



NEWS RELEASE

PAR PACIFIC REPORTS FOURTH QUARTER AND RECORD 2023 RESULTS

HOUSTON, February 27, 2024 - Par Pacific Holdings, Inc. (NYSE: PARR) (“Par Pacific” or the “Company”) today reported its financial results for the fourth quarter and twelve months ended December 31, 2023.

- Fourth quarter Net Income of \$289.3 million, or \$4.77 per diluted share; Adjusted Net Income of \$65.2 million, or \$1.08 per diluted share; Adjusted EBITDA of \$122.0 million
- Full year Net Income of \$728.6 million, or \$11.94 per diluted share; Record Adjusted Net Income of \$501.2 million, or \$8.21 per diluted share; Adjusted EBITDA of \$696.2 million

Par Pacific reported net income of \$728.6 million, or \$11.94 per diluted share, for the twelve months ended December 31, 2023, compared to \$364.2 million, or \$6.08 per diluted share, for the twelve months ended December 31, 2022. Full year 2023 net income includes a deferred income tax benefit of \$126.2 million, primarily related to the release of valuation allowances on deferred tax assets. Adjusted Net Income for 2023 was \$501.2 million, compared to \$474.7 million for 2022. 2023 Adjusted EBITDA was \$696.2 million, compared to \$643.4 million for 2022.

Par Pacific reported net income of \$289.3 million, or \$4.77 per diluted share, for the quarter ended December 31, 2023, compared to \$84.7 million, or \$1.40 per diluted share, for the same quarter in 2022. Fourth quarter 2023 net income includes a deferred income tax benefit of \$126.2 million, primarily related to the release of valuation allowances on deferred tax assets. Fourth quarter 2023 Adjusted Net Income was \$65.2 million, compared to \$132.8 million in the fourth quarter of 2022. Fourth quarter 2023 Adjusted EBITDA was \$122.0 million, compared to \$174.9 million in the fourth quarter of 2022. A reconciliation of reported non-GAAP financial measures to their most directly comparable GAAP financial measures can be found in the tables accompanying this news release.

“2023 was an exceptionally positive year for our company,” said William Pate, Chief Executive Officer. “We generated record financial results, successfully closed and integrated the highly accretive Billings acquisition, and launched a renewables business line. Record earnings were driven by excellent operational reliability and commercial execution in a strong market environment, allowing us to improve our balance sheet while repurchasing \$62 million of common stock throughout the year.”

Refining

The Refining segment generated operating income of \$676.2 million for the year ended December 31, 2023, compared to \$401.9 million for the year ended December 31, 2022. Adjusted Gross Margin for the Refining segment in the year ended December 31, 2023 was \$995.0 million, compared to \$812.8 million in the year ended December 31, 2022.

Refining segment Adjusted EBITDA for the year ended December 31, 2023 was \$621.5 million, compared to \$566.8 million for the year ended December 31, 2022.

The Refining segment reported operating income of \$174.0 million in the fourth quarter of 2023, compared to \$85.3 million in the fourth quarter of 2022. Adjusted Gross Margin for the Refining segment was \$227.2 million in the fourth quarter of 2023, compared to \$212.0 million in the fourth quarter of 2022.

Refining segment Adjusted EBITDA was \$106.5 million in the fourth quarter of 2023, compared to \$146.4 million in the fourth quarter of 2022.

Hawaii

The 3-1-2 Singapore Crack Spread was \$19.44 per barrel in the fourth quarter of 2023, compared to \$22.84 per barrel in the fourth quarter of 2022. Throughput in the fourth quarter of 2023 was 81 thousand barrels per day (Mbpd), consistent with throughput for the same quarter in 2022. Production costs were \$4.80 per throughput barrel in the fourth quarter of 2023, compared to \$5.42 per throughput barrel in the same period of 2022.

The Hawaii refinery's Adjusted Gross Margin was \$16.73 per barrel during the fourth quarter of 2023, including a net price lag impact of approximately \$20.5 million, or \$2.77 per barrel, compared to \$14.23 per barrel during the fourth quarter of 2022.

Montana

The RVO Adjusted USGC 3-2-1 Index averaged \$13.71 per barrel in the fourth quarter of 2023. The Montana refinery's throughput in the fourth quarter of 2023 was 49.8 Mbpd and production costs were \$12.03 per throughput barrel.

The Montana refinery's Adjusted Gross Margin was \$11.55 per barrel during the fourth quarter of 2023.

Washington

The RVO Adjusted Pacific Northwest 3-1-1-1 Index averaged \$17.95 per barrel in the fourth quarter of 2023, compared to \$30.11 per barrel in the fourth quarter of 2022. The Washington refinery's throughput was 38 Mbpd in the fourth quarter of 2023, compared to 40 Mbpd in the fourth quarter of 2022. Production costs were \$4.53 per throughput barrel in the fourth quarter of 2023, compared to \$3.57 per throughput barrel in the same period of 2022.

The Washington refinery's Adjusted Gross Margin was \$7.87 per barrel during the fourth quarter of 2023, compared to \$21.74 per barrel during the fourth quarter of 2022.

Wyoming

The RVO Adjusted USGC 3-2-1 Index averaged \$13.71 per barrel in the fourth quarter of 2023, compared to \$24.30 per barrel in the fourth quarter of 2022. The Wyoming refinery's throughput was 17 Mbpd in the fourth quarter of 2023, compared to 16 Mbpd in the fourth quarter of 2022. Production costs were \$8.03 per throughput barrel in the fourth quarter of 2023, compared to \$7.80 per throughput barrel in the same period of 2022.

The Wyoming refinery's Adjusted Gross Margin was \$13.90 per barrel during the fourth quarter of 2023, including a FIFO impact of approximately \$(8.4) million, or \$(5.33) per barrel, compared to \$17.66 per barrel during the fourth quarter of 2022.

Retail

The Retail segment reported operating income of \$56.6 million for the twelve months ended December 31, 2023, compared to \$49.2 million in the twelve months ended December 31, 2022. Adjusted Gross Margin for the Retail segment was \$155.3 million for the twelve months ended December 31, 2023, compared to \$141.5 million in twelve months ended December 31, 2022.

For the twelve months ended December 31, 2023, Retail Adjusted EBITDA was \$68.3 million, compared to \$60.3 million for the twelve months ended December 31, 2022. For the twelve months ended December 31, 2023, the Retail segment reported fuel sales volumes of 117.6 million gallons, compared to 105.5 million gallons for the twelve months ended December 31, 2022. 2023 same store sales fuel volumes and merchandise revenue increased by 8.8% and 7.8%, respectively, compared to 2022.

The Retail segment reported operating income of \$14.6 million in the fourth quarter of 2023, compared to \$22.3 million in the fourth quarter of 2022. Adjusted Gross Margin for the Retail segment was \$40.5 million in the fourth quarter of 2023, compared to \$46.0 million in the same quarter of 2022.

Retail segment Adjusted EBITDA was \$17.2 million in the fourth quarter of 2023, compared to \$25.2 million in the fourth quarter of 2022. The Retail segment reported sales volumes of 29.8 million gallons in the fourth quarter of 2023, compared to 26.9 million gallons in the same quarter of 2022. Fourth quarter 2023 same store sales fuel volumes and merchandise revenue increased by 7.3% and 4.2%, respectively, compared to the fourth quarter of 2022.

Logistics

The Logistics segment generated operating income of \$69.7 million for the twelve months ended December 31, 2023, compared to \$54.0 million for the twelve months ended December 31, 2022. Adjusted Gross Margin for the Logistics segment was \$121.2 million for the twelve months ended December 31, 2023, compared to \$89.4 million for the twelve months ended December 31, 2022.

Adjusted EBITDA for the Logistics segment was \$96.7 million for the twelve months ended December 31, 2023, compared to \$74.4 million for the twelve months ended December 31, 2022.

The Logistics segment reported operating income of \$15.7 million in the fourth quarter of 2023, compared to \$10.7 million in the fourth quarter of 2022. Adjusted Gross Margin for the Logistics segment was \$35.3 million in the fourth quarter of 2023, compared to \$19.6 million in the same quarter of 2022.

Logistics segment Adjusted EBITDA was \$24.0 million in the fourth quarter of 2023, compared to \$15.9 million in the fourth quarter of 2022.

Liquidity

Net cash provided by (used in) operations totaled \$(2.3) million and \$579.2 million for the three months and twelve months ended December 31, 2023, respectively, compared to net cash provided by operations of \$83.6 million and \$452.6 million for the three months and twelve months ended December 31, 2022, respectively. Fourth quarter 2023 net cash provided by (used in) operations of \$(2.3) million includes a working capital outflow of \$(132.0) million. Excluding working capital items, net cash provided by operations was \$129.7 million in the fourth quarter of 2023.

Net cash used in investing activities totaled \$(27.3) million and \$(659.0) million for the three months and twelve months ended December 31, 2023, respectively, compared to \$(49.6) million and \$(87.3) million

for the three months and twelve months ended December 31, 2022, respectively. Net cash used in investing activities of \$(659.0) million for the twelve months ended December 31, 2023 includes \$(280.0) million for the Billings Acquisition base purchase price, \$(315.4) million for the purchase of Billings hydrocarbon inventory value and other working capital items, and \$(82.3) million in capital expenditures.

Net cash used in financing activities totaled \$(56.6) million and \$(135.6) million for the three months and twelve months ended December 31, 2023, respectively, compared to net cash provided by financing activities of \$47.9 million and \$13.4 million for the three months and twelve months ended December 31, 2022, respectively.

At December 31, 2023, Par Pacific's cash balance totaled \$279.1 million, gross debt totaled \$665.6 million, and total liquidity was \$644.5 million. Net debt was \$386.5 million at December 31, 2023.

Tax Valuation Allowance Summary

Full year 2023 results reflect a deferred income tax benefit of \$126.2 million, which includes a non-cash deferred tax benefit of \$277.7 million from the release of valuation allowances on deferred tax assets, partially offset by a non-cash deferred tax expense of \$151.5 million. The release of the valuation allowance is primarily the result of achieving sustained profitability, with management concluding that the company is more likely than not to realize all federal deferred tax assets in the future.

Conference Call Information

A conference call is scheduled for Wednesday, February 28, 2024 at 9:00 a.m. Central Time (10:00 a.m. Eastern Time). To access the call, please dial 1-833-974-2377 inside the U.S. or 1-412-317-5782 outside of the U.S. and ask for the Par Pacific call. Please dial in at least 10 minutes early to register. The webcast may be accessed online through the Company's website at <http://www.parpacific.com> on the Investors page. A telephone replay will be available until March 13, 2024 and may be accessed by calling 1-877-344-7529 inside the U.S. or 1-412-317-0088 outside the U.S. and using the conference ID 5454323.

About Par Pacific

Par Pacific Holdings, Inc. (NYSE: PARR), headquartered in Houston, Texas, is a growing energy company providing both renewable and conventional fuels to the western United States. In the Pacific Northwest and the Rockies, Par Pacific owns and operates 125,000 bpd of combined refining capacity across three locations and an extensive energy infrastructure network, including 7.6 million barrels of storage, and marine, rail, rack, and pipeline assets. In addition, Par Pacific operates the "nomnom" convenience store chain and supplies ExxonMobil-branded fuel retail stations in the region. Par Pacific owns and operates one of the largest energy infrastructure networks in Hawaii with 94,000 bpd of operating refining capacity, a logistics system supplying the major islands of the state and Hele-branded retail locations. Par Pacific also owns 46% of Laramie Energy, LLC, a natural gas production company with operations and assets concentrated in Western Colorado. More information is available at www.parpacific.com.

Forward-Looking Statements

This news release (and oral statements regarding the subject matter of this news release, including those made on the conference call and webcast announced herein) includes certain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are intended to qualify for the "safe harbor" from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than

statements of historical fact are forward-looking statements. Forward-looking statements include, without limitation, statements about: expected market conditions; anticipated free cash flows; anticipated refinery throughput; anticipated cost savings; anticipated capital expenditures, including major maintenance costs, and their effect on our financial and operating results, including earnings per share and free cash flow; anticipated retail sales volumes and on-island sales; the anticipated financial and operational results of Laramie Energy, LLC; the amount of our discounted net cash flows and the impact of our NOL carryforwards thereon; our ability to identify, acquire, and develop energy, related retailing, and infrastructure businesses; the timing and expected results of certain development projects, as well as the impact of such investments on our product mix and sales; the anticipated synergies and other benefits of the Billings refinery and associated marketing and logistics assets (“Billings Acquisition”), including renewable growth opportunities, the anticipated financial and operating results of the Billings Acquisition and the effect on Par Pacific's cash flows and profitability (including Adjusted EBITDA and Adjusted Net Income and Free Cash Flow per share), and other risks and uncertainties detailed in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and any other documents that we file with the Securities and Exchange Commission. Additionally, forward-looking statements are subject to certain risks, trends, and uncertainties, such as changes to our financial condition and liquidity; the volatility of crude oil and refined product prices; the Russia-Ukraine war, Israel-Palestine conflict, Houthi attacks in the Red Sea, Iranian activities in the Strait of Hormuz and their potential impacts on global crude oil markets and our business; operating disruptions at our refineries resulting from unplanned maintenance events or natural disasters; environmental risks; changes in the labor market; and risks of political or regulatory changes. We cannot provide assurances that the assumptions upon which these forward-looking statements are based will prove to have been correct. Should one of these risks materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those expressed or implied in any forward-looking statements, and investors are cautioned not to place undue reliance on these forward-looking statements, which are current only as of this date. We do not intend to update or revise any forward-looking statements made herein or any other forward-looking statements as a result of new information, future events, or otherwise. We further expressly disclaim any written or oral statements made by a third party regarding the subject matter of this news release.

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Condensed Consolidated Statements of Operations

(Unaudited)

(in thousands, except per share data)

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Revenues	\$ 2,183,511	\$ 1,808,875	\$ 8,231,955	\$ 7,321,785
Operating expenses				
Cost of revenues (excluding depreciation)	1,799,898	1,574,214	6,838,109	6,376,014
Operating expense (excluding depreciation)	155,441	86,812	485,587	333,206
Depreciation and amortization	31,943	25,281	119,830	99,769
Loss (gain) on sale of assets, net	(59)	1	(59)	(169)
General and administrative expense (excluding depreciation)	25,299	14,846	91,447	62,396
Equity earnings from refining and logistics investments	(7,485)	—	(11,844)	—
Acquisition and integration costs	269	3,600	17,482	3,663
Par West redevelopment and other costs	2,907	3,322	11,397	9,003
Total operating expenses	2,008,213	1,708,076	7,551,949	6,883,882
Operating income	175,298	100,799	680,006	437,903
Other income (expense)				
Interest expense and financing costs, net	(20,476)	(16,888)	(72,450)	(68,288)
Debt extinguishment and commitment costs	(1,500)	—	(19,182)	(5,329)
Other income (loss), net	(354)	762	(53)	613
Equity earnings from Laramie Energy, LLC	14,279	—	24,985	—
Total other expense, net	(8,051)	(16,126)	(66,700)	(73,004)
Income before income taxes	167,247	84,673	613,306	364,899
Income tax benefit (expense)	122,077	46	115,336	(710)
Net income	\$ 289,324	\$ 84,719	\$ 728,642	\$ 364,189
Weighted-average shares outstanding				
Basic	59,403	59,722	60,035	59,544
Diluted	60,609	60,393	61,014	59,883
Income per share				
Basic	\$ 4.87	\$ 1.42	\$ 12.14	\$ 6.12
Diluted	\$ 4.77	\$ 1.40	\$ 11.94	\$ 6.08

Balance Sheet Data

(Unaudited)

(in thousands)

	December 31, 2023		December 31, 2022	
Balance Sheet Data				
Cash and cash equivalents	\$	279,107	\$	490,925
Debt, including current portion		650,858		505,532
Total stockholders' equity		1,335,424		644,537

Operating Statistics

The following table summarizes key operational data:

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Total Refining Segment				
Feedstocks throughput (Mbpd) (1)	186.0	136.7	170.3	133.8
Refined product sales volume (Mbpd) (1)	194.4	146.1	183.1	140.3
Hawaii Refinery				
Feedstocks throughput (Mbpd)	80.6	80.5	80.8	81.8
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	25.2 %	26.3 %	26.3 %	25.6 %
Distillates	39.3 %	36.8 %	40.4 %	38.8 %
Fuel oils	31.8 %	32.4 %	28.9 %	31.4 %
Other products	(0.2) %	0.7 %	1.1 %	0.7 %
Total yield	96.1 %	96.2 %	96.7 %	96.5 %
Refined product sales volume (Mbpd)	89.0	91.3	89.1	84.0
Adjusted Gross Margin per bbl (\$/throughput bbl) (2)	\$ 16.73	\$ 14.23	\$ 15.25	\$ 13.99
Production costs per bbl (\$/throughput bbl) (3)	4.80	5.42	4.57	4.86
D&A per bbl (\$/throughput bbl)	0.54	0.68	0.65	0.67
Montana Refinery				
Feedstocks Throughput (Mbpd) (1)	49.8	—	54.4	—
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	45.1 %	— %	48.1 %	— %
Distillates	38.8 %	— %	32.0 %	— %
Asphalt	8.7 %	— %	12.1 %	— %
Other products	2.5 %	— %	3.2 %	— %
Total yield	95.1 %	— %	95.4 %	— %
Refined product sales volume (Mbpd) (1)	51.5	—	58.6	—
Adjusted Gross Margin per bbl (\$/throughput bbl) (2)	\$ 11.55	\$ —	\$ 21.14	\$ —
Production costs per bbl (\$/throughput bbl) (3)	12.03	—	10.78	—
D&A per bbl (\$/throughput bbl)	1.10	—	1.45	—

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Washington Refinery				
Feedstocks throughput (Mbpd)	38.4	40.4	40.0	35.5
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	23.8 %	23.1 %	23.5 %	24.0 %
Distillate	34.1 %	34.8 %	34.5 %	34.3 %
Asphalt	20.6 %	21.3 %	19.7 %	20.3 %
Other products	18.6 %	17.7 %	18.7 %	18.2 %
Total yield	97.1 %	96.9 %	96.4 %	96.8 %
Refined product sales volume (Mbpd)	37.0	39.4	41.7	39.7
Adjusted Gross Margin per bbl (\$/throughput bbl) (2)	\$ 7.87	\$ 21.74	\$ 9.41	\$ 18.00
Production costs per bbl (\$/throughput bbl) (3)	4.53	3.57	4.12	4.01
D&A per bbl (\$/throughput bbl)	2.22	1.99	1.91	2.19
Wyoming Refinery				
Feedstocks throughput (Mbpd)	17.2	15.8	17.6	16.5
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	50.3 %	52.6 %	47.1 %	49.7 %
Distillate	45.0 %	41.6 %	46.7 %	43.1 %
Fuel oils	2.3 %	1.9 %	2.5 %	2.4 %
Other products	1.0 %	1.0 %	1.5 %	2.1 %
Total yield	98.6 %	97.1 %	97.8 %	97.3 %
Refined product sales volume (Mbpd)	16.9	15.4	17.9	16.6
Adjusted Gross Margin per bbl (\$/throughput bbl) (2)	\$ 13.90	\$ 17.66	\$ 25.15	\$ 26.50
Production costs per bbl (\$/throughput bbl) (3)	8.03	7.80	7.50	7.32
D&A per bbl (\$/throughput bbl)	2.71	2.90	2.69	2.85
Market Indices (\$ per barrel)				
3-1-2 Singapore Crack Spread (4)	\$ 19.44	\$ 22.84	\$ 19.50	\$ 25.43
RVO Adj. Pacific Northwest 3-1-1-1 Index (5)	17.95	30.11	25.82	35.27
RVO Adj. USGC 3-2-1 Index (6)	13.71	24.30	22.87	28.55
Crude Oil Prices (\$ per barrel)				
Brent	\$ 82.85	\$ 88.63	\$ 82.17	\$ 99.04
WTI	78.53	82.64	77.60	94.33
ANS (7)	84.23	87.89	82.36	98.76
Bakken Clearbrook (7)	76.23	85.54	78.58	96.37
WCS Hardisty (7)	55.06	53.52	59.34	73.28
Brent M1-M3	1.01	1.66	0.81	3.49
Retail Segment				
Retail sales volumes (thousands of gallons)	29,840	26,856	117,550	105,456

(1) Feedstocks throughput and sales volumes per day for the Montana refinery for the three months and year ended December 31, 2023, are calculated based on the 92-day and 214-day periods for which we owned the Montana refinery in 2023, respectively. As such, the amounts for the total refining segment represent the sum of the Hawaii, Washington, and Wyoming refineries' throughput or sales volumes averaged over the three months and year ended December 31, 2023, plus

the Montana refinery's throughput or sales volumes averaged over the periods from October 1, 2023, to December 31, 2023, and June 1, 2023, to December 31, 2023, respectively. The 2022 amounts for the total refining segment represent the sum of the Hawaii, Washington, and Wyoming refineries' throughput or sales volumes averaged over the year ended December 31, 2022.

- (2) We calculate Adjusted Gross Margin per barrel by dividing Adjusted Gross Margin by total refining throughput. Adjusted Gross Margin for our Washington refinery is determined under the last-in, first-out ("LIFO") inventory costing method. Adjusted Gross Margin for our other refineries is determined under the first-in, first-out ("FIFO") inventory costing method. Please read discussion of Adjusted Gross Margin below.
- (3) Management uses production costs per barrel to evaluate performance and compare efficiency to other companies in the industry. There are a variety of ways to calculate production costs per barrel; different companies within the industry calculate it in different ways. We calculate production costs per barrel by dividing all direct production costs, which include the costs to run the refineries including personnel costs, repair and maintenance costs, insurance, utilities, and other miscellaneous costs, by total refining throughput. Our production costs are included in Operating expense (excluding depreciation) on our consolidated statement of operations, which also includes costs related to our bulk marketing operations.
- (4) We believe the 3-1-2 Singapore Crack Spread (or three barrels of Brent crude oil converted into one barrel of gasoline and two barrels of distillates (diesel and jet fuel)) is the most representative market indicator for our operations in Hawaii.
- (5) We believe the RVO Adjusted Pacific Northwest 3-1-1-1 (or three barrels of WTI crude oil converted into one barrel of Pacific Northwest gasoline, one barrel of Pacific Northwest ULSD and one barrel of USGC VGO, less 100% of the RVO cost for gasoline and ULSD) is the most representative market indicator for our operations in Washington with improved historical correlations to our reported adjusted gross margin compared to prior reported indices.
- (6) We believe the RVO Adjusted USGC 3-2-1 (or three barrels of WTI crude oil converted into two barrels of USGC gasoline and one barrel of USGC ULSD, less 100% of the RVO cost) is the most representative market indicator for our operations in Montana and Wyoming with improved historical correlations to our reported adjusted gross margin compared to prior reported indices.
- (7) Crude pricing has been updated to reflect simple averages of outright prices during the relevant period.

Non-GAAP Performance Measures

Management uses certain financial measures to evaluate our operating performance that are considered non-GAAP financial measures. These measures should not be considered in isolation or as substitutes or alternatives to their most directly comparable GAAP financial measures or any other measure of financial performance or liquidity presented in accordance with GAAP. These non-GAAP measures may not be comparable to similarly titled measures used by other companies since each company may define these terms differently.

We believe Adjusted Gross Margin (as defined below) provides useful information to investors because it eliminates the gross impact of volatile commodity prices and adjusts for certain non-cash items and timing differences created by our inventory financing agreements and lower of cost and net realizable value adjustments to demonstrate the earnings potential of the business before other fixed and variable costs, which are reported separately in Operating expense (excluding depreciation) and Depreciation and amortization. Management uses Adjusted Gross Margin per barrel to evaluate operating performance and compare profitability to other companies in the industry and to industry benchmarks. We believe Adjusted Net Income (Loss) and Adjusted EBITDA (as defined below) are useful supplemental financial measures that allow investors to assess the financial performance of our assets without regard to financing methods, capital structure, or historical cost basis, the ability of our assets to generate cash to pay interest on our indebtedness, and our operating performance and return on invested capital as compared to other companies without regard to financing methods and capital structure. We believe Adjusted EBITDA by segment (as defined below) is a useful supplemental financial measure to evaluate the economic performance of our segments without regard to financing methods, capital structure, or historical cost basis.

Beginning with financial results reported for periods in fiscal year 2023, Adjusted Gross Margin, Adjusted Net Income (Loss), and Adjusted EBITDA also exclude the mark-to-market losses (gains) associated with our net obligation related to the Washington Climate Commitment Act and Clean Fuel Standard, which became effective on January, 1, 2023.

Beginning with financial results reported for periods in fiscal year 2023, Adjusted Net Income (loss) and Adjusted EBITDA also exclude the redevelopment and other costs for our Par West facility, which was shut down in 2020. This modification improves comparability between periods by excluding expenses incurred in connection with the strategic redevelopment of this non-operating facility. We have recast Adjusted Net Income (Loss) and Adjusted EBITDA for prior periods when reported to conform to the modified presentation.

Beginning with financial results reported for the second quarter of 2023, Adjusted Gross Margin, Adjusted Net Income (Loss), and Adjusted EBITDA also exclude our portion of interest, taxes, and depreciation expense from our refining and logistics investments acquired on June 1, 2023, as part of the Billings Acquisition.

Beginning with financial results reported for the fourth quarter of 2023, Adjusted Gross Margin, Adjusted Net Income (Loss), and Adjusted EBITDA excludes all hedge losses (gains) associated with our Washington ending inventory and LIFO layer increment impacts associated with our Washington inventory. In addition, we have modified our environmental obligation mark-to-market adjustment to include only the mark-to-market losses (gains) associated with our net RINs liability and net obligation associated with the Washington Climate Commitment Act (“Washington CCA”) and Clean Fuel Standard. This modification was made as part of our change in how we estimate our environmental obligation liabilities.

Beginning with financial results reported for the fourth quarter of 2023, Adjusted Net Income (loss) excludes unrealized interest rate derivative losses (gains) and all Laramie Energy related impacts with the exception of cash distributions.

Adjusted Gross Margin

Adjusted Gross Margin is defined as operating income (loss) excluding:

- operating expense (excluding depreciation);
- depreciation and amortization (“D&A”);
- impairment expense;
- loss (gain) on sale of assets, net;
- Par’s portion of interest, taxes, and depreciation expense from refining and logistics investments;
- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, hedge losses (gains) associated with our Washington ending inventory and intermediation obligation, purchase price allocation adjustments, and LIFO layer increment and decrement impacts associated with our Washington inventory);
- Environmental obligation mark-to-market adjustments (which represents the mark-to-market losses (gains) associated with our RINs and Washington CCA and Clean Fuel Standard); and
- unrealized loss (gain) on derivatives.

The following tables present a reconciliation of Adjusted Gross Margin to the most directly comparable GAAP financial measure, operating income (loss), on a historical basis, for selected segments, for the periods indicated (in thousands):

Three months ended December 31, 2023	Refining	Logistics	Retail
Operating income	\$ 174,038	\$ 15,709	\$ 14,594
Operating expense (excluding depreciation)	120,810	11,272	23,359
Depreciation and amortization	21,190	7,321	2,885
Par’s portion of interest, taxes, and depreciation expense from refining and logistics investments	765	952	—
Inventory valuation adjustment	(24,089)	—	—
Environmental obligation mark-to-market adjustments	(15,672)	—	—
Unrealized gain on commodity derivatives	(50,024)	—	—
Loss (gain) on sale of assets, net	219	—	(308)
Adjusted Gross Margin (1)	\$ 227,237	\$ 35,254	\$ 40,530

Three months ended December 31, 2022	Refining	Logistics	Retail
Operating income	\$ 85,337	\$ 10,674	\$ 22,348
Operating expense (excluding depreciation)	62,220	3,708	20,884
Depreciation and amortization	16,618	5,222	2,815
Inventory valuation adjustment	2,327	—	—
Environmental obligation mark-to-market adjustments	22,641	—	—
Unrealized loss on commodity derivatives	19,487	—	—
Par West redevelopment and other costs	3,322	—	—
Loss on sale of assets, net	1	—	—
Adjusted Gross Margin (1)	<u>\$ 211,953</u>	<u>\$ 19,604</u>	<u>\$ 46,047</u>

Year Ended December 31, 2023	Refining	Logistics	Retail
Operating income	\$ 676,161	\$ 69,744	\$ 56,603
Operating expense (excluding depreciation)	373,612	24,450	87,525
Depreciation and amortization	81,017	25,122	11,462
Par's portion of interest, taxes, and depreciation expense from refining and logistics investments	1,586	1,857	—
Inventory valuation adjustment	102,710	—	—
Environmental obligation mark-to-market adjustments	(189,783)	—	—
Unrealized gain on commodity derivatives	(50,511)	—	—
Loss (gain) on sale of assets, net	219	—	(308)
Adjusted Gross Margin (1)	<u>\$ 995,011</u>	<u>\$ 121,173</u>	<u>\$ 155,282</u>

Year Ended December 31, 2022	Refining	Logistics	Retail
Operating income	\$ 401,901	\$ 54,049	\$ 49,238
Operating expense (excluding depreciation)	236,989	14,988	81,229
Depreciation and amortization	65,472	20,579	10,971
Inventory valuation adjustment	(15,712)	—	—
Environmental obligation mark-to-market adjustments	105,760	—	—
Unrealized loss on commodity derivatives	9,336	—	—
Par West redevelopment and other costs	9,003	—	—
Loss (gain) on sale of assets, net	1	(253)	56
Adjusted Gross Margin (1)	<u>\$ 812,750</u>	<u>\$ 89,363</u>	<u>\$ 141,494</u>

(1) There was no impairment expense for the three months and year ended December 31, 2023 and 2022. There was no adjustment for Par's portion of interest, taxes, and depreciation expense from refining and logistics investments for the three months and year ended December 31, 2022.

Adjusted Net Income (Loss) and Adjusted EBITDA

Adjusted Net Income (Loss) is defined as Net income (loss) excluding:

- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, hedge losses (gains) associated with our Washington ending inventory and intermediation obligation, purchase price allocation adjustments, and LIFO layer increment and decrement impacts associated with our Washington inventory);
- Environmental obligation mark-to-market adjustments (which represents the mark-to-market losses (gains) associated with our RINs and Washington CCA and Clean Fuel Standard);
- unrealized (gain) loss on derivatives;
- acquisition and integration costs;

- redevelopment and other costs related to Par West;
- debt extinguishment and commitment costs;
- increase in (release of) tax valuation allowance and other deferred tax items;
- changes in the value of contingent consideration and common stock warrants;
- severance costs;
- (gain) loss on sale of assets;
- impairment expense;
- impairment expense associated with our investment in Laramie Energy; and
- Par's share of equity losses from Laramie Energy, LLC, excluding cash distributions.

Adjusted EBITDA is defined as Adjusted Net Income (Loss) excluding:

- D&A;
- interest expense and financing costs, net, excluding unrealized interest rate derivative loss (gain);
- cash distributions from Laramie Energy, LLC to Par;
- Par's portion of interest, taxes, and depreciation expense from refining and logistics investments; and
- income tax expense (benefit) excluding the changes in the tax valuation allowance and other deferred tax items.

The following table presents a reconciliation of Adjusted Net Income (Loss) and Adjusted EBITDA to the most directly comparable GAAP financial measure, net income (loss), on a historical basis for the periods indicated (in thousands):

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Net income	\$ 289,324	\$ 84,719	\$ 728,642	\$ 364,189
Inventory valuation adjustment	(24,089)	2,327	102,710	(15,712)
Environmental obligation mark-to-market adjustments	(15,672)	22,641	(189,783)	105,760
Unrealized loss (gain) on derivatives	(48,539)	19,487	(49,690)	9,336
Acquisition and integration costs	269	3,600	17,482	3,663
Par West redevelopment and other costs	2,907	—	11,397	—
Debt extinguishment and commitment costs	1,500	—	19,182	5,329
Changes in valuation allowance and other deferred tax items (1)	(126,219)	—	(126,219)	—
Severance costs	100	—	1,785	2,272
Loss (gain) on sale of assets, net	(59)	1	(59)	(169)
Equity earnings from Laramie Energy, LLC, excluding cash distributions	(14,279)	—	(14,279)	—
Adjusted Net Income	65,243	132,775	501,168	474,668
Depreciation and amortization	31,943	25,281	119,830	99,769
Interest expense and financing costs, net, excluding unrealized interest rate derivative loss (gain)	18,991	16,888	71,629	68,288
Laramie Energy, LLC cash distributions to Par	—	—	(10,706)	—
Par's portion of interest, taxes, and depreciation expense from refining and logistics investments	1,717	—	3,443	—
Income tax expense (benefit)	4,142	(46)	10,883	710
Adjusted EBITDA (2)	\$ 122,036	\$ 174,898	\$ 696,247	\$ 643,435

(1) For the three months and year ended December 31, 2023, we recognized a non-cash deferred tax benefit of \$126.2 million primarily related to the release of a majority of the valuation allowance against our federal net deferred tax assets. This tax benefit is included in Income tax expense (benefit) on our consolidated statements of operations.

(2) For the three months and year ended December 31, 2023 and 2022, there was no change in value of contingent consideration, change in value of common stock warrants, impairment expense, or impairments associated with our investment in Laramie Energy.

The following table sets forth the computation of basic and diluted Adjusted Net Income (Loss) per share (in thousands, except per share amounts):

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Adjusted Net Income	\$ 65,243	\$ 132,775	\$ 501,168	\$ 474,668
Plus: effect of convertible securities	—	—	—	—
Numerator for diluted income per common share	<u>\$ 65,243</u>	<u>\$ 132,775</u>	<u>\$ 501,168</u>	<u>\$ 474,668</u>
Basic weighted-average common stock shares outstanding	59,403	59,722	60,035	59,544
Add dilutive effects of common stock equivalents	<u>1,206</u>	<u>671</u>	<u>979</u>	<u>339</u>
Diluted weighted-average common stock shares outstanding	<u>60,609</u>	<u>60,393</u>	<u>61,014</u>	<u>59,883</u>
Basic Adjusted Net Income per common share	\$ 1.10	\$ 2.22	\$ 8.35	\$ 7.97
Diluted Adjusted Net Income per common share	\$ 1.08	\$ 2.20	\$ 8.21	\$ 7.93

Adjusted EBITDA by Segment

Adjusted EBITDA by segment is defined as Operating income (loss) excluding:

- D&A;
- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, hedge losses (gains) associated with our Washington ending inventory and intermediation obligation, purchase price allocation adjustments, and LIFO layer increment and decrement impacts associated with our Washington inventory);
- Environmental obligation mark-to-market adjustments (which represents the mark-to-market losses (gains) associated with our RINs and Washington CCA and Clean Fuel Standard);
- unrealized (gain) loss on derivatives;
- acquisition and integration costs;
- redevelopment and other costs related to Par West;
- severance costs;
- (gain) loss on sale of assets;
- impairment expense; and
- Par's portion of interest, taxes, and depreciation expense from refining and logistics investments.

Adjusted EBITDA by segment also includes Gain on curtailment of pension obligation and Other income (loss), net, which are presented below operating income (loss) on our condensed consolidated statements of operations.

The following table presents a reconciliation of Adjusted EBITDA by segment to the most directly comparable GAAP financial measure, operating income (loss) by segment, on a historical basis, for selected segments, for the periods indicated (in thousands):

	Three Months Ended December 31, 2023			
	Refining	Logistics	Retail	Corporate and Other
Operating income (loss) by segment	\$ 174,038	\$ 15,709	\$ 14,594	\$ (29,043)
Depreciation and amortization	21,190	7,321	2,885	547
Inventory valuation adjustment	(24,089)	—	—	—
Environmental obligation mark-to-market adjustments	(15,672)	—	—	—
Unrealized gain on commodity derivatives	(50,024)	—	—	—
Acquisition and integration costs	—	—	—	269
Par West redevelopment and other costs	—	—	—	2,907
Severance costs	100	—	—	—
Loss (gain) on sale of assets, net	219	—	(308)	30
Par's portion of interest, taxes, and depreciation expense from refining and logistics investments	765	952	—	—
Other loss, net	—	—	—	(354)
Adjusted EBITDA (1)	\$ 106,527	\$ 23,982	\$ 17,171	\$ (25,644)

	Three Months Ended December 31, 2022			
	Refining	Logistics	Retail	Corporate and Other
Operating income (loss) by segment	\$ 85,337	\$ 10,674	\$ 22,348	\$ (17,560)
Depreciation and amortization	16,618	5,222	2,815	626
Inventory valuation adjustment	2,327	—	—	—
Environmental obligation mark-to-market adjustments	22,641	—	—	—
Unrealized loss on commodity derivatives	19,487	—	—	—
Acquisition and integration costs	—	—	—	3,600
Loss on sale of assets, net	1	—	—	—
Other income, net	—	—	—	762
Adjusted EBITDA (1)	\$ 146,411	\$ 15,896	\$ 25,163	\$ (12,572)

	Year Ended December 31, 2023			
	Refining	Logistics	Retail	Corporate and Other
Operating income (loss) by segment	\$ 676,161	\$ 69,744	\$ 56,603	\$ (122,502)
Depreciation and amortization	81,017	25,122	11,462	2,229
Inventory valuation adjustment	102,710	—	—	—
Environmental obligation mark-to-market adjustments	(189,783)	—	—	—
Unrealized gain on commodity derivatives	(50,511)	—	—	—
Acquisition and integration costs	—	—	—	17,482
Severance costs	100	—	580	1,105
Par West redevelopment and other costs	—	—	—	11,397
Loss (gain) on sale of assets, net	219	—	(308)	30
Par's portion of interest, taxes, and depreciation expense from refining and logistics investments	1,586	1,857	—	—
Other loss, net	—	—	—	(53)
Adjusted EBITDA (1)	\$ 621,499	\$ 96,723	\$ 68,337	\$ (90,312)

Year Ended December 31, 2022

	Refining	Logistics	Retail	Corporate and Other
Operating income (loss) by segment	\$ 401,901	\$ 54,049	\$ 49,238	\$ (67,285)
Depreciation and amortization	65,472	20,579	10,971	2,747
Inventory valuation adjustment	(15,712)	—	—	—
Environmental obligation mark-to-market adjustments	105,760	—	—	—
Unrealized loss on commodity derivatives	9,336	—	—	—
Acquisition and integration costs	—	—	—	3,663
Severance costs	40	13	22	2,197
Loss (gain) on sale of assets, net	1	(253)	56	27
Other income, net	—	—	—	613
Adjusted EBITDA (1)	\$ 566,798	\$ 74,388	\$ 60,287	\$ (58,038)

(1) For the three months and year ended December 31, 2023 and 2022, there was no impairment expense or gain on curtailment of pension obligation. For the three months ended 2022, there was no severance costs. For the three months and year ended December 31, 2022, there was no Par West redevelopment and other costs or Par's portion of interest, taxes, and depreciation expense from refining and logistics investments.

Laramie Energy Adjusted EBITDAX

Adjusted EBITDAX is defined as net income (loss) excluding commodity derivative loss (gain), loss (gain) on settled derivative instruments, interest expense, gain on extinguishment of debt, non-cash preferred dividend, depreciation, depletion, amortization, and accretion, exploration and geological and geographical expense, bonus accrual, equity-based compensation expense, loss (gain) on disposal of assets, phantom units, and expired acreage (non-cash). We believe Adjusted EBITDAX is a useful supplemental financial measure to evaluate the economic and operational performance of exploration and production companies such as Laramie Energy.

The following table presents a reconciliation of Laramie Energy's Adjusted EBITDAX to the most directly comparable GAAP financial measure, net income (loss) for the periods indicated (in thousands):

	Three Months Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Net income	\$ 42,538	\$ 49,768	\$ 96,586	\$ 12,065
Commodity derivative (income) loss	(40,338)	(25,753)	(73,289)	78,532
Gain (loss) on settled derivative instruments	1,594	(7,505)	161	(41,034)
Interest expense and loan fees	5,366	3,695	20,108	14,930
Loss on extinguishment of debt	—	—	6,644	—
Non-cash preferred dividend	—	2,901	2,910	10,409
Depreciation, depletion, amortization, and accretion	7,714	6,657	30,179	25,982
Phantom units	2,325	—	5,496	—
Loss on sale of assets, net	—	111	307	821
Expired acreage (non-cash)	441	(14)	553	292
Total Adjusted EBITDAX	\$ 19,640	\$ 29,860	\$ 89,655	\$ 101,997