Fourth Quarter & Full Year 2022 Results

February 23, 2023

Safe Harbor

This presentation contains certain statements that are not historical facts and are forward-looking statements for purposes of the safe harbor provisions under the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as “estimate,” “plan,” “project,” “forecast,” “intend,” “expect,” “anticipate,” “believe,” “seek,” “will,” “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 the continued demand for rare earth markets and the market for rare earth materials generally, future demand for electric vehicles and magnets, estimates and forecasts of our results of operations and other financial and performance metrics,the Company's ability to control costs, and the Company’s Stage II and Stage III projects, including the Company's ability to achieve run rate production of separated rare earth materials and production of magnetic alloy. Such statements are all subject to risks, uncertainties and changes in circumstances that could significantly affect the Company’s future financial results and business.

Accordingly, the Company cautions that the forward-looking statements contained herein are qualified by important factors that could cause actual results to differ materially from those reflected by such statements. These forward-looking statements are subject to a number of risks and uncertainties, including changes in domestic and foreign business, market, financial, political and legal conditions; changes in demand for NdFeB magnets; the effects of competition on the Company’s future business; risks related to the rollout of the Company’s business strategy, including Stage II and Stage III, including increased costs and expenses, and the timing of achieving expected business milestones, including achieving run rate production of separated rare earth materials and production of magnetic alloy; risks related to the Company’s long-term agreement with General Motors, including the Company’s ability to produce and supply NdFeB magnets; the impact of the global COVID-19 pandemic, on any of the foregoing risks; and those risk factors discussed in the Company’s filings with the Securities and Exchange Commission, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other documents filed by the Company with the Securities and Exchange Commission.

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. The Company does not intend to update publicly any forward-looking statements except as required by law. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this presentation may not occur.

Use of Non-GAAP Financial Measures

This presentation references certain non-GAAP financial measures, including Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, Adjusted Diluted EPS, Total Value Realized, Production Costs, Free Cash Flow, Normalized Stage I Free Cash Flow, and Adjusted Operating Cash Flow, which have not been prepared in accordance with generally accepted accounting principles in the United States ("GAAP").

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, start-up and other non-recurring costs; accretion of asset retirement and environmental obligations; gain or loss on sale or disposal of long-lived assets; write-downs of inventories; royalty expense; settlement charge; tariff rebates; and other income or loss. We define Adjusted EBITDA Margin as our Adjusted EBITDA divided by our total revenue adjusted for the impact of tariff rebates related to prior period sales (if any). Adjusted Net Income is defined as our GAAP net income or loss excluding the impact of stock-based compensation expense; transaction-related, start-up and other non-recurring costs; gain or loss on sale or disposal of long-lived assets; write-downs of inventories; royalty expense; settlement charge; tariff rebates; and other items that we do not consider representative of our underlying operations; adjusted to give effect to the income tax impact of such adjustments; and the release of valuation allowance. Adjusted Diluted EPS is defined as GAAP diluted earnings per share ("EPS") excluding the per share impact, using GAAP diluted weighted-average shares outstanding as the denominator, of stock-based compensation expense; transaction-related, start-up and other non-recurring costs; gain or loss on sale or disposal of long-lived assets; write-downs of inventories; tariff rebates; and other items that we do not consider representative of our underlying operations; adjusted to give effect to the income tax impact of such adjustments; and the release of valuation allowance. Total Value Realized, which we use to calculate our key performance indicator, realized price per REO MT, is defined as our GAAP product sales adjusted for the revenue impact of tariff rebates related to prior period sales (if any), and, in connection with our sales of REO to Shenghe between July 1, 2019, and June 5, 2020, the Shenghe Implied Discount. The Shenghe Implied Discount is equal to the difference between (i) 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 (ii) 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 a non-cash portion. Realized price per REO MT is calculated as the quotient of: (i) our Total Value Realized for a given period and (ii) our REO sales volume for the same period. Production Costs, which we use to calculate our key performance indicator, production cost per REO MT, is defined as our GAAP cost of sales (excluding depreciation, depletion and amortization), less stock-based compensation expense included in cost of sales, shipping and freight costs, and costs attributable to certain other sales, for a given period. Production cost per REO MT is calculated as the quotient of: (i) our Production Costs for a given period and (ii) our REO sales volume for the same period. We define Free Cash Flow as net cash provided by operating activities less additions to property, plant and equipment, net of proceeds from government awards used for construction. Normalized Stage I Free Cash Flow is defined as Free Cash Flow plus (i) the non-cash portion of revenue from sales to Shenghe (i.e., Offtake Paydown), (ii) growth capital expenditures, and (iii) expenditures for transaction-related, start-up and other non-recurring costs. We define Adjusted Operating Cash Flow as net cash provided by operating activities plus the non-cash portion of revenue from sales to Shenghe. You can find the reconciliation of these measures to the most directly comparable GAAP measures in the Appendix.

MP Materials' management uses Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, and Adjusted Diluted EPS to compare MP Materials' performance to that of prior periods for trend analyses and for budgeting and planning purposes. MP Materials believes Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, and Adjusted Diluted EPS provide useful information to management and investors regarding certain financial and business trends relating to MP Materials' financial condition and results of operations. MP Materials believes that the use of Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, and Adjusted Diluted EPS provide an additional tool for investors to use in evaluating projected operating results and trends. MP Materials believes realized price per REO MT, which utilizes the non-GAAP financial measure, Total Value Realized, is an important measure of the market price of the Company's product. Furthermore, MP Materials believes production cost per REO MT sold, which utilizes the non-GAAP financial measure, Production Costs, is a key indicator of the Company's concentrate production efficiency. As we evolve as a business and transition from a producer of rare earth concentrate to a producer of separated rare earth products upon completing the commissioning of our Stage II project, the metrics that management anticipates using to evaluate the business may change or be revised. For example, in completing the transition to separated rare earth products, we may determine that production cost per REO MT, which is a metric focused solely on Stage I concentrate operations, and consequently, Production Costs, are no longer meaningful in evaluating and understanding our business or operating results. We believe Free Cash Flow, Normalized Stage I Free Cash Flow, and Adjusted Operating Cash Flow, are useful for comparing our ability to generate cash with that of our peers. 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. MP Materials' method of determining these non-GAAP measures may be different from other companies' methods and, therefore, may not be comparable to those used by other companies and MP Materials does not recommend the sole use of these non-GAAP measures to assess its financial performance. Management does not consider non-GAAP measures in isolation or as an alternative or to be superior to financial measures determined in accordance with GAAP. The principal limitation of non-GAAP financial measures is that they exclude significant expenses and income that are required by GAAP to be recorded in MP Materials' financial statements. In addition, they are subject to inherent limitations as they reflect the exercise of judgments by management about which expense and income are excluded or included in determining these non-GAAP financial measures. In order to compensate for these limitations, management presents reconciliations of such non-GAAP financial measures to the most directly comparable GAAP financial measures.

2022 and YTD accomplishments

- **Produced and shipped record volumes in 2022**
- **Achieved robust 2022 financial results**
  - Increased revenue 59% and Adjusted EBITDA 77%
  - Generated $353.2M of Normalized Stage I Free Cash Flow
- **Maintained our fortress balance sheet**
  - $1.2B/$492M of gross/net cash[1] after $321M of capex
- **Began commissioning Stage II and started producing roasted concentrate**
- **Advanced HREE front-end engineering design and long-lead procurement**
- **Accelerated Stage III magnetics strategy**
- **Announced definitive magnet supply agreement with GM**
- **Signed distribution agreement with Sumitomo for Japanese customers**
- **Extended positive environmental and safety record and published inaugural ESG report**

MP MATERIALS

1. As of December 31, 2022

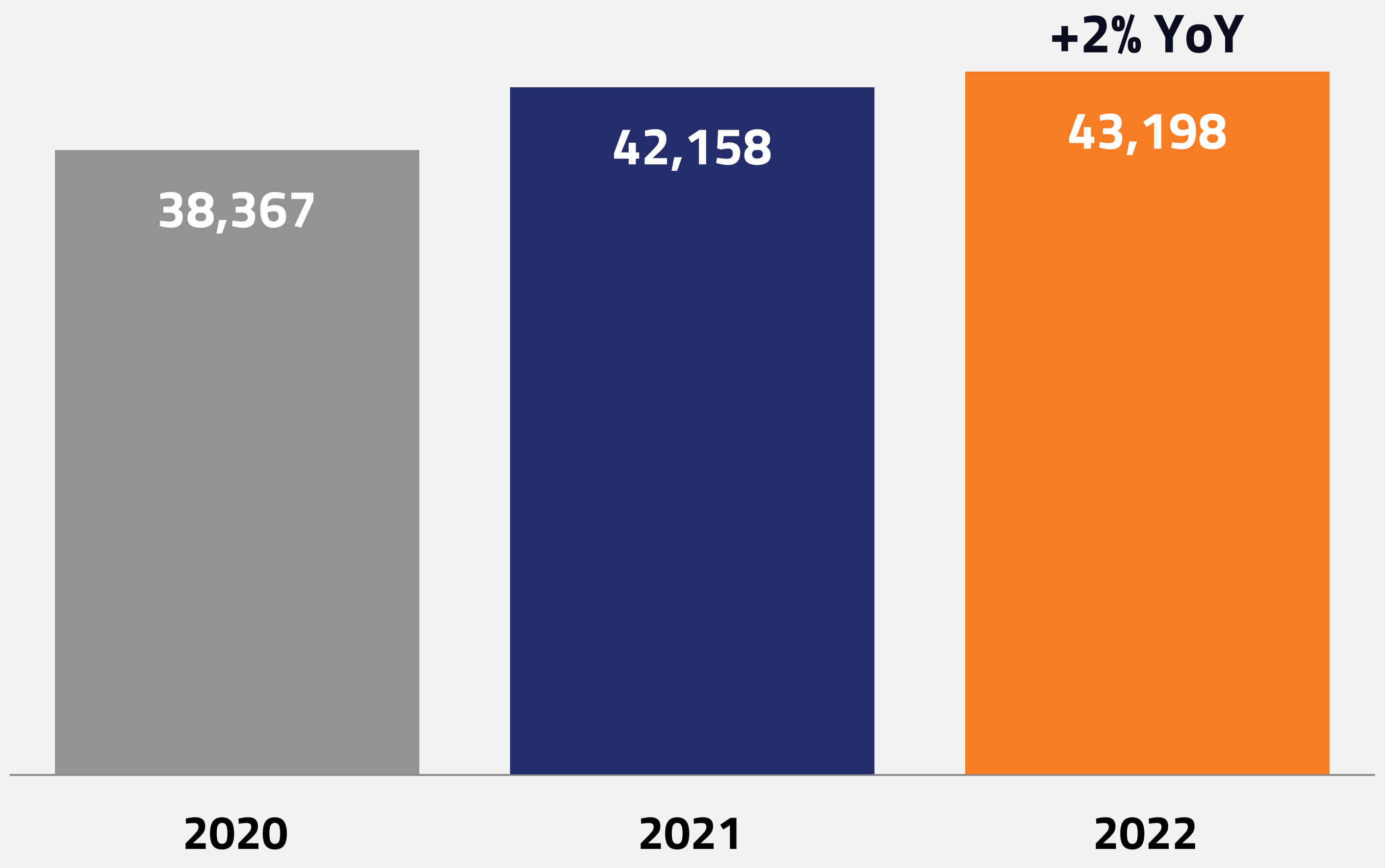
Operations and Financial Overview

Comparable Annual Operational Metrics—Year-over-Year

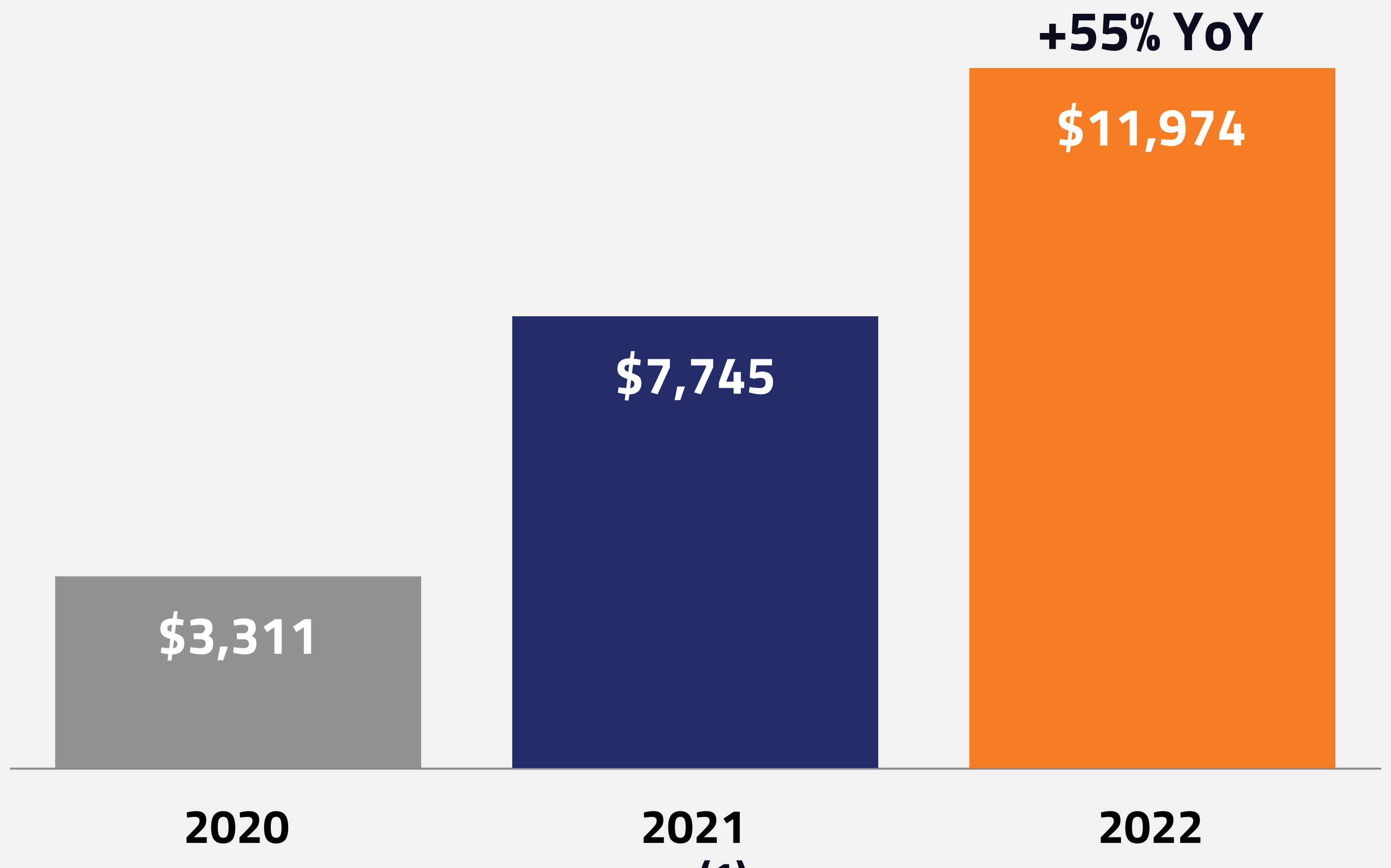
Full year operating metrics

2020 2022

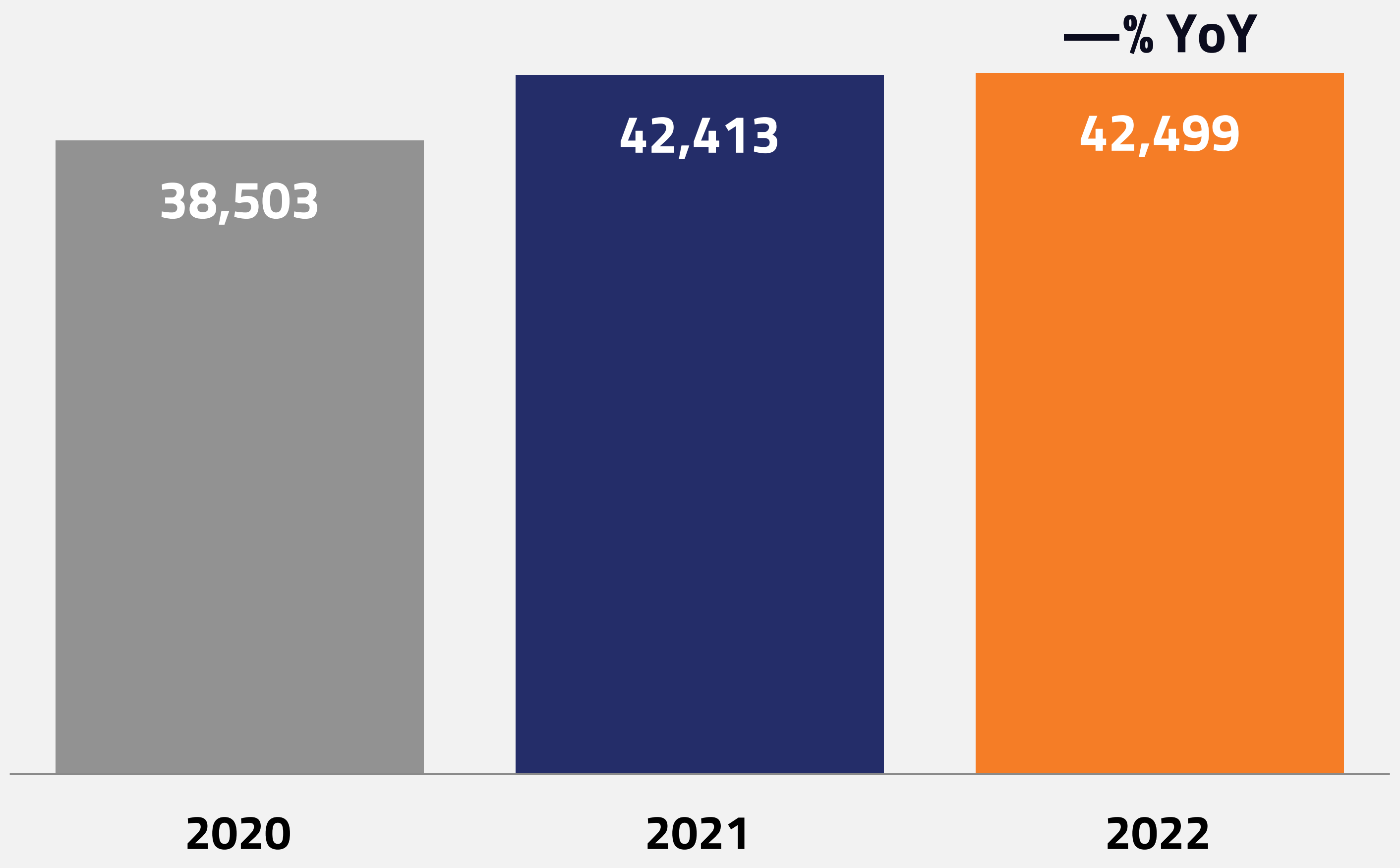
2021 Stage II Related



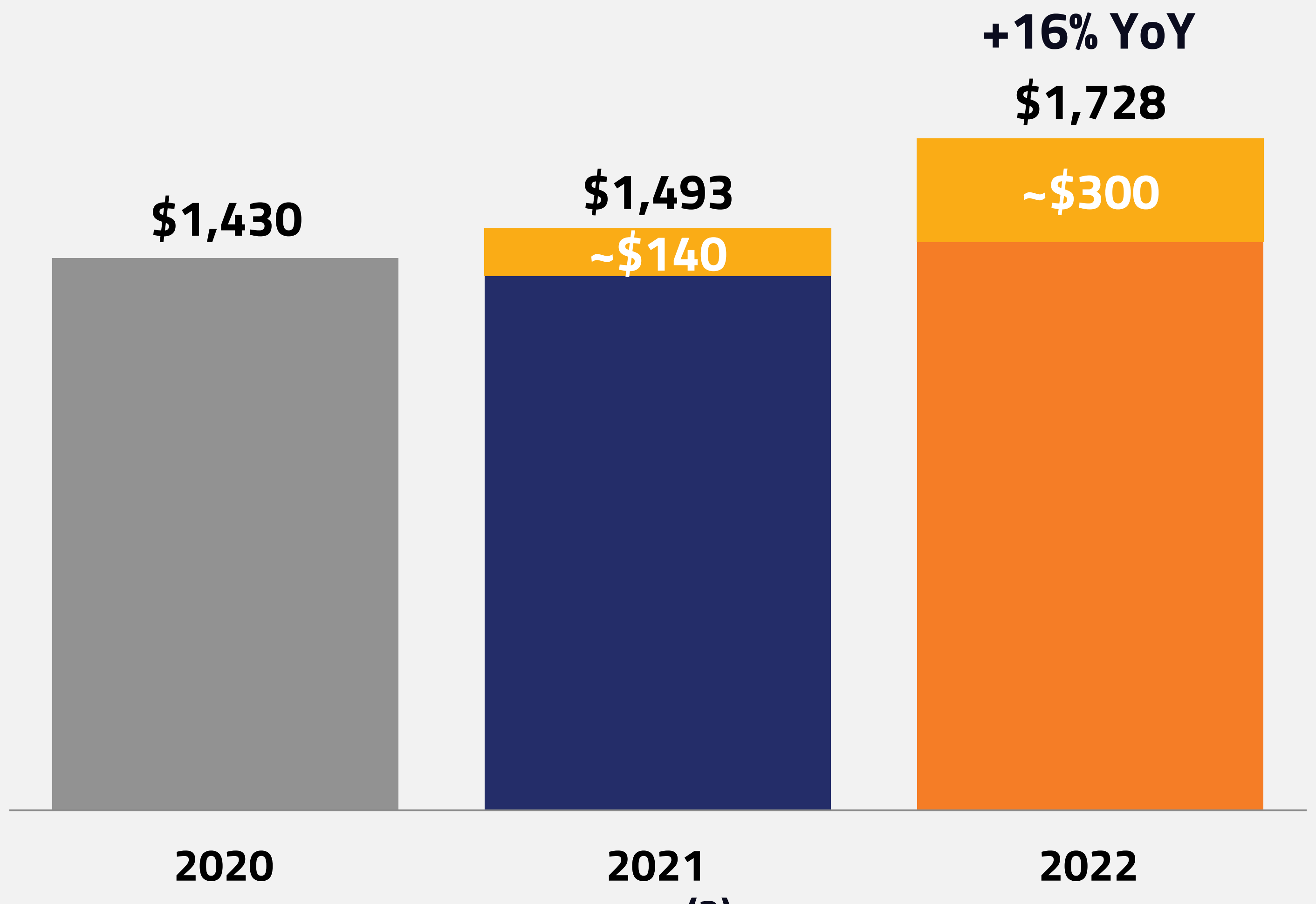
REO Sales Volumes (MT)



Realized Price[1] ($/MT REO)



REO Production Volumes (MT)



Production Cost[2] ($/MT REO)

MP MATERIALS

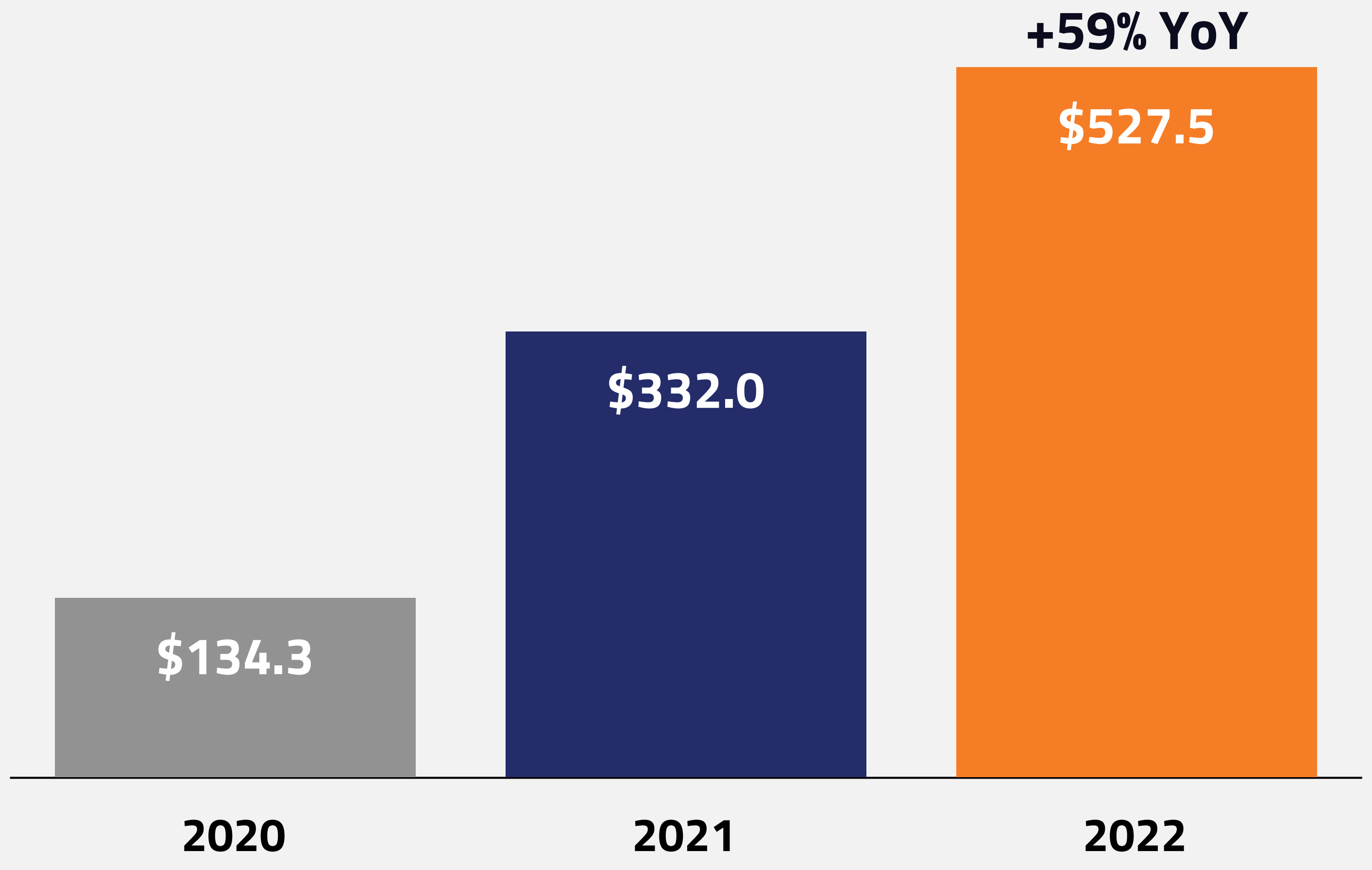
1. See Appendix for calculation of realized price per REO MT, which includes the non-GAAP financial measure Total Value Realized, and a reconciliation of Total Value Realized (non-GAAP) to Product sales (GAAP).
2. See Appendix for calculation of production cost per REO MT, which includes the non-GAAP financial measure Production Costs, and a reconciliation of Production Costs (non-GAAP) to Cost of sales (GAAP). As discussed in “Use of Non-GAAP Financial Measures” above, in completing the transition to separated rare earth products, we may determine that production cost per REO MT, which is a metric focused solely on Stage I concentrate operations, and consequently, Production Costs, are no longer meaningful in evaluating and understanding our business or operating results.

Full year financial metrics

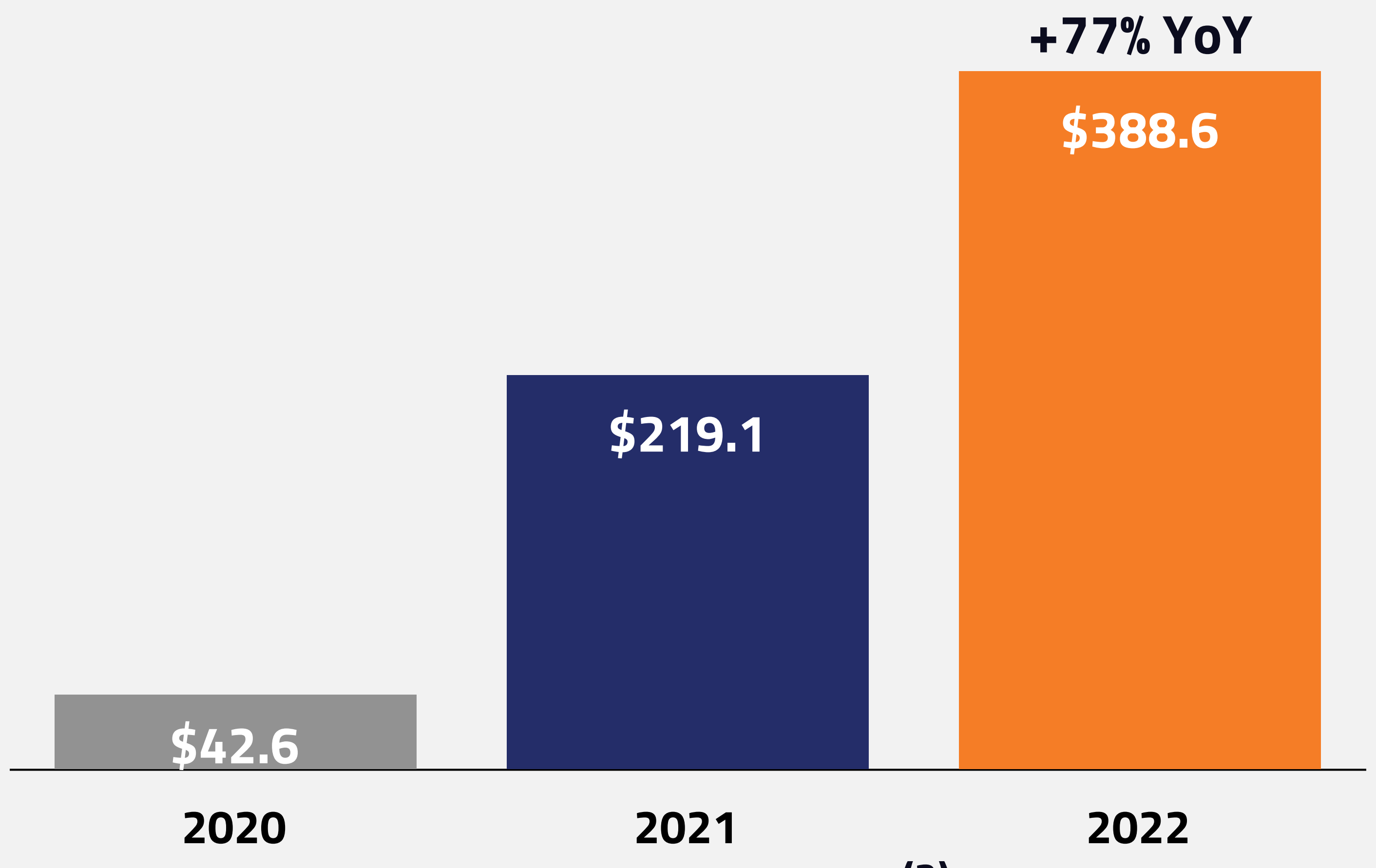
2020 2022

2021

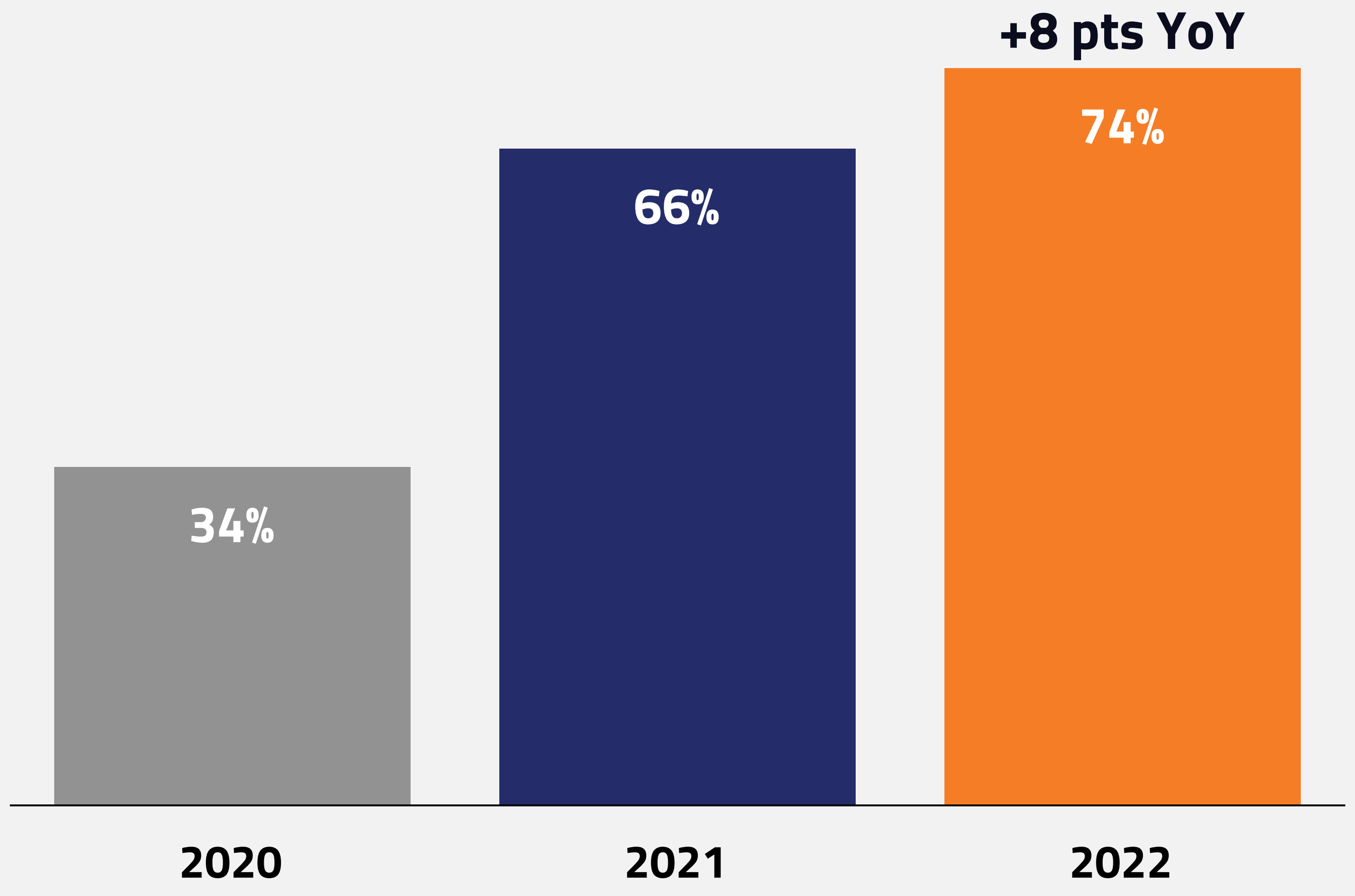
Comparable Annual Financial Metrics—Year-over-Year[1]



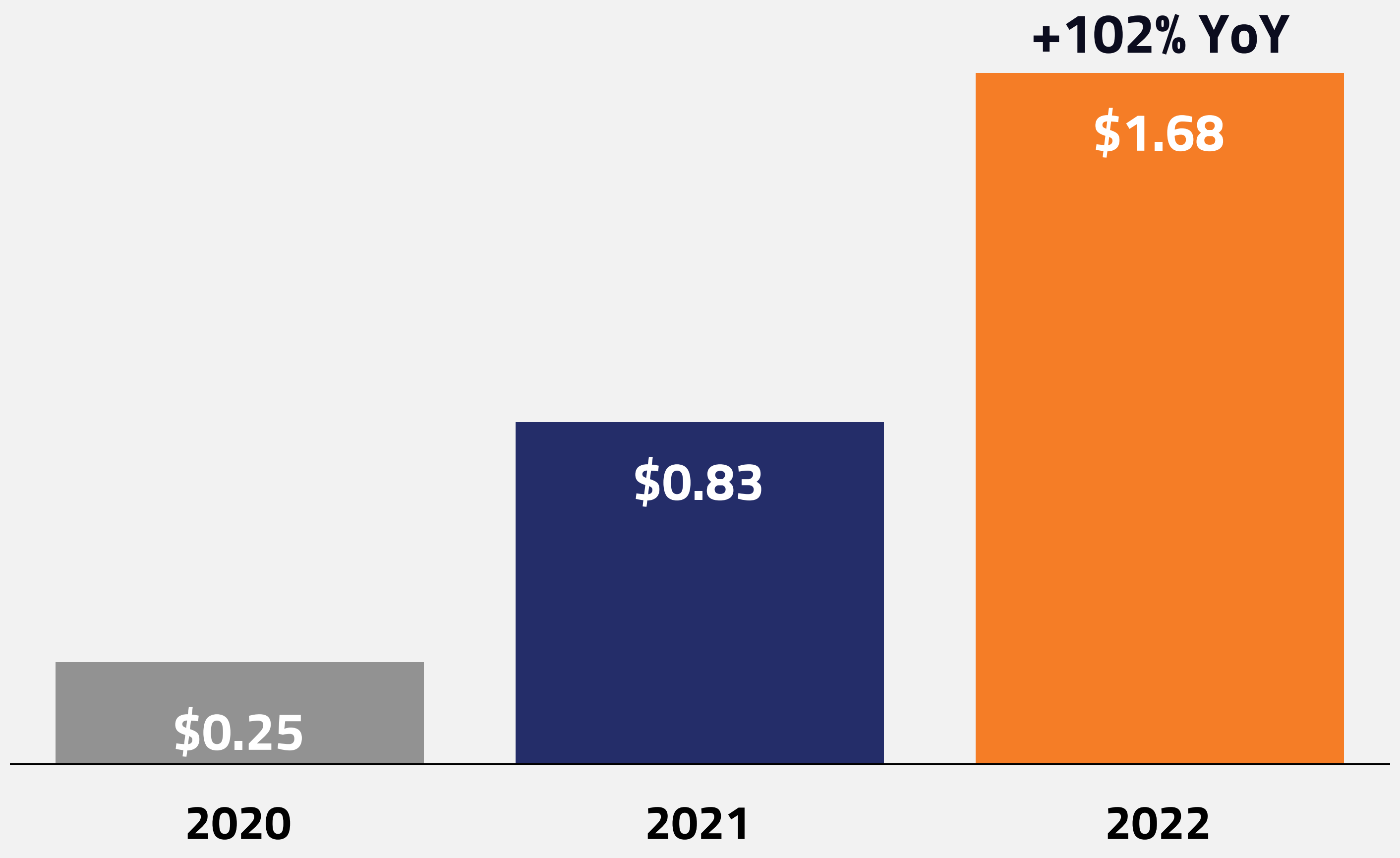
Revenue



Adjusted EBITDA[2]



Adjusted EBITDA Margin[3]



Adjusted Diluted EPS[2]

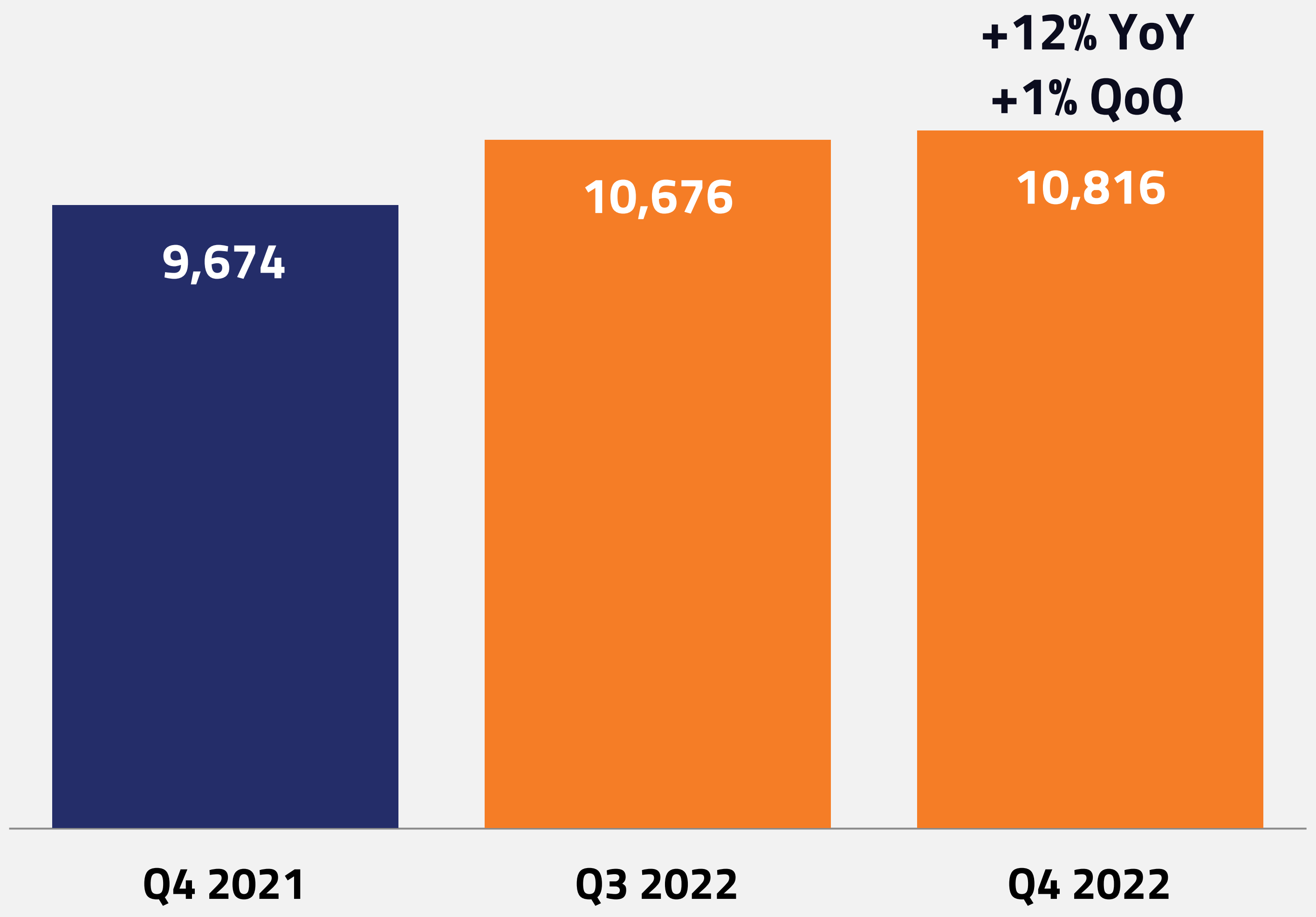
1. All figures in millions except for margins and per share amounts.
2. See Appendix for reconciliation of Adjusted EBITDA and Adjusted Diluted EPS to the most directly comparable financial measure prepared in accordance with U.S. GAAP.
3. Adjusted EBITDA Margin, which is a non-GAAP financial measure, is calculated as our Adjusted EBITDA divided by our total revenue adjusted for the impact of tariff rebates related to prior period sales.

Fourth quarter operating metrics

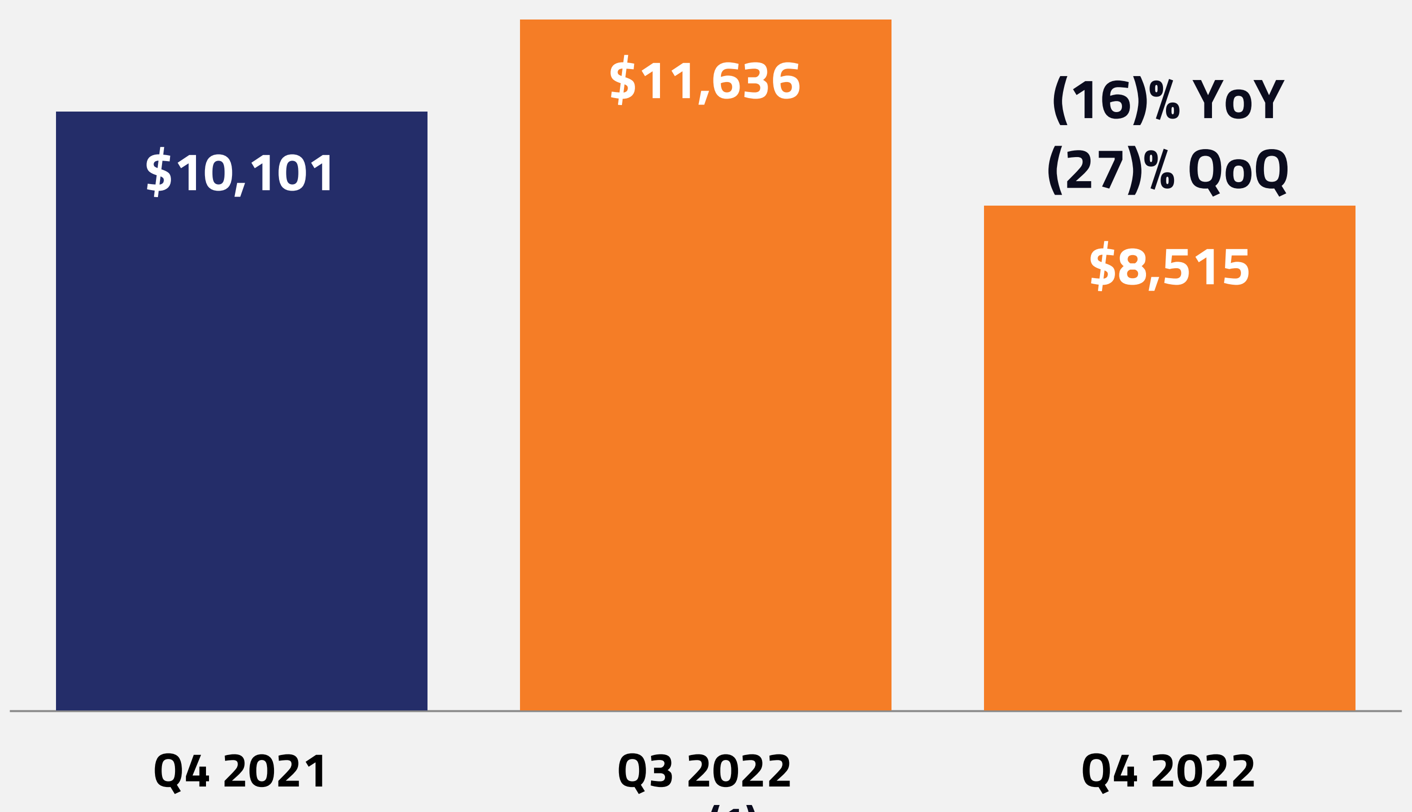
2021 2022

Stage II Related

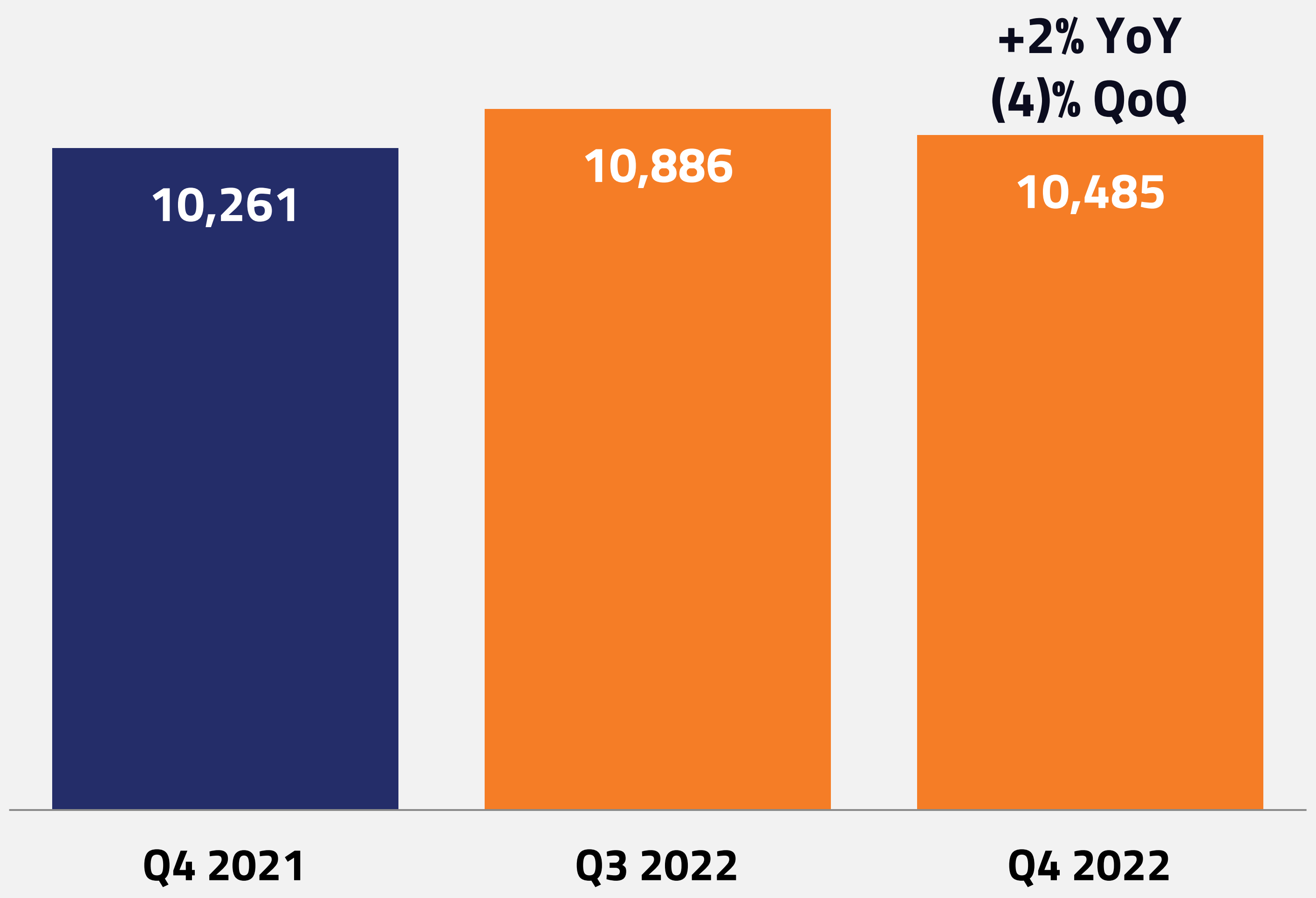
Comparable Operational Metrics—Sequential and Year-over-Year



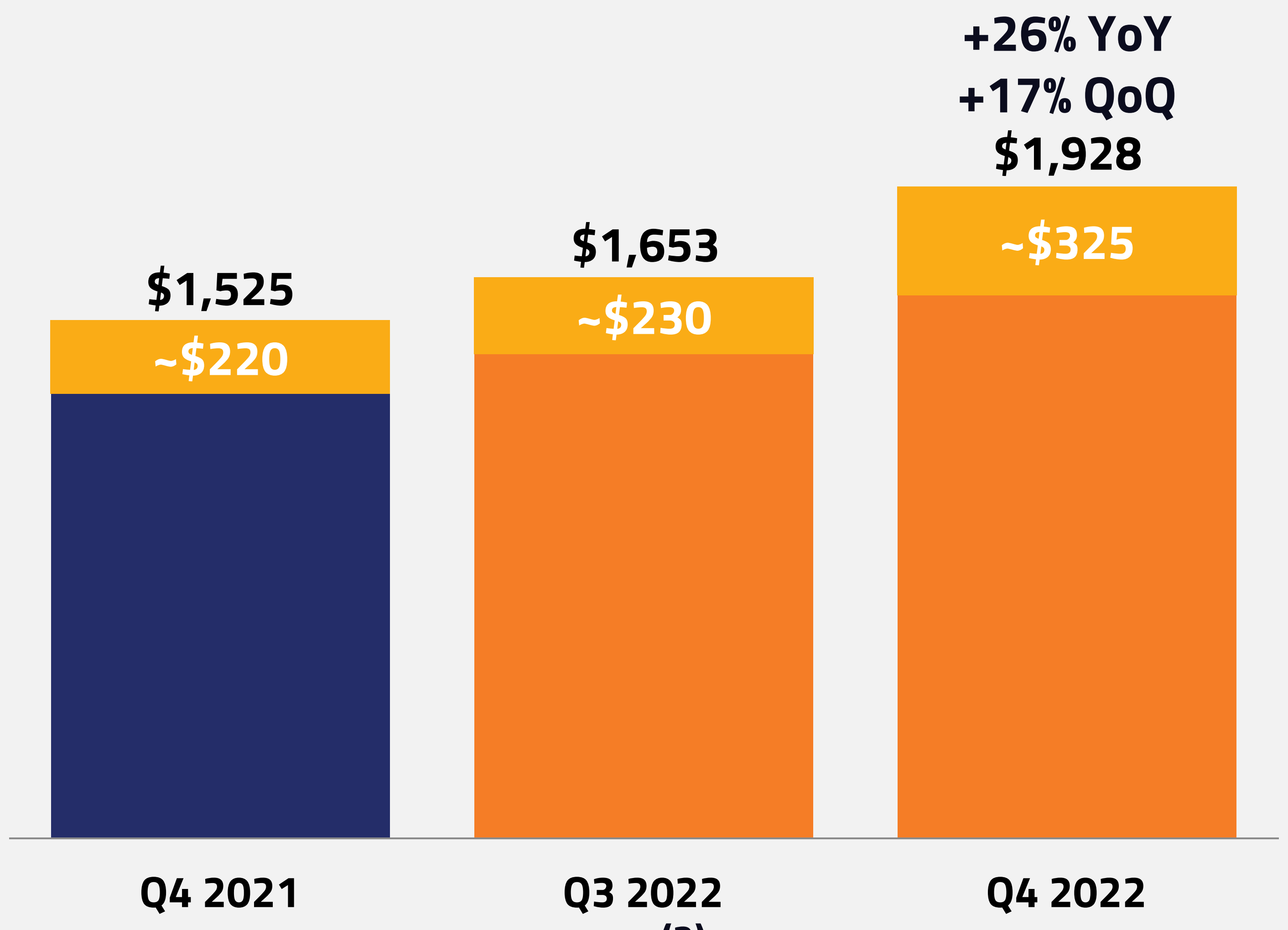
REO Sales Volumes (MT)



Realized Price[1] ($/MT REO)



REO Production Volumes (MT)



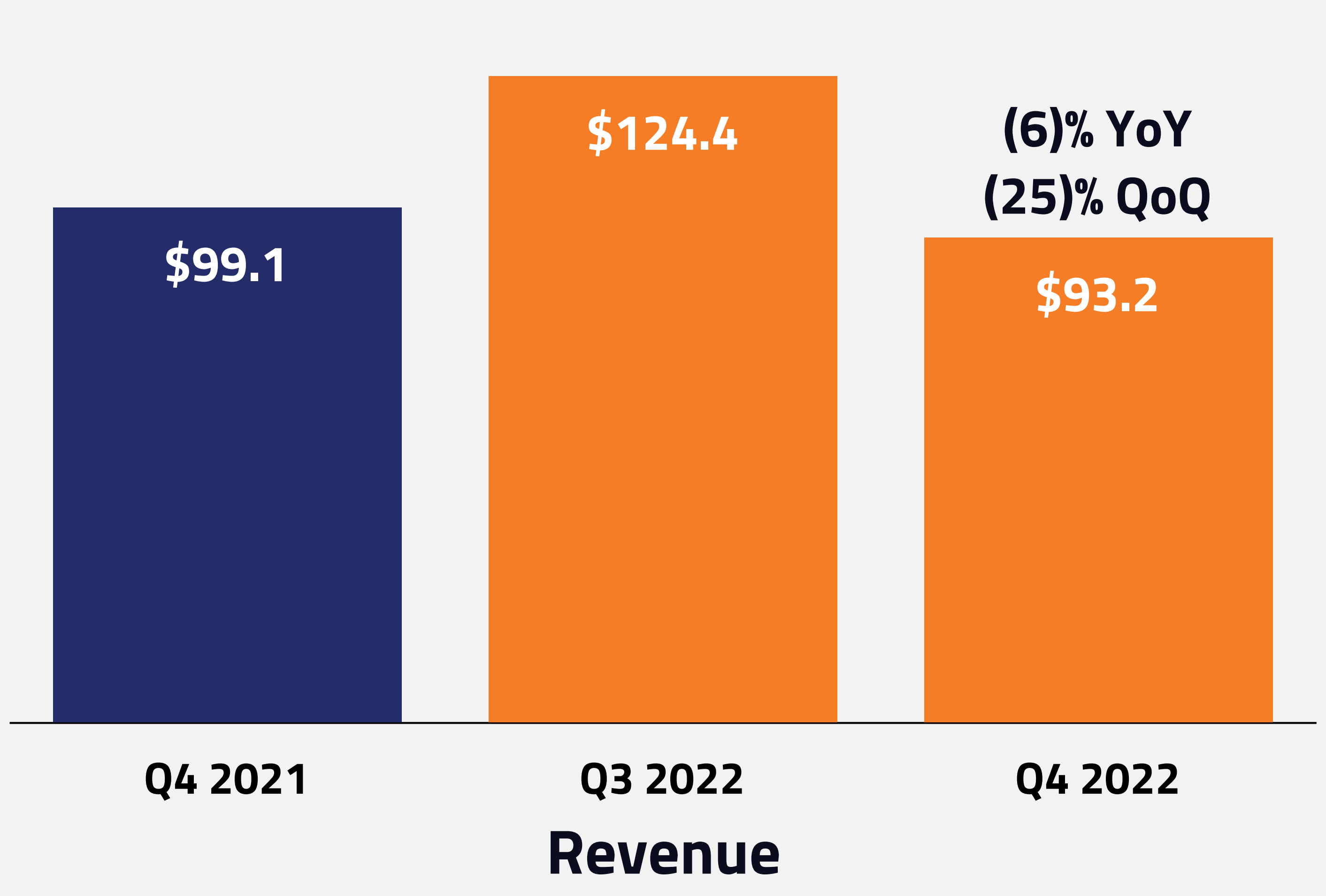
Production Cost[2] ($/MT REO)

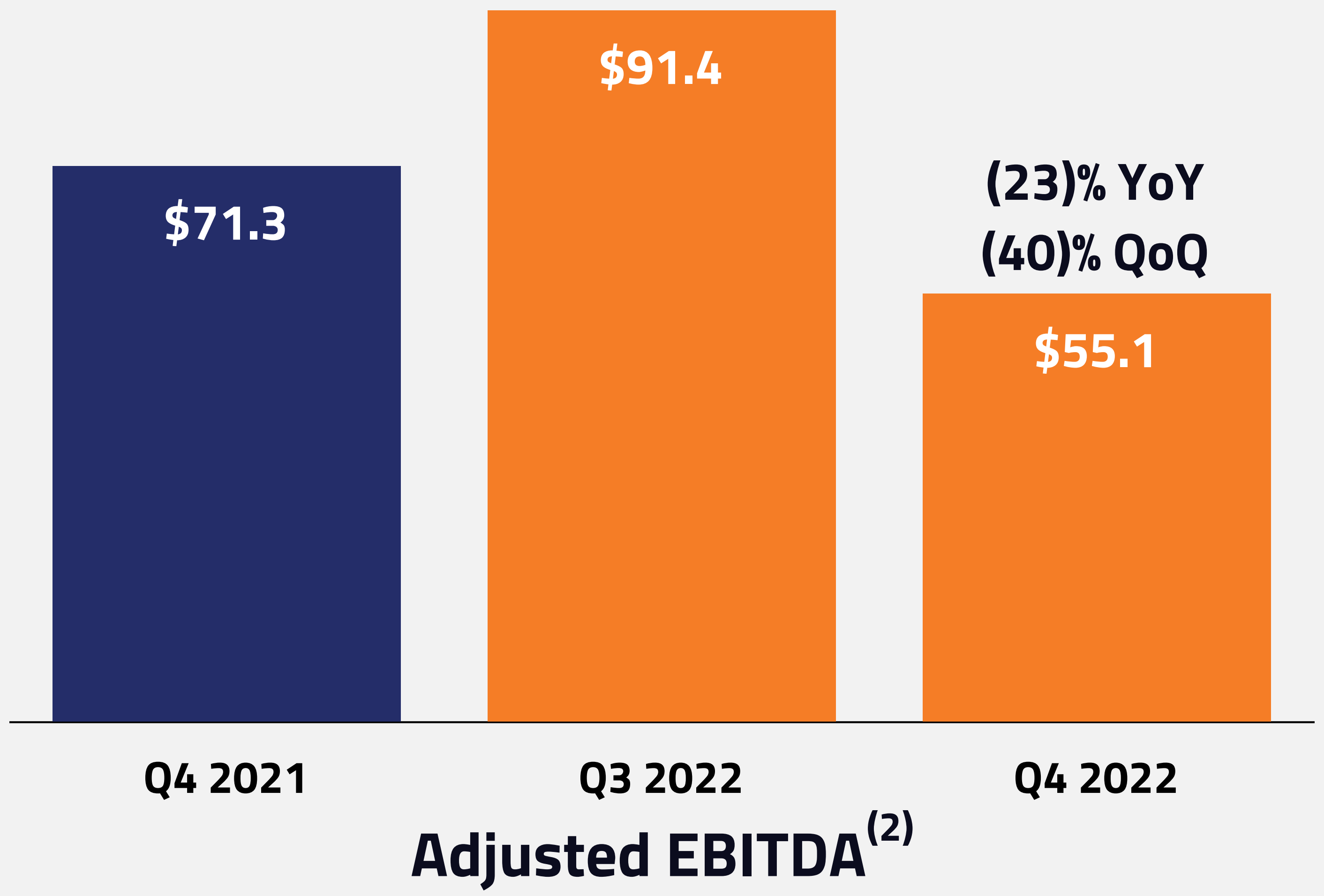
1. See Appendix for calculation of realized price per REO MT, which includes the non-GAAP financial measure Total Value Realized, and a reconciliation of Total Value Realized (non-GAAP) to Product sales (GAAP).
2. See Appendix for calculation of production cost per REO MT, which includes the non-GAAP financial measure Production Costs, and a reconciliation of Production Costs (non-GAAP) to Cost of sales (GAAP). As discussed in "Use of Non-GAAP Financial Measures" above, in completing the transition to separated rare earth products, we may determine that production cost per REO MT, which is a metric focused solely on Stage I concentrate operations, and consequently, Production Costs, are no longer meaningful in evaluating and understanding our business or operating results.

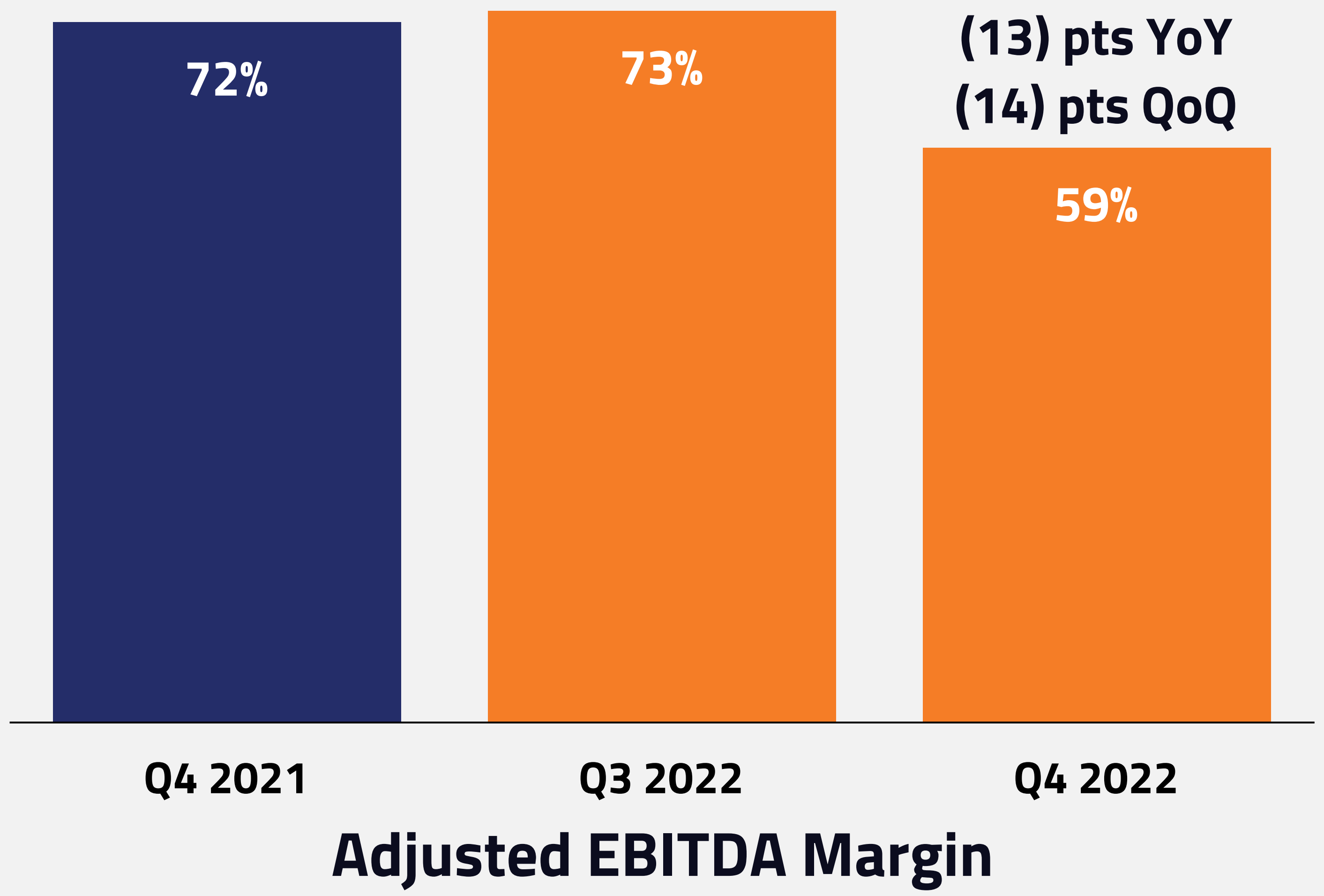
Fourth quarter financial metrics

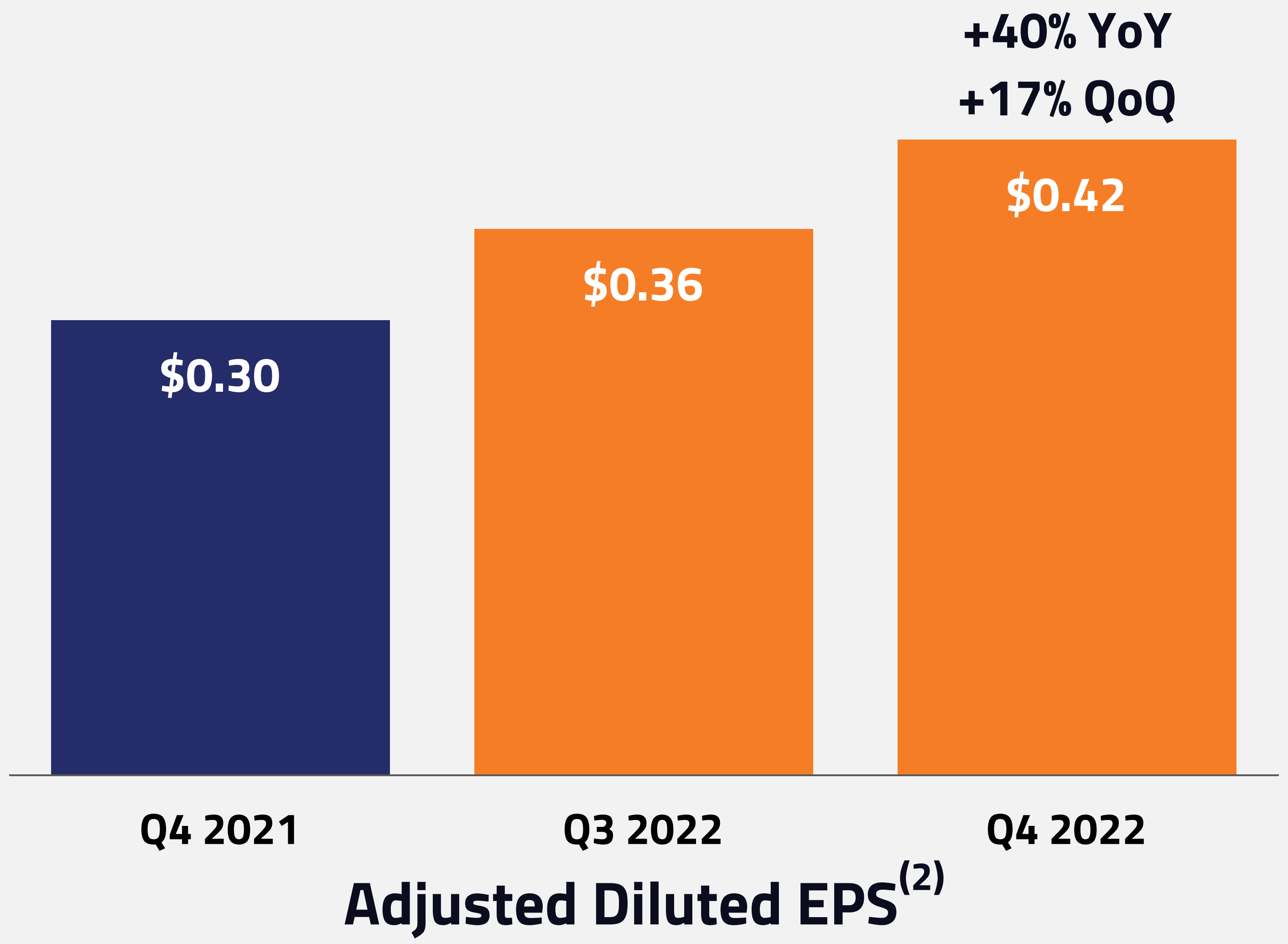
2021 2022

Comparable Financial Metrics—Sequential and Year-over-Year[1]









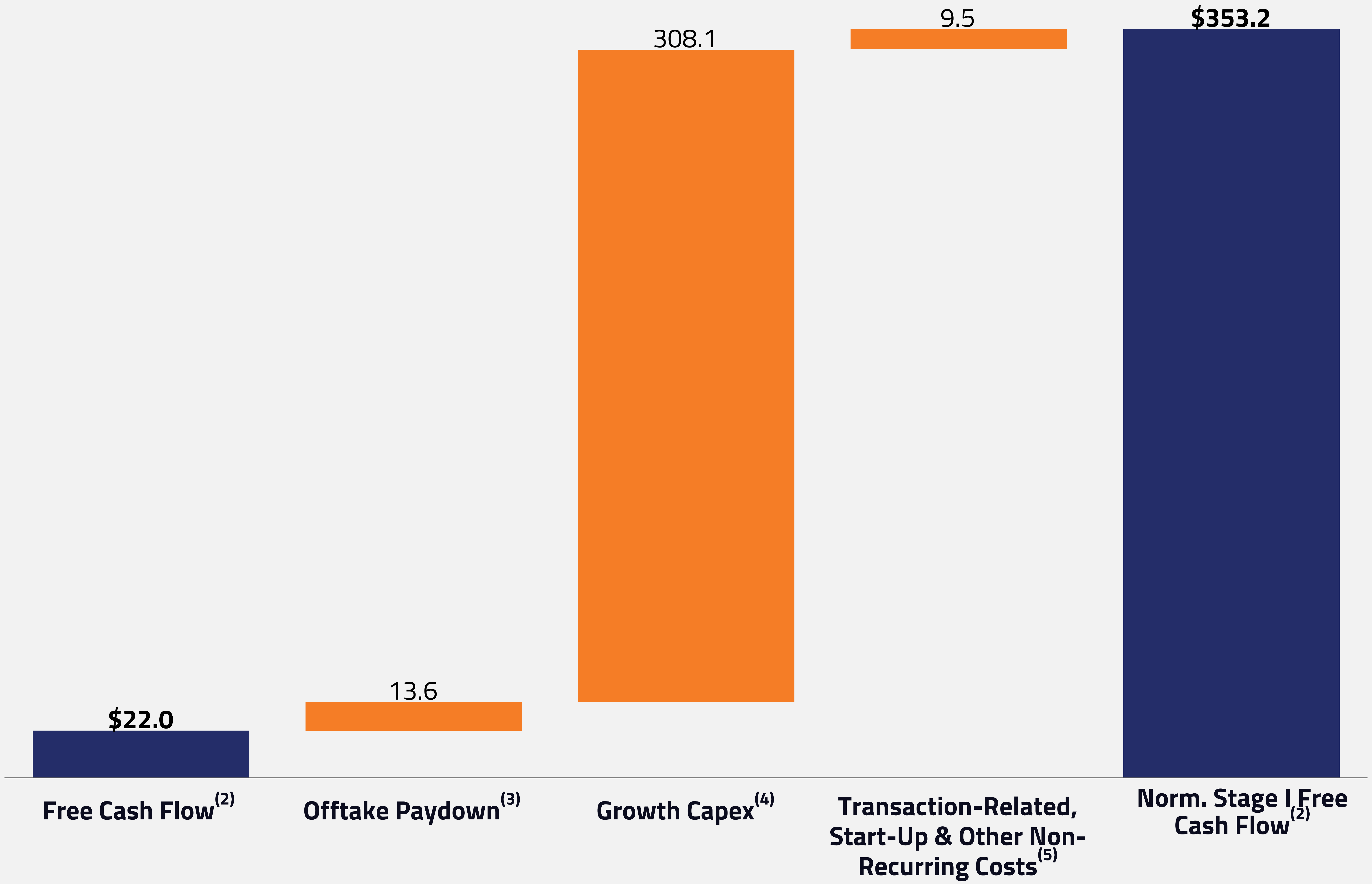
MP MATERIALS

1. All figures in millions except for margins and per share amounts.
2. See Appendix for reconciliation of Adjusted EBITDA and Adjusted Diluted EPS to the most directly comparable financial measure prepared in accordance with U.S. GAAP.

Stage I normalized free cash flow

- Normalized Stage I Free Cash Flow of $353.2M or 67.0% of 2022 revenue
- Offtake Agreement completed in Q1 2022; $13.6M paydown was reflected as reduction of GAAP operating cash flows[2]
- 2022 total capex of $321.5M and growth capex of $308.1M

Full Year 2022 Reported FCF to Normalized Stage I FCF Bridge[1]



1. All figures in millions. May not recompute as presented due to rounding.
2. See Appendix for reconciliation of Free Cash Flow and Normalized Stage I Free Cash Flow to the most directly comparable financial measure prepared in accordance with U.S. GAAP.
3. Reflects the reduction in the Shenghe Offtake balance, which is now complete. See Appendix for further details on the U.S. GAAP cash flow treatment of the offtake paydown.
4. Growth capex consists primarily of capitalized costs for Stage II, Stage III, recommissioning and other growth-related projects. 2022 total capex and growth capex are net of $5.1 million of government reimbursements.
5. Relates principally to start-up costs, which relate to the restart of our CHP plant as well as certain costs associated with our Stage II optimization project and Stage III initiatives. Includes items that were accrued in prior year but paid in current year. Excludes items that were accrued in current year but not yet paid.

Concentrate Dryer and Roaster

NdPr Finishing

MP MATERIALS

Stage III
Magnetics Facility

Restoring the Full U.S. Rare Earth Supply Chain

Photos

Crystallizer

MP MATERIALS

Leach

Mill Pad

Concentrate Packaging

MP MATERIALS

MP MATERIALS

Appendix

Summary
P&L

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Revenue:						
Product sales	$ 92,098	$ 97,721	$ 124,231	$ 517,267	$ 328,563	$ 133,697
Other sales	1,147	1,388	214	10,243	3,389	613
Total revenue	93,245	99,109	124,445	527,510	331,952	134,310
Operating costs and expenses:						
Cost of sales (excl. depreciation, depletion and amortization)	24,536	18,455	22,417	92,218	76,253	63,798
Selling, general and administrative	19,707	15,879	17,604	75,840	56,646	26,767
Advanced projects, start-up, development and other	5,588	2,137	2,743	11,817	4,573	140
Depreciation, depletion and amortization	5,593	4,615	2,096	18,356	24,382	6,931
Accretion of asset retirement and environmental obligations	222	595	418	1,477	2,375	2,255
Loss on sale or disposal of long-lived assets, net	133	350	—	391	569	101
Royalty expense	—	—	—	—	—	2,406
Write-down of inventories	—	—	—	—	1,809	—
Settlement charge	—	—	—	—	—	66,615
Total operating costs and expenses	55,779	42,031	45,278	200,099	166,607	169,013
Operating income (loss)	37,466	57,078	79,167	327,411	165,345	(34,703)
Interest expense, net	(1,331)	(2,487)	(1,224)	(5,786)	(8,904)	(5,009)
Other income, net	10,953	98	6,168	19,527	3,754	251
Income (loss) before income taxes	47,088	54,689	84,111	341,152	160,195	(39,461)
Income tax benefit (expense)	19,919	(5,700)	(20,934)	(52,148)	(25,158)	17,636
Net income (loss)	$ 67,007	$ 48,989	$ 63,177	$ 289,004	$ 135,037	$ (21,825)
Earnings (loss) per share:						
Basic	$ 0.38	$ 0.28	$ 0.36	$ 1.64	$ 0.78	$ (0.27)
Diluted	$ 0.36	$ 0.26	$ 0.33	$ 1.52	$ 0.73	$ (0.27)
Weighted-average shares outstanding:						
Basic	176,646,587	176,117,180	176,543,624	176,519,203	173,469,546	79,690,821
Diluted	193,494,131	193,389,482	193,409,857	193,453,087	189,844,028	79,690,821

Reconciliation
Net Income (Loss) to Adjusted EBITDA

(in thousands, unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Net income (loss)	$ 67,007	$ 48,989	$ 63,177	$ 289,004	$ 135,037	$ (21,825)
Adjusted for:						
Depreciation, depletion and amortization	5,593	4,615	2,096	18,356	24,382	6,931
Interest expense, net	1,331	2,487	1,224	5,786	8,904	5,009
Income tax expense (benefit)	(19,919)	5,700	20,934	52,148	25,158	(17,636)
Stock-based compensation expense[1]	6,761	8,208	7,806	31,780	22,931	5,014
Transaction-related, start-up and other non-recurring costs[2]	4,875	497	1,885	9,216	3,716	4,438
Accretion of asset retirement and environmental obligations	222	595	418	1,477	2,375	2,255
Loss on sale or disposal of long-lived assets, net	133	350	—	391	569	101
Write-down of inventories	—	—	—	—	1,809	—
Royalty expense	—	—	—	—	—	2,406
Settlement charge	—	—	—	—	—	66,615
Tariff rebates[3]	—	—	—	—	(2,050)	(10,347)
Other income, net[4]	(10,953)	(98)	(6,168)	(19,527)	(3,754)	(352)
Adjusted EBITDA	$ 55,050	$ 71,343	$ 91,372	$ 388,631	$ 219,077	$ 42,609

1. Principally included in "Selling, general and administrative" within our unaudited Condensed Consolidated Statements of Operations.
2. Amounts for the three months and year ended December 31, 2022, and amount for the three months ended September 30, 2022, are principally comprised of start-up costs, which relate to the restart of our CHP plant as well as certain costs associated with our Stage II optimization project and Stage III initiatives. Amount for the three months ended December 31, 2021, includes start-up costs primarily associated with Stage III initiatives. Amount for the year ended December 31, 2021, relates to advisory, consulting, accounting, and legal expenses and settlements incurred in connection with non-recurring transactions, including secondary equity offerings, the redemption of the Company's public warrants, and other matters. Amount for the year ended December 31, 2020, includes mainly advisory, consulting, accounting, legal expenses and one-time employee bonuses in connection with the Business Combination, as well as non-recurring costs for SAP implementation.
3. Represents non-cash revenue recognized in connection with tariff rebates received relating to product sales from prior periods.
4. Amounts for the three months and year ended December 31, 2022, and amount for the three months ended September 30, 2022, are principally comprised of interest and investment income. Amount for the year ended December 31, 2021, principally represents a non-cash gain recognized as a result of the Small Business Administration's approval to forgive the Paycheck Protection Loan.

Reconciliation

Net Income (Loss) to Adjusted Net Income

(in thousands, unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Net income (loss)	$ 67,007	$ 48,989	$ 63,177	$ 289,004	$ 135,037	$ (21,825)
Adjusted for:						
Stock-based compensation expense(1)	6,761	8,208	7,806	31,780	22,931	5,014
Transaction-related, start-up and other non-recurring costs(2)	4,875	497	1,885	9,216	3,716	4,438
Loss on sale or disposal of long-lived assets, net	133	350	—	391	569	101
Write-down of inventories	—	—	—	—	1,809	—
Royalty expense	—	—	—	—	—	2,406
Settlement charge	—	—	—	—	—	66,615
Tariff rebates(3)	—	—	—	—	(2,050)	(10,347)
Other(4)	(26)	(98)	(23)	(273)	(3,754)	(352)
Tax impact of adjustments above(5)	454	(1,344)	(2,299)	(6,716)	(4,071)	(16,969)
Release of valuation allowance	(418)	—	(2,427)	(2,845)	—	(9,333)
Adjusted Net Income	$ 78,786	$ 56,602	$ 68,119	$ 320,557	$ 154,187	$ 19,748

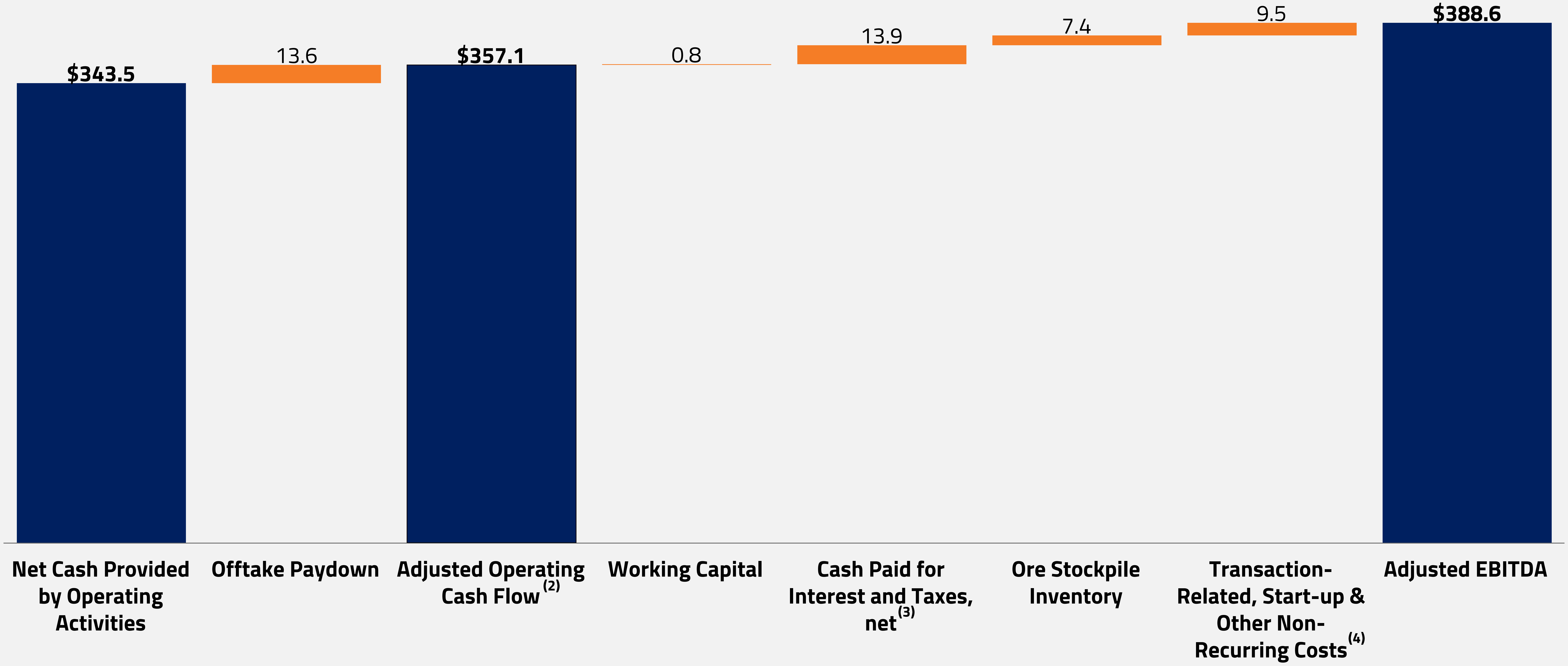
1. Principally included in "Selling, general and administrative" within our unaudited Condensed Consolidated Statements of Operations.
2. Amounts for the three months and year ended December 31, 2022 and amount for the three months ended September 30, 2022, are principally comprised of start-up costs, which relate to the restart of our CHP plant as well as certain costs associated with our Stage II optimization project and Stage III initiatives. Amount for the three months ended December 31, 2021, includes start-up costs primarily associated with Stage III initiatives. Amount for the year ended December 31, 2021, relates to advisory, consulting, accounting, and legal expenses and settlements incurred in connection with non-recurring transactions, including secondary equity offerings, the redemption of the Company's public warrants, and other matters. Amount for the year ended December 31, 2020, includes mainly advisory, consulting, accounting, legal expenses and one-time employee bonuses in connection with the Business Combination, as well as non-recurring costs for SAP implementation.
3. Represents non-cash revenue recognized in connection with tariff rebates received relating to product sales from prior periods.
4. Amount for the year ended December 31, 2021, principally represents a non-cash gain recognized as a result of the Small Business Administration's approval to forgive the Paycheck Protection Loan, which is included in "Other income, net" within our unaudited Condensed Consolidated Statements of Operations.
5. Tax impact of adjustments is calculated using an adjusted effective tax rate, which excludes the impact of discrete tax costs and benefits, to each adjustment. The adjusted effective tax rates were (3.9)%, 15.0%, and 23.8% for the three months ended December 31, 2022 and 2021 and for the three months ended September 30, 2022, respectively. The adjusted effective tax rates were 16.3%, 17.5% and 25.0% for the years ended December 31, 2022, 2021 and 2020, respectively.

Reconciliation
Diluted EPS to Adjusted Diluted EPS

(unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Diluted EPS	$ 0.36	$ 0.26	$ 0.33	$ 1.52	$ 0.73	$ (0.27)
Adjusted for:						
Stock-based compensation expense[1]	0.03	0.04	0.04	0.16	0.12	0.06
Transaction-related, start-up and other non-recurring costs[2]	0.03	—	0.01	0.05	0.02	0.06
Loss on sale or disposal of long-lived assets, net	—	—	—	—	—	—
Write-down of inventories	—	—	—	—	0.01	—
Royalty expense	—	—	—	—	—	0.03
Settlement charge	—	—	—	—	—	0.84
Tariff rebates[3]	—	—	—	—	(0.01)	(0.13)
Other[4]	—	—	—	—	(0.02)	—
Tax impact of adjustments above[5]	—	—	(0.01)	(0.04)	(0.02)	(0.22)
Release of valuation allowance	—	—	(0.01)	(0.01)	—	(0.12)
Adjusted Diluted EPS	$ 0.42	$ 0.30	$ 0.36	$ 1.68	$ 0.83	$ 0.25
Diluted weighted-average shares outstanding	193,494,131	193,389,482	193,409,857	193,453,087	189,844,028	79,690,821

1. Principally included in "Selling, general and administrative" within our unaudited Condensed Consolidated Statements of Operations.
2. Amounts for the three months and year ended December 31, 2022 and amount for the three months ended September 30, 2022, are principally comprised of start-up costs, which relate to the restart of our CHP plant as well as certain costs associated with our Stage II optimization project and Stage III initiatives. Amount for the three months ended December 31, 2021, includes start-up costs primarily associated with Stage III initiatives. Amount for the year ended December 31, 2021, relates to advisory, consulting, accounting, and legal expenses and settlements incurred in connection with non-recurring transactions, including secondary equity offerings, the redemption of the Company's public warrants, and other matters. Amount for the year ended December 31, 2020, includes mainly advisory, consulting, accounting, legal expenses and one-time employee bonuses in connection with the Business Combination, as well as non-recurring costs for SAP implementation.
3. Represents non-cash revenue recognized in connection with tariff rebates received relating to product sales from prior periods.
4. Amount for the year ended December 31, 2021, principally represents a non-cash gain recognized as a result of the Small Business Administration's approval to forgive the Paycheck Protection Loan, which is included in "Other income, net" within our unaudited Condensed Consolidated Statements of Operations.
5. Tax impact of adjustments is calculated using an adjusted effective tax rate, which excludes the impact of discrete tax costs and benefits, to each adjustment. The adjusted effective tax rates were (3.9)%, 15.0%, and 23.8% for the three months ended December 31, 2022 and 2021 and for the three months ended September 30, 2022, respectively. The adjusted effective tax rates were 16.3%, 17.5% and 25.0% for the years ended December 31, 2022, 2021 and 2020, respectively.

YTD 2022 Cash Flow
Bridge[1]



1. All figures in millions. May not recompute as presented due to rounding.
2. See "Use of Non-GAAP Financial Measures" for definition and further information. See next slide for a reconciliation to the most comparable metric prepared in accordance with U.S. GAAP.
3. Amount is net of cash received from interest and investment income.
4. Principally comprised of start-up costs, which relate to the restart of our CHP plant as well as certain costs associated with our Stage II optimization project and Stage III initiatives. Includes items that were accrued in prior year but paid in current year. Excludes items that were accrued in current year but not yet paid.

Reconciliations

Net Cash Provided by Operating Activities to Non-GAAP Financial Measures

(in thousands, unaudited)		For the year ended December 31, 2022
Net cash provided by operating activities	$	343,514
Additions of property, plant and equipment, net[1]		(321,465)
Free Cash Flow		22,049
Adjusted for:		
Revenue recognized in exchange for debt principal reduction[2]		13,566
Growth capital expenditures[1]		308,123
Transaction-related, start-up and other non-recurring costs[3]		9,505
Normalized Stage I Free Cash Flow	$	353,243
Net cash provided by operating activities	$	343,514
Revenue recognized in exchange for debt principal reduction[2]		13,566
Adjusted Operating Cash Flow	$	357,080

1. Amount is net of $5.1 million in proceeds from government awards used for construction, specifically, our Stage II optimization project.
2. Referred to previously as Offtake Paydown. Under the terms of the A&R Offtake Agreement and pursuant to the accounting treatment thereof, we recognized $13.6 million of non-cash revenue during the year ended December 31, 2022, which was retained by Shenghe to reduce our outstanding debt obligation. Accordingly, such amount is excluded from operating cash flows under GAAP.
3. Includes items that were accrued in prior year but paid in current year. Excludes items that were accrued in current year but not yet paid.

KPI – Realized Price
Reconciliation and Calculation

(in thousands, unless otherwise stated, unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Product sales	$ 92,098	$ 97,721	$ 124,231	$ 517,267	$ 328,563	$ 133,697
Adjusted for:						
Shenghe Implied Discount[1]	—	—	—	—	—	3,664
Tariff rebates[2]	—	—	—	—	(2,050)	(10,347)
Total Value Realized[3]	92,098	97,721	124,231	517,267	326,513	127,014
Divided by:						
REO sales volume (in MTs)	10,816	9,674	10,676	43,198	42,158	38,367
Realized price per REO MT (in dollars)	$ 8,515	$ 10,101	$ 11,636	$ 11,974	$ 7,745	$ 3,311

1. Represents the difference between the contractual amount realized by Shenghe and the amount of deferred revenue we recognized.
2. Represents non-cash revenue recognized in connection with tariff rebates relating to product sales from prior periods.
3. See "Use of Non-GAAP Financial Measures" for definition and further information.

KPI – Production Cost
Reconciliation and Calculation

(in thousands, unless otherwise stated, unaudited)	For the three months ended December 31, 2022	For the three months ended December 31, 2021	For the three months ended September 30, 2022	For the year ended December 31, 2022	For the year ended December 31, 2021	For the year ended December 31, 2020
Cost of sales[(1)]	$ 24,536	$ 18,455	$ 22,417	$ 92,218	$ 76,253	$ 63,798
Adjusted for:						
Stock-based compensation expense[(2)]	(743)	(1,856)	(889)	(2,853)	(4,294)	(277)
Shipping and freight[(3)]	(2,454)	(1,847)	(3,796)	(13,002)	(8,923)	(8,220)
Other[(4)]	(490)	—	(89)	(1,715)	(79)	(446)
Production Costs[(5)]	20,849	14,752	17,643	74,648	62,957	54,855
Divided by:						
REO sales volume (in MTs)	10,816	9,674	10,676	43,198	42,158	38,367
Production cost per REO MT (in dollars)[(5)]	$ 1,928	$ 1,525	$ 1,653	$ 1,728	$ 1,493	$ 1,430

1. Excluding depreciation, depletion and amortization.
2. Pertains only to the amount of stock-based compensation expense included in cost of sales.
3. Includes $1.3 million for the year ended December 31, 2022, of shipping and freight costs associated with sales of rare earth fluoride ("REF") stockpiles.
4. Amount for the year ended December 31, 2022, pertains primarily to costs (excluding shipping and freight) attributable to sales of REF stockpiles.
5. See "Use of Non-GAAP Financial Measures" for definition and further information. As discussed in "Use of Non-GAAP Financial Measures" above, in completing the transition to separated rare earth products, we may determine that production cost per REO MT, which is a metric focused solely on Stage I concentrate operations, and consequently, Production Costs, are no longer meaningful in evaluating and understanding our business or operating results.