

Current Price
\$41

Target Price
\$48

Upside
18%

MP Materials (NYSE: MP)

Binghamton Investment Fund | Materials Sector

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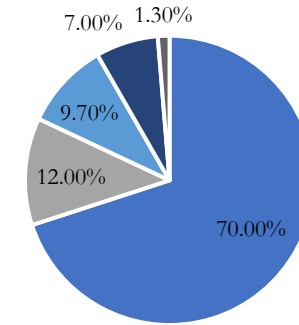


Industry Overview

Major Players



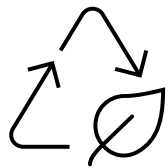
Distribution of REO Production



■ China ■ United States ■ Burma ■ Australia ■ Other

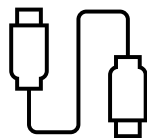
End Market Applications for REO

Clean-Energy and Transportation Technologies



Traction motors in EV's, generators in wind turbines, linear motors in mag-lev trains

High-Technology Applications



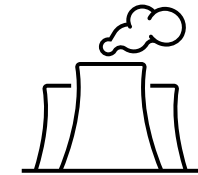
Miniaturization of smartphones, computing devices, speakers and microphones, as well as fiber optics, lasers, robotics etc.

Critical Defense Applications



Guidance and control systems, communications, GPS, radar and sonar, drones, and railguns

Essential Industrial Infrastructure



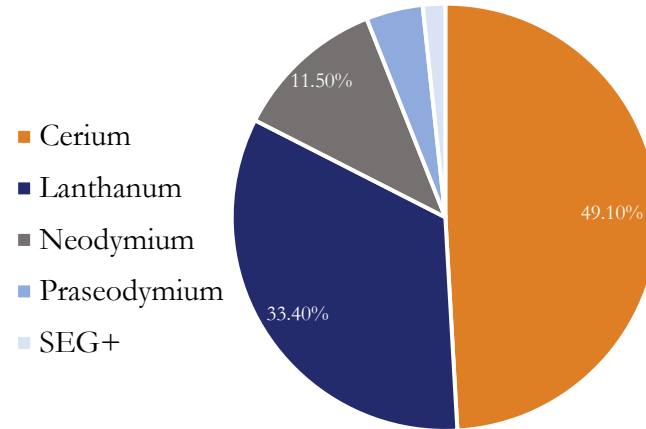
Catalyst applications in oil refining, pollution-control systems, glass polishing and LED lighting

Company Overview

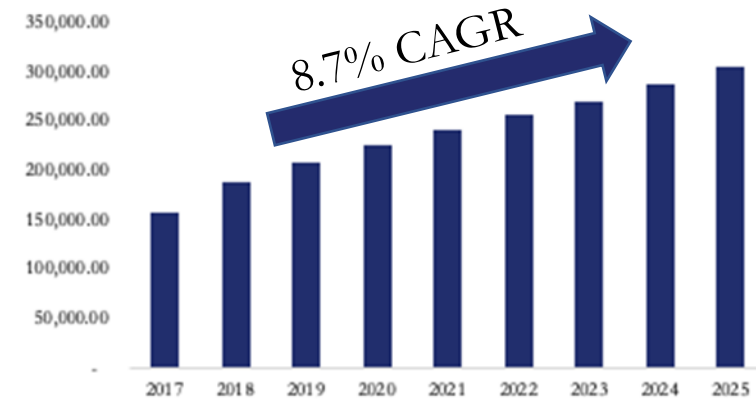
Company Description

Owns and operates rare earth mining and processing facilities

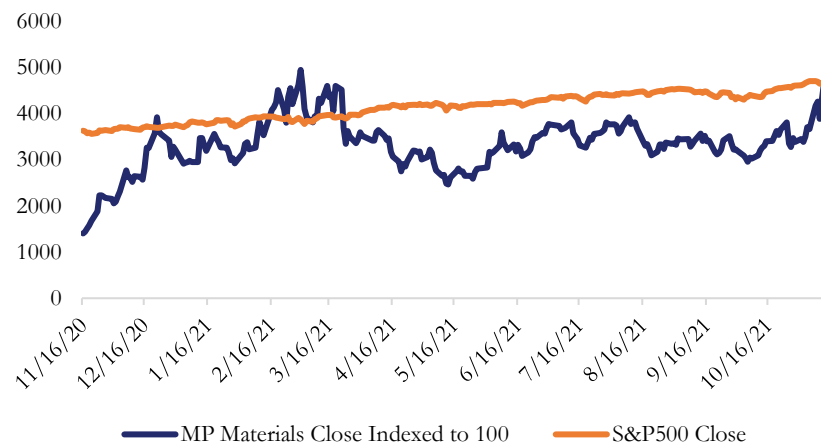
Acquired mineral rights to Mountain Pass Mine in November 2020



REO Demand Worldwide



Annotated Stock Chart

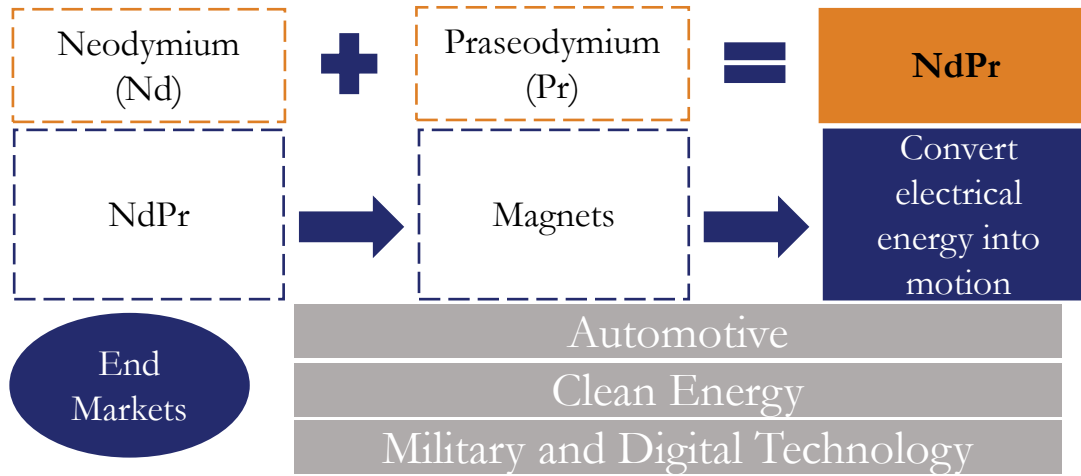


Key Financials

EBITDA TTM (\$ millions)	141.3
Revenue (\$millions)	275
Net Profit (\$millions)	112.9
EBITDA/Interest Expense	28.26
52 Week Range (\$)	18.50 - 51.77
EV/TTM EBITDA	51.44
EV/FY1 EBITDA	33.2
PE	64.19
P/E FY1	58.14

Neodymium

What is Neodymium



Where Neodymium is found

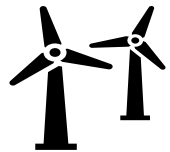


Secular Growth Areas



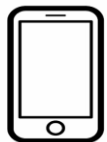
CRU estimates that EV production alone would consume nearly 100% of today's global production of NdPr, versus just 9% in 2019.

31% CAGR
Over Next
Decade



The wind turbine market is anticipated to account for approximately 28.8% of the global growth in the use of NdPr from 2021 to 2030

20% CAGR
Over Next
Decade



NdPr is used in the electrical, speaker, and vibration components of all digital technologies

8% CAGR
Over Next
Decade

Neodymium Price in CNY/T



Mountain Pass Mine

Acquisition of the mine

Mountain Pass is one of the worlds largest integrated rare earth mining and processing facilities and the only major one in the Western Hemisphere.

**\$1.7
Billion**

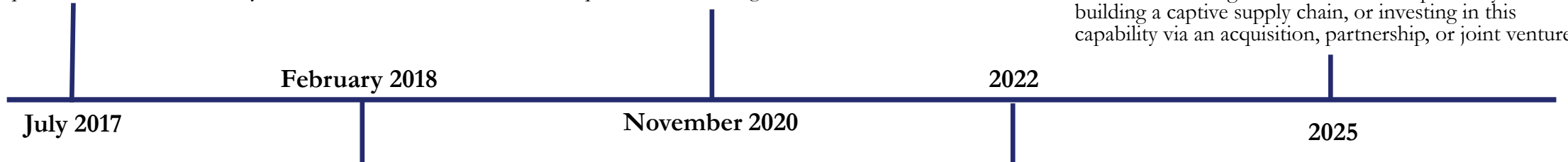
Invested into the mine since 2011



MP Materials: Three Stage Plan

MP acquired Mountain Pass facility

MP acquired all mineral rights to the mine



Stage I: Implement changes in the milling, flotation and tailings management processes leading to more efficient mineral recovery and improved cost efficiency. Able to achieve 3.2x production volume of rare earth concentrate versus their predecessor using the same capital equipment.

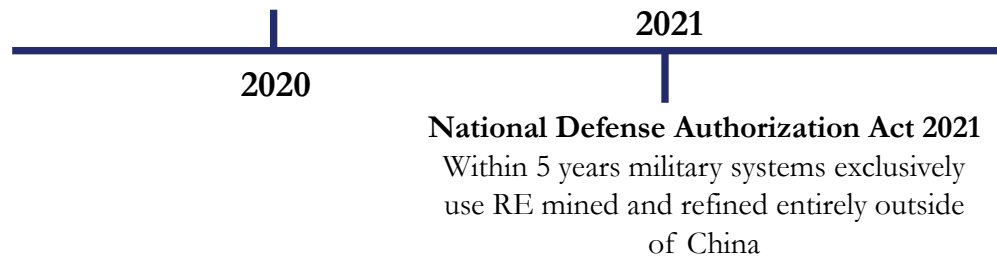
Stage II: Engineering, procurement, preliminary construction, and other recommissioning activities are underway and involve upgrades and enhancements to the existing facility process flow to produce separate REO more reliably at a significantly lower cost

Stage III: Upon the completion of stage II, MP will be in a position to pursue downstream expansion. Downstream integration would be completed by either building a captive supply chain, or investing in this capability via an acquisition, partnership, or joint venture

Domestication of REO Supply Chain

Political Initiatives

MP Materials received a 9.6 million DPA from the DoD, an additional grant followed months later



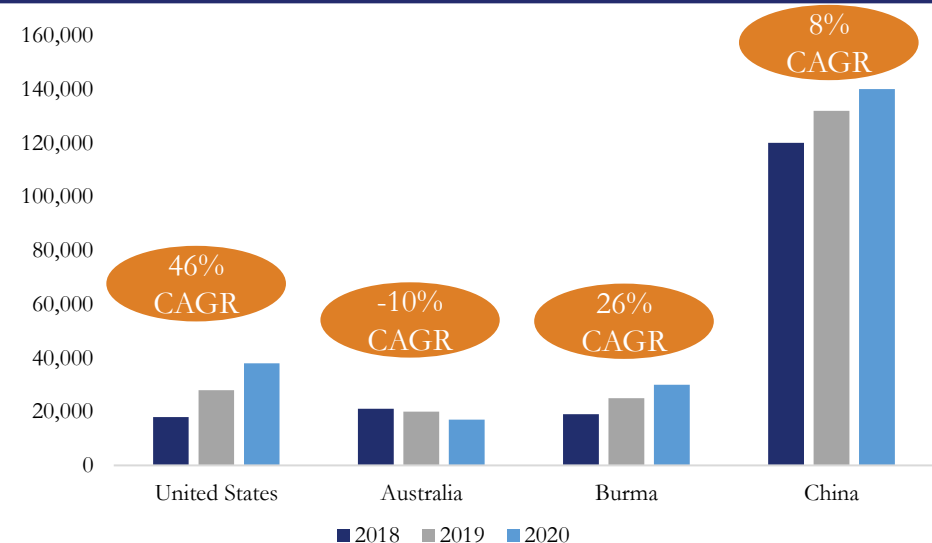
Current Outsource to China

- MP currently outsources majority of its Rare Earth minerals directly to China.
- In 2020, 99% of MP's product sales were sold directly to Shanghe, a Chinese company that processes, refines, and distributes the minerals.
- Prior to the completion of their 3 stage process, the capabilities simply do not exist to domesticate these operations

Tax Incentives for Domestic REE

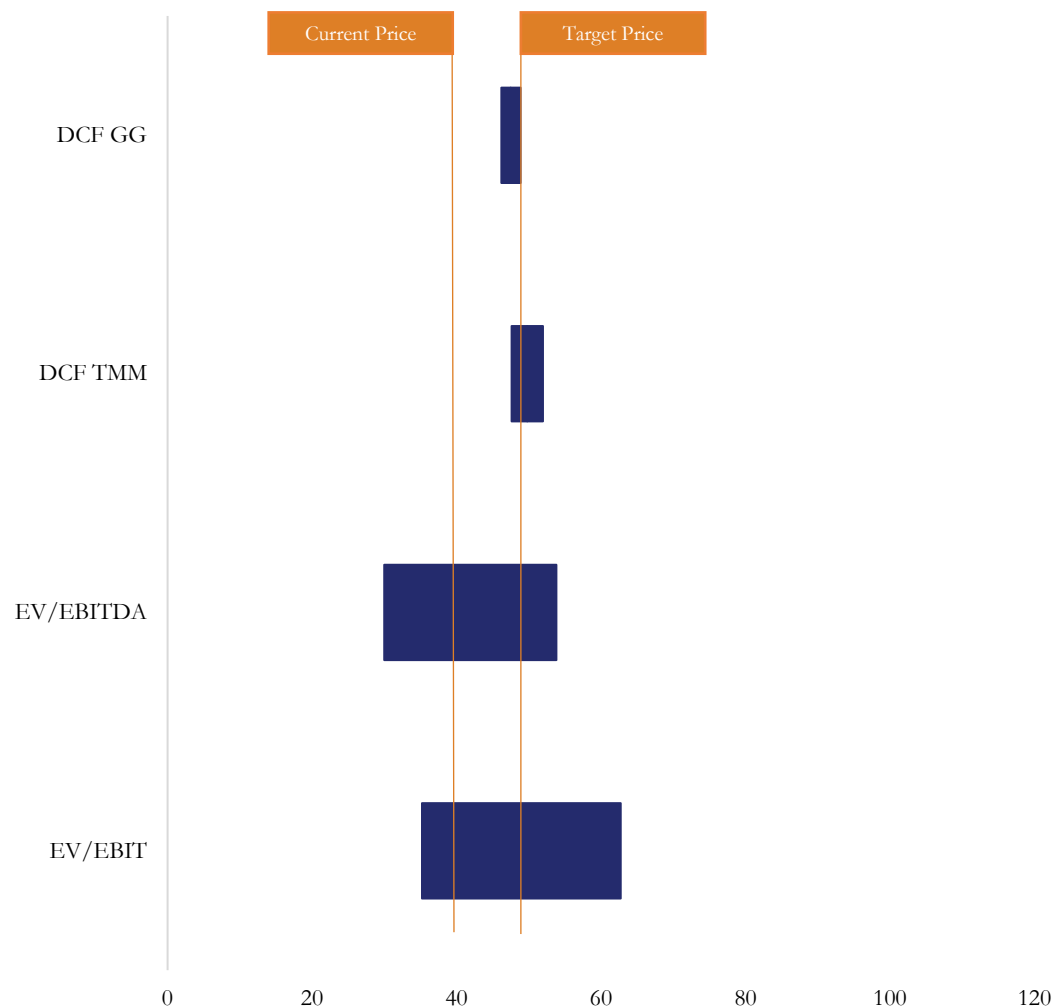
- 1 Full (100%) expensing (immediate deduction from taxable income) for qualified property involved in extracting metals from deposits in the U.S.
- 2 Special allowance (100% depreciate deduction) from nonresidential real property
- 3 Cost deduction (200%) for the purchases of critical minerals and metals extracted within the United States

Distribution of REO production



Valuation

Football Field

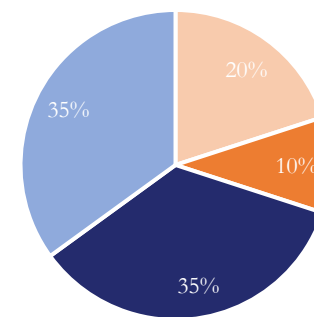


DCF Sensitivity Analysis

Growth Rate	WACC				
	8.91%	9.41%	9.91%	10.41%	10.91%
2.00%	50.14	47.40	45.00	42.88	40.99
2.25%	51.72	48.78	46.21	43.95	41.94
2.50%	53.41	50.25	47.50	45.09	42.95
2.75%	55.25	51.83	48.87	46.30	44.03
3.00%	57.23	53.53	50.35	47.59	45.17

EV/EBITDA	WACC				
	8.91%	9.41%	9.91%	10.41%	10.91%
8.00	45.62	45.53	45.45	45.36	45.28
8.50	47.79	47.70	47.62	47.53	47.45
9.00	49.96	49.87	49.79	49.70	49.62
9.50	52.13	52.05	51.96	51.87	51.79
10.00	54.31	54.22	54.13	54.04	53.96

Valuation Weighting



■ EV/EBIT ■ EV/EBITDA ■ DCF TMM ■ DCF GG

Risk and Mitigants

Risks

Vast majority of product sales are to Shenghe Resources Co resulting in an undiversified revenue stream



Highly competitive industry with current domination from Chinese competitors



The amount of capital required for the stage II optimization project may vary materially from their current estimates



Mitigants

There is strong demand for REO that can be sold elsewhere of Shenghe wished to discontinue the agreement

Upon completion of their three stage process they will have the abilities refine and distribute REO

Can raise additional funding if costs exceeds the expected \$220 million

Conclusion

Current Price
\$41

Target Price
\$48

Upside
18%

Catalysts

Neodymium

Strong demand through high growth end markets will continue to support REO prices

Mountain Pass Mine

Continued investment will make MP the leading domestic supplier of REO while increasing internal efficiencies to reduce costs

Supply Chain
Domestication

Continued support from the DoD and White House will lead to strong revenue growth

Appendix

- A) Income Statement
- B) Balance Sheet
- C) Cash Flows
- D) Revenue Drive & Assumptions
- E) DCF
- F) WACC

Income Statement

MP Materials Income Statement								
Thousands USD	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E
Product sales (including related party)	\$ 73,411	\$ 134,310						
Other sales								
Total revenue	\$ 73,411	\$ 134,310	\$ 352,548	\$ 611,105	\$ 938,139	\$ 1,172,674	\$ 1,348,575	\$ 1,416,003
Operating costs and expenses:								
Cost of sales (including related party)(excluding depreciation, depletion and amortization)	61,261	63,798	84,133	184,484	281,442	351,802	404,572	424,801
% of sales	83.45%	47.50%	24%	30%	30%	30%	30%	30%
Write-down of inventories								
Royalty expense to SNR	1,885	2,406						
General and administrative	11,104	27,008	60,051	91,666	140,721	175,901	202,286	212,401
% of sales	15.13%	20.11%	17%	15%	15%	15%	15%	15%
Advanced projects, development and other								
Depreciation, depletion and amortization	4,687	6,931	30,540	45,138	83,014	105,541	115,977	138,768
Accretion of asset retirement and environmental obligations	2,094	2,255	2,498	3,667	5,629	7,036	8,091	8,496
% of sales	2.85%	1.68%	0.71%	0.60%	0.60%	0.60%	0.60%	0.60%
Settlement charge	0	66,615						
Total operating costs and expenses	81,031	169,013	177,222	324,954	510,805	640,280	730,928	784,466
Operating income	(7,620)	(34,703)	175,325	286,151	427,334	532,394	617,647	631,538
Other income, net	4,278	251	3,776	611	938	1,173	1,349	1,416
% of sales	5.83%	0.19%	1.07%	0.10%	0.10%	0.10%	0.10%	0.10%
Interest expense, net	(3,412)	(5,009)	(6,525)	(10,109)	(13,494)	(9,638)	(11,084)	(11,638)
% of long-term debt	-18.87%	-7.17%	-18.09%	-12.03%	-11.91%	-10.00%	-10.00%	-10.00%
Income before income taxes	(6,754)	(39,461)	172,576	276,653	414,778	523,928	607,912	621,315
Income tax expense	(1)	17,636	(36,400)	(66,397)	(99,547)	(125,743)	(145,899)	(149,116)
Tax Rate	0.01%	-44.69%	-21.09%	-24.00%	-24.00%	-24.00%	-24.00%	-24.00%
Net income	(6,755)	\$ (21,825)	\$ 136,175	\$ 210,256	\$ 315,231	\$ 398,185	\$ 462,013	\$ 472,200
Earnings per share:								
Basic (in USD per share)	\$ (0.10)	\$ (0.27)						
Diluted (in USD per share)	\$ (0.10)	\$ (0.27)						
Weighted-average shares outstanding:								
Basic (in shares)	66,556,975	79,690,821						
Diluted (in shares)	66,556,975	79,690,821						

Balance Sheet

MP Materials Balance Sheet Thousands USD	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E
Current assets								
Cash and cash equivalents	\$ 2,757	\$ 519,652						
Accounts receivable (including related party), net of allowance for credit losses of \$0 and \$0, respectively	370	3,589	29,516	19,207	22,666	19,277	22,168	23,277
AR Days	2	10	31	11	9	6	6	6
Inventories	23,048	32,272	47,882	105,156	193,042	293,168	337,144	354,001
% of sales	31.40%	24.03%	13.58%	17.21%	20.58%	25%	25%	25%
Prepaid expenses and other current assets	1,234	5,534	5,985	10,516	16,546	23,453	26,971	28,320
% of sales	1.68%	4.12%	1.70%	1.72%	1.76%	2%	2%	2%
Total current assets	27,409	561,047						
Non-current assets								
Restricted cash	26,791	9,100						
Property, plant and equipment, net	46,386	501,974						
Finance lease right-of-use assets	586	1,028						
Investments held in Trust Account								
Deferred offering costs associated with initial public offering								
Other non-current assets	622	1,139						
Total non-current assets	74,385	513,241						
Total assets	101,794	1,074,288						
Current liabilities								
Accounts payable and accrued liabilities	12,029	16,136	36,075	67,223	79,332	77,107	88,673	93,107
AP Days	72	92	157	133	103	80	80	80
Accounts payable and accrued liabilities—related parties	2,146	23						
Deferred revenue—related parties	6,609	0						
Income taxes payable								
Current installments of long-term debt	0	2,403						
Current installments of long-term debt—related party	4,484	22,070	36,075	84,029	113,332	96,384	110,842	116,384
AP Days	27	126	157	166	147	100	100	100
Current portion of finance lease liabilities	194	266						
Franchise tax payable								
Other current liabilities	2,623	2,163	5,985	8,763	13,789	17,590	20,229	21,240
% of sales	3.57%	1.61%	2%	1%	1%	2%	2%	2%
Other current liabilities—related parties	3,230	0						
Total current liabilities	31,315	43,061						
Non-current liabilities								
Asset retirement obligations	23,894	25,570						
Environmental obligations	16,628	16,602						
Deferred revenue—related parties, net of current portion	28,934	0						
Long-term debt, net of current portion	0	961						
Long-term debt—related party, net of current portion	13,594	44,380						
Finance lease liabilities, net of current portion	399	736						
Deferred income taxes	0	87,473						
Deferred underwriting commissions payable								
Other non-current liabilities	5,052	1,628						
Total non-current liabilities	88,501	177,350						
Total liabilities	119,816	220,411						
Commitments and contingencies								
Stockholders' equity:								
Preferred stock (\$0.0001 par value, 50,000,000 shares authorized, none issued and outstanding in either period)	0	0						
Common stock (\$0.0001 par value, 450,000,000 shares authorized, 170,745,864 and 170,719,979 shares issued and outstanding, as of March 31, 2021, and December 31, 2020, respectively)	7	17						
Additional paid-in capital	22,768	916,482						
Retained earnings (Accumulated deficit)	(40,797)	(62,622)						
Total stockholders' equity	(18,022)	853,877						
Total liabilities and stockholders' equity	\$ 101,794	\$ 1,074,288						

Revenue Drive & Assumptions

MP Materials Revenue Drive																									
Thousands USD	FY 2019	Q1	2020				FY 2020	2021				FY 2021E	2022E				FY 2022E	2023E				FY 2023E	FY 2024E	FY 2025E	FY 2026E
			Q2	Q3	Q4	Q1		Q2	Q3	Q4E	Q1		Q2	Q3	Q4	Q1		Q2	Q3	Q4					
Revenue	73,411	20,719	30,391	41,022	42,178	134,310	59,971	73,118	99,754	119,705	352,548	131,675	144,843	159,327	175,260	611,105	196,291	219,846	246,227	275,775	938,139	1,172,674	1,348,575	1,416,003	
growth rate			46.68%	34.98%	2.82%	82.96%	42.19%	21.92%	36.43%	20.00%	162.49%	10.00%	10.00%	10.00%	10.00%	73.34%	12.00%	12.00%	12.00%	12.00%	53.52%	25.00%	15.00%	5.00%	

MP Materials Balance Sheet								
Thousands USD	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E
Current Assets	24,652	41,395	83,383	134,878	232,255	335,899	386,284	405,598
Current Liabilities	19,136	40,369	78,136	160,015	206,453	191,082	219,744	230,731
NWC	5,516	1,026	5,247	(25,137)	25,802	144,817	166,540	174,867
Change in NWC		(4,490)	4,221	(30,384)	50,939	119,015	21,723	8,327
CapEx	(2,274)	(22,370)	(122,331)	(105,941)	(131,339)	(140,721)	(134,857)	(141,600)
% of sales	-3.10%	-16.66%	-35%	-17%	-14%	-12%	-10%	-10%
D&A	4,687	6,931	30,540	45,138	83,014	105,541	115,977	138,768
% of CapEx	-206.11%	-30.98%	-25%	-43%	-63%	-75%	-86%	-98%

DCF

MP Materials DCF								
Thousands USD	FY 2019	FY 2020	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E
EBIT	(3,342)	(34,452)	179,101	286,762	428,272	533,567	618,996	632,954
Tax	(1)	17,636	(36,400)	(66,397)	(99,547)	(125,743)	(145,899)	(149,116)
NOPAT	(3,343)	(16,816)	142,701	220,365	328,725	407,824	473,097	483,838
Plus: D&A	4,687	6,931	30,540	45,138	83,014	105,541	115,977	138,768
Less: CapEx	(2,274)	(22,370)	(122,331)	(105,941)	(131,339)	(140,721)	(134,857)	(141,600)
Less: Change In NWC	0	(4,490)	4,221	(30,384)	50,939	119,015	21,723	8,327
FCFF		(27,765)	46,688	189,947	229,461	253,628	432,494	472,679
Gordon Growth				1	2	3	4	5
FCFF		(27,765)	46,688	189,947	229,461	253,628	432,494	472,679
PV of FCFF				181,180	199,134	200,259	310,694	308,942
PV of Terminal Value								6,537,334
Terminal Multiple				1	2	3	4	5
FCFF		(27,765)	46,688	189,947	229,461	253,628	432,494	472,679
PV of FCFF				181,180	199,134	200,259	310,694	308,942
PV of Terminal Value								6,945,497

Gordon Growth	
Enterprise value	7967005
Cash	1179371
Debt	704,987
Non-Controlling Interests	0
Equity value	8,441,389
DSO	177748
Share Price	47.49

Terminal Multiple	
Enterprise value	8375168
Cash	1179371
Debt	704,987
Non-Controlling Interests	0
Equity value	8,849,552
DSO	177748
Share Price	49.79

WACC	9.91%
Terminal Multiple	9
Growth Rate	2.50%

WACC

MP Materials WACC	
MV Debt	704,987
Weight of Debt	8%
Pre-tax cost of debt	2.29%
Post-tax cost of debt	1.68%
MV Equity	7,820,894
Weight of equity	92%
Expected market return	8%
risk free rate	1.60%
Equity risk premium	6.40%
beta	1.41
cost of equity	10.65%
WACC	9.91%

Shares Outstanding	177747598
Price per share	44

Interest Coverage Ratio	
EBIT	54,190
Interest Expense	(2,624)
Coverage ratio	-20.65
Spread	0.69%
Risk Free	1.60%
Cost of Debt	2.29%

Comparable Companies Analysis

Name	Ticker	2Y Corr	Mkt Cap (USD)	BF P/E	BF EV/EBITDA	BF EV/EBIT	BF EV/Rev	LF P/BV
MP Materials Corp	MP US		7564937771	50.3073	29.9892	34.5792	17.9928	7.9281
Lynas Rare Earths Ltd	LYC AU		8279626008	22.1053	15.4714	17.7681	9.978	7.6849
Tesla Inc	TSLA US		1.0193E+12	122.1384	68.1012	106.2297	14.5249	37.6679
Samsung SDI Co Ltd	006400 KS		4.77913E+13	32.2898	16.3689	30.0178	2.9896	3.1391
Contemporary Amperex Technolog	300750 CH		1.56239E+12	84.4603	46.4248	65.2786	9.2181	22.0103
Lundin Mining Corp	LUN CN		7630414501	3.7679	8.6015	5.2969	1.9484	1.392
Livent Corp	LTHM US	0.2873	4759999971	67.2603	34.2193	42.5628	9.6203	6.0676
First Quantum Minerals Ltd	FM CN	0.7533	18651143096	4.9122	9.3855	6.8969	2.7615	1.4939
Min			4759999971	3.7679	8.6015	5.2969	1.9484	1.392
Q1			7581306953	9.210475	10.906975	9.6147	2.818525	1.9052
Med			13465384552	41.29855	23.17905	32.2985	9.4192	6.87625
Q3			1.42662E+12	80.1603	43.373425	59.59965	13.38818	18.48975
Max			4.77913E+13	122.1384	68.1012	106.2297	17.9928	37.6679

Comps Output	EV	Debt	Cash	Equity	Shares	Per Share
EV/EBITDA	209,642					
Min	8.6015	1803231	704,987	1179371	2,277,615	177747.6 12.81376
Q1	10.90698	2286555	704,987	1179371	2,760,939	177747.6 15.53292
Med	23.17905	4859291	704,987	1179371	5,333,675	177747.6 30.00701
Q3	43.37343	9092870	704,987	1179371	9,567,254	177747.6 53.82494
Max	68.1012	14276838	704,987	1179371	14,751,222	177747.6 82.98971
EV/EBIT	179,101					
Min	5.2969	948680.4	704,987	1179371	1,423,064	177747.6 8.006097
Q1	9.6147	1722003	704,987	1179371	2,196,387	177747.6 12.35677
Med	32.2985	5784696	704,987	1179371	6,259,080	177747.6 35.2133
Q3	59.59965	10674361	704,987	1179371	11,148,745	177747.6 62.72234
Max	106.2297	19025853	704,987	1179371	19,500,237	177747.6 109.7075