be able to process REO to meet customer needs and specifications and to provide customers with a consistently high quality product and to meet ever-stricter purity requirements. An inability to perfect the mineral extraction processes to meet individual customer specifications may have a material adverse effect on our financial condition or results of operations. In addition, customer needs and specifications may change with time. Any delay or failure in developing processes to meet changing customer needs and specifications may have a material adverse effect on our financial condition or results of operations.

Diminished access to water may adversely affect our operations.

Processing of REO requires significant amounts of water. The technology we currently use to beneficiate REO is a sustainable process with dry tailings that limits the need for fresh water usage. Although we believe our current process is sustainable, any disruption in the process could prompt the need for significant access to fresh water. Additionally, once we complete our Stage II optimization project, we will require an even greater amount of water for our power plant, separation and extraction operations, including additional fresh water. We maintain and operate one water supply well field for potable and process water and own land and wells in another water supply well field that we may be able to operate in the future. Any disruption to our current process or decrease in available water supply may have a material adverse effect on our operations and our financial condition or results of operations.

Uncertainty in our estimates of REO reserves could result in lower than expected revenues and higher than expected costs.

We base our REO reserve estimates on engineering, economic and geological data assembled and analyzed by outside firms, which are reviewed by our engineers and geologists. Ore reserve estimates, however, are necessarily imprecise and depend to some extent on professional interpretation, including statistical inferences drawn from available drilling data, which may prove unreliable. There are numerous uncertainties inherent in estimating quantities and qualities of REO reserves and costs to mine recoverable reserves, including many factors beyond our control. Estimates of economically recoverable REO reserves necessarily depend upon a number of variable factors and assumptions, all of which may vary considerably from actual results, such as:

- geological, mining and processing conditions and/or effects from prior mining that may not be fully identified by available data or that may differ from experience;
- changes to the strategic approach to mining and processing the deposit depending upon market demand, corporate strategy and other prevailing economic conditions;
- assumptions concerning future prices of rare earth products, foreign exchange rates, process recovery rates, transportation costs, operating costs, capital costs and reclamation costs; and
- assumptions concerning future effects of regulation, including the issuance of required permits and taxes by governmental agencies and foreign government policies relating to the import or export of rare earth products.

Uncertainty in our estimates related to our REO reserves could result in lower than expected revenues and higher than expected costs or a shortened estimated life for the mine at the Mountain Pass facility. Fluctuations in factors out of our control such as changes in future product pricing, foreign government policies on the import or export of rare earths and foreign exchange rates can have a significant impact on the estimates of reserves and can result in significant changes in the quantum of our reserves period-to-period.

Period-to-period conversion of probable REO reserves to proven ore reserves may result in increases or decreases to the total reported amount of ore reserves. Conversion rates are affected by a number of factors, including geological variability, applicable mining methods and changes in safe mining practices, economic considerations and new regulatory requirements.

We may not successfully establish or maintain collaborative, joint venture and licensing arrangements, which could adversely affect our ability to vertically integrate into further downstream processing of our REO.

A key element of our long-term business strategy is to vertically integrate into further downstream processing of our REO into rare earth metal alloys and finished magnets for clean-energy, high-growth, advanced motion technologies. To implement this vertical integration strategy successfully, we may need to license certain intellectual property related to these downstream processes and/or develop the ability, or collaborate with, purchase, or form a joint venture with, an existing magnet producer for

the final production of finished rare earth magnets. In addition, other licenses that may be necessary for some of these downstream processing steps have not yet been obtained. Any failure to establish or maintain collaborative, joint venture or licensing arrangements for the production of downstream products on favorable terms could adversely affect our business prospects, financial condition or ability to develop and commercialize downstream rare earth products.

Our ability to reach our full revenue potential is dependent on our ability to fully fund, commence and complete our Stage III downstream expansion strategy.

Our ability to reach our full revenue potential will be dependent on our ability to fully fund and commence Stage III and complete our downstream expansion strategy to process our REO into rare earth metal alloys and finished magnets. We expect to commence Stage III downstream expansion in 2025 or thereafter, however our proposed timeline is based on certain estimates and assumptions we have made about our business over the next few years, including the successful completion of our Stage II optimization project. If any of these estimates or assumptions prove to be wrong or we are unable to complete our Stage II optimization project, it may significantly hinder our ability to commence Stage III downstream expansion within the expected time frame or at all. If we are unsuccessful in being able to fully fund, commence and complete our Stage III downstream expansion strategy, within the expected time frame or at all, we will not be able to take advantage of our downstream value creation opportunity and thus we may not be able to reach our full revenue potential.

Work stoppages or similar difficulties could significantly disrupt our operations, reduce our revenues and materially adversely affect our results of operations.

A work stoppage by any of the third-parties providing services in connection with the construction projects at the Mountain Pass facility could significantly delay our Stage II optimization project and disrupt our operations, reduce our revenues and materially adversely affect our results of operations.

A shortage of skilled technicians and engineers may further increase operating costs, which may materially adversely affect our results of operations.

Efficient production of rare earth products using modern techniques and equipment requires skilled technicians and engineers. In addition, our optimization and eventual downstream efforts will significantly increase the number of skilled operators, maintenance technicians, engineers and other personnel required to successfully operate our business. In the event that we are unable to hire, train and retain the necessary number of skilled technicians, engineers and other personnel there could be an adverse impact on our labor costs and our ability to reach anticipated production levels in a timely manner, which could have a material adverse effect on our results of operations.

We depend on key personnel for the success of our business.

We depend on the services of our senior management team and other key personnel. The loss of the services of any member of senior management or a key employee could have an adverse effect on our business. We may not be able to locate, attract or employ on acceptable terms qualified replacements for senior management or other key employees if their services are no longer available.

Because of the dangers involved in the mining of minerals and the manufacture of mineral products, there is a risk that we may incur liability or damages as we conduct our business.

The mining of minerals and the manufacture of mineral products involves numerous hazards, including: (i) unusual and unexpected rock formations affecting ore or wall rock characteristics; (ii) ground or slope failures (including open pits, waste rock and tailings disposal areas); (iii) environmental hazards; (iv) industrial accidents; (v) bodily injury or harm; (vi) processing problems; (vii) periodic interruptions due to inclement or hazardous weather conditions or other acts of God; and (viii) mechanical equipment failure and facility performance problems.

Although we maintain insurance to address certain risks involved in our business, such as coverage for property damage, business interruption, natural disasters, terrorism and workers compensation, there can be no assurance that we will be able to maintain insurance to cover these risks at economically feasible premiums. Additionally, we cannot be certain that all claims we may make under our insurance policies will be deemed to be within the scope of, or fully covered by, our policies. We might also become subject to liability for environmental issues, damage or other hazards that may be uninsurable or for which we may elect not to insure because of premium costs or commercial impracticality. These policies contain limits of coverage and exclusions that are typical of such policies generally. The payment of such premiums, or the assumption of such liabilities, may have a material adverse effect on our financial position and results of operations.

Our facilities or operations could be adversely affected by events outside of our control, such as natural disasters, wars or health epidemics or pandemics.

We may be impacted by natural disasters, wars, health epidemics or pandemics or other events outside of our control. For example, our Mountain Pass facility is located in San Bernardino County, California near active faults, which could lead to nearby earthquakes. If major disasters such as earthquakes, wild fires, health epidemics or pandemics, floods or other events occur, or our information system or communications network breaks down or operates improperly, our ability to continue operations at the Mountain Pass facility may be seriously damaged, or we may have to stop or delay production and shipment of our products. We may incur expenses or delays relating to such events outside of our control, which could have a material adverse impact on our business, operating results and financial condition.

We are dependent upon information technology systems, which are subject to cyber threats, disruption, damage and failure.

We depend upon information technology systems in the conduct of our operations. Our information technology systems are subject to disruption, damage or failure from a variety of sources, including, without limitation, computer viruses, security breaches, cyber-attacks, natural disasters and defects in design. Cybersecurity incidents, in particular, are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information or the corruption of data. Various measures have been implemented to manage our risks related to information technology systems and network disruptions. However, given the unpredictability of the timing, nature and scope of information technology disruptions, we could potentially be subject to downtimes, operational delays, the compromising of confidential or otherwise protected information, destruction or corruption of data, security breaches, other manipulation or improper use of our systems and networks or financial losses from remedial actions, any of which could have a material adverse effect on our business, operating results and financial condition.

We may not be able to adequately protect our intellectual property rights. If we fail to adequately enforce or defend our intellectual property rights, our business may be harmed.

Much of the technology used in the markets in which we compete is protected by patents and trade secrets, and our commercial success will depend in significant part on our ability to obtain and maintain patent and trade secret protection for our products and methods. To compete in these markets, we rely on a combination of trade secret protection, nondisclosure and licensing agreements, patents and trademarks to establish and protect our proprietary intellectual property rights, including our proprietary rare earth production processes that are not patented. Our intellectual property rights may be challenged or infringed upon by third parties or we may be unable to maintain, renew or enter into new license agreements with third-party owners of intellectual property on reasonable terms. In addition, our intellectual property may be subject to infringement or other unauthorized use outside of the United States. In such case, our ability to protect our intellectual property rights by legal recourse or otherwise may be limited, particularly in countries where laws or enforcement practices are undeveloped or do not recognize or protect intellectual property rights to the same extent as the United States. Unauthorized use of our intellectual property rights or our inability to preserve existing intellectual property rights could adversely impact our competitive position and results of operations. The loss of our patents could reduce the value of the related products. In addition, the cost to litigate infringements of our patents, or the cost to defend ourselves against patent infringement actions by others, could be substantial and, if incurred, could materially affect our business and financial condition.

Proprietary trade secrets and unpatented know-how are also very important to our business. We rely on trade secrets to protect certain aspects of our technology, especially where we do not believe that patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our confidential information to competitors, and confidentiality agreements may not provide an adequate remedy in the event of unauthorized disclosure of confidential or proprietary information. Enforcing a claim that a third party illegally obtained and is using our trade secrets is expensive and time consuming, and the outcome is unpredictable. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how. Failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We may not be able to obtain additional patents and the legal protection afforded by any additional patents may not adequately protect our rights or permit us to gain or keep any competitive advantage.

Our ability to obtain additional patents is uncertain and the legal protection afforded by these patents is limited and may not adequately protect our rights or permit us to gain or keep any competitive advantage. In addition, the specific content required of patents and patent applications that are necessary to support and interpret patent claims is highly uncertain due to the

complex nature of the relevant legal, scientific and factual issues. Changes in either patent laws or interpretations of patent laws in the United States or elsewhere may diminish the value of our intellectual property or narrow the scope of our patent protection. Even if patents are issued regarding our products and processes, our competitors may challenge the validity of those patents. Patents also will not protect our products and processes if competitors devise ways of making products without infringing our patents.

If we infringe, or are accused of infringing, the intellectual property rights of third parties, it may increase our costs or prevent us from being able to commercialize new products.

There is a risk that we may infringe, or may be accused of infringing, the proprietary rights of third parties under patents and pending patent applications belonging to third parties that may exist in the United States and elsewhere in the world that relate to our rare earth products and processes. Because the patent application process can take several years to complete, there may be currently pending applications that may later result in issued patents that cover our products and processes. In addition, our products and processes may infringe existing patents.

Defending ourselves against third-party claims, including litigation in particular, would be costly and time consuming and would divert management's attention from our business, which could lead to delays in our Stage II optimization project or Stage III downstream expansion. If third parties are successful in their claims, we might have to pay substantial damages or take other actions that are adverse to our business. As a result of intellectual property infringement claims, or to avoid potential claims, we might:

- be prohibited from, or delayed in, selling or licensing some of our products or using some of our processes unless the patent holder licenses the patent to us, which it is not required to do;
- be required to pay substantial royalties or grant a cross license to our patents to another patent holder; or
- be required to redesign a product or process so it does not infringe a third party's patent, which may not be possible or could require substantial funds and time.

In addition, we could be subject to claims that our employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of third parties.

If we are unable to resolve claims that may be brought against us by third parties related to their intellectual property rights on terms acceptable to us, we may be precluded from offering some of our products or using some of our processes.

Our ability to generate revenue will be diminished if we are unable to compete with substitutions for our rare earth materials.

Technology changes rapidly in the industries and end markets that utilize our materials. If these industries introduce new technologies or products that no longer require the rare earth materials we produce to function or suitable substitutes become available, it could result in a decline in demand for our rare earth materials. If the demand for our rare earth materials decreases, it will have a material adverse effect on our business and the results of our operations and financial condition.

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

Production in our Mountain Pass facility is dependent upon the efforts of our employees. Although none of our employees are currently subject to any collective bargaining arrangements, our employees could, in the future, choose to be represented as a collective unit, which may result in labor disputes, work stoppages or other disruptions in our production efforts that could adversely affect us.

Risks Related to Environmental Regulation

Our operations are subject to extensive and costly environmental requirements; and current and future laws, regulations and permits impose significant costs, liabilities or obligations or could limit or prevent our ability to continue our current operations or to undertake new operations.

We are subject to numerous and detailed, federal, state and local environmental laws, certifications, regulations and permits, including, without limitation, those pertaining to employee health and safety, air emissions, water usage, wastewater and stormwater discharges, air quality standards, GHG, emissions, water usage and pollution, waste management, plant and wildlife protection, handling and disposal of radioactive substances, remediation of soil and groundwater contamination, land use, reclamation and restoration of properties, the discharge of materials into the environment, procurement of certain materials used in our operations and groundwater quality and availability. These requirements may result in significant costs, liabilities

and obligations, impose conditions that are difficult to achieve or otherwise delay, limit or prohibit current or planned operations. Consequently, the modernization and expansion of the Mountain Pass facility may be delayed, limited or prevented and current operations may be curtailed. Failure to comply with these laws, regulations and permits, including as they evolve, may result in the assessment of administrative, civil and criminal penalties, the issuance of injunctions to limit or cease operations, fines, or the suspension or revocation of permits and other sanctions. Pursuant to such requirements, we may also be subject to third-party claims, including for damages to property or injury to persons arising from our operations. Moreover, environmental legislation and regulation are evolving in a manner which may require stricter standards and enforcement, increased fines and penalties for non-compliance, cessation of operations, more stringent environmental assessments, and a heightened degree of responsibility for companies and their officers, directors and employees. Any changes in these laws, regulations or permits (or the interpretation or enforcement thereof) or any sanctions, damages, costs, obligations or liabilities in respect of these matters could have a material adverse effect on our business and/or the results of our operations and financial condition.

Examples of some of the current U.S. federal laws that may affect our business and planned operations include, but are not limited to, the following:

- CERCLA, and comparable state laws, impose strict, joint and several liability on current and former owners and operators of sites and on persons who disposed of or arranged for the disposal of hazardous substances found at such sites, regardless of the lawfulness of the original activities that led to the contamination. Moreover, current owners or operators of sites can be held liable for contamination caused by others, including former owners or operators, even if the current owners or operators did not contribute to the contamination. CERCLA authorizes the United States Environmental Protection Agency ("EPA") and, in some cases, third parties to take actions in response to threats to public health or the environment and to seek to recover from the potentially responsible parties the costs of such actions. It is not uncommon for the government to file claims requiring cleanup actions, demands for reimbursement for government-incurred cleanup costs, or natural resource damages, or for neighboring landowners and other third parties to file claims for personal injury and property damage allegedly caused by hazardous substances released into the environment.
 - The Resource Conservation and Recovery Act ("RCRA"), and comparable state statutes, govern the disposal of solid waste and hazardous waste and authorize the imposition of substantial fines and penalties for noncompliance, as well as requirements for corrective actions. Although certain mining, beneficiation, and mineral processing wastes currently are exempt from regulation as hazardous wastes under RCRA, EPA has limited the disposal options for certain wastes designated as hazardous wastes under RCRA. It is possible that certain wastes generated by our operations may in the future be designated as hazardous wastes and may therefore become subject to more rigorous and costly management, disposal and clean-up requirements.
 - The Nuclear Regulatory Commission ("NRC"), pursuant to its authority under the Atomic Energy Act of 1954, as amended (the "Atomic Energy Act"), oversees the regulatory framework governing the control of radioactive materials, including beneficiation and processing of REE that contain radioactive source materials such as uranium and thorium. The NRC and its counterpart in California, Department of Public Health—Radiologic Health Branch ("RadHealth"), issue licenses that govern the handling of source material involving certain concentrations of radioactive material. Our operations, including waste generation, may be subject to NRC and RadHealth regulations in order to receive title to, possess, use, transfer, deliver or export source and byproduct materials.
 - The CAA and comparable state statutes restrict the emission of air pollutants from many stationary and mobile sources, including mining, beneficiation, and processing activities. Our operations may produce air emissions, including fugitive dust and other air pollutants, from stationary equipment, storage facilities, and the use of mobile sources, such as trucks and heavy construction equipment, that are subject to review, monitoring, control requirements and emission limits under the CAA and state air quality laws. New sources, equipment or process enhancements, including with respect to the growth of our operations and Stage II optimization project, may require additional permits, and existing sources may be required to incur capital costs to remain in compliance. In addition, permitting rules and issued permits or licenses may impose conditions or other limitations on production levels or result in additional capital or other expenditures to comply with such rules or permits. In certain circumstances, private citizens may also sue sources of pollutants for alleged violations of the CAA.
 - The CWA and comparable state statutes impose restrictions and controls on the discharge of pollutants into waters of the United States. The CWA can regulate storm water from mining facilities and requires a storm water discharge permit for certain activities. Such a permit requires the regulated facility to monitor and sample storm water run-off from its operations. The CWA and regulations implemented thereunder also prohibit discharges of dredged and fill material in wetlands and other waters of the United States unless authorized by an appropriately issued permit. CWA regulations and controls generally have become more stringent over time, and it is possible
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that additional restrictions will be imposed in the future. Violation of the CWA and similar state regulatory programs can result in civil, criminal and administrative penalties for unauthorized discharges of hazardous substances and other pollutants and substantial liability for the costs of removal or remediation associated with such discharges. The CWA and comparable state statutes provide for civil, criminal and administrative penalties for unauthorized discharges of pollutants and impose liability on parties responsible for those discharges for the costs of cleaning up any environmental damage caused by the releases and for natural resource damages resulting from the releases.

- The Safe Drinking Water Act ("SDWA") and comparable state statutes, the Underground Injection Control ("UIC") program, and related state-administered programs regulate the drilling and operation of subsurface injection wells. Violation of these regulations and/or contamination of groundwater by mining related activities may result in fines, penalties, and/or remediation costs, among other sanctions and liabilities under the SDWA and state laws.
- The Endangered Species Act ("ESA") and comparable state statutes regulate activities that could have an adverse effect on threatened and endangered species, including the habitat and ecosystems upon which they depend. Compliance with ESA requirements can significantly delay, limit, or even prevent the development of projects, including the development of mining claims, and can also result in increased development costs. In addition, the ESA authorizes both civil and criminal penalties for ESA violations and authorizes citizen suits against any person alleged to be in violation of the ESA.
- The National Environmental Policy Act ("NEPA") and comparable state statutes require agencies to integrate environmental considerations into their decision-making processes by evaluating the environmental impacts of their proposed actions, including issuance of permits to mining facilities, and assessing alternatives to those actions. If a proposed action could significantly affect the environment, the agency must prepare a detailed statement known as an Environmental Impact Statement ("EIS"). EPA, other agencies, and any interested third parties will review and comment on the scoping of the EIS and the adequacy of and findings set forth in the draft and final EIS. This process can cause delays in issuance of required permits or result in changes to a project to mitigate its potential environmental impacts, which can in turn impact the economic feasibility of a proposed project.

We may be unable to obtain, maintain, exchange or renew permits necessary for the development or operation of the Mountain Pass facility, which could have a material adverse effect on our business, results of operations and financial condition.

We must obtain, including by way of exchanging or amending currently held permits, a number of additional permits that impose strict conditions, requirements and obligations relating to various environmental and health and safety matters in connection with our current and future operations, including the modernization and expansion of the Mountain Pass facility. To obtain certain permits, we may be required to conduct environmental studies and collect and present data to governmental authorities pertaining to the potential impact of our current and future operations upon the environment and to take steps to avoid or mitigate those impacts, particularly impacts to desert flora and fauna. The permitting rules, and interpretation thereof, are complex and have generally become more stringent over time. Furthermore, the permitting processes and development of supporting materials, including any environmental impact statements, may be costly and time-consuming. These permit processes and requirements, and the interpretation and enforcement thereof, change frequently, and any such future changes could materially adversely affect our mining operations and results of operations. In some cases, the public (including environmental interest groups) has the right to comment upon, and submit objections to, permit applications and environmental impact statements prepared in connection therewith, and otherwise participate in the permitting process, including challenging the issuance of permits, validity of environmental impact statements and determinations and performance of permitted activities. Accordingly, permits required for our operations, including the modernization and expansion of the Mountain Pass facility, may not be issued, maintained, exchanged, amended or renewed in a timely fashion or at all, or may be issued or renewed upon conditions that restrict our ability to conduct our operations. Any such failure to obtain, maintain, exchange, amend or renew permits, or other permitting delays or conditions, including in connection with any environmental impact analyses, could have a material adverse effect on our results of operations and financial condition or otherwise impose significant restrictions on our ability to conduct our business.

We are subject to the Federal Mine Safety and Health Act of 1977 and the California Occupational Safety and Health Program, and regulations adopted pursuant thereto, which impose stringent health and safety standards on numerous aspects of our operations.

Our operations at the Mountain Pass facility are subject to the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, and the regulations adopted by the California Occupational

Safety and Health Administration, which impose stringent health and safety standards on numerous aspects of mineral extraction and processing operations, including training of mine personnel, mining procedures, blasting, the equipment used in mining operations and other matters. Mine safety has been the subject of increasing scrutiny resulting in federal and state legislatures and other regulatory authorities imposing more stringent regulatory requirements on mining operations. In 2006, MSHA promulgated new emergency mine safety rules addressing mine safety equipment, training and emergency reporting requirements. In addition, the Mine Improvement and New Emergency Response Act of 2006 significantly amended the Federal Mine Safety and Health Act of 1977 by requiring improvements in mine safety practices, increasing criminal penalties and establishing a maximum civil penalty for non-compliance, and expanding the scope of federal oversight, inspection and enforcement activities. The MSHA continues to interpret and implement various provisions of the Mine Improvement and New Emergency Response Act of 2006. These and other mine safety rules could potentially result in or require significant expenditures, as well as additional safety training and planning, enhanced safety equipment, more frequent mine inspections, stricter enforcement practices and enhanced reporting, among other, requirements. It is not possible to predict the full effect that new or proposed statutes, regulations and policies will have on our operating costs, but any expansion of existing regulations, or making such regulations more stringent may have a negative impact on our business. Furthermore, our failure to comply with such standards, or changes in such standards or the interpretation or enforcement thereof, could have a material adverse effect on our business, financial condition or otherwise impose significant restrictions on our ability to conduct mining operations.

Our operations may affect the environment or cause exposure to hazardous substances, any of which could result in material costs, obligations or liabilities.

Our operations currently use, and in the past have used, hazardous materials and generate, and in the past have generated, hazardous and naturally occurring radioactive wastes. While we maintain policies and other standard operational procedures as they relate to the handling and disposing of chemicals or other substances by personnel in supporting our operations, risks, including bodily injury and property damage, persist. The Mountain Pass facility has also been used for mining and related purposes since 1952, and contamination is known to exist around the facility. We may be subject to claims under environmental laws, regulations and permits for toxic torts, natural resource damages and other liabilities, as well as for the investigation and remediation of soil, surface water, groundwater and other environmental media. The Mountain Pass facility is subject to an order issued by the Lahontan Regional Water Quality Control Board pursuant to which we and previous owners have conducted various investigatory and remedial actions, primarily related to contamination emanating from certain on-site impoundments during prior periods of operation, including groundwater monitoring, extraction and treatment. We are still in the process of delineating the extent of groundwater contamination at and around the facility and cannot assure you that we will not incur material costs relating to the remediation of such contamination. Also, prior to our acquisition of the Mountain Pass facility, leaks in a wastewater pipeline from the Mountain Pass facility to offsite evaporation ponds on the Ivanpah dry lake bed caused contamination. Pursuant to a settlement agreement, that contamination has been remediated by Chevron Mining Inc., which retained ownership of the ponds and the pipeline and provided a full indemnity to the previous buyer of the Mountain Pass Mine for liabilities related to the Ivanpah wastewater pipeline. A small portion of the pipeline extends onto the Mountain Pass facility. In addition to claims arising out of our current or former properties, such claims may arise in connection with contaminated third-party sites at which we have disposed of waste. As a matter of law, and despite any contractual indemnity or allocation arrangements or acquisition agreements to the contrary, our liability for these claims may be joint and several, so that we may be held responsible for more than our share of any contamination, or even for the entire share. These and similar unforeseen impacts that our operations may have on the environment, as well as human exposure to hazardous or radioactive materials or wastes associated with our operations, could have a material adverse effect on our business, reputation, results of operation and financial condition.

Our inability to acquire, maintain or renew financial assurances related to the reclamation and restoration of mining property could have a material adverse effect on our business and results of operations.

Under the California Surface Mining and Reclamation Act we are generally obligated to restore property after it has been mined in accordance with regulatory standards and our approved mining plan. Additionally, we are required under various federal, state and local laws to maintain financial assurances, such as surety bonds, to secure such obligations. The failure to acquire, maintain or renew such assurances, as required by federal, state and local laws, could subject us to fines and penalties as well as the revocation of our mining permits. Such failure could result from a variety of factors, including:

- the lack of availability, higher expense or unreasonable terms of such financial assurances;
 - the ability of current and future financial assurance counterparties to increase required collateral; and
 - the exercise by third-party financial assurance counterparties of any rights to refuse to renew the financial assurance instruments.
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It has become increasingly difficult for mining companies to secure new or renew existing surety bonds without posting partial or full collateral to secure the bonds. In addition, the cost to obtain surety bonds has increased while the market terms of the surety bonds generally have become less favorable. It is possible that surety bond issuers may refuse to provide or renew bonds or may demand additional collateral upon the issuance or renewal of the bonds. Our inability to acquire or failure to maintain or renew such bonds or other financial assurances could have a material adverse effect on our business, financial condition and results of operations.

If the assumptions underlying our reclamation plan and mine closure obligations are inaccurate, we could be required to expend materially greater amounts than anticipated to reclaim mined property, which could materially and adversely affect our business, results of operations and financial condition.

Federal, state and local laws and regulations establish reclamation and closure standards applicable to our surface mining and other operations as well. Estimates of our total reclamation and mine closing liabilities are based upon our reclamation plan, third-party expert reports, current applicable laws and regulations, certain permit terms, our engineering expertise related to these requirements and review by regulatory agencies. Any change in the underlying assumptions, permissions, or other variation between the estimated liabilities and actual costs could materially and adversely affect our business, results of operations and financial condition.

Regulations and evolving legislation governing issues involving climate change could result in increased operating costs, which could have a material adverse effect on our business.

A number of international, federal, state or local governments or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impact of climate change. For example, the EPA issued a notice of finding and determination that emissions of carbon dioxide, methane, and other GHGs present an endangerment to human health and the environment, which allowed EPA to begin regulating emissions of GHGs under existing provisions of the CAA. Legislation and increased regulation regarding climate change could impose significant costs on us and our suppliers, including costs related to increased energy requirements, capital equipment, environmental monitoring, permitting, reporting and other costs to comply with such regulations. Any adopted future climate change regulations could also negatively impact our ability to compete with companies situated in areas and countries not subject to such limitations. Given the political significance, regulatory or compliance obligations and uncertainty around the impact of climate change and how it should be addressed, we cannot predict how legislation and regulation will affect our financial condition, operating performance and ability to compete. Furthermore, even without such regulation, increased awareness and any adverse publicity in the global marketplace about potential impacts on climate change by us or other companies in our industry could harm our reputation. The potential physical impacts of climate change on our operations are highly uncertain, and would be particular to the geographic circumstances in areas in which we operate. These impacts may adversely impact the cost, production and financial performance of our operations.

Risks Related to Our Common Stock

Our stock price has recently experienced, and may in the future experience, volatility, and you could lose all or part of your investment as a result.

The trading price of our Common Stock has recently experienced, and may continue to experience, significant volatility, which could cause you to lose all or part of your investment. Moreover, the stock market recently has experienced extreme volatility, in part as a result of strong and atypical retail investor interest in particular stocks. In many cases, this volatility often has been unrelated or disproportionate to the operating performance of particular companies. You may not be able to resell your shares at an attractive price due to a number of factors such as those listed in "Risks Relating to our Business and Industry" above and the following: (a) results of operations that vary from the expectations of securities analysts and investors; (b) changes in expectations as to the Company's future financial performance, including financial estimates and investment recommendations by securities analysts and investors; (c) declines in the market prices of stocks generally; (d) strategic actions by the Company or its competitors; (e) announcements by the Company or its competitors of significant contracts, acquisitions, joint ventures, other strategic relationships or capital commitments; (f) any significant change in the Company's management; (g) changes in general economic or market conditions or trends in the Company's industry or markets; (h) changes in business or regulatory conditions, including new laws or regulations or new interpretations of existing laws or regulations applicable to the Company's business; (i) future sales of the Company's common stock or other securities; (j) investor perceptions or the investment opportunity associated with the Company's common stock relative to other investment alternatives; (k) the public's response to press releases or other public announcements by the Company or third parties, including the Company's filings with the SEC; (l) litigation involving the Company, the Company's industry, or both, or investigations by regulators into the Company's operations or those of our competitors; (m) guidance, if any, that the Company provides to the public, any changes

in this guidance or the Company's failure to meet this guidance; (n) the development and sustainability of an active trading market for the Company's stock; (o) actions by institutional or activist stockholders; (p) changes in accounting standards, policies, guidelines, interpretations or principles; and (q) other events or factors, including those resulting from natural disasters, war, acts of terrorism, health pandemics or responses to these events.

These broad market and industry fluctuations may adversely affect the market price of our Common Stock, regardless of the Company's actual operating performance. In addition, price volatility may be greater if the public float and trading volume of our Common Stock is low.

In the past, following periods of market volatility, stockholders have instituted securities class action litigation. If the Company was involved in securities litigation, it could have a substantial cost and divert resources and the attention of executive management from the Company's business regardless of the outcome of such litigation.

Because there are no current plans to pay cash dividends on our Common Stock for the foreseeable future, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.

We intend to retain future earnings, if any, for future operations, expansion and debt repayment and there are no current plans to pay any cash dividends for the foreseeable future. The declaration, amount and payment of any future dividends on shares of our Common Stock will be at the sole discretion of our Board. Our Board may take into account general and economic conditions, our financial condition and results of operations, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax, and regulatory restrictions, implications on the payment of dividends to our stockholders or by our subsidiaries to us and such other factors as our Board may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any future indebtedness we incur. As a result, you may not receive any return on an investment in our Common Stock unless you sell our Common Stock for a price greater than that which you paid for it.

If securities analysts do not publish research or reports about our business or if they downgrade our stock or our sector, our stock price and trading volume could decline.

The trading market for our Common Stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. We will not control these analysts. In addition, some financial analysts may have limited expertise with our model and operations. Furthermore, if one or more of the analysts who do cover us downgrade our stock or industry, or the stock of any of our competitors, or publish inaccurate or unfavorable research about our business, the price of our stock could decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

Future sales, or the perception of future sales, by us or our stockholders in the public market could cause the market price for our Common Stock to decline.

The sale of shares of Common Stock in the public market, or the perception that such sales could occur, could harm the prevailing market price of shares of Common Stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

Certain holders of Common Stock and the holders of the Founder Shares (as defined in ["Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations"](#)) prior to FVAC's initial public offering ("IPO") (the "Insiders") have each agreed, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of Common Stock during the period from the date of the closing of the Business Combination continuing through the date (i) in the case of Common Stock of the New Holders other than the JHL Holders (as each such term is defined in the Amended and Restated Registration Rights Agreement), 180 days after November 17, 2020, or (ii) in the case of Common Stock of the Insiders and of the JHL Holders, the earliest of (a) one year after November 17, 2020; (b) if the last reported sale price of the Common Stock equals or exceeds \$12.00 per share (as adjusted) for any 20 trading days within any 30 trading day period commencing at 150 days after the Business Combination, and (c) following the completion of the Business Combination, such future date on which completes a liquidation, merger, stock exchange, reorganization or other similar transaction that results in all of the Company's public stockholders having the right to exchange their shares of Common Stock for cash, securities or other property.

Upon the expiration or waiver of the lock-ups described above, shares held by the Insiders and certain other stockholders of the Company will be eligible for resale, subject to volume, manner of sale and other limitations under Rule 144.

As restrictions on resale end, the market price of the Common Stock could drop significantly if the holders of these shares sell them or are perceived by the market as intending to sell them. These factors could also make it more difficult for us to raise additional funds through future offerings of Common Stock or other securities.

In addition, Common Stock reserved for future issuance under the MP Materials Corp. 2020 Stock Incentive Plan (the “2020 Incentive Plan”) will become eligible for sale in the public market once those shares are issued, subject to provisions relating to various vesting agreements, lock-up agreements and, in some cases, limitations on volume and manner of sale applicable to affiliates under Rule 144, as applicable. As of December 31, 2020, the aggregate number of shares of Common Stock reserved for future issuance under the 2020 Incentive Plan is 7,238,034. The compensation committee of our Board of Directors may determine the exact number of shares to be reserved for future issuance under the 2020 Incentive Plan or other equity incentive plans at its discretion. We filed a registration statement on Form S-8 under the Securities Act to register shares of Common Stock or securities convertible into or exchangeable for shares of Common Stock issued pursuant to our 2020 Incentive Plan, which automatically became effective. Accordingly, shares registered under such registration statement are available for sale in the open market.

In the future, we may also issue our securities in connection with investments or acquisitions. The amount of shares of Common Stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of Common Stock. Any issuance of additional securities in connection with investments or acquisitions may result in additional dilution to our stockholders.

Anti-takeover provisions in our organizational documents could delay or prevent a change of control.

Certain provisions of our Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws may have an anti-takeover effect and may delay, defer or prevent a merger, acquisition, tender offer, takeover attempt or other change of control transaction that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by our stockholders.

These provisions provide for, among other things: (i) no cumulative voting with respect to the election of our Board; (ii) the division of the our Board into three classes, with only one class of directors being elected in each year; (iii) the ability of our Board to issue one or more series of preferred stock; (iv) advance notice for nominations of directors by stockholders and for stockholders to include matters to be considered at our annual meetings; (v) certain limitations on convening special stockholder meetings; (vi) limiting the ability of stockholders to act by written consent; (vii) the ability of our Board to fill a vacancy created by the expansion of the board of directors or the resignation, death, or removal of a director in certain circumstances; (viii) providing that our Board is expressly authorized to make, alter or repeal our bylaws; (ix) the removal of directors only for cause; and (x) that certain provisions may be amended only by the affirmative vote of at least 66.7% of the shares of Common Stock entitled to vote generally in the election of our directors.

These anti-takeover provisions could make it more difficult for a third party to acquire us, even if the third-party’s offer may be considered beneficial by many of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing and to cause us to take other corporate actions you desire.

Our Second Amended and Restated Certificate of Incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

The Second Amended and Restated Certificate of Incorporation provides that, subject to limited exceptions, any (i) derivative action or proceeding brought on behalf of the Company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer, stockholder or employee to the Company or its stockholders, (iii) action asserting a claim arising pursuant to any provision of the DGCL or our Second Amended and Restated Certificate of Incorporation or our Amended and Restated Bylaws or (iv) action asserting a claim governed by the internal affairs doctrine shall, to the fullest extent permitted by law, be exclusively brought in the Court of Chancery of the State of Delaware or, if such court does not have subject matter jurisdiction thereof, another state or federal court located within the State of Delaware. The Second Amended and Restated Certificate of Incorporation also provides that, to the fullest extent permitted by law, the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the United States federal securities laws, including the Securities Act and the Exchange Act. Additionally, investors cannot waive our compliance with federal securities laws and the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our certificate of incorporation described above. This choice of forum provision may limit a stockholder’s ability to bring a

claim in a judicial forum that it finds favorable for disputes with the Company or its directors, officers or other employees, which may discourage such lawsuits against the Company and its directors, officers and employees. There is uncertainty as to whether a court would enforce such an exclusive forum provision with respect to claims under the Securities Act. If a court were to find these provisions of our Second Amended and Restated Certificate of Incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Affiliates of JHL Capital Group have significant influence over the Company and their interests may conflict with the Company's or yours in the future.

Affiliates of JHL Capital Group beneficially own approximately 28% of our outstanding Common Stock. For so long as JHL Capital Group continues to beneficially own a significant percentage of our Common Stock, JHL Capital Group will still be able to significantly influence the composition of the Company's board of directors and the approval of actions requiring stockholder approval. Accordingly, for such period of time, JHL Capital Group will have significant influence with respect to the Company's management, business plans and policies, including the appointment and removal of the Company's officers. In particular, for so long as JHL Capital Group continues to beneficially own a significant percentage of our Common Stock, JHL Capital Group may be able to cause or prevent a change of control of the Company or a change in the composition of the Company's board of directors and could preclude any unsolicited acquisition of the Company. The concentration of ownership could deprive you of an opportunity to receive a premium for your shares of common stock as part of a sale of the Company and ultimately might affect the market price of our Common Stock. In addition, JHL Capital Group may have an interest in pursuing acquisitions, divestitures and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to you. For example, JHL Capital Group could cause the Company to make acquisitions that increase the Company's indebtedness or cause the Company to sell revenue-generating assets. In certain circumstances, acquisitions of debt at a discount by purchasers that are related to a debtor can give rise to cancellation of indebtedness income to such debtor for U.S. federal income tax purposes. So long as JHL Capital Group continues to beneficially own a significant amount of our combined voting power, even if such amount is less than 50%, JHL Capital Group will continue to be able to significantly influence our decisions or block certain decisions by vetoing or withholding approvals.

Notwithstanding JHL Capital Group's significant influence over the Company, the Company may from time to time enter into transactions with JHL Capital Group and its affiliates, or enter into transactions in which JHL Capital Group or its affiliates otherwise have a direct or indirect material interest. In connection with the Business Combination, we adopted a formal written policy for the review and approval of transactions with related persons.

Certain of the Company's stockholders, including JHL Capital Group and the QVT Holders, and any affiliates thereof, may engage in business activities which compete with the Company or otherwise conflict with the Company's interests.

JHL Capital Group and the QVT Holders (as defined in the Amended and Restated Registration Rights Agreement), and any affiliates thereof, are in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with the Company.

The JOBS Act permits "emerging growth companies" like us to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies.

The Company qualifies as an "emerging growth company" ("EGC") as defined in Section 2(a)(19) of the Securities Act, as modified by the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). As such, the Company will take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not EGCs for as long as it continues to be an EGC, including (i) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, (ii) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements and (iii) reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements. As a result, the Company's stockholders may not have access to certain information they deem important. The Company will remain an EGC until the earliest of (i) the last day of the fiscal year (a) following May 4, 2024, the fifth anniversary of the closing of FVAC's IPO, (b) in which the Company has total annual gross revenue of at least \$1.07 billion or (c) in which the Company is deemed to be a large accelerated filer, which means the market value of our Common Stock that are held by non-affiliates exceeds \$700 million as of the last business day of the Company's prior second fiscal quarter, and (ii) the date on which the Company has issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

In addition, Section 107 of the JOBS Act also provides that an EGC can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as the Company is an EGC. An EGC can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to

private companies. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-EGCs, but any such election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an EGC, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of the Company's financial statements with another public company which is neither an EGC nor an EGC which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

We cannot predict if investors will find our Common Stock less attractive because the Company will rely on these exemptions. If some investors find our Common Stock less attractive as a result, there may be a less active trading market for Common Stock and our stock price may be more volatile.

We will continue to incur significant increased expenses and costs as a public company, which may disrupt the regular operations of our business.

We will incur additional legal, regulatory, finance, accounting, investor relations and other administrative expenses as a result of operating as a public company. In addition, pursuant to the Sarbanes-Oxley Act, as well as rules adopted by the SEC and the New York Stock Exchange ("NYSE"), we have implemented specified corporate governance practices that did not previously apply to either MPMO or SNR as private companies.

We are required to ensure that we have the ability to prepare financial statements on a timely basis that fully comply with all SEC reporting requirements and maintain effective internal controls over financial reporting.

The additional demands associated with being a public company may disrupt regular operations of our business by diverting the attention of some of its senior management team away from revenue producing activities to management and administrative oversight, adversely affecting our ability to attract and complete business opportunities and increasing the difficulty in both retaining professionals and managing and growing our businesses. In addition, failure to comply with any laws or regulations applicable to us as a public company may result in legal proceedings and/or regulatory investigations, and may cause reputational damage. Any of these effects could harm our business, financial condition and results of operations.

Any failure to develop or maintain effective internal controls, or difficulties encountered in implementing or improving our internal controls, could harm our operating results or cause us to fail to meet our reporting obligations.

Effective internal controls will be necessary for us to provide reliable financial reports, prevent fraud and operate successfully as a public company. If we cannot provide reliable financial reports or prevent fraud, our reputation and operating results will be harmed. We cannot be certain that our efforts to develop and maintain our internal controls will be successful, that we will be able to maintain adequate controls over our financial processes and reporting in the future or that we will be able to comply with our obligations under Section 404 of the Sarbanes-Oxley Act. Any failure to develop or maintain effective internal controls, or difficulties encountered in implementing or improving our internal controls, could harm our operating results or cause us to fail to meet our reporting obligations. For example, we have identified a material weakness in our internal controls over financial reporting in that we do not currently have sufficient resources with the appropriate level of experience in U.S. GAAP and financial reporting. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, which would likely have a negative effect on the trading price of our common stock.

Our management has limited experience in operating a public company.

Our executive officers have limited experience in the management of a publicly-traded company. Our management team may not successfully or effectively manage our transition to a public company that will be subject to significant regulatory oversight and reporting obligations under federal securities laws. Their limited experience in dealing with the increasingly complex laws pertaining to public companies could be a significant disadvantage in that it is likely that an increasing amount of their time may be devoted to these activities which will result in less time being devoted to the management and growth of the Company. We may not have adequate personnel with the appropriate level of knowledge, experience, and training in the accounting policies, practices or internal controls over financial reporting required of public companies in the United States. The development and implementation of the standards and controls necessary for the Company to achieve the level of accounting standards required of a public company in the United States may require costs greater than expected. It is possible that we will be required to further expand our employee base and hire additional employees to support our operations as a public company which will increase our operating costs in future periods.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own the Mountain Pass facility, which is discussed in detail within the ["The Mountain Pass Facility"](#) section of ["Item 1. Business"](#) above. We also lease our executive office space at 6720 Via Austi Parkway, Suites 450 and 430, Las Vegas, Nevada 89119, which lease expires December 31, 2022, subject to a renewal option.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be subject to legal and governmental proceedings and claims in the ordinary course of business. We are not currently a party to any material legal or governmental proceedings and, to our knowledge, none is threatened.

ITEM 4. MINE SAFETY DISCLOSURES

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in [Exhibit 95.1](#) to this Annual Report.

PART II

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

Market Information and Trading Symbol for Common Stock and Public Warrants

Our common stock and public warrants are currently quoted on the NYSE under the symbols "MP" and "MPWS," respectively.

Holders of Record

According to Continental Stock Transfer & Trust Company, our transfer agent, there were 180 active holders of record of our common stock and one active holder of record of our public warrants as of February 28, 2021. The actual number of holders is greater than these numbers and includes holders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. These numbers of holders of record also do not include holders whose shares or public warrants may be held in trust by other entities.

Dividends

The Company has not paid any cash dividends on its common stock to date. The payment of cash dividends in the future will be dependent upon the Company's revenues and earnings, if any, capital requirements and general financial condition. The payment of any cash dividends will be within the discretion of our Board of Directors at such time. In addition, the Company is not currently contemplating and does not anticipate declaring any stock dividends in the foreseeable future as it is currently expected that available cash resources will be utilized in connection with our ongoing operations and development projects, including our Stage II optimization plan.

Unregistered Sales of Equity Securities

Except as previously reported on our Current Report on Form 8-K filed on November 17, 2020, we did not have any sales of unregistered equity securities during the three months ended December 31, 2020.

Repurchase of Securities

During the three months ended December 31, 2020, neither we nor any of our affiliates repurchased shares of our common stock or warrants registered under Section 12 of the Exchange Act.

ITEM 6. SELECTED FINANCIAL DATA

Not required.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our Consolidated Financial Statements and related notes appearing elsewhere in this annual report on Form 10-K for the year ended December 31, 2020 (this "Annual Report"). This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. The actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including, but not limited to, those set forth under "Item 1A. Risk Factors" and elsewhere in this Annual Report. In addition, see ["Cautionary Note Regarding Forward-Looking Statements."](#) References herein to the "Company," "we," "our," and "us," refer to MP Materials Corp. and its subsidiaries.

Overview

We own and operate one of the world's largest integrated rare earth mining and processing facilities and the only major rare earths resource in the Western Hemisphere.

Rare earth elements ("REE") are fundamental building blocks of the modern economy, impacting trillions of dollars in global gross domestic product through the enablement of end products across industries including transportation, clean energy, robotics, national defense and consumer electronics, among others. Neodymium ("Nd") and praseodymium ("Pr") are rare earth elements which in combination form neodymium-praseodymium ("NdPr"), which represents the Company's primary revenue opportunity. NdPr is most often utilized in NdPr magnets, which are also commonly referred to as "neo," "NdFeB," "NIB," or permanent magnets and are made predominantly from an alloy of NdPr, iron and boron. NdPr magnets are the most widely used type of rare earth magnets and are critical for many advanced technologies that are experiencing strong secular growth, including electric vehicles ("EV"), drones, defense systems, medical equipment, wind turbines, robotics and many others. The rapid growth of these and other advanced motion technologies is expected to drive substantial demand growth for NdPr.

We produce our materials at Mountain Pass, one of the world's richest rare earth deposits, co-located with integrated state-of-the-art processing and separation facilities. We believe Mountain Pass is the only such integrated facility in the Western Hemisphere and one of the few separation facilities outside of Asia. Current ownership and management acquired the Mountain Pass assets in 2017, restarted operations from cold-idle status and embarked on a deliberate, two-stage plan to optimize the facility and position the Company for growth and profitability. See the section entitled ["History of Ownership and Current Operations" within Item 1. Business](#) above. Approximately \$1.7 billion has been invested in the Mountain Pass facility since 2011, in addition to the investments in utilities and active infrastructure completed between the 1960s and 2008. We commenced mining, comminution, beneficiation, and tailings management operations, which we designated Stage I of our multi-stage optimization plan, between December 2017 and February 2018. We currently produce a rare earth concentrate that we sell to Shenghe Resources (Singapore) International Trading Pte. Ltd. ("Shenghe"), an affiliate of Shenghe Resources Holding Co., Ltd., a leading global rare earth company that is publicly listed in China, which, in turn, sells that product to end customers in China. These customers separate the constituent REE contained in our concentrate and sell the separated products to various end users. We believe our concentrate represents approximately 15% of the rare earth content consumed in the global market during the last 12 months. Upon completion of our Stage II optimization project, we anticipate separating rare earth oxides ("REO") at our Mountain Pass site and selling our products directly to end users, at which time we would no longer sell our concentrate.

As technological innovation drives significant anticipated global growth in demand for REO, we also believe global economic trends, geopolitical realities and sustainability mandates are combining to further support an opportunity for us to create shareholder value. We believe businesses are increasingly prioritizing diversification and security of their global supply chains so as to reduce reliance on a single producer or region for critical supplies. This trend has national security implications as well, illustrated by recent U.S. Presidential directives seeking the onshoring of production in industries deemed critical, including rare earth minerals. For example, on February 24, 2021, President Biden signed an executive order requiring the U.S. government to review supply chains for critical minerals and other identified strategic materials, including rare earth elements, in an effort to ensure that the U.S. is not reliant on other countries, such as China. This executive order calls for a review of a broader set of U.S. supply chains covering the defense, health care, information technology, energy, transportation and agriculture sectors. According to the CRU Group, China accounted for approximately 79% of global REO production in 2020. We believe an even higher percentage of the NdPr magnet supply chain is based in China. Finally, public and private interests are increasingly demanding sustainability throughout production value chains to limit negative environmental and societal impacts from business activity, including pollution and acceleration of climate change. As the only scaled source in North America for critical rare earths, with a processing facility designed to operate with best-in-class sustainability and a competitive cost structure, we believe we are well-positioned to thrive in a transforming global economy.

Recent Developments and Comparability of Results

Business Combination and Reverse Recapitalization

The Business Combination (as defined below) was consummated on November 17, 2020, pursuant to the terms of a merger agreement entered into on July 15, 2020 (the "Merger Agreement"). Pursuant to the Merger Agreement, MP Mine Operations LLC ("MPMO") and Secure Natural Resources LLC ("SNR"), the company that holds the mineral rights to our mine, were combined with Fortress Value Acquisition Corp. ("FVAC"), a special purpose acquisition company (the "Business Combination"), and became indirect wholly-owned subsidiaries of FVAC, which was in turn renamed MP Materials Corp.

The Business Combination was accounted for as a reverse recapitalization, with no goodwill or other intangible assets recorded, in accordance with generally accepted accounting principles in the United States ("GAAP"). The acquisition of SNR (the "SNR Mineral Rights Acquisition") was treated as an asset acquisition. Furthermore, MPMO was deemed to be the accounting acquirer and FVAC the accounting acquiree, which, for financial reporting purposes, results in MPMO's historical financial information becoming that of the Company.

The SNR Mineral Rights Acquisition did not meet the criteria for the acquisition of a business and was accounted for as an asset acquisition. The principal asset acquired in the SNR Mineral Rights Acquisition was the mineral rights for the rare earth ores contained in our mine, which SNR acquired in 2016 and which was SNR's sole operating asset. In connection with the SNR Mineral Rights Acquisition, we recorded a mineral rights asset (classified as a component of "Property, plant and equipment" within our Consolidated Balance Sheets) in the amount of \$434.7 million, which will be depleted on a straight-line basis over approximately 24 years. As a result, we expect to record significantly higher depletion expense within our Consolidated Statements of Operations for periods following the Business Combination.

In April 2017, MPMO entered into a 30-year lease and license agreement with SNR under which MPMO paid royalties to SNR in the amount of 2.5% of gross revenue from the sale of rare earth products made from ores extracted from the mine, subject to a minimum non-refundable royalty of \$0.5 million per year. Our consolidated results of operations for reporting periods following the consummation of the Business Combination will no longer reflect the payment of such royalties. SNR's results of operations and cash flows are substantially eliminated in consolidation in our Consolidated Financial Statements and, except as noted above, we do not expect the SNR Mineral Rights Acquisition to materially impact the comparability of our historical results of operations with our results of operations for periods following the Business Combination.

Pursuant to the amended and restated letter agreement dated July 15, 2020, and amended and restated on August 26, 2020, by and among FVAC and the holders of FVAC Class F common stock, all of the shares of FVAC Class A common stock issued upon the conversion of FVAC Class F common stock (held by insiders initially purchased prior to the FVAC initial public offering), were subject to certain vesting and forfeiture provisions (the "Vesting Shares") based on the achievement of certain volume weighted-average price ("VWAP") thresholds of the Company's common stock. In December 2020, such VWAP thresholds were achieved, resulting in the vesting of 8,625,000 shares.

The holders of MPMO Holding Company (a Delaware corporation formed by MPMO pursuant to the Merger Agreement) ("MPMO HoldCo") preferred stock and common stock and SNR Holding Company, LLC (a Delaware limited liability company formed by SNR pursuant to the Merger Agreement) common stock immediately prior to the closing of the Business Combination were given the contingent right to receive up to an additional 12,860,000 shares of the Company's common stock (the "Earnout Shares") based on the achievement of certain VWAP thresholds of the Company's common stock. In December 2020, 12,859,898 Earnout Shares (adjusted for fractional shares) were issued upon the attainment of such VWAP thresholds.

Our Relationship and Agreements with Shenghe

Original Commercial Agreements

In connection with the acquisition and development of the Mountain Pass facility, we entered into a set of commercial arrangements with Shenghe. Shenghe and its affiliates primarily engage in the mining, separation, processing and distribution of rare earth products. MPMO also issued to Leshan Shenghe Rare Earth Co., Ltd. ("Leshan Shenghe"), the majority stockholder of Shenghe, 110.98 MPMO preferred units, which represented all of the issued and outstanding MPMO preferred units at the time. As discussed above, in connection with the Business Combination, these MPMO preferred units were exchanged for MPMO HoldCo preferred stock and eventually our common stock and the contingent right to receive Earnout Shares.

The original commercial arrangements with Shenghe were entered into in May 2017, prior to MPMO's acquisition of the Mountain Pass facility. These agreements principally consisted of a technical services agreement (the "TSA"), an offtake agreement (the "Original Offtake Agreement"), and a distribution and marketing agreement (the "DMA").

Under the TSA, Shenghe provided technical services, know-how and other assistance to MPMO in order to facilitate the development and operations of Mountain Pass. In addition, both the TSA and Original Offtake Agreement imposed certain funding obligations on Shenghe. The Original Offtake Agreement required Shenghe to advance an initial \$50.0 million (the "Initial Prepayment Amount") over time to MPMO to fund the restart of operations at the mine and the TSA required Shenghe to fund any additional operating and capital expenditures required to bring the Mountain Pass facility to full operability. Shenghe also agreed to provide additional funding in the amount of \$30.0 million to MPMO pursuant to a separate letter agreement dated June 20, 2017 (the "Letter Agreement") (the "First Additional Advance"), in connection with MPMO's acquisition of the Mountain Pass facility. In addition to the repayment of the First Additional Advance in cash, pursuant to the Letter Agreement, the Initial Prepayment Amount was increased by \$30.0 million. We refer to the aggregate prepayments made by Shenghe pursuant to the Original Offtake Agreement and the Framework Agreement (as defined below), as adjusted for Gross Profit Recoupment (as defined below) amounts and any other qualifying repayments to Shenghe, inclusive of the \$30.0 million increase to the Initial Prepayment Amount, as the "Prepaid Balance."

The entrance into the Letter Agreement constituted a modification to the Original Offtake Agreement for accounting purposes (referred to as the "June 2017 Modification"), which ultimately resulted in the Shenghe Implied Discount (as defined below). Under the terms of these agreements, the amounts funded by Shenghe constitute prepayments for the rare earth products to be sold to Shenghe historically under the Original Offtake Agreement (and currently under the A&R Offtake Agreement, as defined below).

Under the Original Offtake Agreement, upon the mine achieving certain milestones and being deemed commercially operational (which was achieved on July 1, 2019), MPMO sold to Shenghe, and Shenghe purchased on a firm "take or pay" basis, all of the rare earth products produced at the Mountain Pass facility. Shenghe marketed and sold these products to customers, and retained the gross profits earned on subsequent sales. The gross profits were credited against the Prepaid Balance, and provided the means by which MPMO repaid, and Shenghe recovered, such amounts (the "Gross Profit Recoupment"). Under the Original Offtake Agreement, MPMO was obliged to sell all Mountain Pass facility rare earth products to Shenghe until Shenghe had fully recouped all of its prepayments (i.e., the Prepaid Balance is reduced to zero), at which point the Original Offtake Agreement would terminate automatically.

As originally entered, the DMA was to become effective upon termination of the Original Offtake Agreement. The DMA provided for a distribution and marketing arrangement between MPMO and Shenghe, subject to certain agreed exceptions. MPMO retained the right to distribute its products directly to certain categories of customers. As compensation for Shenghe's distribution and marketing services, the DMA entitled Shenghe to a portion of the net profits from the sale of rare earth products produced at the Mountain Pass facility. See below for further discussion of the DMA termination and associated accounting treatment.

In order to secure Shenghe's performance under the Original Offtake Agreement and TSA, Leshan Shenghe issued a parent guaranty to MPMO in May 2017 (the "Shenghe Guaranty"), and entered into an equity pledge agreement (the "Shenghe Pledge Agreement") in June 2017.

Framework Agreement and Restructured Commercial Agreements

In May 2020, we entered into a framework agreement and amendment (the "Framework Agreement") with Shenghe and Leshan Shenghe that significantly restructured the parties' commercial arrangements and provided for, among other things, a revised funding amount and schedule to settle Shenghe's prepayment obligations to MPMO, as well as either the amendment or termination of the various agreements between the parties, as discussed below.

Pursuant to the Framework Agreement, we entered into an amended and restated offtake agreement with Shenghe and Leshan Shenghe on May 19, 2020 (the "A&R Offtake Agreement"), which, upon effectiveness, superseded and replaced the Original Offtake Agreement, and MPMO issued to Shenghe a warrant on June 2, 2020 (the "Shenghe Warrant"), exercisable at a nominal price for 89.88 MPMO preferred units, which, at the time, reflected approximately 7.5% of MPMO's equity on a diluted basis, subject to certain restrictions. Pursuant to the Framework Agreement, Shenghe funded the remaining portion of the Initial Prepayment Amount and agreed to fund an additional \$35.5 million advance to us (the "Second Additional Advance" and together with the Initial Prepayment Amount, inclusive of the \$30.0 million increase pursuant to the Letter Agreement, the "Offtake Advances"), which amounts were fully funded on June 5, 2020. As discussed below, the Shenghe Warrant was exercised in full for MPMO preferred units which were exchanged for MPMO HoldCo preferred stock and eventually our common stock and the contingent rights to receive Earnout Shares in connection with the Business Combination.

Upon the funding of the remaining obligations on June 5, 2020, (i) the TSA and the DMA were terminated (as described below), (ii) the A&R Offtake Agreement and the Shenghe Warrant became effective, and (iii) the Shenghe Guaranty and the Shenghe Pledge Agreement were terminated (such events are collectively referred to as the "June 2020 Modification"). Thus, at the present time, Leshan Shenghe's and Shenghe's involvement with MPMO and the Mountain Pass facility consists of only the A&R Offtake Agreement.

The A&R Offtake Agreement maintains the key take-or-pay, amounts owed on actual and deemed advances from Shenghe, and other terms of the Original Offtake Agreement, with the following material changes: (i) modifies the definition of "offtake products" in order to remove from the scope of that definition lanthanum, cerium and other rare earth products that do not meet the specifications agreed to under the A&R Offtake Agreement; (ii) as to the offtake products subject to the A&R Offtake Agreement, provides that if we sell such offtake products to a third party, then, until the Prepaid Balance has been reduced to zero, we will pay an agreed percentage of our revenue from such sale to Shenghe, to be credited against the amounts owed on Offtake Advances; (iii) replaces the Shenghe Sales Discount (as discussed and defined below) under the Original Offtake Agreement with a fixed monthly sales charge; (iv) provides that the purchase price to be paid by Shenghe for our rare earth products (a portion of which reduces the Prepaid Balance rather than being paid in cash) will be based on market prices (net of taxes, tariffs and certain other agreed charges) less applicable discounts, instead of our cash cost of production; (v) obliges us to pay Shenghe, on an annual basis, an amount equal to our annual net income, less any amounts recouped through the Gross Profit Recoupment mechanism over the course of the year, until the Prepaid Balance has been reduced to zero; (vi) obliges us to pay Shenghe the net after-tax profits from certain sales of assets until the Prepaid Balance has been reduced to zero (this obligation was previously contained in the TSA); and (vii) provides for certain changes to the payment, invoicing and delivery terms and procedures for products.

The purchase price and other terms applicable to a quantity of offtake products are set forth in monthly purchase agreements between MPMO and Shenghe. As with the Original Offtake Agreement, the A&R Offtake Agreement will terminate when Shenghe has fully recouped all of its prepayment funding. Following that termination, MPMO will have no contractual arrangements with Shenghe for the distribution, marketing or sale of rare earth products.

Accounting Implications of the June 2017 Modification

As discussed above, pursuant to the Letter Agreement, Shenghe agreed to provide additional funding via a short-term non-interest-bearing note in the amount of \$30.0 million to the Company (defined above as the "First Additional Advance"), which required repayment within one year. Furthermore, under the terms of the Letter Agreement, Shenghe became entitled to an additional \$30.0 million recovery through an increase to the Prepaid Balance. Therefore, under the terms of the Letter Agreement, Shenghe would ultimately receive repayment of the short-term debt instrument from the Company, and also be entitled to realize an additional \$30.0 million as a part of the contractual Gross Profit Recoupment from ultimate sales to its customers.

As discussed in more detail within [Note 4, "Relationship and Agreements with Shenghe,"](#) in the notes to the Consolidated Financial Statements, based on the relationship between (i) the deemed proceeds the Company would ultimately receive from the Initial Prepayment Amount (adjusted for (a) the fair value of the preferred interest provided to Shenghe at the time of entering into the aforementioned commercial arrangements of \$2.3 million and (b) the fair value allocated to the modification to the revenue arrangement of \$3.5 million) and (ii) the contractual amount owed to Shenghe (i.e., the Prepaid Balance, which included the Initial Prepayment Amount and the additional \$30.0 million adjustment to the Prepaid Balance in connection with the Letter Agreement) at the time, the June 2017 Modification resulted in an implied discount of 36% on the Company's sales prices to Shenghe under the Original Offtake Agreement, for accounting purposes (the "Shenghe Implied Discount"). The Shenghe Implied Discount applied only to sales made to Shenghe between July 2019 and early June 2020.

Beginning in July 2019, and through early June 2020, the Company periodically agreed on a cash sales price, which was intended to approximate the Company's cash cost of production, with Shenghe for each metric ton ("MT") of rare earth concentrate delivered by the Company. Such sales during this period were made under the Original Offtake Agreement and also reflected the Shenghe Sales Discount. The Company recognized the cash sales prices as revenue upon each sale. In addition, since the Shenghe Implied Discount applied to sales made to Shenghe during the period from July 2019 through early June 2020, we also recognized an amount of deferred revenue applicable to these sales equal to 64% of the gross profit realized by Shenghe of this product to its own customers.

For example, for a hypothetical shipment of REO to Shenghe on which it realized gross profit of \$1.00 (the difference between the sales price to its customers and its cash cost paid to us), we would recognize \$0.64 as non-cash revenue through a reduction in the deferred revenue balance, and the remaining \$0.36 would not be recorded as revenue. The full gross profit amount realized by Shenghe on such sales reduced the Prepaid Balance (and consequently, our contractual obligations to Shenghe). Shenghe's gross profit is influenced by market conditions as well as import duties, which were imposed on our

products by the General Administration of Customs of the People's Republic of China during this period. The drivers of our production costs are described below under ["Key Performance Indicators."](#)

In addition, sales to Shenghe under the Original Offtake Agreement between July 2019 and early June 2020 typically provided Shenghe with a discount generally in the amount of between 3% and 6% of the initial cash price of our rare earth products sold in consideration of Shenghe's sales efforts to resell our rare earth products (the "Shenghe Sales Discount"). The Shenghe Sales Discount was considered a reduction in the transaction price; thus, was not recognized as revenue. Additionally, the Shenghe Sales Discount was not applied to reduce the Prepaid Balance; however, it was considered as part of Shenghe's cost of acquiring our product in the calculation of Shenghe's gross profit.

Accounting Implications of the June 2020 Modification

As noted above, in May 2020, the Company renegotiated various aspects of its relationship with Shenghe and entered into the Framework Agreement to significantly restructure the aforementioned set of arrangements. Prior to the June 2020 Modification, for accounting purposes, the Original Offtake Agreement constituted a deferred revenue arrangement; however, as a result of the June 2020 Modification, the A&R Offtake Agreement constituted a debt obligation as well as provided for the issuance of the Shenghe Warrant. In addition, as a result of the renegotiations, the accounting treatment specific to the Shenghe Implied Discount was no longer required.

In accounting for the June 2020 Modification, on June 5, 2020, we:

- Derecognized the existing deferred revenue balance of \$37.5 million;
- Recognized, at fair value, a non-interest-bearing debt instrument with a principal balance of \$94.0 million and a debt discount of \$8.3 million (implied debt discount of 4.4%), resulting in a carrying amount of \$85.7 million;
- Recorded the \$35.5 million proceeds received from the Second Additional Advance;
- Recognized the issuance of the Shenghe Warrant at its fair value of \$53.8 million; and
- Recorded a \$66.6 million non-cash settlement charge (reflecting a deemed payment to terminate the DMA).

As noted above, the June 2020 Modification provided that the purchase price to be paid by Shenghe for our rare earth products will be based on market prices (net of taxes, tariffs and certain other agreed charges) less applicable discounts, instead of our cash cost of production, as was the case with sales made under the Original Offtake Agreement. A portion of the purchase price is in the form of debt repayment, with the remainder paid in cash. The elimination of the Shenghe Sales Discount and replacement with the aforementioned fixed monthly sales charge is not expected to have a material impact on our results of operations (both are treated as a reduction to the transaction price).

As a result of the above, the amount of revenue we recorded for periods that included any portion of the period from July 1, 2019, until June 5, 2020 (the date the Original Offtake Agreement was modified), is not comparable, in the aggregate or on a per unit basis, to the amount of revenue recorded in other periods that concluded before July 1, 2019, or that commenced after June 5, 2020. Furthermore, assuming static market prices, we would expect to record more revenue per REO MT sold subsequent to June 5, 2020. See also ["Key Performance Indicators"](#) section.

Tariff-Related Rebates

Starting in May 2020, the government of the People's Republic of China granted retroactive tariff relief to certain importers of rare earth minerals including Shenghe and its affiliates, relating to periods prior to the formal lifting of the tariffs. As a result, Shenghe's actual realized prices for the REO sold prior to May 2020 were higher than originally reported to us and resulted in rebates to Shenghe. On account of these rebates in the second and third quarters of 2020, we received from Shenghe certain credits against our contractual commitments to them. As a result of these credits, during the year ended December 31, 2020, we recognized non-cash revenue of \$8.9 million and deferred revenue of \$1.4 million and reductions in debt principal of \$9.7 million and debt discount of \$0.8 million.

Impact of the COVID-19 Pandemic

In December 2019, a novel strain of coronavirus (known as "COVID-19") began to impact the population of China, where our principal customer is located. The outbreak of COVID-19 has grown both in the United States and globally, and related government and private sector responsive actions have adversely affected the global economy. In December 2019, a series of emergency quarantine measures taken by the Chinese government disrupted domestic business activities in China during the weeks after the initial outbreak of COVID-19. Since that time, an increasing number of countries, including the United States,

have imposed restrictions on travel to and from China and elsewhere, as well as general movement restrictions, business closures and other measures imposed to slow the spread of COVID-19.

At the onset of the outbreak, we initially experienced shipping delays due to overseas port slowdowns and container shortages, but we did not experience a reduction in production or sales. However, in the fourth quarter of 2020, we began to again see shipping delays and container shortages from congestion at port facilities, which has been exacerbated by COVID-19. Congestion at U.S. and international ports could affect the capacity at ports to receive deliveries of products or the loading of shipments onto vessels.

As the situation continues to develop, it is impossible to predict the effect and ultimate impact of the COVID-19 pandemic on the Company's business and results of operations. While the quarantine, social distancing and other regulatory measures instituted or recommended in response to COVID-19 are expected to be temporary, the duration of the business disruptions, and related financial impact, cannot be estimated at this time.

Key Performance Indicators

We use the following key performance indicators to evaluate the performance of our business and prospects. Our calculations of these performance indicators may differ from similarly-titled measures published by other companies in our industry or in other industries. The following table presents our key performance indicators:

	Year ended December 31,		2020 vs. 2019	
	2020	2019	Amount Change	% Change
<i>(in whole units or dollars, except percentages)</i>				
REO Production Volume (MTs)	38,503	27,620	10,883	39 %
REO Sales Volume (MTs)	38,367	26,821	11,546	43 %
Realized Price per REO MT	\$ 3,311	\$ 2,793	\$ 518	19 %
Production Cost per REO MT	\$ 1,430	\$ 1,980	\$ (550)	(28) %

REO Production Volume

We measure our REO-equivalent production volume for a given period in MTs, our principal unit of sale. This measure refers to the REO content contained in the rare earth concentrate we produce. Our REO production volume is a key indicator of our mining and processing capacity and efficiency.

The rare earth concentrate we currently produce is a processed, concentrated form of our mined rare earth-bearing ores. While our unit of production and sale is a MT of embedded REO, the actual weight of our rare earth concentrate is significantly greater, as the concentrate also contains non-REO minerals and water. We target REO content of greater than 60% per dry MT of concentrate (referred to as "REO grade"). The elemental distribution of REO in our concentrate is relatively consistent over time and batch. We consider this the natural distribution, as it reflects the distribution of elements contained, on average, in our ore. Upon the completion of our Stage II optimization project, we expect to refine our rare earth concentrate to produce separated rare earths, including separated NdPr oxide. See also ["Key Factors Affecting Our Performance"](#) section below.

REO Sales Volume

Our REO sales volume for a given period is calculated in MTs. A unit, or MT, is considered sold once we recognize revenue on its sale. Our REO sales volume is a key measure of our ability to convert our production into revenue. See also ["Key Components of Sales and Expenses"](#) section below.

Realized Price per REO MT

We calculate the realized price per REO MT for a given period as the quotient of: (i) our Total Value Realized (see below) for a given period and (ii) our REO sales volume for the same period. We calculate our Total Value Realized, which is a non-GAAP financial measure, as the sum of: (x) the revenue recognized on our sales of REO for a given period (excluding the revenue impact of tariff-related credits from Shenghe on account of prior sales) and (y) in connection with our sales of REO to Shenghe between July 1, 2019, and June 5, 2020, the total amount of the Shenghe Implied Discount. The consideration described in clause (y) is the difference between (1) Shenghe's average realized price, net of taxes, tariffs and certain other agreed-upon charges (such as one-time demurrage charges) on our products once sold to their ultimate customers and (2) the amount of revenue we recognized on the sales of those products to Shenghe for sales between July 1, 2019, and June 5, 2020, which includes the non-cash portion discussed above. As further discussed above, for sales under the Original Offtake

Agreement, a portion of this non-cash consideration, the Shenghe Implied Discount, was not recorded as revenue in our Consolidated Financial Statements, but was applied as a reduction to the Prepaid Balance.

Under the terms of the Original Offtake Agreement, for the period between July 1, 2019, and June 5, 2020, Shenghe purchased our rare earth products at an agreed-upon price per MT, which was intended to approximate our cash cost of production, and in turn resold it at market prices to its customers. Our treatment of the non-cash consideration is the result of the June 2017 Modification, which impacted the relationship between the amount of prepayments we had received from Shenghe and the amount we owed contractually. The \$30.0 million increase to the Prepaid Balance pursuant to the Letter Agreement (as discussed above), effectively provided Shenghe with an enhanced margin. Upon entrance into the A&R Offtake Agreement, we began to recognize revenue at the full value of our product. Accordingly, we calculate realized price per REO MT for the period between July 1, 2019, and June 5, 2020, by adding back the amount of the Shenghe Implied Discount. See also [“Recent Developments and Comparability of Results”](#) section above.

Realized price per REO MT is an important measure of the market price of our product. Accordingly, we calculate realized price per REO MT, as described above, to reflect a consistent basis between periods by eliminating the impact of recognizing revenue at a discount in the period between July 1, 2019, and June 5, 2020, as a result of the Shenghe Implied Discount, and the revenue impact of tariff-related credits. See the [“Non-GAAP Financial Measures”](#) section below for a reconciliation of our Total Value Realized, which is a non-GAAP financial measure, to our product sales, which is determined in accordance with GAAP, as well as the calculation of realized price per REO MT.

Production Cost per REO MT

We calculate the production cost per REO MT for a given period as the quotient of: (i) our Production Costs (see below) for a given period and (ii) our REO sales volume for the same period. We calculate our Production Costs, which is a non-GAAP financial measure, as our cost of sales (excluding depletion, depreciation and amortization) less costs attributable to sales of legacy stockpiles, stock-based compensation expense included in cost of sales (as opposed to general and administrative expenses), and shipping and freight costs, for a given period.

Production cost per REO MT is a key indicator of our production efficiency. As a significant portion of our cash costs of Stage I production are fixed, our production cost per REO MT is influenced by mineral recovery, REO grade, plant feed rate and production uptime. See the [“Non-GAAP Financial Measures”](#) section below for a reconciliation of our Production Costs, which is a non-GAAP financial measure, to our cost of sales (excluding depletion, depreciation and amortization), which is determined in accordance with GAAP, as well as the calculation of production cost per REO MT.

Key Factors Affecting Our Performance

We believe we are uniquely positioned to capitalize on the key trends of electrification and supply chain security, particularly as domestic EV production grows. Our success depends to a significant extent on our ability to take advantage of the following opportunities and meet the challenges associated with them.

Demand for REE

The key demand driver for REE is their use in a diverse array of growing end markets, including: Clean-Energy and Transportation Technologies (e.g., traction motors in EVs and generators in wind power turbines); High-Technology Applications (e.g., miniaturization of smart phones and other mobile devices, fiber optics, lasers, robotics, medical devices, etc.); Critical Defense Applications (e.g., guidance and control systems, global positioning systems, radar and sonar, drones, etc.); and essential Industrial Infrastructure (e.g., advanced catalyst applications in oil refining and pollution-control systems in traditional internal-combustion automobiles, etc.). We believe these drivers will fuel the continued growth of the rare earth market, particularly the market for NdPr. See the section entitled [“Rare Earth Industry Overview and Market Opportunity”](#) within [Item 1. Business](#) for more information.

We believe we benefit from several demand tailwinds for REE, and particularly for NdPr. These include the trend toward geographic supply chain diversification, particularly in relation to China, which accounted for approximately 79% of global REE production in 2020, the U.S. government strategy to restore domestic supply of key minerals, and increasing acceptance of environmental, social and governance mandates, which impact global capital allocation throughout production value chains to limit negative environmental and societal impacts. However, changes in technology may also drive down the use of REE, including NdPr, in the components in which they are now used, or lead to a decline in reliance on such components altogether. We also operate in a competitive industry, and many of our key competitors are based in China, where production costs are typically lower than in the United States. If our assumptions about the growth in demand for REE, and particularly NdPr, prove wrong, our business prospects, financial condition and results of operations could suffer materially.

Our Mineral Reserves

Our ore body has proven over more than 60 years of operations to be one of the world's largest and highest-grade rare earth resources. As of July 1, 2020, SRK Consulting (U.S.), Inc., an independent consulting firm that we have retained to assess our reserves, estimates total proven and probable reserves of 1.5 million short tons of REO contained in 21.1 million short tons of ore at Mountain Pass, with an average ore grade of 7.06%. These estimates use an estimated economical cut-off of 3.83% total rare earth oxide. Based on these estimated reserves and our expected annual production rate of REO upon completion of our Stage II optimization project, our expected mine life is approximately 24 years. We expect to be able to significantly grow our expected mine life through exploratory drilling programs and incorporation of the profitability uplift of our Stage II optimization project over time.

Mining activities in the United States are heavily regulated, particularly in California. Regulatory changes may make it more challenging for us to access our reserves. In addition, new mineral deposits may be discovered elsewhere, which could make our operations less competitive.

Maximizing Production Efficiency

Over the last twelve months, REO production is approximately 3.2x greater than the highest ever production in a twelve-month period by the former operator using the same capital equipment. We have achieved these results through an optimized reagent scheme, lower process temperatures, better management of the tailings facility, and a commitment to operational excellence, driving approximately 95% uptime—a significant improvement to that of our predecessor. We also believe that these Stage I optimization initiatives have enabled us to achieve world-class production cost levels for rare earth concentrate. All of these achievements have enabled us to become operating cash flow positive, despite significant Chinese trade tariffs on ore and concentrates in place over the optimization period. These trade tariffs have recently been suspended, further enhancing the earnings power of our Stage I operations. See the section entitled ["History of Ownership and Current Operations—Stage I Execution Successful" within Item 1. Business.](#)

We believe that the success of our business will reflect our ability to manage our costs. Our Stage II optimization plan (discussed below) is designed to enable us to manage our cost structure for separating REE through a revised facility process flow. The reintroduction of the oxidizing roasting step will allow us to capitalize on the inherent advantages of the bastnaesite ore at Mountain Pass, which is uniquely suitable to low-cost refining by selectively eliminating the need to carry lower-value cerium through the separations process. The recommissioning of our natural gas-powered combined heat and power ("CHP") facility will reduce energy, heating and steam costs as well as minimize or eliminate our reliance on the regional electric power grid. Further, our location offers significant transportation advantages that create meaningful cost efficiencies in securing incoming supplies and shipping of our final products.

We currently operate a single site in a single location, and any stoppage in activity, including for reasons outside of our control, could adversely impact our production, results of operations and cash flows. In addition, several of our current and potential competitors are government supported and may have access to substantially greater capital, which may allow them to make similar or greater efficiency improvements or undercut market prices for our product.

Development of Our REE Refining Capabilities and Other Opportunities

Our Stage II optimization process is focused on advancing from concentrate production to the separation of individual REE. Engineering, procurement, preliminary construction and other recommissioning activities are underway and involve upgrades and enhancements to the existing facility process flow to produce separated REE more reliably, at significantly lower cost and with an expected smaller environmental footprint per volume of REO produced than the prior operator of the Mountain Pass facility. As part of our Stage II optimization project, we plan to reintroduce a roasting circuit, reorient the plant process flow, increase product finishing capacity, improve wastewater management and make other improvements to materials handling and storage, in addition to recommissioning our currently idled CHP plant to produce electricity. Our process redesign and engineering for our Stage II optimization project is substantially complete and we believe that our Stage II optimization project investments will enable us to materially increase the recovery of NdPr from our concentrate, increase NdPr production and dramatically lower the cost of production, in each case, as compared to the prior owner's operations. Upon the completion of Stage II, we expect to be a low-cost producer of separated NdPr oxide, which represents a majority of the value contained in our ore. See the section entitled ["History of Ownership and Current Operations—Stage II Underway" within Item 1. Business.](#)

In the longer term, following our completion of the Stage II optimization project, we believe we will then be in a position to consider opportunities to integrate further downstream into the business of upgrading NdPr into metal alloys and magnets, ultimately expanding our presence as a global source for rare earth magnetics. We also believe integration into magnet production would provide some protection from commodity pricing volatility, while enhancing our business profile as the

producer of a critical industrial output in addition to a producer of resources. We expect these Stage III downstream opportunities to be driven by geopolitical developments, including bringing critical rare earth mining and refining production capability to the United States, as well as the restoration of the full U.S. magnetics supply chain. See the section entitled [“History of Ownership and Current Operations—Stage III Downstream Expansion Opportunity” within Item 1. Business.](#)

The completion of our Stage II optimization project and any development of Stage III is expected to be capital intensive. With recent enhancements to our Stage II process design, we now expect to invest a total of approximately \$220 million, principally in 2021 and 2022. The scope of the project has been revised versus our prior expectations to include process design innovations that reduce reagent consumption by greater than 10% while increasing the planned recovery of separated REO and improving potential product mix. We now expect to be able to reach targeted production rates and profitability in 2023 without the need to recommission our chlor-alkali facility, which we previously estimated would cost approximately \$30 million. We believe this significantly reduces the operational risks in achieving our targeted profitability. However, our estimated costs or estimated time to completion may increase, potentially significantly, due to factors outside of our control. See [“Part I, Item 1A. Risk Factors.”](#) While we believe that we have sufficient cash resources to fund our Stage II optimization and operating working capital in the near term, we cannot assure this. Any delays in our ongoing optimization plans or substantial cost increases related to their execution could significantly impact our ability to maximize our revenue opportunities and adversely impact our business and cash flows.

Key Components of Sales and Expenses

Product Sales

A substantial majority of our product sales are generated from the sale of REO concentrate to Shenghe, although we also sell small amounts to third parties. The table below presents our product sales by customer type:

(in thousands)	For the year ended December 31,	
	2020	2019
Product sales—Shenghe	\$ 133,698	\$ 73,017
Product sales—third parties	612	394
Total product sales	<u>\$ 134,310</u>	<u>\$ 73,411</u>

We recognize a product sale when we have a binding purchase agreement and the product is delivered to the agreed-upon shipping point, at which point the control of the product is transferred to the customer. The transaction price is typically based on an agreed-upon price per REO MT, subject to certain quality adjustments and discounts. See also [Note 2. “Significant Accounting Policies.”](#) in the notes to our Consolidated Financial Statements.

Costs and Expenses

Cost of sales (excluding depreciation, depletion and amortization) consists of production- and processing-related labor costs (including wages and salaries, benefits, and bonuses), mining and processing supplies (such as reagents), parts and labor for the maintenance of our mining fleet and processing facilities, other facilities-related costs (such as utilities), packaging materials, and freight and shipping costs.

Royalty expense to SNR relates to our obligation to pay SNR for the right to extract rare earth ores contained in our mine and was based on 2.5% of product sales, subject to certain minimums, prior to the Business Combination. See [Note 18. “Related Party Transactions.”](#) in the notes to our Consolidated Financial Statements. Following the Business Combination, we do not incur royalty expenses on a consolidated basis.

General and administrative expenses consist primarily of accounting, finance and administrative personnel costs, including stock-based compensation expense related to these personnel; professional services (including legal, regulatory, audit and others); certain engineering expenses; insurance, license and permit costs; facilities rent and other costs; office supplies; property taxes; general facilities expenses; and certain environmental, health, and safety expenses.

Depreciation, depletion and amortization consist of depreciation of property, plant and equipment related to our mining equipment and processing facilities, depletion of our mineral resources and amortization of capitalized computer software. As a result of the Business Combination, specifically the SNR Mineral Rights Acquisition, depletion will be higher in future periods.

Accretion of asset retirement and environmental obligations is based on the requirement to reclaim and remediate the land surrounding our mine and processing facilities upon the expiration of the mineral lease and on the estimated future cash flow requirement to monitor groundwater contamination related to prior owners' activities, respectively.

Other income, net consists mainly of gains or losses on the disposal of property, plant and equipment and interest income.

Interest expense, net consists mainly of the amortization of the discount on our debt obligations to Shenghe (all of which is non-cash) and, to a lesser extent, interest on other debt instruments, offset by interest capitalized.

Income tax benefit (expense) consists of an estimate of U.S. federal and state income taxes and income taxes in the jurisdictions in which we conduct business, adjusted for federal, state and local allowable income tax benefits, the effect of permanent differences and any valuation allowance against deferred tax assets.

Results of Operations

Comparison of the Years Ended December 31, 2020 and 2019

The following table summarizes our results of operations:

(in thousands, except percentages)	For the year ended December 31,		2020 vs. 2019	
	2020	2019	\$ Change	% Change
Product sales	\$ 134,310	\$ 73,411	\$ 60,899	83 %
Operating costs and expenses:				
Cost of sales (excluding depreciation, depletion and amortization)	63,798	61,261	2,537	4 %
Royalty expense to SNR	2,406	1,885	521	28 %
General and administrative expenses	27,008	11,104	15,904	143 %
Depreciation, depletion and amortization	6,931	4,687	2,244	48 %
Accretion of asset retirement and environmental obligations	2,255	2,094	161	8 %
Settlement charge	66,615	—	66,615	n.m.
Total operating costs and expenses	169,013	81,031	87,982	109 %
Operating loss	(34,703)	(7,620)	(27,083)	355 %
Other income, net	251	4,278	(4,027)	(94) %
Interest expense, net	(5,009)	(3,412)	(1,597)	47 %
Loss before income taxes	(39,461)	(6,754)	(32,707)	484 %
Income tax benefit (expense)	17,636	(1)	17,637	n.m.
Net loss	\$ (21,825)	\$ (6,755)	\$ (15,070)	223 %

n.m. - Not meaningful.

Product sales increased year over year by \$60.9 million, or 83%, to \$134.3 million for the year ended December 31, 2020. The increase was driven primarily by higher REO sales volume, which increased by 11,546 MTs to 38,367 MTs for the year ended December 31, 2020, as compared to the prior year, reflecting the improved efficiency of our processing operations, while our realized price per REO MT increased 19% year over year, primarily reflecting lower tariffs. Tariff credits from Shenghe contributed \$10.3 million in product sales for the year ended December 31, 2020. However, product sales for the year ended December 31, 2020, were negatively impacted by the accounting treatment of the Shenghe Implied Discount in connection with the Original Offtake Agreement, in which \$3.7 million of the value of products sold to Shenghe from January 1, 2020, until June 5, 2020, was not recognized as product sales. As mentioned above, starting June 5, 2020, the accounting treatment specific to the Shenghe Implied Discount is no longer required and, going forward, we will recognize product sales on the full value of our sales to Shenghe. See also ["Recent Developments and Comparability of Results"](#) section above.

Cost of sales (excluding depreciation, depletion and amortization) increased year over year by \$2.5 million, or 4%, to \$63.8 million for the year ended December 31, 2020. The increase was driven by higher sales volume and higher operating lease costs from leases that commenced in the second half of 2020, offset by significantly lower per unit production costs. The decrease in production cost per REO MT from \$1,980 for the year ended December 31, 2019, to \$1,430 for the year ended December 31, 2020, reflected the increased efficiency in processing our rare earth concentrate, driven by higher mineral

recoveries in our froth flotation circuit, higher concentrate grade, lower reagent usage per ton of concentrate produced, economies of scale, and improved operational uptime. We believe our cost of sales on a per unit basis has stabilized in the short-term, although we anticipate additional efficiency opportunities as we increase REO production volumes in our milling and flotation circuit over time.

Royalty expense to SNR increased year over year by \$0.5 million, or 28%, to \$2.4 million for the year ended December 31, 2020, reflecting our increased product sales (prior to the Business Combination, the royalty rate was 2.5% of our gross revenue from products derived from mined ore). Subsequent to the Business Combination in November 2020, we no longer incur this expense on a consolidated basis.

General and administrative expenses increased year over year by \$15.9 million, or 143%, to \$27.0 million for the year ended December 31, 2020, reflecting \$4.7 million in stock-based compensation expense from grants of restricted stock and restricted stock units ("Stock Awards") during the fourth quarter of 2020 and a \$7.1 million increase in professional service and legal fees, including accounting advisory services related to the Business Combination. The majority of the Stock Awards were issued upon the consummation of the Business Combination, and thus, are not necessarily reflective of future grants. Furthermore, prior to the fourth quarter of 2020, we had not granted any Stock Awards nor recorded any stock-based compensation expense. Excluding these items, the increase was \$4.1 million, or 37%, mainly due to an increase in personnel costs, reflecting headcount growth, including new hires to support our operations as a public company.

Depreciation, depletion and amortization increased year over year by \$2.2 million, or 48%, to \$6.9 million for the year ended December 31, 2020, reflecting the impact of additional equipment purchases and depletion of the mineral rights resulting from the SNR Mineral Rights Acquisition in November 2020.

Accretion of asset retirement and environmental obligation remained relatively flat year over year.

Settlement charge of \$66.6 million for the year ended December 31, 2020, which was non-cash, was recorded in connection with the termination of the DMA. See also ["Recent Developments and Comparability of Results"](#) section above.

Other income, net was \$0.3 million for the year ended December 31, 2020, primarily reflecting interest income and an environmental incentive credit. Other income, net, for the year ended December 31, 2019, was \$4.3 million, primarily reflecting a gain on the disposal of idle assets and interest income.

Interest expense, net increased year over year by \$1.6 million, or 47%, to \$5.0 million for the year ended December 31, 2020, mainly reflecting implied interest expense from the amortization of a debt discount on the issuance of a non-interest-bearing debt instrument to Shenghe in connection with the June 2020 Modification. During the year ended December 31, 2020, we capitalized interest of \$0.2 million. See also ["Recent Developments and Comparability of Results"](#) section above.

Income tax benefit (expense) was \$17.6 million for the year ended December 31, 2020, and related to current year activity as well as the release of a valuation allowance, which were partially offset by current California state income tax expense, mainly attributable to our inability to offset this obligation with state net operating losses due to temporary new legislation. Income tax expense was negligible for the year ended December 31, 2019.

Net loss increased year over year by \$15.1 million to \$21.8 million for the year ended December 31, 2020, primarily due to the settlement charge, as well as other reasons discussed above.

Non-GAAP Financial Measures

We present Total Value Realized, Production Costs, Adjusted EBITDA, Adjusted Net Income (Loss) and Free Cash Flow, which are non-GAAP financial measures that we use to supplement our results presented in accordance with GAAP. These measures are similar to measures reported by other companies in our industry and are regularly used by securities analysts and investors to measure companies' financial performance. Total Value Realized, Production Costs, Adjusted EBITDA, Adjusted Net Income (Loss) and Free Cash Flow are not intended to be a substitute for any GAAP financial measure and, as calculated, may not be comparable to other similarly titled measures of performance or liquidity of other companies within our industry or in other industries.

Total Value Realized

Total Value Realized, which we use to calculate our key performance indicator, realized price per REO MT, is a non-GAAP financial measure. As mentioned above, realized price per REO MT is an important measure of the market price of our

product. The following table presents a reconciliation of our Total Value Realized, to our product sales, which is determined in accordance with GAAP, as well as the calculation of realized price per REO MT:

<i>(in thousands, unless otherwise stated)</i>	For the year ended December 31,	
	2020	2019
Product sales	\$ 134,310	\$ 73,411
<i>Adjusted for:</i>		
Shenghe Implied Discount ⁽¹⁾	3,664	1,882
Other ⁽²⁾	(10,960)	(394)
Total Value Realized	\$ 127,014	\$ 74,899
Total Value Realized	\$ 127,014	\$ 74,899
<i>Divided by:</i>		
REO Sales Volume (in MTs)	38,367	26,821
Realized Price per REO MT (in dollars) ⁽³⁾	\$ 3,311	\$ 2,793

(1) Shenghe Implied Discount represents the difference between the contractual amount realized by Shenghe and the amount of deferred revenue we recognized.

(2) Includes mainly the net impact of a tariff rebate from Shenghe due to the retroactive effect of lifting of a Chinese tariff in 2020 (an additional \$10.3 million in tariff rebate was applied to reduce the Prepaid Balance) and sales of PhosFix stockpiles in 2019.

(3) May not recompute as presented due to rounding.

Production Costs

Production Costs, which we use to calculate our key performance indicator, production cost per REO MT, is a non-GAAP financial measure. As mentioned above, production cost per REO MT is a key indicator of our production efficiency. The following table presents a reconciliation of our Production Costs to our cost of sales (excluding depreciation, depletion and amortization), which is determined in accordance with GAAP, as well as the calculation of production cost per REO MT:

<i>(in thousands, unless otherwise stated)</i>	For the year ended December 31,	
	2020	2019
Cost of sales (excluding depreciation, depletion and amortization)	\$ 63,798	\$ 61,261
<i>Adjusted for:</i>		
Costs attributable to sales of stockpiles	(446)	(374)
Stock-based compensation expense ⁽¹⁾	(277)	—
Shipping and freight	(8,220)	(7,793)
Production Costs	\$ 54,855	\$ 53,094
Production Costs	\$ 54,855	\$ 53,094
<i>Divided by:</i>		
REO Sales Volume (in MTs)	38,367	26,821
Production Cost per REO MT (in dollars) ⁽²⁾	\$ 1,430	\$ 1,980

(1) Pertains only to the amount of stock-based compensation expense included in cost of sales (as opposed to general and administrative expenses).

(2) May not recompute as presented due to rounding.

Adjusted EBITDA

We define Adjusted EBITDA as our GAAP net income or loss before interest expense, net; income tax expense or benefit; and depreciation, depletion and amortization; further adjusted to eliminate the impact of stock-based compensation expense, transaction-related costs, other non-recurring costs, non-cash accretion of asset retirement and environmental obligations and gain on sale or disposal of long-lived assets. We present Adjusted EBITDA because it is used by management to evaluate our underlying operating and financial performance and trends.

Adjusted EBITDA excludes certain expenses that are required in accordance with GAAP because they are non-recurring, non-cash or are not related to our underlying business performance. This non-GAAP financial measure is intended to supplement our GAAP results and should not be used as a substitute for financial measures presented in accordance with GAAP.

Our Adjusted EBITDA does not reflect our results of operations on a comparable basis between periods because of the accounting consequences of the modifications of our agreements with Shenghe (see the ["Recent Developments and Comparability of Results"](#) section above). Accordingly, our Adjusted EBITDA trend for the years presented may not be indicative of future trends. If the Shenghe Implied Discount applicable to sales made under the Original Offtake Agreement had been included in our deferred revenue, our Adjusted EBITDA for the years ended December 31, 2020 and 2019, would have been higher by \$3.7 million and \$1.9 million, respectively.

The following table presents a reconciliation of our Adjusted EBITDA, which is a non-GAAP financial measure, to our net loss, which is determined in accordance with GAAP:

(in thousands)	For the year ended December 31,	
	2020	2019
Net loss	\$ (21,825)	\$ (6,755)
Adjusted for:		
Depreciation, depletion and amortization	6,931	4,687
Interest expense, net	5,009	3,412
Income tax expense (benefit)	(17,636)	1
Stock-based compensation expense ⁽¹⁾	5,014	—
Transaction-related costs ⁽²⁾	3,258	270
Accretion of asset retirement and environmental obligations	2,255	2,094
Other non-recurring costs ⁽³⁾	1,180	618
Royalty expense to SNR ⁽⁴⁾	2,406	1,885
Settlement charge ⁽⁵⁾	66,615	—
Tariff credits ⁽⁶⁾	(10,347)	—
Other income, net ⁽⁷⁾	(251)	(4,278)
Adjusted EBITDA	\$ 42,609	\$ 1,934

(1) Principally included in "General and administrative expenses" within our Consolidated Statements of Operations.

(2) Includes mainly advisory, consulting, accounting, legal expenses, and one-time employee bonuses in connection with the Business Combination.

(3) Includes mainly non-recurring costs for SAP implementation for the year ended December 31, 2020, and one-time severance payments to certain former members of our executive team for the year ended December 31, 2019.

(4) Represents royalty expenses paid to SNR prior to the completion of the SNR Mineral Rights Acquisition. As mentioned above, the royalty expense to SNR eliminates in consolidation after the consummation of the Business Combination.

(5) As discussed in the ["Recent Developments and Comparability of Results"](#) section above, in connection with terminating the DMA, we recognized a one-time, non-cash settlement charge.

(6) Represents non-cash revenue recognized during the year ended December 31, 2020, in connection with the tariff credits received from Shenghe relating to product sales primarily from prior periods.

(7) Primarily represents gains or losses on disposals of equipment and interest income. For the year ended December 31, 2019, we recorded a gain on sales of idle mining equipment following the acquisition of the Mountain Pass mine and processing facilities.

Adjusted Net Income (Loss)

We calculate Adjusted Net Income (Loss) as our GAAP net income or loss excluding the impact of depletion, stock-based compensation expense, transaction-related costs, and other non-recurring costs, adjusted to give effect to the income tax impact of such adjustments. To calculate the income tax impact of such adjustments on a year-to-date basis, we utilize an effective tax rate equal to our income tax expense excluding material discrete costs and benefits, with any impacts of changes in effective tax rate being recognized in the current period. We present Adjusted Net Income (Loss) because it is used by management to evaluate our underlying operating and financial performance and trends.

Adjusted Net Income (Loss) excludes certain expenses that are required in accordance with GAAP because they are non-recurring, non-cash, or not related to our underlying business performance. As a result of the SNR Mineral Rights Acquisition,

the mineral rights for the rare earth ores contained in our mine were recorded at fair value as of the date of the Business Combination, resulting in a significant step-up of the carrying amount of the asset which will cause depletion to be meaningfully higher in future periods. This non-GAAP financial measure is intended to supplement our GAAP results and should not be used as a substitute for financial measures presented in accordance with GAAP.

Our Adjusted Net Income (Loss) does not reflect our results of operations on a comparable basis between periods primarily because of the accounting consequences of the modifications of our agreements with Shenghe (see the ["Recent Developments and Comparability of Results"](#) section above). Accordingly, our Adjusted Net Income (Loss) trend for the years presented may not be indicative of future trends.

The following table presents a reconciliation of our Adjusted Net Income (Loss), which is a non-GAAP financial measure, to our net loss, which is determined in accordance with GAAP:

(in thousands)	For the year ended December 31,	
	2020	2019
Net loss	\$ (21,825)	\$ (6,755)
<i>Adjusted for:</i>		
Depletion ⁽¹⁾	1,961	114
Stock-based compensation expense ⁽²⁾	5,014	—
Transaction-related costs ⁽³⁾	3,258	270
Other non-recurring costs ⁽⁴⁾	1,180	618
Royalty expense to SNR ⁽⁵⁾	2,406	1,885
Settlement charge ⁽⁶⁾	66,615	—
Tariff credits ⁽⁷⁾	(10,347)	—
Other income, net ⁽⁸⁾	(251)	(4,278)
Tax impact of adjustments above ⁽⁹⁾	(17,438)	379
Release of valuation allowance ⁽¹⁰⁾	(9,333)	—
Adjusted Net Income (Loss)	\$ 21,240	\$ (7,767)

(1) Principally includes the depletion associated with the mineral rights for the rare earth ores contained in the Company's mine, which were recorded in connection with the SNR Mineral Rights Acquisition at fair value as of the date of the Business Combination, resulting in a significant step-up of the carrying amount of the asset. See [Note 3, "Business Combination and Reverse Recapitalization"](#) in the notes to our Consolidated Financial Statements for more information on the accounting for the asset acquisition.

(2) Principally included in "General and administrative expenses" within our Consolidated Statements of Operations.

(3) Includes mainly advisory, consulting, accounting, legal expenses, and one-time employee bonuses in connection with the Business Combination.

(4) Includes mainly non-recurring costs for SAP implementation for the year ended December 31, 2020, and one-time severance payments to certain former members of our executive team for the year ended December 31, 2019.

(5) Represents royalty expenses paid to SNR prior to the completion of the SNR Mineral Rights Acquisition. As mentioned above, the royalty expense to SNR eliminates in consolidation after the consummation of the Business Combination.

(6) As discussed in the ["Recent Developments and Comparability of Results"](#) section above, in connection with terminating the DMA, we recognized a one-time, non-cash settlement charge.

(7) Represents non-cash revenue recognized during the year ended December 31, 2020, in connection with the tariff credits received from Shenghe relating to product sales primarily from prior periods.

(8) Primarily represents gains or losses on disposals of equipment and interest income. For the year ended December 31, 2019, we recorded a gain on sales of idle mining equipment following the acquisition of the Mountain Pass mine and processing facilities.

(9) Tax impact of adjustments is calculated by applying the annual effective tax rate, excluding the impact of discrete tax costs and benefits, to each adjustment. The adjusted effective tax rates used were 25.0% and 27.3% for the years ended December 31, 2020 and 2019, respectively. See [Note 12, "Income Taxes,"](#) in the notes to our Consolidated Financial Statements for more information on the effective tax rate.

(10) Reflects the one-time impact of the release of the majority of our valuation allowance.

Free Cash Flow

We calculate Free Cash Flow as net cash provided by or used in operating activities less additions of property, plant and equipment. We believe Free Cash Flow is useful for comparing our ability to generate cash with that of our peers. The presentation of Free Cash Flow is not meant to be considered in isolation or as an alternative to cash flows from operating activities and does not necessarily indicate whether cash flows will be sufficient to fund cash needs.

The following table presents a reconciliation of our Free Cash Flow, which is a non-GAAP financial measure, to our net cash provided by (used in) operating activities, which is determined in accordance with GAAP:

(in thousands)	For the year ended December 31,	
	2020	2019
Net cash provided by (used in) operating activities ⁽¹⁾	\$ 3,277	\$ (437)
Additions of property, plant and equipment	(22,370)	(2,274)
Free Cash Flow	\$ (19,093)	\$ (2,711)

(1) Under the terms of the A&R Offtake Agreement and pursuant to the accounting treatment thereof, we recognized \$21.3 million of non-cash revenue during the year ended December 31, 2020, which was retained by Shenghe to reduce our outstanding debt obligation.

Quarterly Performance Trend

While our business is not seasonal in nature, we sometimes experience a timing lag between production and sales, which may result in volatility in our results of operations between periods. In addition, the efficiency improvements we made in the processing of our rare earth materials has resulted in significantly higher production of REO starting in the third quarter of 2019. Our realized price per REO MT was adversely impacted by the imposition of Chinese import duties in July 2018 as well as the subsequent increase of such tariffs in May 2019. The lifting of tariffs contributed to the improvement in realized price per REO MT in the second and third quarters of 2020.

The following table presents our REO production and sales volumes, as well as our realized price per REO MT, for the quarterly periods indicated:

(in whole units or dollars)	FY2019				FY2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
REO Production Volume (MTs)	4,040	5,490	9,417	8,673	9,682	9,287	10,197	9,337
REO Sales Volume (MTs)	3,875	4,533	9,852	8,561	8,321	10,297	9,429	10,320
Realized Price per REO MT ⁽¹⁾	\$ 2,902	\$ 3,081	\$ 2,967	\$ 2,389	\$ 2,544	\$ 3,093	\$ 3,393	\$ 4,070

(1) Realized price per REO MT for certain periods prior to May 2020 would have generally been higher if the tariff credits received from Shenghe were applied in the same periods the relevant sales occurred. See ["Recent Developments and Comparability of Results."](#)

Liquidity and Capital Resources

Liquidity refers to our ability to generate sufficient cash flows to meet the cash requirements of our business operations, including working capital and capital expenditure needs, contractual obligations, debt service and other commitments. Historically, our principal sources of liquidity have been the Offtake Advances from Shenghe, issuances of notes or other debt, and cash from operating activities. Recently, we raised capital through the consummation of the Business Combination, which included the PIPE Financing that resulted in \$200.0 million in gross proceeds.

As of December 31, 2020, we had \$519.7 million of cash and cash equivalents and \$71.8 million principal amount of related-party debt pertaining to our Offtake Advances with Shenghe. The promissory notes with JHL Capital Group and QVT Financial and their affiliates (described below) were repaid in full upon the consummation of the Business Combination.

We believe that our cash flows from operations and cash on hand is adequate to meet our liquidity requirements for the foreseeable future. Our current working capital needs relate mainly to our mining and beneficiation operations. Our principal capital expenditure requirements relate mainly to the periodic replacement of mining or processing equipment, as well as funding our Stage II optimization project to recommission and optimize our idled refining facilities. Our future capital requirements will depend on several factors, including future acquisitions and potential additional investments in further downstream production (for example, if we move forward with plans to develop our Stage III project for the production of rare-earth-based magnets and/or other finished components). If our available resources prove inadequate to fund our plans or commitments, we may be forced to revise our strategy and business plans or could be required, or elect, to seek additional funding through public or private equity or debt financings; however, such funding may not be available on terms acceptable to us, if at all.

Debt Obligations

Offtake Advances: As of December 31, 2020, we had debt recorded to Shenghe with a carrying amount of \$66.4 million, of which \$71.8 million was principal and \$5.4 million was debt discount. The debt was recorded in connection with the accounting for the June 2020 Modification. The debt to Shenghe is to be satisfied primarily through product sales, as described above, where partial non-cash consideration is received by the Company in the form of debt reduction (generally equal to approximately 15% of the ultimate market value of the REO, excluding tariffs, duties and certain other charges). Additional cash payments will be required as a result of sales of offtake products to other parties, and under certain other conditions. See also [“Recent Developments and Comparability of Results”](#) section above.

We follow an imputed interest rate model to calculate the amortization of the embedded discount, which is recognized as non-cash interest expense, by estimating the timing of anticipated payments and reductions of the debt principal balance. The effective rate applicable from the June 5, 2020, inception to December 31, 2020, was between 4.41% and 5.27%. As of December 31, 2020, we estimated the timing of repayment to be within three years and an updated imputed interest rate of 6.59%. The relative increase in rates is primarily due to changes in expected market prices, which will result in earlier anticipated repayment of the outstanding balance through the various mechanisms, and result in a higher implicit interest rate in order to fully amortize the debt discount concurrent with the expected final repayment of the debt balance.

Promissory Note: In April 2017, we issued a 5% callable unsecured promissory note to certain investment funds managed by or affiliated with JHL Capital Group and QVT Financial, in exchange for loans extended by those entities. This note was repaid in full upon the consummation of the Business Combination.

Secured Promissory Note: In August 2017, we issued a 10% secured promissory note to certain investment funds managed by and/or affiliated with JHL Capital Group and QVT Financial, in exchange for a loan extended by those entities to enable us to purchase certain equipment. This promissory note was secured by a lien on certain equipment that was purchased by us with the proceeds of the note. In addition, the interest on this promissory note was payable in kind whereby the interest would be added to the principal balance. This note was repaid in full upon the consummation of the Business Combination.

Paycheck Protection Loan: In April 2020, we obtained a loan of \$3.4 million pursuant to the Paycheck Protection Program (the “PPP”) under Division A, Title I of the CARES Act, which was enacted in March 2020 (the “Paycheck Protection Loan” or the “Loan”). The Paycheck Protection Loan, which was in the form of a note dated April 15, 2020, issued by CIBC Bank USA, matures on April 14, 2022, and bears interest at a rate of 1% per annum, payable monthly commencing on March 15, 2021. Under the terms of the PPP, the Loan may be forgiven if the funds are used for qualifying expenses as described in the CARES Act, which include payroll costs, costs used to continue group health care benefits, rent and utilities. As we have used the entire Loan amount for qualifying expenses, in November 2020, we applied for forgiveness of the entire balance in accordance with the requirements and limitations under the CARES Act and Small Business Administration (“SBA”) regulations and requirements. However, no assurance can be provided that any portion of the Loan will be forgiven. Based on guidance from the U.S. Department of the Treasury, since the proceeds exceeded \$2.0 million, our forgiveness application is subject to audit by the SBA. We are currently awaiting a determination on forgiveness of the Paycheck Protection Loan.

Equipment Notes: We entered into several financing agreements for the purchase of equipment, including trucks, tractors, loaders, graders, and various other machinery. As of December 31, 2020, we had \$2.1 million in principal (and accrued interest) outstanding under the equipment notes.

Public Warrants

Warrants to purchase 11,499,968 shares of the Company’s Common Stock at \$11.50 per share were issued during FVAC’s IPO (the “Public Warrants”). The Public Warrants become exercisable 12 months from the closing of FVAC’s IPO, which was May 4, 2020. The Public Warrants expire five years after the completion of the Business Combination or earlier upon redemption or liquidation. Assuming the exercise of all of the outstanding Public Warrants for cash, we would receive gross proceeds of approximately \$132 million. For more information on the Public Warrants, see [Note 14, “Stockholders’ Equity.”](#) in the notes to our Consolidated Financial Statements.

Cash Flows

The following table summarizes our cash flows:

	For the year ended December 31,		2020 vs. 2019	
	2020	2019	\$ Change	% Change
<i>(in thousands, except percentages)</i>				
Net cash provided by (used in) operating activities	\$ 3,277	\$ (437)	\$ 3,714	n.m.
Net cash provided by (used in) investing activities	\$ (22,370)	\$ 5,624	\$ (27,994)	n.m.
Net cash provided by (used in) financing activities	\$ 521,961	\$ (4,096)	\$ 526,057	n.m.

n.m. - Not meaningful.

Net Cash Provided by (Used in) Operating Activities: Net cash provided by operating activities was \$3.3 million for the year ended December 31, 2020, compared to net cash used in operating activities of \$0.4 million in the prior year. The improvement mainly reflects the increase in product sales and increased efficiency in our production costs (as discussed above), offset by a reduction due to the timing of payment of working capital items, such as accounts payable, and a build in ore stockpiles per our mine plan. In addition, of our product sales, \$21.3 million was excluded from cash provided by operating activities since that portion of the sales price was retained by Shenghe to reduce the debt obligation.

Net Cash Provided by (Used in) Investing Activities: Our current, recurring capital expenditure needs consist mainly of purchases of property, plant and equipment, including mining equipment.

Net cash used in investing activities was \$22.4 million for the year ended December 31, 2020, compared to net cash provided by investing activities of \$5.6 million in the prior year. The change was mainly attributable to an increase in capital expenditures relating primarily to initial expenditures related to our Stage II optimization project, as well as commissioning of our CHP and water treatment plants during the year ended December 31, 2020. For the year ended December 31, 2019, we sold long-lived assets, from which we received \$7.9 million.

Net Cash Provided by (Used in) Financing Activities: Net cash provided by financing activities was \$522.0 million for the year ended December 31, 2020, compared to net cash used in financing activities of \$4.1 million in the prior year. The change primarily relates to the Business Combination, including the PIPE Financing. In addition, the change reflects the \$35.5 million received from Shenghe relating to the Second Additional Advance, \$40.3 million payments of underwriting and transaction costs, and a year-over-year increase of \$8.9 million in principal payments on debt obligations and finance leases.

Contractual Obligations

The following table presents our contractual obligations and commitments as of December 31, 2020:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
<i>(in thousands)</i>					
Lease obligations ⁽¹⁾	\$ 2,275	\$ 1,114	\$ 947	\$ 214	\$ —
Debt obligations ⁽²⁾	5,466	3,238	2,128	100	—
Offtake Advances ⁽³⁾	71,843	25,710	46,133	—	—
Asset retirement and environmental obligations ⁽⁴⁾	42,737	546	1,084	1,074	40,033
Total	\$ 122,321	\$ 30,608	\$ 50,292	\$ 1,388	\$ 40,033

(1) Includes future lease payments required under operating leases and finance leases that have initial or remaining non-cancellable lease terms in excess of one year.

(2) Includes scheduled or expected principal payments on our debt obligations as well as our equipment notes.

(3) Based on our expected repayments, considering expected production volumes, forecasted prices and cost projections. Actual amounts may differ from these estimates.

(4) Represents payments that we are expecting to make in the future based on our estimates of asset retirement and environmental obligations, on a discounted basis.

Off-Balance Sheet Commitments and Arrangements

We do not engage in any off-balance sheet financing activities, nor do we have any interest in entities referred to as variable interest entities.

Critical Accounting Policies

Preparation of the Consolidated Financial Statements in accordance with GAAP requires our management to make judgments, estimates and assumptions that impact the reported amount of product sales and operating expenses, assets and liabilities and the disclosure of contingent assets and liabilities. We consider an accounting judgment, estimate or assumption to be critical when (1) the estimate or assumption is complex in nature or requires a high degree of judgment and (2) the use of different judgments, estimates and assumptions could have a material impact on our Consolidated Financial Statements. Our significant accounting policies are described in [Note 2, "Significant Accounting Policies,"](#) in the notes to our Consolidated Financial Statements. Our critical accounting policies are described below.

Revenue

We recognize revenue from sales of rare earth products produced from our mine. Our principal customer, Shenghe, purchased substantially all of our production for the years ended December 31, 2020 and 2019, and is an affiliate of an equityholder of the Company. We recognize revenue at the point in time control of the products transfers to the customer and, under our offtake agreements with Shenghe, our performance obligation is typically satisfied when we deliver products to the agreed-upon shipping point. The transaction price with Shenghe is typically based on an agreed-upon price per MT but subject to certain quality adjustments based on REO content, with an adjustment for the ultimate market price of the product realized by Shenghe, further adjusted for certain contractually negotiated amounts. We typically negotiate with and bill an initial price to Shenghe; such prices are then updated based on final adjustments for REO content and/or actual sales prices realized by Shenghe. Sales to Shenghe under the Original Offtake Agreement also reflect an adjustment for the Shenghe Implied Discount, which did not apply to sales prior to July 1, 2019, or after June 5, 2020.

Debt Obligations and Imputed Interest Rate Applied to Debt Discount

In connection with the June 2020 Modification, we recorded a total principal amount of \$94.0 million in debt due to the nature of our obligations, including a carrying amount upon issuance of \$85.7 million based on the fair value of the instrument upon issuance, and offset by the resulting debt discount of \$8.3 million. Since the A&R Offtake Agreement does not have a stated rate, and the timing and method of repayment is contingent on several factors, including our production and sales volumes, market prices realized by Shenghe, our sales to other parties, our asset sales and the amount of our annual net income, we estimated the timing of payments and other reductions to the outstanding balance to determine an imputed interest rate.

The debt discount represents the difference between the fair value of the debt liability issued and the total amount of the contractual obligation as a consequence of our entry into the A&R Offtake Agreement. The imputed interest rate is calculated by amortizing the debt discount over the time period that management expects to bring the total outstanding principal balance to zero and determining the annualized interest rate necessary to fully amortize the discount in the same period when final principal reduction is expected to occur. Actual repayments or reductions in the principal balance may differ in timing and amount from our estimates, and we therefore expect to update our estimates each reporting period. Accordingly, the imputed interest rate is likely to differ in future periods.

We have determined that we will recognize adjustments from these estimates using the prospective method. Under the prospective method, we will update our estimate of the effective imputed interest rate in future periods based on revised estimates of the timing of remaining principal reductions. This rate will then be used to recognize interest expense for subsequent reporting periods, until the estimates are updated again. Under this method, the effective interest rate is not constant, and changes are recognized prospectively as an adjustment to the effective yield. See [Note 9, "Debt Obligations,"](#) in the notes to our Consolidated Financial Statements for further discussion.

Asset Retirement Obligations

We recognize asset retirement obligations for estimated costs of legally and contractually required closure, dismantlement, and reclamation activities associated with the Mountain Pass mine and processing facility. Asset retirement obligations are initially recognized at their estimated fair value in the period in which the obligation is incurred. Fair value is based on the expected timing of reclamation activities, cash flows to perform activities, amount and uncertainty associated with the cash flows, including adjustments for a market risk premium, and discounted using a credit-adjusted risk-free rate. The liability is accreted over time through periodic charges to earnings and reduced as reclamation activities occur; differences between

estimated and actual amounts are recognized as an adjustment to operating expense. Subsequent increments in expected undiscounted cash flows are measured at their discounted values using updated estimates of our credit-adjusted risk-free rate applied to the increment only. Subsequent decrements are reduced based on the weighted-average discount rate associated with the obligation. As of December 31, 2020, the credit-adjusted risk-free rate ranged between 7.1% and 8.2%, depending on the timing of expected settlement and when the layer or increment was recognized. Associated asset retirement costs, including the effect of increments and decrements, are recognized as adjustments to the related asset's carrying amount and depreciated or depleted over its remaining useful life.

Environmental Obligations

We have assumed certain environmental remediation obligations that primarily relate to groundwater monitoring activities. Estimated remediation costs are accrued based on management's best estimate at the end of each period of the costs expected to be incurred at a site to settle the obligation when those amounts are probable and estimable. Such cost estimates may include ongoing care, maintenance and monitoring costs associated with remediation activities. Changes in remediation estimates are reflected in earnings in the period. Remediation costs included in environmental obligations are discounted to their present value as cash flows when payments are readily estimable, and are discounted using a risk-free rate, which we derive from U.S. Treasury yields.

Emerging Growth Company Accounting Election

Section 102(b)(1) of the Jumpstart Our Business Startups Act of 2012 ("JOBS Act") exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can choose not to take advantage of the extended transition period and comply with the requirements that apply to non-emerging growth companies, and any such election to not take advantage of the extended transition period is irrevocable. We are an "emerging growth company" as defined in Section 2(a) of the Securities Act, and have irrevocably elected to take advantage of the benefits of this extended transition period, which means that when a standard is issued or revised and has different application dates for public or private companies, we, for so long as we remain an emerging growth company, may adopt the new or revised standard at the time private companies are required to adopt the new or revised standard.

Recently Adopted and Issued Accounting Pronouncements

Recently adopted and issued accounting pronouncements are described in [Note 2, "Significant Accounting Policies,"](#) in the notes to our Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have in the past and may in the future be exposed to certain market risks, including commodity price risks, in the ordinary course of our business, as discussed further below. In addition to commodity pricing risk, our product sales are highly concentrated, with Shenghe accounting for more than 90% of our product sales for all periods presented.

Commodity Price Risk

Our results of operations depend in large part upon the market prices of REO and particularly the price of rare earth concentrate. Concentrate prices are less transparent than those of many other commodities. Rare earth concentrate is not quoted on any major commodities market or exchange and demand is currently limited to a relatively limited number of refiners, a significant majority of which are based in China. We believe that we are a leading, low-cost producer of rare earth concentrate containing significant amounts of NdPr. We expect demand for NdPr to continue to grow driving demand for our concentrate and ultimately, upon the completion of our Stage II optimization plan, separated NdPr oxide, but actual demand and pricing may fluctuate for numerous reasons beyond our control, including, among other things, discoveries of new mineral properties, technological changes that lead to diminished reliance on NdPr and/or permanent magnets, and shifts in underlying end-user demand for products or components manufactured with NdPr. See the ["Key Factors Affecting Our Performance,"](#) section in ["Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."](#) While we currently generate revenue in the United States and in U.S. dollars, the market transactions are denominated mainly in the Chinese Yuan and we are therefore indirectly exposed to currency volatility and devaluation risks. For example, we negotiate monthly U.S. dollar REO prices with Shenghe, which are based in part on the exchange rate between the U.S. dollar and the Chinese Yuan. Geopolitical tensions between the United States and China may lead to increased tariffs, preferences for local producers, some of which may be government-supported, changes in taxing regimes or other trade barriers. We have not entered into derivative contracts to protect the selling price for our REO and do not expect to do so in the foreseeable future, as there is no liquid market for such contracts and their cost may be prohibitive, if they could be obtained at all.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors
MP Materials Corp.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of MP Materials Corp. and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, changes in stockholders' equity (deficit), and cash flows for each of the years in the two-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

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

/s/ KPMG LLP

We have served as the Company's auditor since 2017.

Denver, Colorado
March 22, 2021

MP MATERIALS CORP. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2020	2019
<i>(in thousands, except share and per share data)</i>		
Assets		
Current assets		
Cash and cash equivalents	\$ 519,652	\$ 2,757
Trade accounts receivable (including related parties)	3,589	370
Inventories	32,272	23,048
Prepaid expenses and other current assets	5,534	1,234
Total current assets	561,047	27,409
Non-current assets		
Restricted cash	9,100	26,791
Property, plant and equipment, net	501,974	46,386
Finance lease right-of-use assets	1,028	586
Other non-current assets	1,139	622
Total non-current assets	513,241	74,385
Total assets	<u>\$ 1,074,288</u>	<u>\$ 101,794</u>
Liabilities and stockholders' equity (deficit)		
Current liabilities		
Accounts payable and accrued liabilities	\$ 16,136	\$ 12,029
Accounts payable and accrued liabilities—related parties	23	2,146
Deferred revenue—related parties	—	6,609
Current installments of long-term debt	2,403	—
Current installments of long-term debt—related parties	22,070	4,484
Current portion of finance lease liabilities	266	194
Other current liabilities	2,163	2,623
Other current liabilities—related parties	—	3,230
Total current liabilities	43,061	31,315
Non-current liabilities		
Asset retirement obligations	25,570	23,894
Environmental obligations	16,602	16,628
Deferred revenue—related parties, net of current portion	—	28,934
Long-term debt, net of current portion	961	—
Long-term debt—related parties, net of current portion	44,380	13,594
Finance lease liabilities, net of current portion	736	399
Deferred income taxes	87,473	—
Other non-current liabilities	1,628	5,052
Total non-current liabilities	177,350	88,501
Total liabilities	220,411	119,816
Commitments and contingencies (Note 13)		
Stockholders' equity (deficit):		
Preferred stock (\$0.0001 par value, 50,000,000 shares authorized, none issued and outstanding in either year)	—	—
Common stock (\$0.0001 par value, 450,000,000 shares authorized, 170,719,979 and 66,556,975 shares issued and outstanding)	17	7
Additional paid-in capital	916,482	22,768
Accumulated deficit	(62,622)	(40,797)
Total stockholders' equity (deficit)	853,877	(18,022)
Total liabilities and stockholders' equity (deficit)	<u>\$ 1,074,288</u>	<u>\$ 101,794</u>

See accompanying notes to the Consolidated Financial Statements.

MP MATERIALS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

<i>(in thousands, except share and per share data)</i>	For the year ended December 31,	
	2020	2019
Product sales (including to related parties)	\$ 134,310	\$ 73,411
Operating costs and expenses:		
Cost of sales (including to related parties)(excluding depreciation, depletion and amortization)	63,798	61,261
Royalty expense to SNR	2,406	1,885
General and administrative expenses	27,008	11,104
Depreciation, depletion and amortization	6,931	4,687
Accretion of asset retirement and environmental obligations	2,255	2,094
Settlement charge	66,615	—
Total operating costs and expenses	169,013	81,031
Operating loss	(34,703)	(7,620)
Other income, net	251	4,278
Interest expense, net	(5,009)	(3,412)
Loss before income taxes	(39,461)	(6,754)
Income tax benefit (expense)	17,636	(1)
Net loss	\$ (21,825)	\$ (6,755)
Net loss per share:		
Basic and diluted	\$ (0.27)	\$ (0.10)
Weighted-average shares outstanding:		
Basic and diluted	79,690,821	66,556,975

See accompanying notes to the Consolidated Financial Statements.

MP MATERIALS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)

<i>(in thousands, except share data)</i>	Preferred Equity			Common Equity			Shenghe Warrant	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Units	Shares	Amount	Units	Shares	Amount				
Balance as of December 31, 2018	110.98	—	\$ 2,275	1,000	—	\$ 20,500	\$ —	\$ —	\$ (34,042)	\$ (11,267)
Retroactive application of recapitalization	(110.98)	—	(2,275)	(1,000)	66,556,975	(20,493)	—	22,768	—	—
Net loss	—	—	—	—	—	—	—	—	(6,755)	(6,755)
Balance as of December 31, 2019	—	—	—	—	66,556,975	7	—	22,768	(40,797)	(18,022)
Issuance of Shenghe Warrant	—	—	—	—	—	—	53,846	—	—	53,846
Business Combination, including PIPE Financing	—	—	—	—	60,738,714	6	(53,846)	563,115	—	509,275
SNR Mineral Rights Acquisition	—	—	—	—	19,999,942	2	—	326,647	—	326,649
Common stock issuances	—	—	—	—	21,484,898	2	—	(2)	—	—
Stock-based compensation	—	—	—	—	2,013,006	—	—	5,014	—	5,014
Shares used to settle payroll tax withholding	—	—	—	—	(69,083)	—	—	(996)	—	(996)
Net loss	—	—	—	—	—	—	—	—	(21,825)	(21,825)
Other	—	—	—	—	(4,473)	—	—	(64)	—	(64)
Balance as of December 31, 2020	—	—	\$ —	—	170,719,979	\$ 17	\$ —	\$ 916,482	\$ (62,622)	\$ 853,877

See accompanying notes to the Consolidated Financial Statements.

MP MATERIALS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	For the year ended December 31,	
	2020	2019
Operating activities:		
Net loss	\$ (21,825)	\$ (6,755)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation, depletion and amortization	6,931	4,687
Accretion of asset retirement and environmental obligations	2,255	2,094
Loss (gain) on sale of equipment	101	(3,375)
Stock-based compensation expense	5,014	—
Accretion of debt discount	3,146	1,001
Non-cash settlement charge	66,615	—
Revenue recognized in exchange for debt principal reduction	(21,312)	—
Decrease (increase) in operating assets:		
Trade accounts receivable (including related parties)	(3,219)	(145)
Inventories	(9,224)	(9,573)
Prepaid expenses, other current and non-current assets	1,794	(82)
Increase (decrease) in operating liabilities:		
Accounts payable and accrued liabilities	(3,848)	6,246
Accrued interest	(1,519)	1,761
Refund liability to related party	(2,746)	162
Deferred revenue from related party	1,933	7,061
Other current and non-current liabilities	(3,027)	(3,520)
Deferred income taxes	(17,792)	1
Net cash provided by (used in) operating activities	3,277	(437)
Investing activities:		
Additions of property, plant and equipment	(22,370)	(2,274)
Proceeds from sale of property, plant and equipment	—	7,898
Net cash provided by (used in) investing activities	(22,370)	5,624
Financing activities:		
Proceeds from long-term debt	3,364	7,236
Proceeds from Second Additional Advance	35,450	—
Proceeds from Business Combination, including PIPE Financing	544,712	—
Principal payments on debt obligations and finance leases	(20,180)	(11,332)
Payment of underwriting and transaction costs	(40,325)	—
Other	(1,060)	—
Net cash provided by (used in) financing activities	521,961	(4,096)
Net change in cash, cash equivalents and restricted cash	502,868	1,091
Cash, cash equivalents and restricted cash beginning balance	29,572	28,481
Cash, cash equivalents and restricted cash ending balance	<u>\$ 532,440</u>	<u>\$ 29,572</u>
Reconciliation of cash, cash equivalents and restricted cash:		
Cash and cash equivalents	\$ 519,652	\$ 2,757
Restricted cash, current	3,688	24
Restricted cash, non-current	9,100	26,791
Total cash, cash equivalents and restricted cash	<u>\$ 532,440</u>	<u>\$ 29,572</u>

See accompanying notes to the Consolidated Financial Statements.

MP MATERIALS CORP. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

We own and operate the Mountain Pass facility, one of the world's largest integrated rare earth mining and processing facilities and the only major rare earths resource in the Western Hemisphere. Our wholly-owned subsidiary, MP Mine Operations LLC, a Delaware limited liability company ("MPMO"), acquired the Mountain Pass mine and processing facilities in July 2017. Our wholly-owned subsidiary, Secure Natural Resources LLC, a Delaware limited liability company ("SNR"), holds the mineral rights to the Mountain Pass mine and surrounding areas as well as intellectual property rights related to the processing and development of rare earth minerals. The mine achieved commercial operations in July 2019 and we are currently working to restore the remainder of the facility for use in processing separated rare earth products. The Company is headquartered in Las Vegas, Nevada. References herein to the "Company," "we," "our," and "us," refer to MP Materials Corp. and its subsidiaries.

The Business Combination (as defined below) was consummated on November 17, 2020, pursuant to the terms of a merger agreement entered into on July 15, 2020 (the "Merger Agreement"). Pursuant to the Merger Agreement, MPMO and SNR were combined with Fortress Value Acquisition Corp., a special purpose acquisition company ("FVAC") (the "Business Combination"), and became indirect wholly-owned subsidiaries of FVAC, which was in turn renamed MP Materials Corp.

The Business Combination was accounted for as a reverse recapitalization, with no goodwill or other intangible assets recorded, in accordance with generally accepted accounting principles in the United States ("GAAP"). The acquisition of SNR (the "SNR Mineral Rights Acquisition") was treated as an asset acquisition. Furthermore, MPMO was deemed to be the accounting acquirer and FVAC the accounting acquiree, which, for financial reporting purposes, results in MPMO's historical financial information becoming that of the Company. In addition, the common stock, preferred stock, additional paid-in capital, and earnings (loss) per share amounts presented in the Consolidated Financial Statements and these accompanying notes have been restated to reflect recapitalization. For further discussion, see [Note 3. "Business Combination and Reverse Recapitalization."](#)

On May 22, 2017, the Company entered into a set of commercial arrangements with Shenghe Resources (Singapore) International Trading Pte. Ltd. ("Shenghe"), a majority owned subsidiary of Leshan Shenghe Rare Earth Co., Ltd. ("Leshan Shenghe") whose ultimate parent is Shenghe Resources Holding Co., Ltd., a leading global rare earth company listed on the Shanghai Stock Exchange, to fund the Company's operations, identify operational efficiencies, and sell products to Shenghe and third parties. Shenghe has significant knowledge of the mining, processing, marketing and distribution of rare earth products, as well as access to customers in the Chinese market for these products. As part of these arrangements, Shenghe (and its controlled affiliates) became both the principal customer and a related party when Leshan Shenghe obtained a 9.99% non-voting preferred interest in MPMO. As discussed in [Note 3. "Business Combination and Reverse Recapitalization,"](#) such preferred interest was effectively exchanged into shares of the Company's common stock with a par value of \$0.0001 per share ("Common Stock"). See also [Note 4. "Relationship and Agreements with Shenghe,"](#) for additional information.

Operating segments are defined as components of an enterprise about which separate financial information is available and evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker views the Company's operations and manages the business as one reportable segment.

The cash flows and profitability of the Company's operations are significantly affected by the market price of rare earth products. The prices of rare earth products are affected by numerous factors beyond the Company's control. The products of the Company are sold globally, with a primary focus in the Asian market due to the refining capabilities of the region. Rare earth products are critical inputs in hundreds of existing and emerging clean-tech applications including electric vehicles and wind turbines as well as drones and defense applications.

The Consolidated Financial Statements of the Company have been prepared in accordance with GAAP and with the rules and regulations of the U.S. Securities and Exchange Commission.

NOTE 2—SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation: The Consolidated Financial Statements include the accounts of MP Materials Corp. and its subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Concentration of Risk: As of December 31, 2020, Shenghe accounted for more than 90% of product sales. Shenghe, a related party of the Company, has entered into an arrangement to purchase substantially all of the Company's production, and has previously purchased the Company's stockpile inventory. While as with any contract there is risk of nonperformance, we do not believe that it is reasonably possible that the agreement will be terminated in the near term as it would significantly delay Shenghe's recovery of non-interest-bearing advance payments that are recognized by the Company as debt. See [Note 4, "Relationship and Agreements with Shenghe,"](#) for additional information.

Furthermore, while revenue is generated in the United States, our principal customer is located in China and may transport and sell products in the Chinese market; therefore, the Company's gross profit is affected by Shenghe's ultimate realized prices in China. In addition, there is an ongoing economic conflict between China and the United States that has resulted in tariffs and trade barriers that may negatively affect the Company's business and results of operations.

In December 2019, a novel strain of coronavirus (known as "COVID-19") began to impact the population of China, where our principal customer is located. The outbreak of COVID-19 has grown both in the United States and globally, and related government and private sector responsive actions have adversely affected the global economy, including significant business and supply chain disruption as well as broad-based changes in supply and demand. In December 2019, a series of emergency quarantine measures taken by the Chinese government disrupted domestic business activities in China during the weeks after the initial outbreak of COVID-19. Since that time, an increasing number of countries, including the United States, have imposed restrictions on travel to and from China and elsewhere, as well as general movement restrictions, business closures and other measures imposed to slow the spread of COVID-19.

At the onset of the outbreak, we initially experienced shipping delays due to overseas port slowdowns and container shortages, but we did not experience a reduction in production or sales. However, in the fourth quarter of 2020, we began to again see shipping delays and container shortages from congestion at ports, which has been exacerbated by COVID-19. Congestion at U.S. and international ports could affect the capacity at ports to receive deliveries of products or the loading of shipments onto vessels.

As the situation continues to develop, it is impossible to predict the effect and ultimate impact of the COVID-19 pandemic on the Company's business and results of operations. While the quarantine, social distancing and other regulatory measures instituted or recommended in response to COVID-19 are expected to be temporary, the duration of the business disruptions, and related financial impact, cannot be estimated at this time.

Use of Estimates: The preparation of the Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) the disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements, and (iii) the reported amounts of revenues and expenses during the reporting period. The more significant areas requiring the use of management estimates and assumptions relate to the recoverability of inventory; the useful lives and recoverability of long-lived assets (such as the effects of mineral reserves and cash flows from operating the mine in determining the life of the mine); uncertain tax positions; the valuation allowance of deferred tax assets; asset retirement and environmental obligations; and determining the fair value of assets and liabilities in acquisitions and financial instruments in connection with transactions that require initial measurement to be at fair value. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Accordingly, actual results may differ from those estimates.

Cash and cash equivalents: Cash and cash equivalents consist of all cash balances and highly liquid investments with a maturity of three months or less when purchased.

Restricted cash consists of funds that are contractually restricted as to usage or withdrawal due to legal agreement. The Company determines current or non-current classification based on the expected duration of the restriction. Restricted cash principally relates to cash that is pledged as collateral in connection with surety bonds placed with California state and regional agencies related to closure and reclamation obligations. See also [Note 6, "Restricted Cash."](#)

Trade Accounts Receivable: Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Management reviews the need for an allowance for doubtful accounts quarterly based on historical experience with each customer and the specifics of each arrangement. As of December 31, 2020, and 2019, the Company did not have an allowance

for doubtful accounts, as principally all of our receivables are from sales to Shenghe and amounts not received in cash would be offset by reductions in the principal balance owed to Shenghe.

Inventories: Inventories consist of raw materials and supplies, work in process (referred to as “in-process inventory”), and finished goods. Materials and supplies consist of raw materials, spare parts, reagent chemicals, and packaging materials. In-process inventory primarily consists of stockpiles of mined bastnaesite ore in various stages of the production process. Finished goods primarily consist of packaged bastnaesite concentrate.

Raw materials, in-process inventory and finished goods are carried at average actual cost. Supplies are carried at moving average cost. All inventories are carried at the lower of cost or net realizable value, which represents the estimated selling price of the product during the ordinary course of business based on current market conditions. Inventory cost includes all expenses directly attributable to the manufacturing process, including labor and stripping costs, and an appropriate portion of production overhead, including depletion, based on normal operating capacity.

Stockpiled ore tonnages are verified by periodic surveys. Management evaluates the carrying amount of inventory on a periodic basis, considering slow-moving items, obsolescence, excess inventory levels, and other factors and recognizes related write-downs in cost of sales. See also [Note 7, “Inventories.”](#)

Property, Plant and Equipment: Property, plant and equipment are recorded at cost and depreciated over their useful lives. Expenditures for new property, plant and equipment and improvements that extend the useful life or functionality of the assets are recorded at their cost of acquisition or construction. Depreciation on property, plant and equipment is recognized on a straight-line basis over their estimated useful lives, as follows:

	Years
Machinery and equipment	3-10
Buildings	40
Land improvements	25

Assets under construction include costs directly attributable to the construction or development of long-term assets. These costs may include labor and employee benefits associated with the construction of the asset, site preparation, permitting, engineering, installation and assembly, procurement, insurance, legal, commissioning, and interest on borrowings to finance the construction of the assets. Depreciation is not recorded on the related assets until they are placed in service or are ready for their intended use. Repair and maintenance costs that do not extend the useful life of an asset are expensed as incurred.

Gains and losses arising from the disposal of property, plant and equipment are determined as the difference between the proceeds from disposal and the carrying amount of the asset and are included in “Other income, net” within our Consolidated Statements of Operations.

Property, plant and equipment primarily relate to the Company's Mountain Pass facility and open-pit mine. In addition to the mine, the facility includes a crusher and mill/flotation plant, mineral recovery and separation plants, tailings processing and storage facilities, on-site evaporation ponds, a combined heat and power plant, water treatment facilities, a Chlor-Alkali plant, as well as laboratory facilities to support research and development activities, offices, warehouses and support infrastructures. See also [Note 8, “Property, Plant and Equipment.”](#)

Mineral Rights: The Company capitalizes costs for acquiring and leasing mining properties and expenses costs to maintain mineral rights as incurred. Depletion on mineral rights is recognized on a straight-line basis over the estimated useful life of the mine, which is approximately 24 years. In connection with the SNR Mineral Rights Acquisition, the Company recorded the additional cost of acquiring the mineral rights pertaining to the rare earth ores contained in the Mountain Pass mine, which was SNR's sole operating asset. Prior to the SNR Mineral Rights Acquisition, MPMO and SNR were considered related parties (see [Note 18, “Related Party Transactions”](#)).

As discussed in [Note 18, “Related Party Transactions.”](#) upon entering into the Royalty Agreement (as defined in [Note 18, “Related Party Transactions”](#)), the Company recognized an asset equal to the present value of minimum royalty payments owed to SNR under the Royalty Agreement as an acquisition cost of the 97.5% working interest. Mineral rights are classified as a component of “Property, plant and equipment” within our Consolidated Balance Sheets. See also [Note 8, “Property, Plant and Equipment.”](#)

Mine Development Costs: Mine development costs include acquisition costs, drilling costs, and the cost of other development work, all of which are capitalized during the development phase. Production costs are capitalized into inventory or expensed as incurred.

At the time of acquiring the 97.5% working interest, the mine had already been in a producing stage, but was idled and in care and maintenance; therefore, costs associated with the return to production were capitalized to inventory as incurred. Additionally, costs incurred above the amount required to return the mine to production, including certain overburden mining activities, were expensed as incurred.

Leases: The Company determines if an arrangement is, or contains, a lease at contract inception. In some cases, the Company has determined that its lease arrangements include both lease and non-lease components. The Company has elected to use a practical expedient to account for each separate lease component and its associated non-lease components as a single lease component for the majority of its asset classes.

The Company recognizes lease liabilities and right-of-use ("ROU") assets upon commencement for all leases with a lease term greater than 12 months. The Company has elected to use a practical expedient to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheets for the majority of its asset classes. These short-term leases are expensed on a straight-line basis over the lease term.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and lease liabilities are recognized at commencement date of the lease based on the present value of lease payments over the lease term. When the rate implicit to the lease cannot be readily determined, the Company utilizes its incremental borrowing rate in determining the present value of the future lease payments. Lease liabilities are accreted each period and reduced for payments. The ROU asset also includes other adjustments, such as for the effects of escalating rents, rent abatements or initial lease costs. The lease term may include periods covered by options to extend or terminate the lease when it is reasonably certain that the Company will exercise a renewal option, or reasonably certain it will not exercise an early termination option. For operating leases, lease expense for lease payments is recognized on a straight-line basis over the expected lease term. For finance leases, the ROU asset amortizes on a straight-line basis over the shorter of the lease term or useful life of the ROU asset and the lease liability accretes interest based on the interest method using the discount rate determined at lease commencement. See also [Note 10, "Lease Obligations."](#)

Impairment of Long-Lived Assets: Long-lived assets, including mineral rights, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. In estimating undiscounted cash flows, assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of undiscounted cash flows from other asset groups. Management's estimates of undiscounted cash flows are based on numerous assumptions and it is possible that actual cash flows may differ significantly from estimates, as actual produced reserves, prices, commodity-based and other costs, and closure costs are each subject to significant risks and uncertainties. The estimated undiscounted cash flows used to assess recoverability of long-lived assets and to measure the fair value of the Company's mining operations are derived from current business plans, which are developed using short-term price forecasts reflective of the current price environment and management's projections for long-term average prices. In addition to short- and long-term price assumptions, other assumptions include estimates of production costs; proven and probable mineral reserves estimates, including the timing and cost to develop and produce the reserves; value beyond proven and probable estimates; and estimated future closure costs.

If the carrying amount of the long-lived asset or asset groups is not recoverable on an undiscounted cash flows basis, an impairment is recognized to the extent that the carrying amount exceeds its fair value. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values, and third-party independent appraisals, based on the approach the Company believes a market participant would use. An impairment loss, if any, is recorded for the excess of the asset's (or asset group's) carrying amount over its fair value, as determined by a valuation technique appropriate to the given circumstances. There were no impairment indicators or impairments recognized for the years ended December 31, 2020 and 2019.

Offtake Advances Accounted for as Debt Obligations and Debt Discount: Subsequent to the June 2020 Modification to the Original Offtake Agreement, the Company accounts for net prepayments or other advances received from Shenghe prior to or in connection with the June 2020 Modification as debt. The associated debt discount is amortized to interest expense using the effective interest method over management's estimated contractual term of the underlying indebtedness. The debt discount reduces the carrying amount of the associated debt. See also, [Note 9, "Debt Obligations."](#)

Asset Retirement Obligations: The Company recognizes asset retirement obligations ("AROs") for estimated costs of legally and contractually required closure, dismantlement, and reclamation activities associated with the Mountain Pass mine

and processing facility. AROs are initially recognized at their estimated fair value in the period in which the obligation originates. Fair value is based on the expected timing of reclamation activities, cash flows to perform activities, amount and uncertainty associated with the cash flows, including adjustments for a market risk premium, and discounted using a credit-adjusted risk-free rate. The liability is accreted over time through periodic charges to earnings and reduced as reclamation activities occur with differences between estimated and actual amounts recognized as an adjustment to operating expenses. Subsequent increments in expected undiscounted cash flows are measured at their discounted values using updated estimates of the Company's credit-adjusted risk-free rate applied to the increment only. Subsequent decrements are reduced based on the weighted-average discount rate associated with the obligation. As of December 31, 2020, the credit-adjusted risk-free rate ranged between 7.1% and 8.2% depending on the timing of expected settlement and when the layer or increment was recognized. There were no increments or decrements for the year ended December 31, 2020.

Associated asset retirement costs, including the effect of increments and decrements, are recognized as adjustments to the related asset's carrying amount and depreciated over its remaining useful life. See also [Note 11, "Asset Retirement and Environmental Obligations."](#)

Environmental Obligations: The Company has assumed certain environmental remediation obligations that primarily relate to groundwater monitoring activities. Estimated remediation costs are accrued based on management's best estimate at the end of each reporting period of the costs expected to be incurred at a site to settle the obligation when those amounts are probable and estimable. Such cost estimates may include ongoing care, maintenance and monitoring costs associated with remediation activities. Changes in remediation estimates are reflected in earnings in the period an estimate is revised.

Remediation costs included in environmental obligations are discounted to their present value when payments are readily estimable, and are discounted using a risk-free rate, which the Company derives from U.S. Treasury yields. See also [Note 11, "Asset Retirement and Environmental Obligations."](#)

Revenue Recognition: The Company's revenue comes from sales of rare earth products produced at the Mountain Pass facility. The Company's sales are primarily to an affiliate of Shenghe. The Company's performance obligation is to deliver rare earth products to the agreed-upon delivery point, and the Company recognizes revenue at the point in time control of the products transfers to the customer, which is typically when the rare earth products are delivered to the agreed-upon shipping point. At that point, the customer has the ability to direct the use of and obtain substantially all of the remaining benefits from the products, and the customer bears the risk of loss.

For sales to third parties, the transaction price is agreed to at the time the sale is entered into. For sales entered into with the related party, the transaction price is typically based on an agreed-upon price per metric ton, subject to certain quality adjustments depending on the measured characteristics of the product, with an adjustment for the ultimate market price of the product realized by Shenghe and certain other discounts. These ultimate market prices are forms of variable consideration. The Company typically negotiates with and bills an initial price to Shenghe; such prices are then updated based on final adjustments for quality differences and/or actual sales prices realized by Shenghe. Initial pricing is typically billed upon delivering the product to the agreed-upon shipping point and paid within 30 days or less. Final adjustments to prices may take longer to resolve.

When the final price has not been resolved by the end of a reporting period, the Company estimates the expected sales price based on the initial price, current market pricing and known quality measurements, and further constrains such amounts to an amount that is probable not to result in a significant reversal of previously-recognized revenue. Revenue from product sales is recorded net of taxes collected from customers that are remitted to governmental authorities. When appropriate, the Company applies a portfolio approach in estimating a refund obligation.

Prior to the June 2020 Modification (as defined in [Note 4, "Relationship and Agreements with Shenghe"](#)), the Company had also received significant prepayments (referred to as "Offtake Advances") from Shenghe. The Company had determined that the prepayments did not have a significant financing component, based on the uncertainty associated with the timing of delivery and on the relationship of the payment to the other payments required under the Original Offtake Agreement. See [Note 4, "Relationship and Agreements with Shenghe."](#) for further information on the June 2020 Modification as well as the Offtake Advances from Shenghe. See also [Note 5, "Revenue Recognition."](#)

Stock-Based Compensation: The cost of employee services received in exchange for an award of equity instruments is based on the grant-date fair value of the award and the expense is recognized ratably over the requisite service period. The fair value of Stock Awards (as defined in [Note 15, "Stock-based Compensation."](#)) is equal to the fair value of the Company's stock on the grant date. Stock Awards with graded vesting schedules are recognized on a straight-line basis over the requisite service period for each separately vesting portion of the award. The Company accounts for forfeitures in the period in which they occur based on actual amounts. See also [Note 15, "Stock-based Compensation."](#)

Earnings (Loss) Per Share: Basic earnings (loss) per share ("EPS") is computed by dividing net income (loss) by the weighted-average number of common shares outstanding during the period. Diluted EPS reflects the additional dilution for all potentially-dilutive securities such as unvested restricted stock awards. See also [Note 17, "Earnings \(Loss\) per Share."](#)

Commitments and Contingencies: Liabilities for loss contingencies arising from claims, assessments, litigation, fines and penalties, and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred. See also [Note 13, "Commitments and Contingent Liabilities."](#)

Income Taxes: The Company accounts for income taxes using the balance sheet method, recognizing certain temporary differences between the book basis of the liabilities and assets and the related income tax basis for such liabilities and assets. This method generates either a net deferred income tax liability or asset for the Company, as measured by the statutory tax rates in effect. Management derives a deferred income tax expense or benefit by recording the change in either the net deferred income tax liability or asset balance for the year. See also [Note 12, "Income Taxes."](#)

Valuation of Deferred Tax Assets: The Company's deferred income tax assets include certain future tax benefits. Management records a valuation allowance against any portion of those deferred income tax assets when it believes, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred income tax asset will not be realized. In determining the requirement for a valuation allowance, the Company evaluated all available positive and negative evidence.

Certain categories of evidence carry more weight in the analysis than others based upon the extent to which the evidence may be objectively verified. Management looks to the nature and severity of cumulative pretax losses (if any) in the current three-year period ending on the evaluation date, recent pretax losses and/or expectations of future pretax losses. Other factors considered in the determination of the probability of the realization of the deferred tax assets include, but are not limited to:

- Earnings history;
- Projected future financial and taxable income based upon existing reserves and long-term estimates of commodity prices;
- The duration of statutory carry forward periods;
- Prudent and feasible tax planning strategies readily available that may alter the timing of reversal of the temporary difference;
- Nature of temporary differences and predictability of reversal patterns of existing temporary differences; and
- The sensitivity of future forecasted results to commodity prices and other factors.

Concluding that a valuation allowance is not required is difficult when there is significant negative evidence which is objective and verifiable, such as cumulative losses in recent years. However, recent cumulative losses are not solely determinative of the need for a valuation allowance. Management also considers all other available positive and negative evidence in its analysis.

Recently Issued Accounting Pronouncements: As an "emerging growth company," the Jumpstart Our Business Startups Act ("JOBS Act") allows the Company to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. The Company has elected to use this extended transition period under the JOBS Act. The adoption dates discussed below reflect this election.

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurements of Credit Losses on Financial Instruments" ("ASU 2016-13"), which sets forth a "current expected credit loss" model which requires the Company to measure all expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions, and reasonable supportable forecasts. ASU 2016-13 is effective for annual periods beginning after December 15, 2020, and interim periods beginning after December 15, 2021, with early adoption permitted. The provisions of ASU 2016-13 must be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We have elected to adopt ASU 2016-13 effective January 1, 2021, and its impact on our Consolidated Financial Statements is not material.

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract" ("ASU 2018-15"), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain

internal-use software. ASU 2018-15 requires capitalized costs to be amortized on a straight-line basis generally over the term of the arrangement, and the financial statement presentation for these capitalized costs would be the same as that of the fees related to the hosting arrangements. ASU 2018-15 is effective for annual periods beginning after December 15, 2020, and interim periods beginning after December 15, 2021, with early adoption permitted. The provisions of ASU 2018-15 may be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We have elected to adopt ASU 2018-15 effective January 1, 2021, and its impact on our Consolidated Financial Statements is not material.

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740) - Simplifying the Accounting for Income Taxes" ("ASU 2019-12"), which is intended to simplify accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in ASC Topic 740, "Income Taxes," and amends existing guidance to improve consistent application. ASU 2019-12 is effective for annual periods beginning after December 15, 2021, and interim periods beginning after December 15, 2022, with early adoption permitted. We are currently evaluating the impact that the adoption of ASU 2019-12 will have on our Consolidated Financial Statements.

Reclassifications: To conform to the current year presentation, the Company reclassified the balance of its right-of-use assets associated with finance lease in the Consolidated Balance Sheet as of December 31, 2019, from "Property, plant and equipment, net" to "Finance lease right-of-use assets." This reclassification had no effect on net loss, total assets or accumulated deficit as previously reported.

NOTE 3—BUSINESS COMBINATION AND REVERSE RECAPITALIZATION

The Business Combination was consummated on November 17, 2020, pursuant to the Merger Agreement whereby MPMO and SNR, a company that holds the mineral rights to our mine, were combined with FVAC and became indirect wholly-owned subsidiaries of FVAC, which was in turn renamed MP Materials Corp.

As of December 31, 2019, and through to the date of the Business Combination, MPMO had 1,000 voting common units with no par value and 110.98 non-voting preferred units with no par value, which were held by Leshan Shenghe, outstanding. In addition, as discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) in connection with the June 2020 Modification, MPMO issued the Shenghe Warrant. Immediately prior to the Business Combination, the Shenghe Warrant was exercised and MPMO issued 89.88 non-voting preferred units with no par value to Leshan Shenghe. As a result, 200.86 non-voting preferred units were outstanding immediately prior to the Business Combination.

In connection with the Business Combination and pursuant to the Merger Agreement, the Company issued shares of its Common Stock to unitholders of MPMO at an exchange ratio of approximately 59,908.35 shares of the Company's Common Stock for each common unit and preferred unit of MPMO, resulting in the issuance of 71,941,538 shares of our Common Stock. In addition, in connection with the SNR Mineral Rights Acquisition, 19,999,942 shares (adjusted for fractional shares) of our Common Stock were issued to SNR unitholders. See below for further discussion of the SNR Mineral Rights Acquisition.

Immediately prior to the consummation of the Business Combination and pursuant to the Parent Sponsor Warrant Exchange Agreement, entered into by FVAC and Fortress Acquisition Sponsor LLC, a Delaware limited liability company (the "Sponsor"), on July 15, 2020, the Sponsor exchanged all 5,933,333 of its private placement warrants (the "Private Placement Warrants") for an aggregate of 890,000 shares of FVAC Class F common stock that, upon the consummation of the Business Combination, were converted into Common Stock of the Company (the "Parent Sponsor Warrant Exchange").

In connection with the consummation of the Business Combination, the Company issued, in a private placement transaction, an aggregate of 20,000,000 shares of Common Stock for an aggregate purchase price of \$ 200.0 million, to PIPE investors pursuant to the terms of respective subscription agreements entered into separately between the Company and each PIPE investor, each dated July 15, 2020 (the "PIPE Financing").

After giving effect to the above, shares of our Common Stock issued and outstanding immediately after the closing of the Business Combination were as follows (including restricted stock issued to certain executives upon closing):

Shareholder	Number of Shares
FVAC public stockholders ⁽¹⁾	34,464,151
Private Placement Warrants	890,000
MPMO unitholders ⁽²⁾	71,941,538
SNR unitholders	19,999,942
PIPE Financing	20,000,000
Restricted stock issued to certain MPMO executives	2,013,006
Total	149,308,637

(1) Represents the outstanding shares held by FVAC's public stockholders (Class A common stock) which were not redeemed in connection with the Business Combination. The Company received gross proceeds of \$344.7 million and net proceeds of \$332.6 million after \$12.1 million of underwriting commissions in connection with the sale of these shares.

(2) Includes 5,384,563 shares issued relating to the Shenghe Warrant, which was issued on June 5, 2020.

MPMO's merger with FVAC was accounted for as a reverse recapitalization in accordance with GAAP. Under this method of accounting, FVAC was treated as the acquired company for financial reporting purposes. Accordingly, for accounting purposes, the merger was treated as the equivalent of MPMO issuing stock for the net assets of FVAC, accompanied by a recapitalization. The net assets of FVAC are stated at historical cost, with no goodwill or other intangible assets recorded. Among other factors, MPMO was determined to be the accounting acquirer principally on the basis that its unitholders would hold the greatest voting interest in the combined company, the majority of executive management of MPMO remained with the Company, and MPMO had a significantly larger employee base and substantive operations.

Pursuant to the amended and restated letter agreement dated July 15, 2020, and amended and restated on August 26, 2020, by and among FVAC and the holders of FVAC Class F common stock, all of the shares of FVAC Class A common stock issued upon the conversion of FVAC Class F common stock (held by insiders initially purchased prior to the FVAC initial public offering ("IPO")), were subject to certain vesting and forfeiture provisions (the "Vesting Shares") based on the achievement of certain volume weighted-average price ("VWAP") thresholds of the Company's Common Stock.

The holders of MPMO Holding Company, which was a Delaware corporation formed by MPMO pursuant to the Merger Agreement ("MPMO HoldCo"), preferred stock and common stock and SNR Holding Company, LLC, which was a Delaware limited liability company formed by SNR pursuant to the Merger Agreement, common stock immediately prior to the closing of the Business Combination were given the contingent right to receive up to an additional 12,860,000 shares of the Company's Common Stock (the "Earnout Shares") based on the achievement of certain VWAP thresholds of the Company's Common Stock.

The Company has determined that the Earnout Shares issued to the Sponsor, holders of MPMO HoldCo preferred stock and common stock, and holders of SNR HoldCo common stock meet the criteria for equity classification under Accounting Standards Codification ("ASC") Subtopic 815-40, "Contracts in Entity's Own Equity." The Company estimated the total fair value of the Earnout Shares at closing of the Business Combination to be \$171.2 million, consisting of \$134.0 million and \$37.2 million ascribed to the MPMO and SNR earnouts, respectively.

In December 2020, 8,625,000 Vesting Shares vested and 12,859,898 Earnout Shares (adjusted for fractional shares) were issued after achievement of the aforementioned VWAP thresholds. As of December 31, 2020, the Vesting Shares and the Earnout Shares delivered to the equityholders are recorded as equity with an allocation between common stock at par value and additional paid-in capital, and the Earnout Shares delivered to MPMO equityholders were accounted for as a distribution. Since all Earnout Shares were determined to be equity-classified at initial recognition and through the date of achievement of the thresholds, no remeasurement was required.

SNR Mineral Rights Acquisition

The acquisition of SNR did not meet the criteria for the acquisition of a business under ASC Topic 805, "Business Combinations" ("ASC 805"), and was accounted for as an asset acquisition since substantially all of the fair value of the assets acquired was concentrated in a single asset. The principal asset acquired in the SNR Mineral Rights Acquisition was the mineral rights for the rare earth ores contained in the Company's mine, which was SNR's sole operating asset.

MPMO and SNR had a historical relationship prior to the Business Combination, specifically related to the Royalty Agreement and an intellectual property license between MPMO and SNR. The Company considered the provisions of ASC 805 regarding the settlement of pre-existing relationships. Immediately prior to the consummation of the Business Combination, MPMO had a \$3.9 million liability related to the minimum royalty, which was effectively settled through intercompany when MPMO and SNR became wholly-owned subsidiaries of the Company. The settlement of the liability is reflected in the cost of the acquisition due to the pre-existing contractual relationship being cancellable without penalty and no gain or loss is recognized. For further information on the Royalty Agreement and the liability related to the minimum royalty, see [Note 18. "Related Party Transactions."](#)

The following table summarizes the consideration and assets acquired and liabilities assumed in the SNR Mineral Rights Acquisition:

(in thousands)

Total cost of acquisition ⁽¹⁾	\$ 324,125
Assets acquired:	
Prepaid assets	\$ 76
Mineral rights	434,707
Deferred tax assets	134
Total assets acquired:	434,917
Liabilities assumed:	
Accounts payable and accrued liabilities	(1,681)
Deferred tax liabilities	(109,111)
Total liabilities assumed	(110,792)
Total net assets acquired	\$ 324,125

- (1) Includes consideration transferred to SNR of \$287.8 million based on the fair value of 20,000,000 shares of Common Stock transferred using a price per share of \$14.39, the closing stock price on the date the Business Combination was consummated, transaction costs of \$2.0 million, the settlement of the liability related to the minimum royalty of \$3.9 million, net of deferred tax impact of \$1.0 million, and estimated fair value of the Earnout Shares to be issued to SNR unitholders of \$37.2 million upon the achievement of certain stock price milestones during a specified post-merger measurement period, and subject to certain additional terms, as outlined in the Merger Agreement. The Company obtained the fair value based on a Monte Carlo simulation model using certain underlying assumptions such as stock price, volatility, risk-free interest rates and dividend payments.

Transaction Costs

In connection with the Business Combination, the Company incurred direct and incremental costs of \$ 33.5 million, consisting of legal and professional fees, of which \$28.2 million were related to equity issuance costs and recorded to "Additional paid-in capital" as a reduction of proceeds at the time of the Business Combination, \$3.3 million were recorded to "General and administrative expenses," and \$ 2.0 million were related to the SNR Mineral Rights Acquisition, which was included as a component of the cost of the acquisition.

NOTE 4—RELATIONSHIP AND AGREEMENTS WITH SHENGHE

Original Commercial Agreements

In connection with the acquisition and development of the Mountain Pass facility, MPMO entered into a set of commercial arrangements with Shenghe. Shenghe and its affiliates primarily engage in the mining, separation, processing and distribution of rare earth products. MPMO also issued to Leshan Shenghe 110.98 MPMO preferred units, which represented all of the issued and outstanding MPMO preferred units at the time. As discussed in [Note 3. "Business Combination and Reverse Recapitalization,"](#) in connection with the Business Combination, these MPMO preferred units were exchanged for MPMO HoldCo preferred stock and eventually our Common Stock and the contingent right to receive Earnout Shares.

The original commercial arrangements with Shenghe were entered into in May 2017, prior to MPMO's acquisition of the Mountain Pass facility. These agreements principally consisted of a technical services agreement (the "TSA"), an offtake agreement (the "Original Offtake Agreement"), and a distribution and marketing agreement (the "DMA").

Under the TSA, Shenghe provided technical services, know-how and other assistance to MPMO in order to facilitate the development and operations of Mountain Pass. In addition, both the TSA and the Original Offtake Agreement imposed certain funding obligations on Shenghe. The Original Offtake Agreement required Shenghe to advance an initial \$50.0 million (the "Initial Prepayment Amount") over time to MPMO to fund the restart of operations at the mine and the TSA required Shenghe to fund any additional operating and capital expenditures required to bring the Mountain Pass facility to full operability. Shenghe also agreed to provide additional funding in the amount of \$30.0 million to MPMO pursuant to a separate letter agreement dated June 20, 2017 (the "Letter Agreement") (the "First Additional Advance"), in connection with MPMO's acquisition of the Mountain Pass facility. In addition to the repayment of the First Additional Advance in cash, pursuant to the Letter Agreement, the Initial Prepayment Amount increased by \$30.0 million. We refer to the aggregate prepayments made by Shenghe pursuant to the Original Offtake Agreement and the Framework Agreement (as defined below), as adjusted for Gross Profit Recoupment (as defined below) amounts and any other qualifying repayments to Shenghe, inclusive of the \$30.0 million increase to the Initial Prepayment Amount, as the "Prepaid Balance."

As discussed below, the entrance into the Letter Agreement constituted a modification to the Original Offtake Agreement for accounting purposes (referred to as the "June 2017 Modification"), which ultimately resulted in the Shenghe Implied Discount (as defined below). Under the terms of these agreements, the amounts funded by Shenghe constitute prepayments for the rare earth products to be sold to Shenghe historically under the Original Offtake Agreement (and currently under the A&R Offtake Agreement, as defined below).

Under the Original Offtake Agreement, upon the mine achieving certain milestones and being deemed commercially operational (which was achieved on July 1, 2019), MPMO sold to Shenghe, and Shenghe purchased on a firm "take or pay" basis, all of the rare earth products produced at the Mountain Pass facility. Shenghe marketed and sold these products to customers, and retained the gross profits earned on subsequent sales. The gross profits were credited against the Prepaid Balance, and provided the means by which MPMO repaid, and Shenghe recovered, such amounts (the "Gross Profit Recoupment"). Under the Original Offtake Agreement, MPMO was obliged to sell all Mountain Pass facility rare earth products to Shenghe until Shenghe had fully recouped all of its prepayments (i.e., the Prepaid Balance is reduced to zero), at which point the Original Offtake Agreement would terminate automatically.

As originally entered, the DMA was to become effective upon termination of the Original Offtake Agreement. The DMA provided for a distribution and marketing arrangement between MPMO and Shenghe, subject to certain exceptions. MPMO retained the right to distribute its products directly to certain categories of customers. As compensation for Shenghe's distribution and marketing services, the DMA entitled Shenghe to 35% of the net profits from the sale of rare earth products produced at the Mountain Pass facility (the "Net Profit-Based Commission"). See below for further discussion of the DMA termination and associated accounting treatment.

In order to secure Shenghe's performance under the Original Offtake Agreement and TSA, Leshan Shenghe issued a parent guaranty to MPMO in May 2017 (the "Shenghe Guaranty"), and entered into an equity pledge agreement (the "Shenghe Pledge Agreement") in June 2017.

Framework Agreement and Restructured Commercial Arrangements

In May 2020, we entered into a framework agreement and amendment (the "Framework Agreement") with Shenghe and Leshan Shenghe that significantly restructured the parties' commercial arrangements and provided for, among other things, a revised funding amount and schedule to settle Shenghe's prepayment obligations to MPMO, as well as either the amendment or termination of the various agreements between the parties, as discussed below.

Pursuant to the Framework Agreement, we entered into an amended and restated offtake agreement with Shenghe and Leshan Shenghe on May 19, 2020 (the "A&R Offtake Agreement"), which, upon effectiveness, superseded and replaced the Original Offtake Agreement, and MPMO issued to Shenghe a warrant on June 2, 2020 (the "Shenghe Warrant"), exercisable at a nominal price for 89.88 MPMO preferred units, which, at the time, reflected approximately 7.5% of MPMO's equity on a diluted basis, subject to certain restrictions. Pursuant to the Framework Agreement, Shenghe funded the remaining portion of the Initial Prepayment Amount and agreed to fund an additional \$35.5 million advance to us (the "Second Additional Advance" and together with the Initial Prepayment Amount, inclusive of the \$30.0 million increase pursuant to the Letter Agreement, the "Offtake Advances"), which amounts were fully funded on June 5, 2020. As discussed in [Note 3, "Business Combination and Reverse Recapitalization,"](#) the Shenghe Warrant was exercised in full for MPMO preferred units, which were exchanged for MPMO HoldCo preferred stock and eventually our Common Stock and the contingent right to receive Earnout Shares in connection with the Business Combination.

Upon the funding of the remaining obligations on June 5, 2020, (i) the TSA and the DMA were terminated (as described below), (ii) the A&R Offtake Agreement and the Shenghe Warrant became effective, and (iii) the Shenghe Guaranty and the

Shenghe Pledge Agreement were terminated (such events are collectively referred to as the “June 2020 Modification”). Thus, at the present time, Leshan Shenghe’s and Shenghe’s involvement with MPMO and the Mountain Pass facility consists of only the A&R Offtake Agreement.

The A&R Offtake Agreement maintains the key take-or-pay, amounts owed on actual and deemed advances from Shenghe, and other terms of the Original Offtake Agreement, with the following material changes: (i) modifies the definition of “offtake products” in order to remove from the scope of that definition lanthanum, cerium and other rare earth products that do not meet the specifications agreed to under the A&R Offtake Agreement; (ii) as to the offtake products subject to the A&R Offtake Agreement, provides that if we sell such offtake products to a third party, then, until the Prepaid Balance has been reduced to zero, we will pay an agreed percentage of our revenue from such sale to Shenghe, to be credited against the amounts owed on Offtake Advances; (iii) replaces the Shenghe Sales Discount (as defined in [Note 5, “Revenue Recognition”](#)) under the Original Offtake Agreement with a fixed monthly sales charge; (iv) provides that the purchase price to be paid by Shenghe for our rare earth products (a portion of which reduces the Prepaid Balance rather than being paid in cash) will be based on market prices (net of taxes, tariffs and certain other agreed charges) less applicable discounts, instead of our cash cost of production; (v) obliges us to pay Shenghe, on an annual basis, an amount equal to our annual net income, less any amounts recouped through the Gross Profit Recoupment mechanism over the course of the year, until the Prepaid Balance has been reduced to zero; (vi) obliges us to pay Shenghe the net after-tax profits from certain sales of assets until the Prepaid Balance has been reduced to zero (this obligation was previously contained in the TSA); and (vii) provides for certain changes to the payment, invoicing and delivery terms and procedures for products.

The purchase price and other terms applicable to a quantity of offtake products are set forth in monthly purchase agreements between MPMO and Shenghe. As with the Original Offtake Agreement, the A&R Offtake Agreement will terminate when Shenghe has fully recouped all of its prepayment funding. Following that termination, MPMO will have no contractual arrangements with Shenghe for the distribution, marketing or sale of rare earth products.

Accounting for the June 2017 Modification

As discussed above, pursuant to the Letter Agreement, Shenghe agreed to provide additional funding via a short-term, non-interest-bearing note in the amount of \$30.0 million to the Company (defined above as the “First Additional Advance”), which required repayment within one year. Furthermore, under the terms of the Letter Agreement, Shenghe became entitled to an additional \$30.0 million recovery through an increase to the Prepaid Balance. Therefore, under the terms of the Letter Agreement, Shenghe would ultimately receive repayment of the short-term debt instrument from the Company, and also be entitled to realize an additional \$30.0 million as a part of the contractual Gross Profit Recoupment from ultimate sales to its customers.

The Company concluded that the \$30.0 million proceeds received from Shenghe should be allocated between (i) the non-interest-bearing debt instrument and (ii) the existing revenue arrangement (under the terms of the Original Offtake Agreement) on a relative fair value basis. As a result of such analysis, the Company determined that the debt instrument had a relative fair value of \$26.5 million and the modification to the revenue arrangement had a relative fair value of \$3.5 million. As discussed, in [Note 5, “Revenue Recognition,”](#) the fair value allocated to the modification of the revenue arrangement was recorded as an increase to “Deferred revenue” in the Company’s Consolidated Balance Sheets. The First Additional Advance was repaid in full by the Company in 2018.

Based on the relationship between (i) the deemed proceeds the Company would ultimately receive from the Initial Prepayment Amount (adjusted for (a) the fair value of the preferred interest provided to Shenghe at the time of entering into the aforementioned commercial arrangements of \$2.3 million and (b) the fair value allocated to the modification of the revenue arrangement of \$3.5 million) and (ii) the contractual amount owed to Shenghe (i.e., the Prepaid Balance, which included the Initial Prepayment Amount and the additional \$30.0 million adjustment to the Prepaid Balance in connection with the Letter Agreement) at the time, the June 2017 Modification resulted in an implied discount on the Company’s sales prices to Shenghe under the Original Offtake Agreement, for accounting purposes (the “Shenghe Implied Discount”).

The Shenghe Implied Discount is applicable to Shenghe’s gross profit on the sales of rare earth products to its own customers (for sales made between July 2019 and early June 2020). That gross profit is a contractually determined amount based on Shenghe’s realized sales price (net of taxes, tariffs, and certain other adjustments, such as demurrage) compared to the agreed-upon cash cost Shenghe would pay to the Company. The Shenghe Implied Discount amounted to 36% of that contractually determined gross profit amount. The impact on the recorded amount of revenue as a result of the Shenghe Implied Discount is discussed in [Note 5, “Revenue Recognition.”](#)

Accounting for the June 2020 Modification

As noted above, in June 2020, the Company renegotiated various aspects of its relationship with Shenghe and entered into the Framework Agreement to significantly restructure the aforementioned set of arrangements. Prior to the June 2020 Modification, for accounting purposes, the Original Offtake Agreement constituted a deferred revenue arrangement; however, as a result of the June 2020 Modification, the A&R Offtake Agreement constituted a debt obligation as well as provided for the issuance of the Shenghe Warrant. For further discussion of the deferred revenue arrangement, see [Note 5, "Revenue Recognition,"](#) and for further discussion of the debt obligation, see [Note 9, "Debt Obligations."](#)

The DMA provided Shenghe with the right of first refusal to be the Company's distribution and marketing agent for product sales after the expiration of the Original Offtake Agreement and until April 2047 in exchange for the Net Profit-Based Commission. Under the Original Offtake Agreement, Shenghe would also have been responsible for funding additional advance payments toward the next stage of the mine and facility's development (referred to below as the "Stage II optimization project"). The agency relationship was not to commence until any such additional amount was also recovered under the Original Offtake Agreement. Although it had not yet commenced, the DMA was enforceable, and could only be terminated upon the mutual agreement of the parties involved.

At its inception in May 2017, the DMA was determined to be at-market, as it provided an expected commission to Shenghe for its services, and was consistent with the Company's expectations for a regular sales commission based on its revenue and cost expectations at the time. As part of renegotiating the commercial arrangements in connection with the June 2020 Modification, the Company determined that the existing arrangement within the DMA now provided Shenghe with a favorable, off-market return for the future distribution and marketing services, due in part to (i) favorable changes in expected profitability, driven partially by changes in tariffs, as well as cost performance in Stage I, (ii) favorable estimates of the capital cost of the Stage II optimization project, and (iii) favorable changes in expected production, based on higher than forecast contained rare earth oxides production in Stage I.

Taken together, the Company concluded that the above factors would likely result in materially lower per-unit costs (including depreciation) and higher profitability versus its original estimates. Therefore, these changes in circumstances meant that the Net Profit-Based Commission would no longer be commensurate with the value of the service; and therefore, created an off-market feature. These same factors would also result in the Company fulfilling its obligations under the Original Offtake Agreement more quickly, which would in turn result in a longer period of payments under the now-unfavorable terms of the DMA.

In addition, as noted above, Shenghe would still have had to provide the additional advances required to complete the Stage II optimization project, which would have created a near-term cash commitment for Shenghe. While these costs were expected to be approximately \$200 million, Shenghe would have remained exposed to the potential that actual costs exceed these estimates and remained committed to fund them. Further, these upfront payments were to be non-interest bearing, exposing Shenghe to economic cost from the time value of money.

Therefore, as part of the renegotiations, the Company and Shenghe agreed to terminate the DMA. As a result of the June 2020 Modification, specifically the termination of the DMA, the Company recorded a non-cash settlement charge of \$66.6 million during the year ended December 31, 2020.

Ultimately, the renegotiations resulted in the following exchange, which is also referenced in [Note 19, "Supplemental Cash Flow Information,"](#) as a transaction with significant non-cash components:

<i>(in thousands)</i>	As of June 2020 Modification
Deemed proceeds for fair value of debt issuance ⁽¹⁾	\$ 85,695
Deemed proceeds for fair value of warrant issuance	53,846
Total deemed proceeds	139,541
Derecognition of the existing deferred revenue balance ⁽²⁾	(37,476)
Deemed payment to terminate the unfavorable DMA ⁽³⁾	(66,615)
Total deemed payments	(104,091)
Net cash received	<u>\$ 35,450</u>

(1) See [Note 9, "Debt Obligations"](#)

(2) See [Note 5, "Revenue Recognition"](#)

(3) This non-cash charge is included within the Statement of Operations for the year ended December 31, 2020, as "Settlement charge."

NOTE 5—REVENUE RECOGNITION

Sales to Shenghe Prior to Achieving Commercial Operations: Prior to achieving commercial operations on July 1, 2019, the Company sold various products, including stockpile inventories, to Shenghe under individual sales agreements, which did not include the Shenghe Implied Discount.

Sales to Shenghe Under the Original Offtake Agreement: Beginning in July 2019, and through early June 2020, the Company and Shenghe periodically agreed on a cash sales price for each metric ton of rare earth concentrate delivered by the Company, which was recognized as revenue upon each sale. This sales price was intended to approximate the Company's cash cost of production. Sales during this period were made under the Original Offtake Agreement and were impacted by the Shenghe Implied Discount, which is discussed in [Note 4, "Relationship and Agreements with Shenghe."](#)

The Shenghe Implied Discount amounted to 36% of the difference between Shenghe's realized price on its sales of rare earth products to its own customers (net of taxes, tariffs, and certain other adjustments, such as demurrage) and the agreed-upon cash cost for those products (i.e., its gross profit). In addition to the revenue we recognized from the cash sales prices, we also realized an amount of deferred revenue applicable to these sales equal to 64% of Shenghe's gross profit. The full gross profit amount realized by Shenghe on such sales reduced the Prepaid Balance (and consequently, our contractual obligations to Shenghe).

In addition, sales to Shenghe under the Original Offtake Agreement between July 2019 and early June 2020 typically provided Shenghe with a discount generally in the amount of between 3% and 6% of the initial cash price of our rare earth products sold in consideration of Shenghe's sales efforts to resell our rare earth products (the "Shenghe Sales Discount"). The Shenghe Sales Discount was considered a reduction in the transaction price and thus was not recognized as revenue. Additionally, the Shenghe Sales Discount was not applied to reduce the Prepaid Balance; however, it was considered as part of Shenghe's cost of acquiring our product in the calculation of Shenghe's gross profit.

Sales to Shenghe Under the A&R Original Offtake Agreement: Beginning after the June 2020 Modification, the cash purchase price (and other terms applicable to the quantity of products sold) are set forth in monthly purchase agreements with Shenghe. Furthermore, the June 2020 Modification provided that the cash purchase price to be paid by Shenghe for our rare earth products will be based on market prices (net of taxes, tariffs and certain other agreed charges) less applicable discounts, instead of our cash cost of production, as was the case with sales made under the Original Offtake Agreement. A portion of the sales price to Shenghe is in the form of debt repayment, with the remainder paid in cash. See [Note 9, "Debt Obligations,"](#) for further information.

As a result of the June 2020 Modification, revenue recognized under the A&R Offtake Agreement after the June 2020 Modification does not include the Shenghe Implied Discount. In addition, rather than adjusting the sales price for the Shenghe Sales Discount, as was the case with sales made under the Original Offtake Agreement, revenue under the A&R Offtake Agreement is reduced by a fixed monthly sales charge (accounted for as a discount).

Deferred Revenue: The Original Offtake Agreement was accounted for as a deferred revenue arrangement. As mentioned in [Note 4, "Relationship and Agreements with Shenghe,"](#) for accounting purposes, the June 2020 Modification effectively replaced this deferred revenue arrangement with a debt obligation (see [Note 9, "Debt Obligations"](#)). Prior to the June 2020 Modification, Offtake Advances received from Shenghe were accounted for as deferred revenue. Under the Original Offtake Agreement, Shenghe's gross profit was retained by Shenghe and applied to reduce the Prepaid Balance.

In connection with the Original Offtake Agreement, the Company issued a preferred interest to Shenghe, which was treated as consideration paid to the customer and a reduction to the transaction price. The fair value of the preferred interest was determined to be \$2.3 million, which reduced the deferred revenue balance. In addition, as discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) in connection with the June 2017 Modification, \$3.5 million of the proceeds received from the First Additional Advance was allocated to the deferred revenue arrangement, which increased the deferred revenue balance.

Significant activity for the deferred revenue balance (including current portion) was as follows:

(in thousands)	For the year ended December 31,	
	2020	2019
Opening balance ⁽¹⁾	\$ 35,543	\$ 28,482
Prepayments received ⁽²⁾	11,050	10,311
Revenue recognized ⁽³⁾	(9,117)	(3,250)
Effect of June 2020 Modification ⁽⁴⁾	(37,476)	—
Ending balance	\$ —	\$ 35,543

(1) Of these amounts, \$6.6 million and \$3.3 million, respectively, were classified as current based on when such amounts were expected to be realized.

(2) The full amount for the year ended December 31, 2020, and \$9.2 million for the year ended December 31, 2019, relate to the contractual commitment for Shenghe to provide funds to the Company (the Initial Prepayment Amount). After the amount pertaining to the year ended December 31, 2020, was funded, no further amount was required to be funded by Shenghe under the Initial Prepayment Amount.

(3) As discussed above, for sales made to Shenghe during the period from July 2019 through early June 2020, as a result of the Shenghe Implied Discount, we recognized an amount of deferred revenue applicable to such sales equal to 64% of the gross profit realized by Shenghe on sales of this product to its own customers. As discussed below, the amount for the year ended December 31, 2020, included a tariff rebate of \$1.4 million received in May 2020; the amounts for the years ended December 31, 2020 and 2019, excluded the tariff rebates realized in August 2020.

(4) As discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) the balance of deferred revenue was derecognized in connection with the June 2020 Modification.

Tariff-Related Rebates: In May 2020, the government of the People's Republic of China suspended certain tariffs that had been charged to Shenghe on product sales retroactive to March 2020, which affected the sales price the Company realized. In addition, Shenghe began negotiating for certain tariff rebates from sales prior to March 2020, which affected Shenghe's realized prices, and thus the contractual Prepaid Balance. These, in turn, affected the Company's realized prices on prior sales and, as a result, the deferred revenue and the Shenghe Implied Discount on our prior sales. The Company realized \$1.4 million of revenue related to these tariff rebates received in May 2020, which included amounts related to prior periods. While additional tariff rebates were possible, the Company did not have insight into Shenghe's negotiations or their probability of success, and such negotiations were outside of the Company's control. Thus, the Company fully constrained estimates of any future tariff rebates that may have been realized at that time.

In August 2020, the Company received additional information from Shenghe regarding its successful negotiation of additional tariff rebates. Consequently, the Company revised its estimates of variable consideration and recognized \$9.3 million of revenue, primarily related to additional tariff credits realized for sales from the pre-modification period. Since this rebate was recognized after the June 2020 Modification, this amount was treated as a reduction to the principal balance of the debt obligation, partially offset by a proportionate reduction in the related debt discount, as discussed in [Note 9, "Debt Obligations."](#)

Refund Liability: Prior to the mine reaching commercial operations on July 1, 2019, the Company entered into individual product sales with the same affiliate of Shenghe based on standardized product quality specifications, against which adjustments would be recognized based on actual quality measurements and settlements agreed between the Company and Shenghe. The product quality was expected to be below the standard and would result in quality adjustments for ultimate repayment of the refund liability. As such, in 2018, the Company estimated and recognized a refund liability based on expected differences.

In 2019, the Company negotiated with Shenghe to settle all outstanding quality differences for a total of \$ 2.3 million, of which \$0.5 million of the refund obligation was paid in 2019 and \$1.8 million remained outstanding as of December 31, 2019, and was paid in 2020. In addition, the Company agreed to repay \$0.9 million of Offtake Advances based on gross profits

realized on sales of rare earth fluorides, which were purchased in 2018 from Molycorp, Inc., debtors. Such amount was outstanding as of December 31, 2019, and was paid in 2020.

NOTE 6—RESTRICTED CASH

The Company's restricted cash balances were as follows:

(in thousands)	December 31,	
	2020	2019
Restricted cash, current	\$ 3,688	\$ 24
Restricted cash, non-current	9,100	26,791
Total restricted cash	\$ 12,788	\$ 26,815

The current restricted cash, which is included in "Prepaid expenses and other current assets" within the Consolidated Balance Sheets, principally relates to cash held in escrow. The non-current restricted cash is cash collateral posted for closure and post-closure surety bonding for the Mountain Pass site and a trust established with the California Department of Resources Recycling and Recovery, which is the state of California's recycling and waste management program, for a closed onsite landfill.

NOTE 7—INVENTORIES

The Company's inventories consisted of the following:

(in thousands)	December 31,	
	2020	2019
Materials and supplies ⁽¹⁾	\$ 5,124	\$ 4,156
In-process ⁽²⁾	24,524	15,710
Finished goods ⁽³⁾	2,624	3,182
Total inventory	\$ 32,272	\$ 23,048

(1) Materials and supplies includes raw materials, spare parts, reagent chemicals, and packaging materials used in the production of rare earth products.

(2) In-process inventory is primarily comprised of mined ore stockpiles and bastnaesite ore in various stages of the production process that are drawn down based on the demands of our mine production plan.

(3) Finished goods is primarily comprised of packaged bastnaesite ore that is ready for sale. It also includes remaining stockpiles of other rare earth products acquired by the Company from the bankruptcy estate.

NOTE 8—PROPERTY, PLANT AND EQUIPMENT

The Company capitalized expenditures of \$26.2 million and \$2.8 million for the years ended December 31, 2020 and 2019, respectively. Most of these expenditures related to vehicles, machinery, equipment, enterprise resource planning ("ERP") software, and certain other capital projects at the mine. Interest capitalized was \$0.2 million for the year ended December 31, 2020. No interest was capitalized for the year ended December 31, 2019.

As discussed in [Note 3, "Business Combination and Reverse Recapitalization,"](#) in connection with the Business Combination, the Company acquired the mineral rights pertaining to the rare earth ores contained in the Mountain Pass mine, the SNR Mineral Rights Acquisition. The value attributed to the SNR Mineral Rights Acquisition in the Business Combination was \$434.7 million. Prior to the SNR Mineral Rights Acquisition, MPMO had already recognized an asset associated with its working interest in the mineral rights under the Royalty Agreement with SNR in the amount of \$3.0 million, relating to its acquisition of the 97.5% working interest. As part of the SNR Mineral Rights Acquisition, we acquired the remaining 2.5% royalty interest in the same mineral deposits.

The Company's property, plant and equipment consisted of the following:

(in thousands)	December 31,	
	2020	2019
Machinery and equipment	\$ 22,911	\$ 18,313
Buildings	2,953	3,152
Land and land improvements	6,534	6,045
Assets under construction	46,814	23,735
Mineral rights	437,654	2,967
Property, plant and equipment	516,866	54,212
Less: Accumulated depreciation and depletion	(14,892)	(7,826)
Property, plant and equipment, net	\$ 501,974	\$ 46,386

Depreciation and depletion expense for the years ended December 31, 2020 and 2019, was \$ 6.7 million and \$4.7 million, respectively.

NOTE 9—DEBT OBLIGATIONS

The Company's current and non-current portions of related-party debt were as follows:

(in thousands)	December 31,	
	2020	2019
Long-term debt to related parties		
Offtake Advances	\$ 71,843	\$ —
Promissory note	—	5,563
Secured promissory note	—	13,594
Less: Unamortized debt discount	(5,393)	(1,079)
Net carrying amount	66,450	18,078
Less: Current installments of long-term debt to related parties	(22,070)	(4,484)
Long-term debt to related parties, net of current portion	\$ 44,380	\$ 13,594

Offtake Advances

In connection with the June 2020 Modification, which is discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) Shenghe agreed to fund an additional \$35.5 million advance to the Company (previously defined as the "Second Additional Advance") and the Company issued the Shenghe Warrant. For accounting purposes, the June 2020 Modification effectively replaced the deferred revenue arrangement relating to the Original Offtake Agreement with a debt obligation relating to the A&R Offtake Agreement and the issuance of the Shenghe Warrant.

The deemed proceeds from the June 2020 Modification were (i) the deferred revenue balance at the time of the modification, which was \$37.5 million, and (ii) the \$35.5 million of cash from the Second Additional Advance. As of the date of the June 2020 Modification, the debt obligation and the Shenghe Warrant were recognized at fair value, which were \$85.7 million and \$53.8 million, respectively. The Company determined that the modified revenue arrangement contained within the A&R Offtake Agreement was at-market, and as such, was not allocated any proceeds as a result of the June 2020 Modification. As discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) the Company recorded a settlement charge in the amount of \$66.6 million to terminate the DMA.

Under the A&R Offtake Agreement, a portion of the sales prices of products sold to Shenghe is paid in the form of debt reduction, rather than cash. In addition, the Company must pay the following amounts to Shenghe in cash to reduce the debt obligation until repaid in full: (i) an agreed-upon percentage of sales of products that are subject to Shenghe's exclusivity rights to parties other than Shenghe; (ii) 100% of net profits from sales of assets; and (iii) 100% of net income determined under GAAP, less the tax-effected amount of total non-cash recoupment from sales of products to Shenghe, within five business days of the completion of the annual external audit of the Company's Consolidated Financial Statements. Since these features require cash payments regardless of sales to Shenghe, the Company determined that amounts due to Shenghe under the Offtake Advances should be classified as a debt obligation. From the date of the June 2020 Modification through December 31, 2020,

\$12.0 million of the sales prices of products sold to Shenghe was paid in the form of debt reduction (see [Note 19, "Supplemental Cash Flow Information"](#)). No amounts were required to be paid based on sales to other parties or asset sales.

After consideration of the Second Additional Advance, the outstanding balance on the Offtake Advances, as of the date of the June 2020 Modification, was \$94.0 million. Since the debt obligation was recorded at fair value, the result was a debt discount of \$ 8.3 million. The A&R Offtake Agreement does not have a stated rate (and is non-interest-bearing), and repayment is contingent on a number of factors, including market prices realized by Shenghe, the Company's sales to other parties, asset sales, and the Company's annual net income. The imputed interest rate is a function of this discount taken together with our expectations about the timing of the anticipated reductions of the principal balance. Based on current forecasts, the Company expects to repay the obligation within the next three years. As of December 31, 2020, \$25.7 million of the principal amount was classified as current based on the Company's expectations of the timing of repayment.

The actual amounts repaid may differ in timing and amount from the Company's estimates and is updated each reporting period to determine the imputed interest rate, which will likely differ from the current estimated rate. The Company has determined that it will recognize adjustments from these estimates following a prospective method. Under the prospective method, the Company will update its estimate of the effective interest rate in future periods based on revised estimates of the timing of remaining principal reductions at that time. The updated rate will be the discount rate that equates the present value of those revised estimates of remaining reductions with the carrying amount of the debt, and it will be used to recognize interest expense for the remaining periods. Under the prospective method, the effective interest rate is not constant and changes are recognized prospectively as an adjustment to the effective yield. The effective rate applicable from the June 5, 2020, inception to December 31, 2020, was between 4.41% and 5.27%. Based on the revised estimates of the timing of the remaining principal reductions as of December 31, 2020, the Company updated its estimate of the effective interest rate to 6.59% to be applied prospectively to future periods.

As discussed in [Note 5, "Revenue Recognition,"](#) in August 2020, the Company was informed of a \$ 9.7 million tariff rebate Shenghe received, which increased the gross profit earned by Shenghe on certain sales. In addition, after the June 2020 Modification, but relating to sales made prior the June 2020 Modification, Shenghe realized higher gross profit than estimated by the Company in the amount of \$0.4 million due to higher market prices. As a result of these events, for the year ended December 31, 2020, the Company recorded reductions in the principal amount of the debt obligation of \$10.1 million and the corresponding debt discount of \$0.8 million.

Promissory Note

The Company entered into a 5% callable promissory note in April 2017 with JHL Capital Group Holdings Two LLC; Saratoga Park Ltd.; QVT Family Office Fund LP; QVT Family Office Onshore LP; and Fourth Avenue FF-Series E (the "Promissory Note Lenders"). The initial borrowed amount of \$0.2 million was subsequently increased to a total of \$ 5.6 million as of the date of the latest amendment, June 20, 2019. The principal balance and accrued interest were payable in arrears when called by the lenders. No principal repayments were made in 2019. This balance was classified as current as of December 31, 2019, and was repaid in full upon the consummation of the Business Combination.

Secured Promissory Note

The Company entered into a \$15.5 million, 10% secured promissory note in August 2017 with the Promissory Note Lenders. In February 2019, the Company modified the arrangement to add the accrued interest of \$2.3 million to the principal balance, and to add \$ 1.9 million to the principal balance, which was treated as a discount, in exchange for the modification. The Company was accreting the discount over the term of the note. Interest on the secured promissory note was accrued on the unpaid principal amount of the loans and such interest was payable at the payment of principal amounts. The Company repaid \$3.1 million and \$3.0 million of the principal amount in June and July 2019, respectively. This balance was classified as non-current as of December 31, 2019, and was repaid in full upon the consummation of the Business Combination.

Paycheck Protection Loan

In April 2020, the Company obtained a loan of \$ 3.4 million pursuant to the Paycheck Protection Program (the "PPP") under Division A, Title I of the CARES Act, which was enacted in March 2020 (the "Paycheck Protection Loan" or the "Loan"). The Paycheck Protection Loan, which was in the form of a note dated April 15, 2020, issued by CIBC Bank USA, matures on April 14, 2022, and bears interest at a rate of 1% per annum, payable monthly commencing on March 15, 2021. Under the terms of the PPP, the Loan may be forgiven if the funds are used for qualifying expenses as described in the CARES Act, which include payroll costs, costs used to continue group health care benefits, rent and utilities. As we have used the entire Loan amount for qualifying expenses, in November 2020, we applied for forgiveness of the entire balance in accordance with the requirements and limitations under the CARES Act and Small Business Administration ("SBA") regulations and

requirements. However, no assurance can be provided that any portion of the Loan will be forgiven. Based on guidance from the U.S. Department of the Treasury, since the proceeds exceeded \$2.0 million, our forgiveness application is subject to audit by the SBA. We are currently awaiting a determination on forgiveness of the Paycheck Protection Loan.

The current and non-current portions of the Paycheck Protection Loan, which are included within the Consolidated Balance Sheets in “Current installments of long-term debt” and “Long-term debt, net of current portion,” respectively, were as follows:

<i>(in thousands)</i>	December 31,	
	2020	2019
Paycheck Protection Loan		
Current	\$ 2,403	\$ —
Non-current	961	—
	<u>\$ 3,364</u>	<u>\$ —</u>

Equipment Notes

The Company has entered into several financing agreements for the purchase of equipment, including trucks, tractors, loaders, graders, and various other machinery. See also [Note 21, “Subsequent Events.”](#)

The current and non-current portions of the equipment notes, which are included within the Consolidated Balance Sheets in “Other current liabilities” and “Other non-current liabilities,” respectively, were as follows:

<i>(in thousands)</i>	December 31,	
	2020	2019
Equipment notes		
Current	\$ 835	\$ 515
Non-current	1,267	1,145
	<u>\$ 2,102</u>	<u>\$ 1,660</u>

The Company’s various equipment notes, which are secured by the purchased equipment, have terms of between 4 to 5 years and interest rates of between 0.0% and 6.5% per annum.

Interest expense, net

Interest expense, net, was as follows:

<i>(in thousands)</i>	For the year ended December 31,	
	2020	2019
Interest expense	\$ 5,171	\$ 3,412
Capitalized interest	(162)	—
Interest expense, net	<u>\$ 5,009</u>	<u>\$ 3,412</u>

Debt Maturities

The following is a schedule of debt repayments as of December 31, 2020:

<i>(in thousands)</i>	Offtake Advances ⁽¹⁾	Paycheck Protection Loan	Equipment Notes
Year ending December 31,			
2021	\$ 25,710	\$ 2,403	\$ 835
2022	42,744	961	733
2023	3,389	—	434
2024	—	—	100
2025	—	—	—
Thereafter	—	—	—
Total minimum payments	<u>\$ 71,843</u>	<u>\$ 3,364</u>	<u>\$ 2,102</u>

(1) Amounts for the Offtake Advances are based on management's expected repayments, considering expected production volumes, forecasted prices and cost projections. Actual amounts may differ from these estimates.

As of December 31, 2020, none of the agreements governing our indebtedness contain financial covenants.

NOTE 10—LEASE OBLIGATIONS

The Company has operating and finance leases for certain office space, vehicles and equipment used in its operations, with lease terms ranging from monthly to five years. These leases require monthly lease payments that may be subject to annual increases throughout the lease term. Certain of these leases also include renewal options at the election of the Company to renew or extend the lease for an additional one to five years. These optional periods have not been considered in the determination of the ROU asset or lease liabilities associated with these leases as management did not consider it reasonably certain it would exercise the options. As discussed in [Note 2, "Significant Accounting Policies,"](#) for the majority of asset classes, the Company has elected to use a practical expedient to not recognize leases with a lease term of 12 months or less in the Consolidated Balance Sheets. For these leases, expense is recognized on a straight-line basis over the lease term.

The Company's lease agreements do not contain any termination options or material residual value guarantees, bargain purchase options, or restrictive covenants. The Company does not have any lease arrangements with related parties.

Total lease cost included the following components:

Location on Consolidated Statements of Operations		For the year ended December 31,	
		2020	2019
Operating lease cost	Primarily Cost of sales (including to related parties) (excluding depreciation, depletion and amortization)	\$ 2,466	\$ 218
Finance lease cost			
Amortization of right-of-use assets	Depreciation, depletion and amortization	268	159
Interest on lease liabilities	Interest expense, net	50	42
		<u>318</u>	<u>201</u>
Short-term lease cost	Primarily Cost of sales (including to related parties) (excluding depreciation, depletion and amortization)	1,246	913
		<u>\$ 4,030</u>	<u>\$ 1,332</u>

Supplemental cash flow information related to leases was as follows:

	For the year ended December 31,	
	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows related to operating leases	\$ 2,432	\$ 223
Operating cash flows related to finance leases	\$ 50	\$ 42
Financing cash flows related to finance leases	\$ 249	\$ 121
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	\$ 2,932	\$ 549
Finance leases	\$ 724	\$ 671

Information related to lease terms and discount rates was as follows:

	December 31,	
	2020	2019
Weighted-Average Remaining Lease Term		
Operating leases	1.3 years	2.9 years
Finance leases	3.5 years	3.0 years
Weighted-Average Discount Rate		
Operating leases	5.2 %	4.7 %
Finance leases	6.7 %	7.7 %

As of December 31, 2020, the maturities of the Company's operating and finance lease liabilities were as follows:

(in thousands)	Operating Leases	Finance Leases
Year ending December 31,		
2021	\$ 790	\$ 324
2022	361	253
2023	—	333
2024	—	119
2025	—	95
Thereafter	—	—
Total lease payments	1,151	1,124
Less: Imputed interest	(33)	(122)
Total	\$ 1,118	\$ 1,002

Supplemental disclosure for the Consolidated Balance Sheets related to the Company's operating and finance leases were as follows:

(in thousands)	Location on Consolidated Balance Sheets	December 31,	
		2020	2019
Operating Leases:			
Right-of-use assets	Other non-current assets	\$ 1,090	\$ 571
Operating lease liability, current	Other current liabilities	\$ 761	\$ 215
Operating lease liability, non-current	Other non-current liabilities	357	351
Total operating lease liabilities		<u>\$ 1,118</u>	<u>\$ 566</u>
Finance Leases:			
Right-of-use assets	Finance lease right-of-use assets	\$ 1,028	\$ 586
Finance lease liability, current	Current portion of finance lease liabilities	\$ 266	\$ 194
Finance lease liability, non-current	Finance lease liabilities, net of current portion	736	399
Total finance lease liabilities		<u>\$ 1,002</u>	<u>\$ 593</u>

NOTE 11—ASSET RETIREMENT AND ENVIRONMENTAL OBLIGATIONS

Asset Retirement Obligations

Management estimated AROs based on the requirements to reclaim its mine asset and related Mountain Pass facility. Minor reclamation activities related to discrete portions of our operations are ongoing. As of December 31, 2020, management estimates a significant portion of the cash outflows for the major reclamation and the retirement of the Mountain Pass facility will be incurred beginning in 2043.

The following is a summary of AROs:

(in thousands)	December 31,	
	2020	2019
Beginning balance	\$ 23,966	\$ 22,566
Obligations settled	(75)	(80)
Accretion expense	1,755	1,602
Revisions in estimated cash flows	—	(122)
Ending balance	<u>\$ 25,646</u>	<u>\$ 23,966</u>

The balance as of December 31, 2020 and 2019, included current portions of \$ 0.1 million. The total estimated future undiscounted cash flows required to satisfy the AROs were \$142.3 million as of both December 31, 2020 and 2019, respectively.

The Company is required to provide the applicable government agencies with financial assurances relating to the closure and reclamation obligations. As of December 31, 2020 and 2019, the Company had financial assurance requirements of \$38.4 million and \$38.3 million, respectively, which were satisfied with surety bonds placed with the California state and regional agencies that are partially secured by restricted cash.

The following is a summary of restricted cash for surety bonds:

(in thousands)	December 31,	
	2020	2019
Beginning balance	\$ 26,619	\$ 25,516
Refunds ⁽¹⁾	(18,054)	—
Additions	135	1,103
Ending balance	<u>\$ 8,700</u>	<u>\$ 26,619</u>

(1) The reduction during the year ended December 31, 2020, is principally due to the improvement in the Company's creditworthiness subsequent to the Business Combination.

Environmental Obligations

The Company assumed certain environmental remediation liabilities related to groundwater contamination of the prior operators. The Company engaged an environmental consultant to develop a remediation plan and remediation cost projections based upon that plan. Utilizing the remediation plan developed by the environmental consultant, management developed an estimate of future cash payments for the remediation plan.

As of December 31, 2020, management estimated the cash outflows related to these environmental activities will be incurred annually over the next 27 years. The Company's environmental remediation liabilities are measured at the expected value of future cash outflows discounted to their present value using a discount rate of 2.93%.

The total estimated aggregate undiscounted cost of \$28.2 million and \$28.6 million as of December 31, 2020 and 2019, respectively, was principally related to water monitoring activities required by state and local agencies. Based on management's best estimate of the cost and timing and the assumption that payments are considered to be fixed and reliably determinable, the Company has discounted the liability. The balance as of December 31, 2020 and 2019 included current portions of \$0.5 million.

As of December 31, 2020, the total environmental remediation costs were as follows (in thousands):

Year ending December 31,	
2021	\$ 489
2022	504
2023	520
2024	536
2025	552
Thereafter	25,567
Total	<u>28,168</u>
Effect of discounting	(11,077)
Total environmental obligations	<u>\$ 17,091</u>

NOTE 12—INCOME TAXES

As discussed in [Note 3, "Business Combination and Reverse Recapitalization,"](#) the Business Combination was treated as a reverse recapitalization and the SNR Mineral Rights Acquisition was treated as an asset acquisition. Furthermore, MPMO was deemed to be the accounting acquirer and FVAC the accounting acquiree, which, for financial reporting purposes, results in MPMO's historical financial information becoming that of the Company. For income tax purposes, the Business Combination was treated as a tax-free reorganization whereby the taxable years of MPMO and SNR ended on November 17, 2020, and the Company became the new parent and sole filer of a tax return for the remainder of 2020 as MPMO and SNR became disregarded entities for income tax purposes. Although the SNR Mineral Rights Acquisition was treated as an asset acquisition, the assets, liabilities and other attributes took carryover basis for tax purposes because of the tax-free reorganization nature of the transaction.

Income tax benefit (expense) consisted of the following:

(in thousands)	For the year ended December 31,	
	2020	2019
Current:		
Federal	\$ —	\$ —
State	(156)	(1)
Total current	(156)	(1)
Deferred:		
Federal	14,088	—
State	3,704	—
Total deferred	17,792	—
Total tax benefit (expense)	\$ 17,636	\$ (1)

During the year ended December 31, 2020, the Company recorded \$ 4.7 million related to certain deductible expenditures incurred to "Additional paid-in capital" as a reduction of proceeds at the time of the Business Combination.

Loss before income taxes, by tax jurisdiction, was as follows:

(in thousands)	For the year ended December 31,	
	2020	2019
United States	\$ (39,461)	\$ (6,754)

Tax Rate Reconciliation

Income taxes differed from the amounts computed by applying the U.S. federal income tax rate of 21% to pretax loss as a result of the following:

(in thousands, except tax rates)	For the year ended December 31,			
	2020		2019	
	Percent	Amount	Percent	Amount
Computed income tax benefit at the statutory rate	21.0 %	\$ 8,287	21.0 %	\$ 1,419
Changes resulting from:				
State and local income taxes, net of federal benefits	4.3 %	1,729	6.8 %	459
Limitation on officer's compensation	(1.2) %	(478)	— %	—
Depletion in excess of basis	1.1 %	425	— %	—
Effect of other permanent differences	(0.3) %	(110)	(0.5) %	(35)
Valuation allowance	23.7 %	9,333	(25.5) %	(1,720)
Other items	(3.9) %	(1,550)	(1.8) %	(124)
Total effective tax rate and income tax benefit (expense)	44.7 %	\$ 17,636	— %	\$ (1)

Significant Components of Deferred Taxes

The tax effects of temporary differences that gave rise to significant portions of the deferred income tax assets and deferred income tax liabilities were as follows:

(in thousands)	December 31,	
	2020	2019
Deferred tax assets:		
Asset retirement and environmental obligations	\$ 10,727	\$ 11,359
Other deferred tax assets	860	386
Net operating losses	4,248	3,335
Interest expense carryforward	63	1,020
Inventory	1,667	1,286
Deferred revenue	—	1,274
Royalty liability	—	1,105
Offtake Advances, net of debt discount	16,665	—
Shenghe Warrant	10,087	—
Refund liability	—	769
Stock-based compensation	536	—
Organization costs	943	1,143
Gross deferred tax assets	45,796	21,677
Less: Valuation allowance	(2,370)	(11,702)
Net deferred tax assets	43,426	9,975
Deferred tax liabilities:		
Property, plant and equipment	(7,653)	(8,644)
Prepaid expenses	(273)	(204)
Deferred revenue	(13,260)	—
Inventory capitalization	—	(61)
Mineral rights	(109,174)	(742)
Other	(539)	(324)
Total deferred tax liabilities	(130,899)	(9,975)
Long-term deferred tax liabilities, net	\$ (87,473)	\$ —

As of December 31, 2020 and 2019, the Company had net operating loss carryforwards for federal income tax purposes of \$ 16.3 million and \$10.7 million, respectively. Of the carryforward amount as of December 31, 2020, \$4.6 million can be used to offset taxable income and reduce income taxes payable in future periods until its expiration in 2037, and the remaining balance of \$11.7 million can be carried forward indefinitely. As of December 31, 2020, the Company considered the positive and negative evidence to determine the need for a valuation allowance to offset its deferred tax assets and has concluded that it is more likely than not that, with the exception of certain deferred tax assets related to asset retirement and environmental obligations, its deferred tax assets will be realized through future taxable temporary differences, principally resulting from the significant deferred tax liability recorded during the year. A full valuation allowance had previously been established for the year ended December 31, 2019.

Management has evaluated the Company's tax positions for the years ended December 31, 2020 and 2019, and determined that there were no uncertain tax positions requiring recognition in the Consolidated Financial Statements. The Company's policy, if it were to have uncertain tax positions, is to recognize interest and/or penalties related to unrecognized tax benefits as part of its income tax expense. The tax years from 2017 onward remain open to examination by the taxing jurisdictions to which the Company is subject.

NOTE 13—COMMITMENTS AND CONTINGENCIES

Estimated losses from contingencies are accrued by a charge to income when information available prior to issuance of the financial statements indicates that it is probable that a liability could be incurred, and the amount of the loss can be reasonably estimated. Legal expenses associated with the contingency are expensed as incurred. If a loss contingency is not probable or reasonably estimable, disclosure of the contingency and estimated range of loss, if determinable, is made in the financial statements when it is at least reasonably possible that a material loss could be incurred.

Pending or threatened litigation: In the ordinary course of business, the Company becomes party to lawsuits, administrative proceedings and government investigations, including environmental, regulatory, and other matters. Large, and sometimes unspecified, damages or penalties may be sought in some matters, and certain matters may require years to resolve.

In January 2019, a former employee filed a complaint with the California Labor & Workforce Development Agency alleging numerous violations of California labor law, and subsequently filed a representative action against the Company. The Company disputes the plaintiff's allegations and has retained counsel to represent it in the litigation. The Company is unable to estimate a range of loss, if any, at this time. If an unfavorable outcome were to occur in the case, it is possible that the impact could be material in respect of the Company's results of operations in the period in which any such outcome becomes probable and reasonably estimable.

NOTE 14—STOCKHOLDERS' EQUITY

Common Stock and Preferred Stock

On November 17, 2020, in connection with the consummation of the Business Combination, FVAC amended and restated its first amended and restated certificate of incorporation (the "Second Amended and Restated Certificate of Incorporation"). Pursuant to the terms of the Second Amended and Restated Certificate of Incorporation, the Company increased the number of authorized shares of all classes of capital stock from 221,000,000 shares to 500,000,000, consisting of (i) 450,000,000 shares of common stock (previously defined as "Common Stock") and (ii) 50,000,000 shares of preferred stock ("Preferred Stock"), each with a par value of \$0.0001 per share.

As discussed in [Note 3, "Business Combination and Reverse Recapitalization,"](#) there were 149,308,637 shares of the Company's Common Stock issued and outstanding immediately after the closing of the Business Combination (including restricted stock issued to certain executives upon closing). Furthermore, in December 2020, the criteria for the Vesting Shares and the Earnout Shares were attained, which resulted in the issuance of 8,625,000 and 12,859,898 shares, respectively, of the Company's Common Stock.

Public Warrants

Warrants to purchase 11,499,968 shares of the Company's Common Stock at \$ 11.50 per share were issued during FVAC's IPO (the "Public Warrants"). The Public Warrants become exercisable 12 months from the closing of FVAC's IPO, which was May 4, 2020. The Public Warrants expire five years after the completion of the Business Combination or earlier upon redemption or liquidation.

Once the warrants are exercisable, if the reported last sale price of the Company's Common Stock equals or exceeds \$ 18.00 per share for any 20 trading days within a 30-trading day period ending three business days before the Company sends the notice of redemption to the warrant holders, the Company may redeem all the Public Warrants at a price of \$0.01 per warrant upon not less than 30 days' prior written notice.

If the Company calls the Public Warrants for redemption, management will have the option to require all holders that wish to exercise the Public Warrants to do so on a cashless basis. The exercise price and number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, or recapitalization, reorganization, merger or consolidation. The warrants will not be adjusted for issuance of Common Stock at a price below its exercise price. The Company will not be required to net cash settle the Public Warrants.

NOTE 15—STOCK-BASED COMPENSATION

2020 Incentive Plan: In November 2020, the Company's stockholders approved the MP Materials Corp. 2020 Stock Incentive Plan (the "2020 Incentive Plan"), which permits the Company to issue stock options (incentive and/or non-qualified); stock appreciation rights ("SARs"); restricted stock, restricted stock units ("RSUs") and other stock awards ("Stock Awards"); and performance awards. The purposes of the 2020 Incentive Plan are (i) to align the interests of the Company's stockholders

and the recipients of awards under this 2020 Incentive Plan by increasing the proprietary interest of such recipients in the Company's growth and success; (ii) to advance the interests of the Company by attracting and retaining non-employee directors, officers, other employees, consultants, independent contractors and agents; and (iii) to motivate such persons to act in the long-term best interests of the Company and its stockholders.

Pursuant to the 2020 Incentive Plan, 9,653,671 shares of Common Stock shall initially be available for issuance. The number of shares of Common Stock available under the 2020 Incentive Plan shall increase annually on the first day of each calendar year, beginning with the calendar year ending December 31, 2021, and continuing until (and including) the calendar year ending December 31, 2030, with such annual increase equal to the lesser of (i) 2% of the number of shares of stock issued and outstanding on December 31st of the immediately preceding fiscal year and (ii) an amount determined by the Board of Directors. The number of shares of Common Stock that remain available for future grants under the 2020 Incentive Plan shall be reduced by the sum of the aggregate number of shares of Common Stock that become subject to outstanding options, outstanding free-standing SARs, outstanding Stock Awards, and outstanding performance awards denominated in shares of Common Stock, other than substitute awards. As of December 31, 2020, there were 7,238,034 shares available for future grants under the 2020 Incentive Plan.

Employment Agreements: Certain of the Company's executives are subject to employment agreements. Under the terms and conditions of such employment agreements, in connection with the consummation of the Business Combination, 2,013,006 shares of restricted stock were issued, of which 200,000 shares were immediately vested and the remainder of shares vests ratably over the requisite service period of four years.

Directors Compensation: RSUs granted to non-employee directors vest into tax-deferred stock units ("DSUs") upon the earlier of one year after the grant date and the next annual stockholder meeting. The DSUs are settled as shares of Common Stock of the Company upon the earlier of (i) June 15th of the fifth year after grant, (ii) a change in control of the Company, and (iii) the director's separation from the Board, unless the director elects to defer settlement until retirement. Upon the consummation of the Business Combination, the Company granted 15,992 shares of RSUs to non-employee directors.

In December 2020, the Company adopted a director deferred compensation plan (the "2021 Director Deferred Compensation Plan"). Under the 2021 Director Deferred Compensation Plan, non-employee members of the Board may elect to defer their annual cash retainer (beginning on January 1, 2021) into DSUs, which are settled in the same manner as the RSUs granted to non-employee directors described above.

Stock-Based Compensation Expense: During the year ended December 31, 2020, the Company recognized \$ 5.0 million of stock-based compensation expense, which is principally included within the Consolidated Statements of Operations in "General and administrative expenses."

Stock Awards: In addition to the Stock Awards granted pursuant to employment agreements and to non-employee directors, we granted 386,639 RSUs to non-executive employees in connection with the Business Combination. Such RSUs vest ratably over the requisite service period of four years. The grant date fair value of our Stock Awards is based on the closing stock price of the Company's shares of Common Stock on the date of grant. The following table contains information on our Stock Awards:

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested as of January 1, 2020	—	\$ —
Granted	2,415,637	\$ 14.53
Vested	(200,000)	\$ 14.39
Forfeited	—	\$ —
Nonvested as of December 31, 2020	2,215,637	\$ 14.54

As of December 31, 2020, the unamortized compensation cost not yet recognized related to Stock Awards totaled \$ 30.1 million and the weighted-average period over which the costs are expected to be recognized was 2.3 years. The total fair value of Stock Awards that vested during the year ended December 31, 2020, was \$2.9 million.

NOTE 16—FAIR VALUE MEASUREMENTS

ASC Topic 820, "Fair Value Measurements and Disclosures" ("ASC 820"), establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

<i>Level 1</i>	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
<i>Level 2</i>	Quoted prices in markets that are not active, quoted prices for similar assets or liabilities in active markets, quoted prices or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability and model-based valuation techniques (e.g. the Black-Scholes model) for which all significant inputs are observable in active markets.
<i>Level 3</i>	Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

The Company's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of assets and liabilities and their placement within the fair value hierarchy. The following methods and assumptions are used to estimate the fair value of each class of financial instruments for which it is practicable to estimate. The fair value of the Company's accounts receivable, accounts payable, short-term debt and accrued liabilities approximates the carrying amounts because of the immediate or short-term maturity of these financial instruments.

Cash, Cash Equivalents and Restricted Cash

The Company's cash, cash equivalents and restricted cash are classified within Level 1 of the fair value hierarchy. The carrying amounts reported in the Consolidated Balance Sheets approximate the fair value of cash, cash equivalents and restricted cash due to the short-term nature of these assets.

Offtake Advances

The Company's Offtake Advances balance is classified within Level 3 of the fair value hierarchy because there are unobservable inputs that follow an imputed interest rate model to calculate the amortization of the embedded debt discount, which is recognized as non-cash interest expense, by estimating the timing of anticipated payments and reductions of the debt principal balance. This model-based valuation technique, for which there are unobservable inputs, was used to estimate the fair value of the liability balance classified within Level 3 of the fair value hierarchy as of December 31, 2020. As previously discussed, the Offtake Advances were not accounted for as debt until the June 2020 Modification.

Secured Promissory Note and Equipment Notes

The Company's secured promissory note and equipment notes are classified within Level 2 of the fair value hierarchy because there are inputs that are directly observable for substantially the full term of the liability. Model-based valuation techniques for which all significant inputs are observable in active markets were used to calculate the fair values of liabilities classified within Level 2 of the fair value hierarchy as of December 31, 2020 and 2019.

As required by ASC 820, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The carrying amounts and estimated fair values by input level of the Company's financial instruments were as follows:

December 31, 2020					
(in thousands)	Carrying Amount	Fair Value	Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 519,652	\$ 519,652	\$ 519,652	\$ —	\$ —
Restricted cash	\$ 12,788	\$ 12,788	\$ 12,788	\$ —	\$ —
Financial liabilities:					
Offtake Advances	\$ 66,450	\$ 68,151	\$ —	\$ —	\$ 68,151
Equipment notes	\$ 2,102	\$ 2,077	\$ —	\$ 2,077	\$ —

December 31, 2019					
(in thousands)	Carrying Amount	Fair Value	Level 1	Level 2	Level 3
Financial assets:					
Cash and cash equivalents	\$ 2,757	\$ 2,757	\$ 2,757	\$ —	\$ —
Restricted cash	\$ 26,815	\$ 26,815	\$ 26,815	\$ —	\$ —
Financial liabilities:					
Secured promissory note	\$ 13,594	\$ 14,107	\$ —	\$ 14,107	\$ —
Equipment notes	\$ 1,660	\$ 1,646	\$ —	\$ 1,646	\$ —

NOTE 17—EARNINGS (LOSS) PER SHARE

Pursuant to the Second Amended and Restated Certificate of Incorporation and as a result of the Business Combination and reverse recapitalization, the Company has retrospectively adjusted the weighted-average shares outstanding prior to November 17, 2020, to give effect to the exchange ratio used to determine the number of shares of Common Stock into which the MPMO common units and preferred units, which were outstanding prior the Business Combination, converted.

Basic net income or loss per share is computed based on the weighted-average number of shares of common stock outstanding during the period. Diluted net income or loss per share is computed based on the weighted-average number of common shares outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. During the periods when there is a net loss, potentially dilutive common stock equivalents have been excluded from the calculation of diluted loss per share as their effect is anti-dilutive.

(in thousands, except share and per share data)		For the year ended December 31,	
		2020	2019
Numerator:			
Net loss		\$ (21,825)	\$ (6,755)
Denominator:			
Weighted-average, basic and diluted, shares outstanding		79,690,821	66,556,975
Net loss per share, basic and diluted		\$ (0.27)	\$ (0.10)

As discussed in [Note 14, "Stockholders' Equity,"](#) warrants to purchase 11,499,968 shares of Common Stock at \$11.50 per share were issued during FVAC's IPO. None of the warrants were exercisable or exercised during the years presented. The public warrants become exercisable 12 months from the closing of FVAC's IPO, which was May 4, 2020.

The following potentially dilutive securities have been excluded from the computation of diluted weighted-average shares of common stock outstanding as they would be anti-dilutive:

	For the year ended December 31,	
	2020	2019
Public Warrants	11,499,968	—
Restricted stock	1,813,006	—
RSUs	397,662	—
Total	13,710,636	—

NOTE 18—RELATED PARTY TRANSACTIONS

Product Sales and Cost of Sales: The Company and Shenghe enter into separate product sales agreements in which Shenghe purchases all newly produced material at specified prices. Product sales from these agreements were \$133.7 million and \$73.0 million for the years ended December 31, 2020 and 2019, respectively, and are discussed in more detail in [Note 5, “Revenue Recognition,”](#) including amounts recognized as deferred revenue and refund liabilities.

Cost of sales, which includes shipping and freight, related to these agreements with Shenghe were \$ 63.3 million and \$60.9 million for the years ended December 31, 2020 and 2019, respectively.

Purchases: The Company purchases reagent products (produced by an unrelated third party manufacturer) used in the flotation process from Shenghe. Total purchases for the years ended December 31, 2020 and 2019, totaled \$2.6 million and \$3.2 million, respectively.

Royalty Agreement: In April 2017, MPMO entered into a 30-year mineral lease and license agreement with SNR (the “Royalty Agreement”) under which MPMO paid royalties to SNR in the amount of 2.5% of the gross proceeds from the sale of rare earth products made from ores extracted from the Mountain Pass mine, subject to a minimum non-refundable royalty of \$0.5 million per year. SNR had the right to terminate the Royalty Agreement if MPMO did not expend the following amounts in connection with the reopening and resumption of operations at the Mountain Pass facility: \$20.0 million, \$35.0 million, and \$50.0 million before the 12-month, 24-month, and 36-month anniversary, respectively, of the purchase of the Mountain Pass facility, which occurred in July 2017. MPMO satisfied all such commitments to spend and there were no further commitments as of November 17, 2020, the date of the SNR Mineral Rights Acquisition.

At the time of entering into the Royalty Agreement, MPMO and SNR had shareholders common to both entities; however, they were not partners in business nor did they hold any other joint interest. In connection with the Business Combination, MPMO and SNR are both wholly-owned subsidiaries of the Company. Consequently, the intercompany transactions between MPMO and SNR after the date of the SNR Mineral Rights Acquisition and the Business Combination eliminate in consolidation, including the effects of the Royalty Agreement.

The present value of the minimum royalty payments under the Royalty Agreement was recognized as an acquisition cost by MPMO of the mineral interest (see [Note 8, “Property, Plant and Equipment”](#)). Remaining payments on the minimum royalty were reflected as an obligation on a discounted basis, with interest imputed at a rate of 12.7%. The liability was effectively settled as a preexisting relationship when MPMO and SNR became wholly-owned subsidiaries of the Company as part of the Business Combination (see [Note 3, “Business Combination and Reverse Recapitalization”](#)).

Excluding payments of these minimums (which were treated as a reduction to the obligation), royalty expense was \$ 2.4 million and \$1.9 million for the years ended December 31, 2020 and 2019, respectively. During years ended December 31, 2020 and 2019, the Company paid out \$4.3 million and \$1.2 million, respectively.

Accounts Receivable: As of December 31, 2020, \$3.5 million of the accounts receivable, as stated on the Consolidated Balance Sheets, were receivable from related parties due to the Company’s sales agreements with Shenghe. All accounts receivable as of December 31, 2019, were receivable from related parties due to the Company’s sales agreements with Shenghe.

Services Reimbursed: The Company reimbursed JHL Capital Group Holdings (“JHL”) for travel-related expenses during the years ended December 31, 2020 and 2019 in the amounts of \$0.1 million and \$0.2 million, respectively.

Accrued Liabilities: As of December 31, 2020, the Company had less than \$ 0.1 million in accrued liabilities owed to JHL for travel-related expenses. As of December 31, 2019, the Company had accrued liabilities owed to JHL and SNR in the

amount of \$0.1 million for travel-related expenses and less than \$ 0.1 million for patent maintenance fees and property taxes, respectively.

As of December 31, 2019, accrued liabilities also included \$ 0.3 million of accrued interest owed to Shenghe related to the First Additional Advance. We paid this accrued interest to Shenghe in June 2020.

Accounts Payable: There were no accounts payable outstanding to related parties as of December 31, 2020. As of December 31, 2019, the Company had accounts payable to SNR and Shenghe in the amount of \$0.5 million and \$1.5 million, respectively.

Indebtedness: The Company's related-party debt is described in [Note 9, "Debt Obligations."](#)

NOTE 19—SUPPLEMENTAL CASH FLOW INFORMATION

In addition to the non-cash components of the June 2020 Modification, as discussed in [Note 4, "Relationship and Agreements with Shenghe,"](#) and the cash flow information pertaining to lease activity, as presented in [Note 10, "Lease Obligations,"](#) other supplemental cash flow information and non-cash investing and financing activities were as follows:

(in thousands)	For the year ended December 31,	
	2020	2019
Supplemental cash flow information:		
Cash paid for interest	\$ 3,089	\$ 926
Cash paid for income taxes	\$ 255	\$ 1
Supplemental non-cash investing activities:		
Property, plant and equipment acquired with seller-financed equipment notes	\$ 1,216	\$ 569
Property, plant and equipment purchased but not yet paid	\$ 4,054	\$ —
SNR Mineral Rights Acquisition ⁽¹⁾	\$ 324,125	\$ —
Supplemental non-cash financing activities:		
Revenue recognized in exchange for debt principal reduction ⁽²⁾	\$ 21,312	\$ —

(1) See [Note 3, "Business Combination and Reverse Acquisition,"](#) for further information on the composition of the cost of this acquisition.

(2) Of the amount for the year ended December 31, 2020, \$12.0 million pertains to sales to Shenghe, as discussed in [Note 9, "Debt Obligations,"](#) and \$9.3 million pertains to the tariff rebate and changes in estimates of realized prices of prior period sales, as discussed in [Note 5, "Revenue Recognition."](#)

NOTE 20—OTHER INCOME, NET

(in thousands)	For the year ended December 31,	
	2020	2019
Gain (loss) on sale of equipment	\$ (101)	\$ 3,785
Interest income	163	461
Environmental incentive credit	130	—
Other	59	32
Other income, net	\$ 251	\$ 4,278

NOTE 21—SUBSEQUENT EVENTS

In February 2021, we entered into several financing agreements for the purchase of equipment, including trucks and loaders, in the aggregate amount of \$9.7 million. These equipment notes, which are secured by the purchased equipment, have terms of 5 years and interest rates of 4.5% per annum with monthly payments commencing in April 2021.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES***Disclosure Controls and Procedures***

Under the supervision and with the participation of our management, including our principal executive officer and principal financial and accounting officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the end of the fiscal quarter ended December 31, 2020, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that during the period covered by this Annual Report on Form 10-K (this "Annual Report"), our disclosure controls and procedures were effective.

Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Pursuant to Rule 15d-15(c) under the Exchange Act, because the Company was not required to file (and did not file) an Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (a "Prior Year Annual Report"), this Annual Report does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established pursuant to SEC rules and regulations for newly public companies.

Attestation Report of the Registered Public Accounting Firm

Pursuant to an exemption established by the Jumpstart Our Business Startups Act for "smaller reporting companies," this Annual Report does not include an attestation report of our independent registered public accounting firm on our internal control over financial reporting.

Changes in Internal Control Over Financial Reporting

Pursuant to Rule 15d-15(d) under the Exchange Act, because the Company was not required to file (and did not file) a Prior Year Annual Report, it was not required to conduct (and did not conduct) an evaluation of changes in our internal control over financial reporting that occurred during the fourth quarter of the year ended December 31, 2020.

ITEM 9B. OTHER INFORMATION

None.

PART III**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The persons serving as our executive officers and their positions with us are as follows:

NAME	AGE	POSITION WITH THE COMPANY
James H. Litinsky	43	Chairman of the Board and Chief Executive Officer
Michael Rosenthal	42	Chief Operating Officer
Ryan Corbett	31	Chief Financial Officer
Sheila Bangalore	42	General Counsel and Chief Strategy Officer

James H. Litinsky. Mr. Litinsky is the Founder, Chairman and Chief Executive Officer of MP Materials. Mr. Litinsky is also the Founder, Chief Executive Officer and Chief Investment Officer of JHL Capital Group LLC ("JHL"), an alternative investment management firm. Before founding JHL in 2006, he was a member of the Drawbridge Special Opportunities Fund at

Fortress Investment Group. Prior to Fortress, he was a Director of Finance at Omnicom Group, and he worked as a merchant banker at Allen & Company. Mr. Litinsky received a B.A. in Economics from Yale University, cum laude, and a J.D./M.B.A. from the Northwestern University School of Law and the Kellogg School of Management. He was admitted to the Illinois Bar. Mr. Litinsky also serves as a member of the Boards of the Shirley Ryan AbilityLab and the Museum of Contemporary Art Chicago.

Michael Rosenthal. Mr. Rosenthal is a Founder and the Chief Operating Officer of MP Materials. He has managed the Mountain Pass operation since the Company acquired the site in 2017. Before MP Materials, he was a Partner at QVT Financial ("QVT"), an investment management firm. At QVT, Mr. Rosenthal concentrated on investments in the global automotive sector and in China. Prior to joining QVT, he worked as a senior high yield credit analyst for Shenkman Capital Management. Mr. Rosenthal graduated from Duke University with an A.B. degree in Economics and Comparative Area Studies.

Ryan Corbett. Mr. Corbett joined MP Materials as its Chief Financial Officer in 2019. Prior to joining MP Materials, he was a Managing Director at JHL, where he focused on JHL's investment in MP Materials. Before JHL, Mr. Corbett was a member of alternative asset managers Brahman Capital Corp. and King Street Capital Management LP, both based in New York, where he focused on special situations investments across the capital structure. Mr. Corbett began his career in investment banking and corporate finance at Morgan Stanley & Co. after graduating magna cum laude from the Wharton School of the University of Pennsylvania with a concentration in Finance.

Sheila Bangalore. Ms. Bangalore joined MP Materials as its General Counsel and Chief Strategy Officer in 2020. Prior to MP Materials, Ms. Bangalore was most recently Assistant General Counsel at Aristocrat Technologies, and previously held legal roles at Zappos and Bally Technologies. Ms. Bangalore began her career at Bilzin Sumberg Baena Price & Axelrod LLP. She is a former Board member and President of the Association of Corporate Counsel, Nevada Chapter. Ms. Bangalore received her B.A. in Literature from Tufts University and her J.D. from the Washington University in St. Louis. She is currently an MBA Candidate at the Wharton School of the University of Pennsylvania.

The remaining information required by this item concerning directors and corporate governance is hereby incorporated by reference to the Company's definitive proxy statement for its Annual Meeting of Shareholders (the "2021 Proxy Statement"), to be filed with the U.S. Securities and Exchange Commission within 120 days after December 31, 2020, pursuant to Regulation 14A under the Securities Act.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is hereby incorporated by reference to the 2021 Proxy Statement.

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

The information required by this item is hereby incorporated by reference to the 2021 Proxy Statement.

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

The information required by this item is hereby incorporated by reference to the 2021 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is hereby incorporated by reference to the 2021 Proxy Statement.

PART IV

ITEM 15. EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report:

- (1) Financial Statements (see [Item 8. "Financial Statements and Supplementary Data"](#) and incorporated herein by reference).
 - (2) Financial Statement Schedules (Schedules to the Financial Statements have been omitted because the information required to be set forth therein is not applicable or is shown in the accompanying Financial Statements or notes thereto).
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(3) Exhibits (incorporated herein by reference or filed as part of this Annual Report).

Exhibit No.	Description
A0	Agreement and Plan of Merger, dated as of July 15, 2020, by and among Fortress Value Acquisition Corp., FVAC Merger Corp. I, FVAC Merger LLC II, FVAC Merger LLC III, FVAC Merger LLC IV, MP Mine Operations LLC and Secure Natural Resources LLC (incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on July 15, 2020).
A1	Amendment No. 1 to the Agreement and Plan of Merger, dated as of August 26, 2020, by and among Fortress Value Acquisition Corp., FVAC Merger Corp. I, FVAC Merger LLC II, FVAC Merger LLC III, FVAC Merger LLC IV, MP Mine Operations LLC and Secure Natural Resources LLC (incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on August 27, 2020).
S0	Second Amended and Restated Certificate of Incorporation of Fortress Value Acquisition Corp (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on November 17, 2020).
A1	Amended and Restated Bylaws of Fortress Value Acquisition Corp (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on November 17, 2020).
W1	Warrant Agreement, dated April 29, 2020, between the Company and Continental Stock Transfer & Trust Company, (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on For 8-K filed with the May 4, 2020).
D1	Description of Securities.
F10	Form of Subscription Agreement (incorporated herein by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-4 filed with the SEC on August 27, 2020).
MP	MP Support Agreement, dated as of July 15, 2020, by and among Fortress Value Acquisition Corp. and MP Mine Operations LLC (incorporated herein by reference to Exhibit 10.2 to the Company's Registration Statement on Form S-4 filed with the SEC on August 27, 2020).
S0	Support Agreement, dated as of July 15, 2020, by and among Fortress Value Acquisition Corp. and MP Mine Operations LLC (incorporated herein by reference to Exhibit 10.3 to the Company's Registration Statement on Form S-4 filed with the SEC on August 27, 2020).
F10	Fourth Sponsor Warrant Exchange Agreement, dated as of July 15, 2020, by and among Fortress Value Acquisition Corp., Fortress Acquisition Sponsor LLC and the other parties thereto (incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-4 filed with the SEC on August 27, 2020).
F10	Fifth Sponsor Letter Agreement, dated as of July 15, 2020, by and among Fortress Value Acquisition Corp., Fortress Acquisition Sponsor LLC and the other parties thereto (originally entered into on July 15, 2020, and amended and restated on August 26, 2020, incorporated herein by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-4 filed with the SEC on August 27, 2020).
A10	Amended and Restated Registration Rights Agreement, dated November 17, 2020, by and between Fortress Value Acquisition Corp. and the restricted stockholders (incorporated herein by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K filed on November 17, 2020).
10	Materials Corp. 2020 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed on November 17, 2020).
F10	Form of Indemnification Agreement (incorporated herein by reference to Exhibit 10.8 to the Company's Current Report on Form 8-K filed on November 17, 2020).
10	Employment Agreement, dated July 15, 2020, by and between MP Materials Corp. and James H. Litinsky (incorporated herein by reference to Exhibit 10.9 to the Company's Current Report on Form 8-K filed on November 17, 2020).
10	Employment Agreement, dated July 15, 2020, by and between MP Materials Corp. and Michael Rosenthal (incorporated herein by reference to Exhibit 10.10 to the Company's Current Report on Form 8-K filed on November 17, 2020).

Exhibit No.	Description
101.1	Employment Agreement, dated July 15, 2020, by and between MP Materials Corp. and Ryan Corbett (incorporated herein by reference to Exhibit 10.11 to the Company's Current Report on Form 8-K filed on November 17, 2020).
101.12	Employment Agreement, dated July 15, 2020, by and between MP Materials Corp. and Sheila Bangalore (incorporated herein by reference to Exhibit 10.12 to the Company's Current Report on Form 8-K filed on November 17, 2020).
101.15	Amended and Restated Offtake Agreement, dated as of May 19, 2020, between MPMO and Shenghe Resources (Singapore) (incorporated herein by reference to Exhibit 10.15 to the Company's Registration Statement on Form S-4/A filed with the SEC on August 27, 2020).
101.16	MP Materials Corp. 2021 Director Deferred Compensation Plan.
101.16.1	Letter from WithumSmith+Brown, PC to the SEC, dated November 23, 2020 (incorporated by reference to Exhibit 16.1 to the Company's Current Report on Form 8-K filed on November 23, 2020).
23	Subsidiaries of the Registrant.
23.1	Consent of KPMG LLP.
23.2	Consent of SRK Consulting (U.S.), Inc.
24	Power of Attorney (included as part of signature page).
31.1	CEO Certification pursuant to rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	CFO Certification pursuant to rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	CEO Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	CFO Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
95.16	Safe Harbor Disclosure pursuant to Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.50	XBRL Taxonomy Extension Schema Document.
101.101	XBRL Taxonomy Extension Calculation Linkbase Document.
101.102	XBRL Taxonomy Extension Definition Linkbase Document.
101.103	XBRL Taxonomy Extension Label Linkbase Document.
101.104	XBRL Taxonomy Extension Presentation Linkbase Document.
101.105	Inline XBRL File (included in Exhibit 101).
	Filed herewith.
	Furnished herewith.
	Indicates a management contract or compensatory plan or arrangement.
	Certain portions of this exhibit (indicated by "[***]") have been omitted pursuant to Regulation S-K, Item (601)(b)(10).

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

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

MP MATERIALS CORP.

Dated: March 22, 2021

By: /s/ James H. Litinsky
James H. Litinsky
Chairman and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of MP Materials Corp. hereby severally constitute and appoint James H. Litinsky and Ryan Corbett, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for her or him and in her or his name, place and stead, and in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and generally to do all things in our names and on our behalf in such capacities to enable MP Materials Corp. to comply with the provisions of the Securities Exchange Act of 1934, as amended, and all the requirements of the Securities Exchange Commission.

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

Name	Title	Date
<u>/s/ James H. Litinsky</u> James H. Litinsky	Chief Executive Officer (principal executive officer)	March 22, 2021
<u>/s/ Ryan Corbett</u> Ryan Corbett	Chief Financial Officer (principal financial and accounting officer)	March 22, 2021
<u>/s/ Gen. Richard B. Myers</u> Gen. Richard B. Myers	Director	March 22, 2021
<u>/s/ Andrew A. McKnight</u> Andrew A. McKnight	Director	March 22, 2021
<u>/s/ Daniel Gold</u> Daniel Gold	Director	March 22, 2021
<u>/s/ Randall Weisenburger</u> Randall Weisenburger	Director	March 22, 2021
<u>/s/ Maryanne R. Lavan</u> Maryanne R. Lavan	Director	March 22, 2021
<u>/s/ Connie K. Duckworth</u> Connie K. Duckworth	Director	March 22, 2021