

As filed with the Securities and Exchange Commission on June 30, 1999

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

/X/ ANNUAL REPORT PURSUANT TO SECTION 15 (d)
OF THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)

For the year ended December 31, 1998

OR

/ / TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
(NO FEE REQUIRED)

For the transition period from _____ to _____

Commission File No: 1-7615

A. Full title of the plan and the address of the plan, if different
from that of the issuer named below:

KIRBY 401(k) PLAN

B. Name of issuer of the securities held pursuant to the plan and the
address of its principal executive officer:

Kirby Corporation
1775 St. James Place, Suite 200
Houston, Texas 77056-3453

KIRBY 401(k) PLAN

Financial Statements and Supplemental Schedules

December 31, 1998 and 1997

(With Independent Auditors'
Report Thereon)

KIRBY 401(k) PLAN

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Schedules, other than those listed above, are omitted because of the absence of the conditions under which they are required.

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[KPMG LLP Letterhead]

Independent Auditors' Report

Plan Administrator
Kirby 401(k) Plan:

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, 1998 and 1997, and the related statements of changes in net assets available for benefits (modified cash basis) for the years ended December 31, 1998 and 1997. These financial statements and supplemental schedules are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements and supplemental schedules based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in note 2, these financial statements and supplemental schedules were prepared on a modified cash basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 1998 and 1997, and the changes in net assets available for benefits for the years ended December 31, 1998 and 1997 on the basis of accounting described in note 2.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of assets held for investment purposes and reportable transactions are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, as amended. The supplemental schedules have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG LLP

Houston, Texas
June 17, 1999

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KIRBY 401(k) PLAN

Statement of Net Assets Available for Benefits
(Modified Cash Basis)

December 31, 1998 and 1997

	1998 -----	1997 -----
Investments at fair value:		
Cash	\$ 46	\$ --
Common trust fund	5,465,444	4,850,393
Mutual funds	22,602,341	20,152,154
Kirby Corporation common stock	946,473	612,631
Participant loans	2,325,064	2,161,754
	-----	-----
Total assets	31,339,368	27,776,932
Liabilities - accrued expenses	--	14,093
	-----	-----
Net assets available for benefits	\$31,339,368 =====	\$27,762,839 =====

See accompanying notes to financial statements.

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KIRBY 401(k) PLAN

Statement of Changes in Net Assets Available for Benefits
(Modified Cash Basis)

For the years ended December 31, 1998 and 1997

	1998 -----	1997 -----
Net assets available for benefits, beginning of year	\$27,762,839	\$21,537,378
	-----	-----
Additions to net assets attributed to:		
Contributions from participants	3,289,061	3,410,831
Contributions from employers	1,205,442	1,233,245
Rollover contributions	187,309	274,785
Interest and dividend income	1,431,581	1,135,807
Net unrealized gain in fair value of investments	1,487,760	1,263,035
Net realized gain from disposition of investments	326,418	399,326
Other income	183,689	924,905
	-----	-----
Total additions	8,111,260	8,641,934
	-----	-----
Deductions from net assets attributed to:		
Benefits paid to participants	4,424,355	2,331,780
Administration fees	110,376	84,693
	-----	-----
Total deductions	4,534,731	2,416,473
	-----	-----
Net increase	3,576,529	6,225,461
	-----	-----
Net assets available for benefits, end of year	\$31,339,368 =====	\$27,762,839 =====

See accompanying notes to financial statements.

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

(1) Description of the Plan

(a) General

The Kirby 401(k) Plan (the Plan) is a defined contribution 401(k) plan for the benefit of employees of Kirby Marine Transportation Corporation (the Company), Kirby Corporation (the Parent), and certain subsidiaries. Each employee is eligible to join the Plan as of the first pay period beginning in any quarter following completion of one year of service. 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 (ERISA). Further information relating to the Plan's provisions is available in the Summary Plan Description provided to all eligible employees.

(b) Contributions

The Plan provides for basic employee pretax contributions to the Plan of 3% of covered compensation as defined, and for additional employee pretax contributions to the Plan of up to 14% of covered compensation subject to the provisions of the Internal Revenue Code. The Company contributes matching employer contributions equal to 100% of basic employee pretax contributions. The Company does not match the additional employee pretax contributions.

(c) Benefits Payments

Benefit payments are typically made in a lump-sum distribution to the participant upon termination of employment (or to the beneficiary in the event of death). However, a participant may request a loan for up to 50% of the participant's vested interest up to a maximum of \$50,000. Loans are typically repaid over a five-year period and have interest rates ranging from 7% to 10%. Loans outstanding upon termination of a participant 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.

KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

(d) Vesting

A participant has an immediate and fully vested nonforfeitable interest in the portion of the account relating to both participant and employer contributions and may, upon resignation from or discharge by the employer, withdraw their entire account balance.

(e) Plan Amendments

During 1997, the Plan eliminated the Fidelity Advisor Growth and Income Fund Option. The fund balance in the Fidelity Advisor Growth and Income Fund was transferred to the Janus Balanced Fund.

(f) Plan Administration

The general administration of the Plan is vested in the Vice President of Human Resources of the Company (the Plan Administrator). The Plan Administrator has broad powers regarding the operation and administration of the Plan and receives no compensation for service to the Plan. All administrative expenses, unless paid by the Company at its discretion, are paid by the Plan.

(g) 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 shall be distributed to the participants after payment of expenses for distribution and liquidation.

(h) Reclassifications

Certain reclassifications have been made to reflect current presentation of financial information.

KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

(i) Use of Estimates

The preparation of financial statements requires Plan management to make estimates and assumptions that affect the reported amounts of net assets and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions to net assets during the reporting period. Actual results could differ from those estimates. However, in the opinion of Plan management, such differences would be immaterial.

(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 generally accepted accounting principles, and is an acceptable method of reporting for the Department of Labor and ERISA. The modified cash basis of accounting utilizes the cash basis of accounting while adjusting debt and equity securities to their corresponding market value for financial reporting purposes.

(b) Investment Valuation

Investments in the common trust fund, mutual funds and Kirby Corporation common stock are stated at fair value based on quoted market prices. Purchases and sales of investments are recorded on a trade date basis. Net realized gains and losses on disposition of investments are reported on the revalued cost method. Revalued cost is the fair value of the assets at the beginning of the plan year or historical cost if the investment was acquired during the year. Any unrealized appreciation or

depreciation is recognized currently in the Statement of Changes in Net Assets Available for Benefits. Participant loans are stated at cost which approximates their fair value.

(3) Investments

Each participant has the right to direct his contributions and the Company's matching contributions between the investment funds offered by the Plan. The investment funds options are described below:

- * Fidelity Advisor Growth Opportunities Fund - Seeks long-term growth by investing through a core investment in growth, value and cyclical stocks.

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

- * Kirby Corporation Common Stock Fund - Invests in Kirby Corporation common stock.
- * Templeton Foreign Fund - Seeks long-term capital growth through a flexible policy of investing in stocks and debt obligations of companies and governments outside the U.S.
- * Franklin Balance Sheet Investment Fund - Seeks high total return, of which capital appreciation and income are components. The fund is a non-diversified fund and may invest an unlimited amount of its total assets in the securities of any companies which, in the opinion of the fund's investment manager, represent an opportunity for significant capital appreciation and/or high income. The securities of such companies will include common and preferred stocks, secured and unsecured bonds, and commercial paper or notes.
- * Franklin U.S. Government Securities Fund - Seeks income by investing in U.S. Government securities which include, but are not limited to, U.S. Treasury bonds, notes and bills, Treasury Certificates or Indebtedness and securities issued by instrumentalities of the U.S. government.
- * Chase Bank Money Market Fund - Seeks to provide stability of principal by investing in short-term U.S. Government and Federal Agency securities with an average maturity of less than 90 days.
- * Janus Balanced Fund - Seeks long-term growth of capital balanced by current income. The fund will normally invest 40 - 60% of its assets in securities selected primarily for their growth potential and 40 - 60% of its assets in securities selected primarily for their income potential. The fund invests in common and preferred stock, U.S. Treasury issues, corporate bonds, and foreign investments.

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

The fair value of individual investments that represent 5% or more of the Plan's net assets available for plan benefits at December 31, 1998 and 1997 are as follows:

December 31,

	1998	1997
Fidelity Advisor Growth Opportunities Fund	\$7,979,303	\$6,404,345
Janus Balanced Fund	5,605,554	4,006,555
Chase Bank Money Market Fund	5,465,444	4,849,906
Franklin Balance Sheet Investment Fund	4,497,545	4,993,506
Franklin U.S. Government Securities Fund	2,714,307	2,442,916
Templeton Foreign Fund	1,805,632	2,291,226
Loan Fund	2,325,064	2,161,754
	=====	=====

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

As of December 31, 1998, employees can direct the investment of their contributions and the employer's contributions on their behalf into any or all of the following investment funds: Fidelity Advisor Growth Opportunities Fund, Kirby Corporation - Common Stock Fund, Templeton Foreign Fund, Franklin Balance Sheet Investment Fund, Franklin U.S. Government Securities Fund, Chase Bank Money Market Fund and Janus Balanced Fund, all of which are managed by the trustee. Changes in net assets available for benefits related to the individual funds for the year ended December 31, 1998 are as follows:

	Cash	Fidelity Advisor Growth Opportunities Fund	Kirby Corporation Common Stock Fund	Templeton Foreign Fund	Franklin Balance Sheet Investment Fund
	-----	-----	-----	-----	-----
Net assets available for benefits, beginning of year	\$ --	6,404,345	612,631	2,291,226	4,993,506
Contributions from participants	(175)	804,736	133,231	266,894	548,069
Contributions from employers	--	278,245	51,683	98,383	192,986
Rollover contributions	--	28,533	17,541	--	19,968
Interest and dividend income	--	342,707	--	64,157	262,730
Net unrealized gain (loss) in fair value of investments	--	1,062,897	(24,584)	(262,123)	(296,393)
Net realized gain (loss) from disposition of investments	--	159,878	17,372	(26,261)	17,705
Other income	--	32,072	--	152,564	--
Other activity	(49)	(68,009)	(4,135)	3,895	(74,059)
	----	-----	-----	-----	-----
Total additions	(224)	2,641,059	191,108	297,509	671,006
	----	-----	-----	-----	-----

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KIRBY 401(k) PLAN
Notes to Financial Statements
(Modified Cash Basis)
December 31, 1998 and 1997

	Cash	Fidelity Advisor Growth Opportunities Fund	Kirby Corporation Common Stock Fund	Templeton Foreign Fund	Franklin Balance Sheet Investment Fund
	----	-----	-----	-----	-----
Deductions from net assets attributed to:					
Benefits paid to participants	132	(877,600)	(44,440)	(297,010)	(700,438)
Administration fees	--	(33,141)	(3,972)	(10,292)	(24,542)
	---	-----	-----	-----	-----
Total deductions	132	(910,741)	(48,412)	(307,302)	(724,980)
	---	-----	-----	-----	-----
Net increase (decrease) before interfund transfers	(92)	1,730,318	142,696	(9,793)	(53,974)
Interfund transfers, net	138	(155,360)	191,146	(475,801)	(441,987)
	---	-----	-----	-----	-----
Net increase (decrease) after interfund transfers	46	1,574,958	333,842	(485,594)	(495,961)
	---	-----	-----	-----	-----
Net assets available for benefits, end of year	\$ 46	7,979,303	946,473	1,805,632	4,497,545
	===	=====	=====	=====	=====

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KIRBY 401(k) PLAN
Notes to Financial Statements
(Modified Cash Basis)
December 31, 1998 and 1997

	Franklin U.S. Government Securities Fund	Chase Bank Money Market Fund	Janus Balanced Fund	Loan Fund	Total
	-----	-----	-----	-----	-----
Net assets available for benefits, beginning of year	2,442,916	4,849,906	4,006,555	2,161,754	27,762,839
Contributions from participants	297,283	671,807	567,216	--	3,289,061
Contributions from employers	106,143	271,085	206,917	--	1,205,442

Rollover contributions	--	48,106	73,161	--	187,309
Interest and dividend income	188,534	254,767	140,383	178,303	1,431,581
Net unrealized gain (loss) in fair value of investments	(946)	--	1,008,909	--	1,487,760
Net realized gain (loss) from disposition of investments	(2,908)	--	160,632	--	326,418
Other income	--	(947)	--	--	183,689
Other activity	(26,160)	(85,025)	(66,171)	319,713	--
	-----	-----	-----	-----	-----
Total additions	561,946	1,159,793	2,091,047	498,016	8,111,260
	-----	-----	-----	-----	-----
Deductions from net assets attributed to:					
Benefits paid to participants	(360,351)	(1,026,646)	(783,296)	(334,706)	(4,424,355)
Administration fees	(11,205)	(6,686)	(20,538)	--	(110,376)
	-----	-----	-----	-----	-----
Total deductions	(371,556)	(1,033,332)	(803,834)	(334,706)	(4,534,731)

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

	Franklin U.S. Government Securities Fund	Chase Bank Money Market Fund	Janus Balanced Fund	Loan Fund	Total
	-----	-----	-----	-----	-----
Net increase (decrease) before interfund transfers	190,390	126,461	1,287,213	163,310	3,576,529
Interfund transfers, net	81,001	489,077	311,786	--	--
	-----	-----	-----	-----	-----
Net increase (decrease) after interfund transfers	271,391	615,538	1,598,999	163,310	3,576,529
	-----	-----	-----	-----	-----
Net assets available for benefits, end of year	2,714,307	5,465,444	5,605,554	2,325,064	31,339,368
	=====	=====	=====	=====	=====

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KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

(4) Related Party Transactions

Certain plan investments are shares of Kirby Corporation common stock and mutual funds managed by Chase Bank of Texas. Kirby is the plan sponsor and Chase Bank of Texas is the trustee as defined by the Plan, and therefore, these transactions qualify as party-in-interest transactions.

(5) Federal Income Taxes

The Plan obtained its latest determination letter on December 30, 1996 in which the Internal Revenue Service stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan has been amended since receiving this determination letter. However, the Plan Administrator believes the Plan is currently designed and operated in compliance with the applicable requirements of the Code. Therefore, the Plan Administrator believes the Plan was qualified and the related trust was tax-exempt as of December 31, 1998. The Company intends that the Plan and its related trust continue to so qualify.

A participant is not taxed on employer contributions when made; instead, taxation is deferred until the amount credited to the participant's account is distributed or made available to him or, in the event of the participant's death, to a beneficiary or an estate. Amounts distributed or made available to employees or their beneficiaries, in excess of their contributions, are taxable according to the provisions of the Internal Revenue Code.

(6) Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500:

	December 31,	
	1998	1997
	-----	-----
Net assets available for benefits per the financial statements	\$31,339,368	\$27,762,839
Amounts allocated to withdrawing participants	30,025	--
	-----	-----
Net assets available for benefits per the Form 5500	\$31,309,343	\$27,762,839
	=====	=====

KIRBY 401(k) PLAN

Notes to Financial Statements
(Modified Cash Basis)

December 31, 1998 and 1997

The following is a reconciliation of benefits paid to participants per the financial statements to the Form 5500:

	Years ended December 31,	
	-----	-----
	1998	1997

Benefits paid to participants per the financial statements	\$4,424,355	\$2,331,780
Add: Amounts allocated to withdrawing participants at December 31 (current year)	30,025	--
Less: Amounts allocated to withdrawing participants at December 31 (prior year)	--	--
Benefits paid to participants per Form 5500	\$4,454,380	\$2,331,780

Amounts allocated to withdrawing participants are recorded on the Form 5500 for benefit claims that have been processed and approved for payment prior to December 31 but not yet paid as of that date.

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Schedule 1

KIRBY 401(k) PLAN

Item 27a - Schedule of Assets Held for Investment Purposes
(Modified Cash Basis)

December 31, 1998

Identity of issue, borrower, lessor or Similar party	Description of asset	Cost	Current Value
Common Trust Fund:			
Chase Bank N.A.	Chase Bank Money Market Fund	\$ 5,465,444	\$ 5,465,444
Mutual Funds:			
Fidelity	Fidelity Advisor Growth Opportunities Fund	\$ 5,957,601	\$ 7,979,303
Templeton	Templeton Foreign Fund	2,092,296	1,805,632
Franklin	Franklin Balance Sheet Investment Fund	4,258,031	4,497,545
Franklin	Franklin U.S. Government Securities Fund	2,689,953	2,714,307
Janus	Janus Balanced Fund	4,495,051	5,605,554
Total mutual funds		\$19,492,932	\$22,602,341
Common stock:			
Kirby Corporation	Kirby Corporation Common Stock	\$ 938,776	\$ 946,473
Participant loans - with interest rates ranging from 7% to 10% and having maturities of one to five years			
		\$ 2,325,064	\$ 2,325,064

Chase Bank N.A. and Kirby Corporation represent parties in interest to the Plan.

See accompanying independent auditors' report.

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KIRBY 401(k) PLAN

Item 27 (d) - Schedule of Reportable Transactions

For the year ended December 31, 1998

Identity of issuer	Description of assets	Number of transactions	Purchase price	Selling price
SINGLE TRANSACTIONS:				
None				
SERIES TRANSACTIONS:				
Chase Bank of Texas, N.A.	Fidelity Advisor Growth Opportunities Fund	145	2,428,004	--
Chase Bank of Texas, N.A.	Fidelity Advisor Growth Opportunities Fund	142	--	2,079,965
Chase Bank of Texas, N.A.	Franklin Balance Sheet Investment Fund	123	1,733,949	--
Chase Bank of Texas, N.A.	Franklin Balance Sheet Investment Fund	147	--	1,954,205
Chase Bank of Texas, N.A.	Janus Balanced Fund	141	2,037,411	--
Chase Bank of Texas, N.A.	Janus Balanced Fund	144	--	1,611,468
Chase Bank of Texas, N.A.	Chase Bank Money Market Fund	129	5,084,272	--
Chase Bank of Texas, N.A.	Chase Bank Money Market Fund	178	--	4,469,398

Table continued on next page

KIRBY 401(k) PLAN

Item 27 (d) - Schedule of Reportable Transactions (Continued)

For the year ended December 31, 1998

Identity of issuer	Description of assets	Cost asset	Value of asset on transaction date	Net gain
SINGLE TRANSACTIONS:				
None				
SERIES TRANSACTIONS:				
Chase Bank of Texas, N.A.	Fidelity Advisor Growth Opportunities Fund	2,428,004	--	--
Chase Bank of Texas, N.A.	Fidelity Advisor Growth Opportunities Fund	--	1,689,494	390,471
Chase Bank of Texas, N.A.	Franklin Balance Sheet Investment Fund	1,733,949	--	--
Chase Bank of Texas, N.A.	Franklin Balance Sheet Investment Fund	--	1,759,217	194,988

Chase Bank of Texas, N.A.	Janus Balanced Fund	2,037,411	--	--
Chase Bank of Texas, N.A.	Janus Balanced Fund	--	1,475,398	136,070
Chase Bank of Texas, N.A.	Chase Bank Money Market Fund	5,084,272	--	--
Chase Bank of Texas, N.A.	Chase Bank Money Market Fund	--	4,469,398	--

Note: The above transactions represent "reportable transactions" as defined in Section 2520.103-6 of ERISA. Chase Bank of Texas, N.A. represents a party in interest to the Plan.

See accompanying independent auditors' report.

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SIGNATURES

Pursuant to the requirement of the Securities Exchange Act of 1934, the registrant has duly caused this amendment to be signed on its behalf by the undersigned, thereunto duly authorized.

Kirby CORPORATION
(Registrant)

/s/ G. Stephen Holcomb

G. Stephen Holcomb
Vice President and Controller

June 30, 1999

[KPMG LLP LETTERHEAD]

Independent Auditors' Consent

Plan Administrator
Kirby 401(k) Plan:

We consent to the incorporation by reference in the registration statement No. 33-57625 on Form S-8 of Kirby Corporation of our report dated June 17, 1999 related to the statements of net assets available for benefits of the Kirby 401(k) Plan as of December 31, 1998 and 1997, and the related statements of changes in net assets available for plan benefits for the years then ended and the related supplemental schedules, which report appears in the December 31, 1998 annual report on Form 11-K of the Kirby 401(k) Plan.

KPMG LLP

Houston, Texas
June 29, 1999