UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

☑ ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

Or

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

For the transition period from _____ to ____

Commission file number 1-7615

KIRBY 401(k) PLAN

Kirby Corporation 55 Waugh Drive, Suite 1000 Houston, Texas 77007

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Report of Independent Registered Public Accounting Firm

To the Administrator and Plan Participants Kirby 401(k) Plan

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits (modified cash basis) of the Kirby 401(k) Plan (the Plan) as of December 31, 2023 and 2022, and the related statements of changes in net assets available for benefits (modified cash basis) for the years then ended, and the related notes and schedule (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2023 and 2022, and the changes in net assets available for benefits for the years then ended, on the basis of accounting described in Note 2.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Modified Cash Basis of Accounting

We draw attention to Note 2 of the financial statements, which describes the basis of accounting. The financial statements and supplemental schedule are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Supplementary Information

The supplementary information in the accompanying schedule of assets (held at end of year) (modified cash basis) as of December 31, 2023 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplementary information is the responsibility of Plan management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information in the accompanying schedule, we evaluated whether the supplementary information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information in the accompanying schedule is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ Weaver and Tidwell, L.L.P. WEAVER AND TIDWELL, L.L.P.

We have served as the Plan's auditor since 2016.

Houston, Texas June 26, 2024

Statements of Net Assets Available for Benefits (Modified Cash Basis) December 31, 2023 and 2022

	2023	 2022
Assets:		
Investments, at fair value	\$ 750,594,104	\$ 663,568,948
Notes receivable from participants	25,376,548	24,896,631
Other receivables	1,166,232	15,339
Total assets	777,136,884	688,480,918
Liabilities:		
Other liabilities	_	208,009
Total liabilities	_	208,009
Net assets available for benefits	\$ 777,136,884	\$ 688,272,909

See accompanying notes to financial statements.

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(Continued)

Statements of Changes in Net Assets Available for Benefits (Modified Cash Basis) December 31, 2023 and 2022

	2023	2022
Additions to net assets attributed to:		
Contributions from participants	\$ 28,100,315	\$ 26,974,237
Contributions from employer, net of forfeitures	27,590,873	20,680,504
Rollover contributions	2,415,927	2,615,815
Dividend and other income	17,067,015	23,894,033
Interest income from participants' notes receivable	1,488,655	1,169,542
Net appreciation in fair value of investments	92,230,364	_
Total additions, net	 168,893,149	75,334,131
Deductions from net assets attributed to:		
Benefits paid to participants	79,554,264	98,027,421
Investment counselor fees and other	474,910	340,010
Net depreciation in fair value of investments	_	139,010,952
Total deductions	80,029,174	237,378,383
Net increase (decrease) before transfer from Kirby Profit Sharing Plan	 88,863,975	(162,044,252)
Transfer from Kirby Profit Sharing Plan	_	146,153,857
Net increase (decrease) after transfer from Kirby Profit Sharing Plan	 88,863,975	(15,890,395)
Net assets available for benefits, beginning of year	688,272,909	704,163,304
Net assets available for benefits, end of year	\$ 777,136,884	\$ 688,272,909

See accompanying notes to financial statements.

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Notes to Financial Statements (Modified Cash Basis) December 31, 2023 and 2022

(1) Description of Plan

(a) General

The Kirby 401(k) Plan (as amended and restated, the "Plan") is a defined contribution 401(k) plan for the benefit of employees of Kirby Corporation (the "Company") and certain subsidiaries. Employees covered by collective bargaining agreements, the terms of which do not provide for participation in the Plan, are not eligible. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). Further information relating to the Plan's provisions is available in the Plan documents.

(b) Administration of the Plan

The general administration of the Plan is the responsibility of the Company (the "Plan Administrator"), and it has appointed the Kirby Corporation Administrative Committee to manage the Plan. The Plan Administrator has broad powers regarding the operation and administration of the Plan and receives no compensation for service to the Plan. Bank of America, N.A. ("Bank of America") is the trustee of the Plan.

On January 3, 2022, the Kirby Profit Sharing Plan funds, including \$146,153,857 of participant investments were transferred into the Plan. The Profit Sharing funds are maintained as a separate source and contributions for Profit Sharing are contributed by the Company to the Plan on the same basis.

(c) Contributions

Each employee is eligible to join the Plan as of the first pay period following completion of three months of service and the attainment of age 18 unless specified otherwise by a collective bargaining agreement. The Plan allows Non-Highly Compensated Employees, as defined by the Internal Revenue Service ("IRS"), to contribute up to 50% of considered compensation, as defined by the Plan and Highly Compensated Employees to contribute up to 17% of considered compensation. Employee contributions to the Plan up to 50% of considered compensation are allowed under certain collective bargaining agreements. Participants age 50 or older during the Plan year may also elect to make a "catch-up" contribution, subject to certain IRS limits (\$7,500 in 2023 and \$6,500 in 2022). The Plan allows participants to designate their contributions as either pretax contributions or Roth (after-tax) contributions. The Company contributes matching employer contributions equal to 100% of the employee's contribution, up to 3% of the employee's considered compensation. Each participant directs his or her contributions and the Company's matching contributions between the investment funds offered by the Plan, including Company common stock.

Vessel based employees of Kirby Offshore Marine, LLC ("KOM") whose employment is covered by collective bargaining agreements receive a non-discretionary employer match and may receive a discretionary employer contribution based on the terms of the applicable collective bargaining agreement.

The Plan allows the employer, at its discretion, to make an additional employer discretionary contribution for eligible employees equal to 5% of the employees' considered compensation. Eligible employees include employees of United Holdings, LLC ("United"), Stewart & Stevenson LLC ("S&S"), certain vessel personnel and shore based tankermen who are employees of Kirby Inland Marine, LP ("KIM"), and employees of KOM assigned the classification of Vessel Employee as determined by the Company. The Company made a discretionary contribution of \$15,911,041 and \$12,833,128 to the Plan for eligible United, S&S, KIM, and KOM employees for the 2023 and 2022 Plan years, respectively.

The Plan also allows the employer, at its discretion, to make a Profit Sharing contribution to eligible employees who are not covered under a collective bargaining agreement, the Company's pension plans, or eligible to receive employer discretionary contributions as defined by the Plan. Under the provisions of the Plan, the employer (the Company or a participating company within the controlled group of the Company), may contribute, as a Profit Sharing Contribution, an amount, if any, as it shall deem appropriate, but the aggregate of such contributions shall not, with respect to either the Marine Group or the Diesel Group, as defined by the Plan, exceed (a) the lesser of (i) 12% of the total compensation paid or accrued to all eligible participants, as defined by the Plan, or (ii) the profit-based limit; in which the formula is defined by the Plan; or (b) such other amount as the Compensation Committee of the Board of Directors of the Company may determine at its sole discretion. On July 3, 2023, the Company made a Profit Sharing contribution of \$3,958,299 to the Plan for the 2022 Plan year. On July 1, 2022, the Company made a Profit Sharing contribution of \$4,005,531 to the Plan for the 2021 Plan year, which was accrued in 2021 in the Kirby Profit Sharing Plan's financial statements and included in Transfer from Kirby Profit Sharing Plan on the statements of changes in net assets available for benefits.

The Plan allows the use of forfeited amounts to offset future employer matching contributions. Forfeitures from non-vested accounts of \$1,749,892 and \$2,292,233 were used to reduce the Plan's matching contributions in 2023 and 2022, respectively.

All employees hired or rehired are automatically enrolled at a 3% pretax contribution rate, unless otherwise elected by the participant. In addition, participants may contribute amounts representing rollovers from other qualified plans or from an individual retirement arrangement.

(d) Benefits

Benefit payments are made to participants upon retirement or termination of employment (or to the beneficiary in the event of death) and are in the form of lump sum or installment distribution payments. A participant may request a loan for up to the lesser of 50% of the participant's vested

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interest or \$50,000, less the participant's highest outstanding loan balance during the preceding 12 months. Loans typically bear interest at prime rate plus 1%. Interest rates ranged from 4.0% to 10.3% at December 31, 2023. Loans outstanding at December 31, 2023 mature from January 4, 2024 through March 15, 2039. Loans outstanding upon a participant's termination of employment are considered deemed distributions if not repaid and are deducted from the participant's account balance prior to distribution. These amounts are taxed to the participant in the year of the participant's termination. Active participants who qualify for an in-service withdrawal after attaining 59½ years of age may be paid their benefits in a single sum cash payment or rollover as soon as administratively possible.

A Profit Sharing participant could, upon resignation from or discharge by the employer, withdraw the vested portion of the account relating to employer contributions. Distributions of the account relating to employer contributions would be paid as a lump sum. Amounts defined by the Plan as merger accounts and merger benefits were generally paid as a qualified joint and survivor annuity subject to certain spousal consent requirements if a lump sum distribution was elected. Participants who reached the age of 55 and were 100% vested could elect to transfer amounts to the Kirby 401(k) Plan subject to certain restrictions described in the Plan document. Participants who reached the age of 55 and had completed six full years of vesting service were entitled to withdraw all vested amounts from his or her Profit Sharing account.

Profit Sharing accounts are not available for a loan.

The Plan requires automatic distribution of participant accounts upon termination without the participant's consent of amounts less than \$5,000 and greater than \$1,000. If the participant does not elect to have the amount paid directly to an eligible retirement plan or receive a distribution directly, then the Plan will pay the distribution to an individual retirement plan designated by the Plan Administrator. Amounts less than \$1,000 are paid directly to participants upon termination.

(e) Vesting

Participants are 100% vested in their participant contributions and rollovers, if any. Employer contributions are subject to a six-year vesting schedule. The vesting schedule of employer contributions for employees covered by collective bargaining agreements are specified by those particular agreements. Forfeitures in the amount of \$105,948 and \$145,646 as of December 31, 2023 and 2022, respectively, were available to offset future employer contributions or plan administrative expenses at the discretion of the Company.

(f) Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to terminate the Plan subject to the provisions of ERISA. In the event of termination, the amounts credited to the accounts of participants will be distributed to the participants after payment of expenses for distribution and liquidation.

(g) Participant Accounts

Under the Plan, each participant's account is credited with the participant's contribution, the Company's matching contribution, the Company's discretionary contribution, the Company's Profit Sharing contribution and an allocation of investment income (loss), net of administrative expenses. Investment income (loss) is allocated daily to participants. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

(h) Administrative Expenses

All administrative expenses, unless paid by the Company at its discretion, are paid by the Plan.

(i) Revenue Sharing

The agreement between Bank of America and the Plan includes a revenue sharing arrangement whereby Bank of America receives investment related revenue generated by Plan assets invested in mutual fund holdings sponsored by an affiliate of Bank of America. These deposits are included in dividend and other income in the statements of changes in net assets available for benefits. The funds can be used to pay plan expenses or be allocated to participants. Income from revenue sharing was \$50,807 and \$250,354 for the years ended December 31, 2023 and 2022, respectively.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying financial statements have been prepared on the modified cash basis, which is a comprehensive basis of accounting other than U.S. generally accepted accounting principles ("GAAP"), and is an acceptable method of reporting under Department of Labor regulations. The modified cash basis of accounting utilizes the cash basis of accounting while carrying investments at fair value and recording investment income (loss) on the accrual basis. Consequently, contributions are recognized when received rather than when earned, and expenses are recognized when paid rather than when the obligation is incurred. As of December 31, 2023, all employee contributions had been remitted to the trust and \$114,791 of employer contributions were not remitted to the trust for the 2023 Plan year. As of December 31, 2022, all employee contributions had been remitted to the trust and \$124,106 of employer contributions were not remitted to the trust for the 2022 Plan year. There were no material excess deferrals as of December 31, 2023 or 2022. Under GAAP, these amounts would have been reflected as accounts receivable and accounts payable, respectively.

Certain other receivables and liabilities are recorded in the statements of net assets available for benefits to reflect the accrued income, pending settlements and other transactions.

(Continued)

(b) Use of Estimates

The preparation of financial statements requires Plan management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and disclosure of contingent assets and liabilities, and changes therein. Actual results could differ from those estimates.

(c) Investment Valuation and Income Recognition

Investments are reported at fair value. Purchases and sales of investments are recorded on a trade date basis. Net appreciation (depreciation) in fair value of investments includes realized gains and losses on investments sold during the year as well as net appreciation (depreciation) of the investments held at the end of the year. Interest and dividend income is accrued in the period earned.

The Plan invests in investment contracts through The Invesco Stable Value Retirement Fund which is a common trust fund that primarily invests in guaranteed investment contracts ("GICs") and synthetic GICs and is presented at fair value as of December 31, 2023 and 2022.

(d) Contributions

Contributions from Plan participants and the matching contributions from the Company are recorded in the year in which they are deposited in the trust.

(e) Notes Receivable from Participants

Notes receivable from participants represent loans that are recorded at their unpaid principal balance plus any accrued but unpaid interest.

(f) Benefit Payments

Payments to participants are recorded as the benefits are paid.

(3) Investments and Investment Options

Each participant has the right to direct his or her contributions and the Company's matching contributions, once remitted, among the investment funds offered by the Plan. Descriptions of the Plan's investment fund options are included in the summary plan description provided to all eligible employees.

Participants may direct their investment contributions to the following investment funds: T. Rowe Price Retirement 2010 Fund, T. Rowe Price Retirement 2025 Fund, T. Rowe Price Retirement 2030 Fund, T. Rowe Price Retirement 2035 Fund, T. Rowe Price Retirement 2030 Fund, T. Rowe Price Retirement 2040 Fund, T. Rowe Price Retirement 2045 Fund, T. Rowe Price Retirement 2055 Fund, T. Rowe Price Retirement 2055 Fund, T. Rowe Price Retirement 2060 Fund, T. Rowe Price Retirement 2065 Fund, Northern Trust MSCI ACWI EX US Index Fund TR3, Invesco Stable Value Retirement Fund CL1, Blackrock Russell 2000 Fund, Northern Trust Collective Aggregate Bond Index Fund, Northern Trust Collective S&P 500 Index Fund TR3, American Bond Fund of America Class R-6, Prudential Jennison Large Cap Growth Fund, ClearBridge Small Cap Growth Fund, Delaware Value Fund, Principal Investors Global Real Estate Securities Fund (Class I Shares), Active Multi-Manager Emerging Markets Equity Fund, Harbor International Fund, American Beacon Small Cap Value Fund, Blackrock Global Allocation Fund and Company common stock.

Stable Value Trust

The Plan invests in the Invesco Stable Value Trust ("Stable Value Trust") which is a collective trust that has entered into benefit-responsive guaranteed investment contracts and wrapper contracts with various financial institutions. The financial institutions maintain the contributions in investment contracts. The contracts are credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses.

The guaranteed investment contracts held by the Stable Value Trust are fully benefit-responsive, therefore contract value is the relevant measurement attribute for that portion of the investment. Contract value, as reported to the Plan by the manager of the Stable Value Trust, represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Therefore, contract value of the guaranteed investment contracts held by the Stable Value Trust is considered fair value.

There are no reserves against contract value for credit risk of the contract issuers or otherwise. The crediting interest rate is based on a formula agreed upon with the issuers.

Certain events limit the ability of the Plan to transact at contract value with the wrap issuer. However, the Plan's management is not aware of the occurrence or likely occurrence of any such events, which would limit the Plan's ability to transact at contract value with participants. The issuer may terminate a wrap contract for cause at any time.

(4) Voting Rights

Each shareholder is entitled to exercise voting rights attributable to the shares of Company common stock allocated to his or her account and is notified by the trustee prior to the time that such rights are to be exercised. The trustee is instructed by the Plan to vote all non-voted participant shares according to Board of Director recommendations. During 2023 and 2022, the Plan purchased all shares of Company common stock in the open market.

(5) Risk and Uncertainties

The Plan may invest in common trust funds, mutual funds and Company common stock. Investment securities are exposed to various risks, such as interest rate, market, and credit risks. Market risks include global events, which could impact the value of investment securities, such as a pandemic or international conflict. Market values of investments may decline for a number of reasons, including changes in prevailing market and interest rates, increases in defaults and credit rating downgrades. Due to the level of risk associated with certain investment securities, it is probable that changes in the value of investment securities will occur in the near term.

The Plan may invest in securities with contractual cash flows, such as asset backed securities, collateralized mortgage obligations and commercial mortgage backed securities, including securities backed by subprime mortgage loans. The value, liquidity and related income of those securities are sensitive to changes in economic conditions, including real estate value, delinquencies or defaults, or both, and may be adversely affected by shifts in the market's perception of the issuers and changes in interest rates

(6) Related Party Transactions

One of the Plan investment options includes shares of Company common stock managed by Bank of America. The Company is the plan sponsor and Bank of America is the trustee as defined by the Plan. Therefore, these transactions qualify as party-in-interest transactions. These transactions are covered by an exemption from the "prohibited transaction" provisions of ERISA and the Code.

The Plan has participant loans outstanding, which are secured solely by a portion of the participant's vested account balance, in accordance with the Plan documents.

(7) Federal Income Tax Status

The IRS has determined and informed the Company by a letter dated August 25, 2017, that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code ("IRC"). Although the Plan has been amended since receiving the determination letter, Plan management believes that the Plan is designed, and is currently being operated, in compliance with the applicable requirements of the IRC and, therefore, believes that the Plan is qualified, and the related trust is tax-exempt.

The Plan is currently open to audit under the statute of limitations by the IRS for the 2020 through 2022 tax years. The Plan has not recognized any assets or liabilities related to uncertain tax positions as of December 31, 2023 and 2022.

(8) Fair Value Measurements

The accounting guidance for using fair value to measure certain assets and liabilities establishes a three-tier value hierarchy, which prioritizes the inputs to valuation techniques used in measuring fair value. These tiers include: Level 1, defined as observable inputs such as quoted in active markets for identical assets or liabilities; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little, if any, market data exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing the asset or liability.

The following is a description of the valuation methodologies used for Plan's financial instruments and the classification of such instruments within the valuation hierarchy.

Mutual Funds

These instruments are public investment vehicles valued using the net asset value provided by the administrator of the fund. The net asset value price is quoted on an active market and is classified within Level 1 of the valuation hierarchy.

Company Common Stock

Company common stock is valued at the closing price listed by the New York Stock Exchange and is classified within Level 1 of the valuation hierarchy.

Common Trust Funds

These instruments are investment vehicles valued using the net asset value provided by the administrator of the fund. The net asset value is used as a practical expedient to determine fair value. Each collective trust provides for redemptions by the Plan at reported net asset values per share, with little to no advance notice requirement.

The methods described above may produce a fair value calculation that may not be indicative of net asset value or reflective of future fair values. Furthermore, while the Plan's valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

The following tables summarize the Plan's investment assets measured at fair value on a recurring basis at December 31, 2023 and 2022:

		December 31, 2023		
	_	Level 1		Total Fair Value
Mutual funds	\$	296,650,162	\$	296,650,162
Company common stock		49,450,691		49,450,691
Total assets in the fair value hierarchy	\$	346,100,853		346,100,853
Common trust funds				404,493,251
Investments at fair value			\$	750,594,104

	December 31, 2022		
	Level 1		Total Fair Value
Mutual funds	\$ 314,786,179	\$	314,786,179
Company common stock	43,776,333		43,776,333
Total assets in the fair value hierarchy	\$ 358,562,512		358,562,512
Common trust funds			305,006,436
Investments at fair value		\$	663,568,948

EIN 74-1884980, Plan #004

Schedule H, Part IV, Line 4i – Schedule of Assets (Held at End of Year) (Modified Cash Basis)

December 31, 2023

Identity of issue, borrower, lessor, or similar party	Description of asset	Cu	rrent value
Common trust funds:			
T. Rowe Price	T. Rowe Price retirement 2010A TR	\$	1,404,023
T. Rowe Price	T. Rowe Price retirement 2015A TR		3,071,702
T. Rowe Price	T. Rowe Price retirement 2020A TR		18,152,443
T. Rowe Price	T. Rowe Price retirement 2025A TR		11,281,120
T. Rowe Price	T. Rowe Price retirement 2030A TR		17,476,828
T. Rowe Price	T. Rowe Price retirement 2035A TR		6,988,485
T. Rowe Price	T. Rowe Price retirement 2040A TR		13,816,909
T. Rowe Price	T. Rowe Price retirement 2045A TR		4,055,378
T. Rowe Price	T. Rowe Price retirement 2050A TR		2,992,480
T. Rowe Price	T. Rowe Price retirement 2055A TR		2,182,127
T. Rowe Price	T. Rowe Price retirement 2060A TR		497,204
T. Rowe Price	T. Rowe Price retirement 2065A TR		113,101
Northern Trust	Northern Trust MSCI ACWI EX US Index TR 3		6,633,195
Invesco	Invesco Stable Value Retirement Fund CL1		97,788,066
Blackrock	Blackrock Russell 2000 Fund		32,788,805
Northern Trust	Northern Trust Aggregate Bond Index DC NL Tier 3		43,957,427
Northern Trust	Northern Trust S&P 500 Tier 3		141,293,958
Total common trust funds			404,493,251
Mutual Funds:			
American Funds	American Bond Fund of America Class R-6		16,813,935
Prudential Jennison	Prudential Jennison Large Cap Growth Fund		72,149,152
ClearBridge	ClearBridge Small Cap Growth Fund		26,112,440
Delaware	Delaware Value Fund		36,807,760
Principal Investors	Principal Investors Global Real Estate Securities Fund (Class I		
	Shares)		10,187,747
Northern Trust	Active Multi-Manager Emerging Markets Equity Fund		18,390,863
Harbor	Harbor International Fund		67,033,046
American Beacon	American Beacon Small Cap R6		33,371,952
Blackrock	Blackrock Global Allocation Fund		15,783,267
Total mutual funds			296,650,162
Common stock:			
*Kirby Corporation	Common stock		49,450,691
*Participant loans	Interest rates ranging from 4.0% to 10.3% and maturity dates from		
	January 4, 2024 to March 15, 2039		25,376,548
Total assets (held at end of year)		\$	775,970,652

^{*} Parties in interest to the Plan

See accompanying report of independent registered public accounting firm.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Plan Administrator, which administers the Plan, has duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Kirby 401(k) Plan

June 26, 2024 BY: /s/ Raj Kumar

Raj Kumar

Chairman of Kirby Corporation Administrative Committee

EXHIBIT INDEX

The following document is filed as part of this report.

Exhibit number	Description				
23.1	Consent of Independent Registered Public Accounting Firm				
	13				
		(Continued)			

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-129333 and 33-57625 on Form S-8 of our report dated June 26, 2024 appearing in this Annual Report on Form 11-K of the Kirby 401(k) Plan for the year ended December 31, 2023.

/s/ WEAVER AND TIDWELL, L.L.P.

WEAVER AND TIDWELL, L.L.P.

Houston, Texas June 26, 2024