FERRO CORP
Form 10-Q
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2019

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _________ to __________

Commission File Number 1-584

FERRO CORPORATION

(Exact name of registrant as specified in its charter)

Ohio	34-0217820
(State or other jurisdiction of	(I.R.S. Employer Identification No.)
incorporation or organization)	
6060 Parkland Boulevard	44124
Suite 250	(Zip Code)
Mayfield Heights, OH	
(Address of principal executive offices)	
216-875-5600	
(Registrant's telephone number, including area code)	

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by checkmark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES NO

At March 31, 2019, there were 81,931,428 shares of Ferro Common Stock, par value $1.00, outstanding.

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited)

Ferro Corporation and Subsidiaries

Condensed Consolidated Statements of Operations

	Three Months Ended March 31,	
	2019	2018
	(Dollars in thousands, except per share amounts)	
Net sales	$ 387,548	$ 405,532
Cost of sales	285,692	286,846
Gross profit	101,856	118,686
Selling, general and administrative expenses	72,080	73,092
Restructuring and impairment charges	2,127	4,106
Other expense (income):		
Interest expense	8,545	7,962
Interest earned	(87)	(201)
Foreign currency losses, net	738	1,840
Miscellaneous expense, net	275	775
Income before income taxes	18,178	31,112
Income tax expense	4,300	7,514
Net income	13,878	23,598
Less: Net income attributable to noncontrolling interests	274	207
Net income attributable to Ferro Corporation common shareholders	$ 13,604	$ 23,391
Earnings per share attributable to Ferro Corporation common shareholders:		
Basic earnings per share	$ 0.16	$ 0.28
Diluted earnings per share	$ 0.16	$ 0.27

See accompanying notes to condensed consolidated financial statements.

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Ferro Corporation and Subsidiaries

Condensed Consolidated Statements of Comprehensive Income

	Three Months Ended March 31,	
	2019	2018
	(Dollars in thousands)	
Net income	$ 13,878	$ 23,598
Other comprehensive income, net of income tax:		
Foreign currency translation income	3,508	5,787
Cash flow hedging instruments, unrealized (loss) gain	(4,314)	1,314
Postretirement benefit liabilities income	—	7
Other comprehensive (loss) income, net of income tax	(806)	7,108
Total comprehensive income	13,072	30,706
Less: Comprehensive income attributable to noncontrolling interests	380	335
Comprehensive income attributable to Ferro Corporation	$ 12,692	$ 30,371

See accompanying notes to condensed consolidated financial statements.

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Ferro Corporation and Subsidiaries

Condensed Consolidated Balance Sheets

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
ASSETS		
Current assets		
Cash and cash equivalents	$ 57,637	$ 104,301
Accounts receivable, net	329,149	306,882
Inventories	366,628	356,998
Other receivables	86,022	91,143
Other current assets	25,474	23,960
Total current assets	864,910	883,284
Other assets		
Property, plant and equipment, net	385,079	381,341
Goodwill	214,815	216,464
Intangible assets, net	179,349	184,953
Deferred income taxes	103,433	103,488
Operating leased assets	27,110	—
Other non-current assets	48,710	42,930
Total assets	$ 1,823,406	$ 1,812,460
LIABILITIES AND EQUITY		
Current liabilities		
Loans payable and current portion of long-term debt	$ 10,156	$ 10,260
Accounts payable	205,486	256,573
Accrued payrolls	33,305	39,989
Accrued expenses and other current liabilities	90,466	77,995
Total current liabilities	339,413	384,817
Other liabilities		
Long-term debt, less current portion	860,441	811,137
Postretirement and pension liabilities	172,185	173,046
Operating leased non-current liabilities	17,562	—
Other non-current liabilities	57,908	57,611
Total liabilities	1,447,509	1,426,611
Equity		
Ferro Corporation shareholders' equity:		
Common stock, par value $1 per share; 300.0 million shares authorized; 93.4 million shares issued; 81.9 million and 83.0 million shares outstanding at March 31, 2019, and December 31, 2018, respectively	93,436	93,436
Paid-in capital	291,677	298,123

Retained earnings	269,582	255,978
Accumulated other comprehensive loss	(106,273)	(105,361)
Common shares in treasury, at cost	(182,123)	(165,545)
Total Ferro Corporation shareholders’ equity	366,299	376,631
Noncontrolling interests	9,598	9,218
Total equity	375,897	385,849
Total liabilities and equity	$ 1,823,406	$ 1,812,460

See accompanying notes to condensed consolidated financial statements.

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Ferro Corporation and Subsidiaries

Condensed Consolidated Statements of Equity

	Ferro Corporation Shareholders Common Shares in Treasury							
	Shares	Amount	Common Stock	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive (Loss)	Non-controlling Interests	Total Equity
	(In thousands)							
Balances at December 31, 2017	9,386	(147,056)	$ 93,436	$ 302,158	171,744	(75,468)	11,866	$ 356,680
Net income	—	—	—	—	23,391	—	207	23,598
Other comprehensive income	—	—	—	—	—	6,980	128	7,108
Stock-based compensation transactions	(349)	8,209	—	(6,986)	—	—	—	1,223
Change in ownership interests	—	—	—	789	—	—	(2,228)	(1,439)
Adjustment for accounting standards update 2016-16	—	—	—	—	4,141	—	—	4,141
Balances at March 31, 2018	9,037	(138,847)	93,436	295,961	199,276	(68,488)	9,973	391,311
Balances at December 31, 2018	10,433	(165,545)	93,436	298,123	255,978	(105,361)	9,218	385,849
Net income	—	—	—	—	13,604	—	274	13,878
Other comprehensive (loss) income	—	—	—	—	—	(912)	106	(806)
Purchase of treasury stock	1,441	(25,000)	—	—	—	—	—	(25,000)
Stock-based compensation transactions	(370)	8,422	—	(6,446)	—	—	—	1,976
	11,504	$ (182,123)	$ 93,436	$ 291,677	$ 269,582	$ (106,273)	$ 9,598	$ 375,897

Balances at
March 31, 2019

See accompanying notes to condensed consolidated financial statements.

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Ferro Corporation and Subsidiaries

Condensed Consolidated Statements of Cash Flows

	Three Months Ended March 31, 2019	2018
	(Dollars in thousands)	
Cash flows from operating activities		
Net cash used in operating activities	$ (67,527)	$ (34,285)
Cash flows from investing activities		
Capital expenditures for property, plant and equipment and other long lived assets	(23,326)	(20,682)
Collections of financing receivables	20,186	—
Business acquisitions, net of cash acquired	(251)	(2,352)
Other investing activities	—	22
Net cash used in investing activities	(3,391)	(23,012)
Cash flows from financing activities		
Net borrowings under loans payable	33	9,742
Principal payments on term loan facility - Credit Facility	—	(1,664)
Principal payments on term loan facility - Amended Credit Facility	(2,050)	—
Proceeds from revolving credit facility - Credit Facility	—	119,550
Principal payments on revolving credit facility - Credit Facility	—	(79,367)
Proceeds from revolving credit facility - Amended Credit Facility	104,174	—
Principal payments on revolving credit facility - Amended Credit Facility	(52,866)	—
Acquisition-related contingent consideration payment	—	(348)
Purchase of treasury stock	(25,000)	—
Other financing activities	(414)	(2,133)
Net cash provided by financing activities	23,877	45,780
Effect of exchange rate changes on cash and cash equivalents	377	1,262
Decrease in cash and cash equivalents	(46,664)	(10,255)
Cash and cash equivalents at beginning of period	104,301	63,551
Cash and cash equivalents at end of period	$ 57,637	$ 53,296
Cash paid during the period for:		
Interest	$ 8,232	$ 7,314
Income taxes	$ 3,940	$ 4,575

See accompanying notes to condensed consolidated financial statements.

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Ferro Corporation and Subsidiaries

Notes to Condensed Consolidated Financial Statements

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of Ferro Corporation (“Ferro,” “we,” “us” or “the Company”) have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information, the instructions to Form 10-Q, and Article 10 of Regulation S-X. These statements reflect all normal and recurring adjustments which are, in the opinion of management, necessary to present fairly the financial position, results of operations and cash flows for the periods presented. The preparation of financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. These interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2018.

We produce our products primarily in the Europe, Middle East and Africa (“EMEA”) region, the United States (“U.S.”), the Asia Pacific region, and Latin America.

Operating results for the three months ended March 31, 2019, are not necessarily indicative of the results expected in subsequent quarters or for the full year ending December 31, 2019.

2. Recent Accounting Pronouncements

Recently Adopted Accounting Standards

On January 1, 2019, we adopted the Financial Accounting Standards Board (“FASB”) Accounting Standards Update (“ASU”) 2016-02, Leases: (Topic 842), using the new transition method under ASU 2018-11, Targeted Improvements. ASU 2016-02 requires companies to recognize a lease liability and asset on the balance sheet for operating leases with a term greater than one year. ASU 2018-11 provided an additional transition method to adopt the new leasing standard. Under this new transition method, an entity initially applies the new leasing standard using a cumulative-effect adjustment to the opening balance of retained earnings but will continue to report comparative periods under existing guidance in accordance with ASC 840, Leases.

We elected the package of practical expedients permitted under the transition guidance, which allowed us to carryforward our historical lease classification, our assessment on whether a contract is or contains a lease, and our initial direct costs for any leases that exist prior to adoption of the new standard. We also elected to combine lease and non-lease components for all asset classes. We elected the short-term lease recognition exemption for all leases that qualify. Consequently, for those leases that qualify, we will not recognize right of use assets or lease liabilities on the balance sheet. The impact of adoption resulted in $28.6 million recognized as total right-of-use assets and total lease liabilities on our consolidated balance sheet as of January 1, 2019. Other than this impact, the adoption of ASU 2016-02 did not have a material impact on our remaining consolidated financial statements.

On January 1, 2019, we adopted FASB ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. ASU 2018-02 allows a reclassification from Accumulated Other Comprehensive (Loss) Income to Retained Earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act and requires certain disclosures about stranded tax effects. The Company has elected not to reclassify the stranded tax effects due to the Tax Cuts and Jobs Act within Accumulated Other Comprehensive Loss. As such, the adoption of this standard did not impact our consolidated financial statements.

On January 1, 2019, we adopted FASB ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement. ASU 2018-13 modifies the disclosure requirements on fair value measurements. The Company updated the disclosures for the fair value measurements in accordance with the standard updates.

New Accounting Standards Not Yet Adopted

In August 2018, the FASB issued ASU 2018-14, Compensation-Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20): Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans. ASU 2018-14 modifies

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disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. This pronouncement is effective for fiscal years beginning after December 15, 2020. The Company is in the process of assessing the impact that the adoption of this ASU will have on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, Intangibles – Goodwill and Other: (Topic 350): Simplifying the Test for Goodwill Impairment. ASU 2017-04 is intended to simplify the subsequent measurement of goodwill by eliminating Step 2 from the current goodwill impairment test. This pronouncement is effective for the annual or any interim goodwill impairment tests conducted in fiscal years beginning after December 15, 2019. The Company is in the process of assessing the impact that the adoption of this ASU will have on our consolidated financial statements.

No other new accounting pronouncements issued had, or are expected to have, a material impact on the Company's consolidated financial statements.

3. Revenue

Revenues disaggregated by geography and reportable segment for the three months ended March 31, 2019, follow:

	EMEA	United States	Asia Pacific	Latin America	Total
	(Dollars in thousands)				
Performance Coatings	$ 113,426	$ 11,691	$ 22,865	$ 22,365	$ 170,347
Performance Colors and Glass	57,448	40,288	16,570	6,539	120,845
Color Solutions	35,567	43,599	8,825	8,365	96,356
Total net sales	$ 206,441	$ 95,578	$ 48,260	$ 37,269	$ 387,548

Revenues disaggregated by geography and reportable segment for the three months ended March 31, 2018, follow:

	EMEA				Total

		United States	Asia Pacific	Latin America	
	(Dollars in thousands)				
Performance Coatings	$ 119,116	$ 12,819	$ 25,947	$ 26,766	$ 184,648
Performance Colors and Glass	61,344	37,091	16,515	5,555	120,505
Color Solutions	40,483	41,626	9,938	8,332	100,379
Total net sales	$ 220,943	$ 91,536	$ 52,400	$ 40,653	$ 405,532

4. Acquisitions

Quimicer, S.A.

On October 1, 2018, the Company acquired 100% of the equity interests of Quimicer, S.A. (“Quimicer”), for €32.2 million (approximately $37.4 million), including the assumption of debt of €5.2 million (approximately $6.1 million). The information included herein has been prepared based on the preliminary allocation of the purchase price using estimates of the fair value and useful lives of the assets acquired and liabilities assumed, which were determined with the assistance of third parties who performed independent valuations using discounted cash flow and comparative market approaches, and estimates made by management. As of March 31, 2019, the purchase price allocation is subject to further adjustment until all information is fully evaluated by the Company. The Company

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preliminarily recorded $21.5 million of personal and real property, $15.9 million of net working capital, $3.0 million of goodwill and $3.0 million of deferred tax liability on the condensed consolidated balance sheet.

UWiZ Technology Co., Ltd.

On September 25, 2018, the Company acquired 100% of the equity interests of UWiZ Technology Co., Ltd. ("UWiZ") for NTD823.4 million (approximately $26.9 million) in cash. The information included herein has been prepared based on the preliminary allocation of the purchase price using estimates of the fair value and useful lives of the assets acquired and liabilities assumed, which were determined with the assistance of third parties who performed independent valuations using discounted cash flow and comparative market approaches, and estimates made by management. As of March 31, 2019, the purchase price allocation is subject to further adjustment until all information is fully evaluated by the Company. The Company preliminarily recorded $12.5 million of net working capital, $7.1 million of goodwill, $6.6 million of amortizable intangible assets, $2.4 million of personal and real property and $1.7 million of deferred tax liability on the condensed consolidated balance sheet.

Ernst Diegel GmbH

On August 31, 2018, the Company acquired 100% of the equity interests of Ernst Diegel GmbH ("Diegel"), including the real property of a related party, for €12.1 million (approximately $14.0 million) in cash. The information included herein has been prepared based on the preliminary allocation of the purchase price using estimates of the fair value and useful lives of the assets acquired and liabilities assumed, which were determined with the assistance of third parties who performed independent valuations using discounted cash flow and comparative market approaches, and estimates made by management. As of March 31, 2019, the purchase price allocation is subject to further adjustment until all information is fully evaluated by the Company. The Company preliminarily recorded $7.0 million of personal and real property, $4.8 million of net working capital, $2.0 million of amortizable intangible assets, $1.7 million of goodwill and $1.5 million of deferred tax liability on the condensed consolidated balance sheet.

MRA Laboratories, Inc.

On July 12, 2018, the Company acquired 100% of the equity interests of MRA Laboratories, Inc. ("MRA") for $16.0 million in cash. The information included herein has been prepared based on the preliminary allocation of the purchase price using estimates of the fair value and useful lives of the assets acquired and liabilities assumed, which were determined with the assistance of third parties who performed independent valuations using discounted cash flow and comparative market approaches, and estimates made by management. As of March 31, 2019, the purchase price allocation is subject to further adjustment until all information is fully evaluated by the Company. The Company preliminarily recorded $7.2 million of goodwill, $6.7 million of amortizable intangible assets, $3.4 million of net working capital, $1.6 million of deferred tax liability and $0.3 million of personal and real property on the condensed consolidated balance sheet.

PT Ferro Materials Utama

On June 29, 2018, the Company acquired 66% of the equity interests of PT Ferro Materials Utama ("FMU") for $2.7 million in cash, in addition to the forgiveness of debt of $9.2 million, bringing our total ownership to 100%. The Company previously recorded its investment in FMU as an equity method investment, and following this transaction, the Company fully consolidates FMU. Due to the change of control that occurred, the Company recorded a gain on purchase related to the difference between the Company's carrying value and fair value of the previously held equity method investment.

Gardenia Quimica S.A.

On August 3, 2017, the Company acquired a majority interest of Gardenia Quimica S.A. (“Gardenia”) for $3.0 million. The Company previously owned 46% of Gardenia and recorded it as an equity method investment. Following this transaction, the Company owned 83.5% and fully consolidates Gardenia. On March 1, 2018, the Company acquired the remaining equity interest in Gardenia for $1.4 million.

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5. Inventories

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Raw materials	$ 118,651	$ 116,219
Work in process	60,297	55,884
Finished goods	187,680	184,895
Total inventories	$ 366,628	$ 356,998

In the production of some of our products, we use precious metals, which we obtain from financial institutions under consignment agreements with terms of one year or less. The financial institutions retain ownership of the precious metals and charge us fees based on the amounts we consign. These fees were $1.1 million and $0.4 million for the three months ended March 31, 2019 and 2018, respectively. We had on-hand precious metals owned by participants in our precious metals consignment program of $53.6 million at March 31, 2019, and $55.2 million at December 31, 2018, measured at fair value based on market prices for identical assets.

6. Property, Plant and Equipment

Property, plant and equipment is reported net of accumulated depreciation of $527.3 million at March 31, 2019, and $523.4 million at December 31, 2018. Unpaid capital expenditure liabilities, which are non-cash investing activities, were $8.4 million at March 31, 2019, and $4.8 million at March 31, 2018.

7. Goodwill and Other Intangible Assets

Details and activity in the Company's goodwill by segment follow:

	Performance Coatings	Color Solutions	Performance Colors and Glass	Total
	(Dollars in thousands)			
Goodwill, net at December 31, 2018	$ 44,352	$ 50,545	$ 121,567	$ 216,464
Foreign currency adjustments	(855)	(319)	(475)	(1,649)
Goodwill, net at March 31, 2019	$ 43,497	$ 50,226	$ 121,092	$ 214,815

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Goodwill, gross	$ 273,282	$ 274,931
Accumulated impairment	(58,467)	(58,467)
Goodwill, net	$ 214,815	$ 216,464

Goodwill is tested for impairment at the reporting unit level on an annual basis in the fourth quarter, and between annual tests if an event occurs, or circumstances change, that would more likely than not reduce the fair value of a reporting unit below its carrying value. As of March 31, 2019, the Company is not aware of any events or circumstances that occurred which would require a goodwill impairment test.

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Amortizable intangible assets consisted of the following:

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Gross amortizable intangible assets:		
Patents	$ 5,430	$ 5,462
Land rights	4,846	4,773
Technology/know-how and other	131,515	132,084
Customer relationships	99,217	100,368
Total gross amortizable intangible assets	241,008	242,687
Accumulated amortization:		
Patents	(5,409)	(5,440)
Land rights	(2,966)	(2,909)
Technology/know-how and other	(51,384)	(48,898)
Customer relationships	(18,635)	(17,306)
Total accumulated amortization	(78,394)	(74,553)
Amortizable intangible assets, net	$ 162,614	$ 168,134

Indefinite-lived intangible assets consisted of the following:

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Indefinite-lived intangibles assets:		
Trade names and trademarks	$ 16,735	$ 16,819

8. Debt

Loans payable and current portion of long-term debt consisted of the following:

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Loans payable	$ —	$ 50
Current portion of long-term debt	10,156	10,210
Loans payable and current portion of long-term debt	$ 10,156	$ 10,260

Long-term debt consisted of the following:

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Term loan facility, net of unamortized issuance costs, maturing 2024(1)	$ 807,208	$ 809,022
Revolving credit facility	51,308	—
Capital lease obligations	3,972	3,963
Other notes	8,109	8,362
Total long-term debt	870,597	821,347
Current portion of long-term debt	(10,156)	(10,210)
Long-term debt, less current portion	$ 860,441	$ 811,137

(1) The carrying value of the term loan facility, maturing 2024, is net of unamortized debt issuance costs of $4.6 million at March 31, 2019, and $4.8 million at December 31, 2018.

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Amended Credit Facility

On April 25, 2018, the Company entered into an amendment (the "Amended Credit Facility") to its existing credit facility (the "Credit Facility") which Amended Credit Facility (a) provided a new revolving facility (the "2018 Revolving Facility"), which replaced the Company's existing revolving facility, (b) repriced the ("Tranche B-1 Loans"), (c) provided new tranches of term loans ("Tranche B-2 Loans" and "Tranche B-3 Loans") denominated in U.S. dollars and will be used for ongoing working capital requirements and general corporate purposes. The Tranche B-2 Loans are borrowed by the Company and the Tranche B-3 Loans are borrowed on a joint and several basis by Ferro GmbH and Ferro Europe Holdings LLC.

The Amended Credit Facility consists of a $500 million secured revolving line of credit with a maturity of February 2023, a $355 million secured term loan facility with a maturity of February 2024, a $235 million secured term loan facility with a maturity of February 2024 and a $230 million secured term loan facility with a maturity of February 2024. The term loans are payable in equal quarterly installments in an amount equal to 0.25% of the original principal amount of the term loans, with the remaining balance due on the maturity date thereof. In addition, the Company is required, on an annual basis, to make a prepayment in an amount equal to a portion of the Company's excess cash flow, as calculated pursuant to the Amended Credit Facility, which prepayment will be applied first to the term loans until they are paid in full, and then to the revolving loans.

Subject to the satisfaction of certain conditions, the Company can request additional commitments under the revolving line of credit or term loans in the aggregate principal amount of up to $250 million to the extent that existing or new lenders agree to provide such additional commitments and/or term loans. The Company can also raise certain additional debt or credit facilities subject to satisfaction of certain covenant levels.

Certain of the Company's U.S. subsidiaries have guaranteed the Company's obligations under the Amended Credit Facility and such obligations are secured by (a) substantially all of the personal property of the Company and the U.S. subsidiary guarantors and (b) a pledge of 100% of the stock of certain of the Company's U.S. subsidiaries and 65% of the stock of certain of the Company's direct foreign subsidiaries. The Tranche B-3 Loans are guaranteed by the Company, the U.S. subsidiary guarantors and a cross-guaranty by the borrowers of the Tranche B-3 Loans, and are secured by the collateral securing the revolving loans and the other term loans, in addition to a pledge of the equity interests of Ferro GmbH.

Interest Rate – Term Loans: The interest rates applicable to the term loans will be, at the Company's option, equal to either a base rate or a LIBOR rate plus, in both cases, an applicable margin.

- The base rate for term loans will be the highest of (i) the federal funds rate plus 0.50%, (ii) the syndication agent's prime rate, (iii) the daily LIBOR rate plus 1.00% or (iv) 0.00%. The applicable margin for base rate loans is 1.25%.
- The LIBOR rate for term loans shall not be less than 0.0% and the applicable margin for LIBOR rate term loans is 2.25%.
- For LIBOR rate term loans, the Company may choose to set the duration on individual borrowings for periods of one, two, three or six months, with the interest rate based on the applicable LIBOR rate for the corresponding duration.

At March 31, 2019, the Company had borrowed $351.5 million under the Tranche B-1 Loans at an interest rate of 4.85%, $232.7 million under the Tranche B-2 Loans at an interest rate of 4.85%, and $227.7 million under the Tranche B-3 Loans at an interest rate of 4.85%. At March 31, 2019, there were no additional borrowings available under the Tranche B-1 Loans, Tranche B-2 Loans, and Tranche B-3 Loans. In connection with these borrowings, we entered into swap agreements in the second quarter of 2018. At March 31, 2019, the effective interest rate for the Tranche B-1 Loans, Tranche B-2 Loans, and Tranche B-3 Loans, after adjusting for the interest rate swap, was 5.17%, 3.33%, and 2.48%, respectively.

Interest Rate – Revolving Credit Line: The interest rates applicable to loans under the 2018 Revolving Credit Facility will be, at the Company's option, equal to either a base rate or a LIBOR rate plus, in both cases, an applicable variable margin. The variable margin will be based on the ratio of (a) the Company's total consolidated net debt outstanding (as defined in the Amended Credit Agreement) at such time to (b) the Company's consolidated EBITDA (as defined in the Amended Credit Agreement) computed for the period of four consecutive fiscal quarters most recently ended.

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- The base rate for revolving loans will be the highest of (i) the federal funds rate plus 0.50%, (ii) the syndication agent's prime rate, (iii) the daily LIBOR rate plus 1.00% or (iv) 0.00%. The applicable margin for base rate loans will vary between 0.50% to 1.50%.
  - The LIBOR rate for revolving loans shall not be less than 0% and the applicable margin for LIBOR rate revolving loans will vary between 1.50% and 2.50%.
- For LIBOR rate revolving loans, the Company may choose to set the duration on individual borrowings for periods of one, two, three or six months, with the interest rate based on the applicable LIBOR rate for the corresponding duration.

At March 31, 2019, there were $51.3 million borrowings under the 2018 Revolving Credit Facility at an interest rate of 4.49%. After reductions for outstanding letters of credit secured by these facilities, we had $444.0 million of additional borrowings available under the revolving credit facilities at March 31, 2019.

The Amended Credit Facility contains customary restrictive covenants including, but not limited to, limitations on use of loan proceeds, limitations on the Company's ability to pay dividends and repurchase stock, limitations on acquisitions and dispositions, and limitations on certain types of investments. The Amended Credit Facility also contains standard provisions relating to conditions of borrowing and customary events of default, including the non-payment of obligations by the Company and the bankruptcy of the Company.

Specific to the 2018 Revolving Facility, the Company is subject to a financial covenant regarding the Company's maximum leverage ratio. If an event of default occurs, all amounts outstanding under the Amended Credit Facility agreement may be accelerated and become immediately due and payable. At March 31, 2019, we were in compliance with the covenants of the Amended Credit Facility.

Credit Facility

On February 14, 2017, the Company entered into The Credit Facility with a group of lenders to refinance its then outstanding credit facility debt and to provide liquidity for ongoing working capital requirements and general corporate purposes. The Credit Facility consisted of a $400 million secured revolving line of credit with a term of five years, a $357.5 million secured term loan facility with a term of seven years and a €250 million secured Euro term loan facility with a term of seven years. For further discussion of the Company's Credit Facility, refer to Note 9 in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

International Receivable Sales Programs

We have several international programs to sell without recourse trade accounts receivable to financial institutions. These transactions are treated as a sale and are accounted for as a reduction in accounts receivable because the agreements transfer effective control over and risk related to the receivables to the buyers. The Company continues to service the receivables sold in exchange for a fee. The servicing fee for the three months ended March 31, 2019, was immaterial. The program, whose maximum capacity is €100 million, is scheduled to expire in December 2023. Generally, at the transfer date, the Company received cash equal to approximately 65% of the value of the sold receivable. Cash proceeds at the transfer date from these arrangements are reflected in operating activities in our consolidated statement of cash flows. The proceeds from the deferred purchase price are reflected in investing activities.

The outstanding principal amount of receivables sold under this program was $63.9 million at March 31, 2019 and $71.3 million at December 31, 2018. The carrying amount of deferred purchase price was $23.1 million at March 31, 2019 and $23.0 million at December 31, 2018, and is recorded in Other receivables.

	March 31, 2019	December 31, 2018
	(Dollars in thousands)	
Trade accounts receivable sold to financial institutions	$ 54,873	$ 89,894
Cash proceeds from financial institutions	36,497	57,316
Trade accounts receivable collected to be remitted(1)	17,012	11,552

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(1) Included in Accrued expense and other current liabilities

Other Financing Arrangements

We maintain other lines of credit to provide global flexibility for our short-term liquidity requirements. These facilities are uncommitted lines for our international operations and totaled $40.9 million and $41.4 million at March 31, 2019, and December 31, 2018, respectively. The unused portions of these lines provided additional liquidity of $28.1 million at March 31, 2019, and $30.3 million at December 31, 2018.

9. Financial Instruments

The following financial instrument assets (liabilities) are presented at their respective carrying amount, fair value and classification within the fair value hierarchy:

	March 31, 2019				
	Carrying	Fair Value			
	Amount	Total	Level 1	Level 2	Level 3
	(Dollars in thousands)				
Cash and cash equivalents	$ 57,637	$ 57,637	$ 57,637	$ —	$ —
Term loan facility - Amended Credit Facility(1)	(807,208)	(794,728)	—	(794,728)	—
Revolving credit facility	(51,308)	(50,709)	—	(50,709)	—
Other long-term notes payable	(8,109)	(5,385)	—	(5,385)	—
Cross currency swaps	23,000	23,000	—	23,000	—
Interest rate swaps	(9,227)	(9,227)	—	(9,227)	—
Foreign currency forward contracts, net	1,021	1,021	—	1,021	—

	December 31, 2018				
	Carrying	Fair Value			
	Amount	Total	Level 1	Level 2	Level 3
	(Dollars in thousands)				

Cash and cash equivalents	$ 104,301	$ 104,301	$ 104,301	$ —	$ —
Loans payable	(50)	(50)	—	(50)	—
Term loan facility - Amended Credit Facility(1)	(809,022)	(796,796)	—	(796,796)	—
Other long-term notes payable	(8,362)	(5,258)	—	(5,258)	—
Cross currency swaps	17,104	17,104	—	17,104	—
Interest rate swaps	(5,244)	(5,244)	—	(5,244)	—
Foreign currency forward contracts, net	(270)	(270)	—	(270)	—

(1) The carrying values of the term loan facility are net of unamortized debt issuance costs of $4.6 million and $4.8 million for the period ended March 31, 2019, and December 31, 2018, respectively.

The fair values of cash and cash equivalents are based on the fair values of identical assets. The fair values of loans payable are based on the present value of expected future cash flows and approximate their carrying amounts due to the short periods to maturity. The fair value of the term loan facility is based on market price information and is measured using the last available bid price of the instrument on a secondary market. The revolving credit facility and other long-term notes payable are based on the present value of expected future cash flows and interest rates that would be currently available to the Company for issuance of similar types of debt instruments with similar terms and remaining maturities adjusted for the Company's performance risk. The fair values of our interest rate swaps and cross currency swaps are determined based on inputs that are readily available in public markets or can be derived from information available in publicly quoted markets. The fair values of the foreign currency forward contracts are based on market prices for comparable contracts.

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Derivative Instruments

The Company may use derivative instruments to partially offset its business exposure to foreign currency and interest rate risk on expected future cash flows, on net investment in certain foreign subsidiaries and on certain existing assets and liabilities. However, the Company may choose not to hedge in countries where it is not economically feasible to enter into hedging arrangements or where hedging inefficiencies exist, such as timing of transactions.

Derivatives Designated as Hedging Instruments

Cash Flow Hedges. For derivative instruments that are designated and qualify as cash flow hedges, the gain or loss on the derivative is recorded in Accumulated other comprehensive loss ("AOCL") and reclassified into earnings in the same period during which the hedged transaction affects earnings.

The Company utilizes interest rate swaps to limit exposure to market fluctuations on floating-rate debt. During the second quarter of 2017, the Company entered into interest rate swap agreements that converted $150 million and €90 million of our term loans from variable interest rates to fixed interest rates. These swaps qualified for, and were designated as, cash flow hedges. These interest rate swap agreements were terminated in the second quarter of 2018 in connection with the refinancing of the Credit Facility.

During the second quarter of 2018, the Company entered into variable to fixed interest rate swaps with a maturity date of February 14, 2024. The notional amount is $316.8 million at March 31, 2019. These swaps are hedging risk associated with the Tranche B-1 Loans. These interest rate swaps are designated as cash flow hedges. As of March 31, 2019, the Company expects it will reclassify net losses of approximately $1.4 million, currently recorded in AOCL, into interest expense in earnings within the next twelve months. However, the actual amount reclassified could vary due to future changes in the fair value of these derivatives.

The Company has converted a US dollar denominated, variable rate debt obligation into a Euro fixed rate obligation using a receive-float, pay fixed cross currency swaps in the second quarter of 2018. These swaps are hedging currency and interest rate risk associated with the Tranche B-3 Loans. These cross currency swaps are designated as cash flow hedges. The notional amount is $227.7 million at March 31, 2019, with a maturity date of February 14, 2024. As of March 31, 2019, the Company expects it will reclassify net gains of approximately $5.6 million, currently recorded in AOCL, into interest expense in earnings within the next twelve months. However, the actual amount reclassified could vary due to future changes in the fair value of these derivatives.

The amount of (loss) gain recognized in AOCL and the amount of gain (loss) reclassified into earnings for the three months ended March 31, 2019 and 2018, follow:

	Amount of (Loss) Gain Recognized in AOCL		Amount of Gain (Loss) Reclassified from AOCL into Income		Location of Gain (Loss) Reclassified from AOCL into Income
	2019	2018	2019	2018	
	(Dollars in thousands)				
Interest rate swaps	$ (4,107)	$ 1,709	$ 178	$ (136)	Interest expense

Cross currency swaps	5,080	—	1,632	—	Interest expense
			$ 1,810	$ (136)	Total Interest expense
Cross currency swaps			4,944	—	Foreign currency losses, net
			$ 4,944	$ —	Total Foreign currency losses, net

The total amounts of expense line items presented in the condensed consolidated statement of operations in which the effect of cash flow hedges follow:

	March 31, 2019	March 31, 2018
	(Dollars in thousands)	
Interest expense	$ 8,545	$ 7,962
Foreign currency losses, net	738	1,840

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Net investment hedge. For derivatives that are designated and qualify as net investment hedges, the gain or loss on the derivative is reported as a component of other comprehensive income or loss. These cross currency swaps are designated as hedges of our net investment in European operations. Time value is excluded from the assessment of effectiveness and the amount of interest paid or received on the swaps will be recognized as an adjustment to interest expense in earnings over the life of the swaps.

In the second quarter of 2017, the Company designated a portion of its Euro denominated debt as a net investment hedge for accounting purposes. This net investment hedge was terminated in the second quarter of 2018.

In the second quarter of 2018, the Company entered into cross currency swap agreements under which we pay variable rate interest in Euros and receive variable rate interest in US dollars. The notional amount is €97.0 million at March 31, 2019, with a maturity date of February 14, 2024. These swaps are hedging risk associated with the net investment in Euro denominated operations due to fluctuating exchange rates and are designated as net investment hedges. The changes in the fair value of these designated cross-currency swaps will be recognized in AOCL.

The amount of gain (loss) on net investment hedges recognized in AOCL, the amount reclassified into earnings and the amount of gain recognized in income on derivative (amount excluded from effectiveness testing) for the three months ended March 31, 2019 and 2018, follow:

	Amount of Gain (Loss) Recognized in AOCL		Amount of Gain Reclassified from AOCL into Income		Amount of Gain Recognized in Income on Derivative (Amount Excluded from Effectiveness Testing)		Location of Gain (Loss) in Earnings
	2019	2018	2019	2018	2019	2018	
	(Dollars in thousands)						
Cross currency swaps	$ 3,737	$ —	$ —	$ —	$ 1,001	$ —	Interest expense
Net investment hedge	—	(860)	—	—	—	—	Foreign currency losses, net

Derivatives Not Designated as Hedging Instruments

Foreign currency forward contracts. We manage foreign currency risks principally by entering into forward contracts to mitigate the impact of currency fluctuations on transactions. These forward contracts are not formally designated as hedges. Gains and losses on these foreign currency forward contracts are netted with gains and losses from currency fluctuations on transactions arising from international trade and reported as Foreign currency losses, net in the condensed consolidated statements of operations. We recognized net gains of $1.5 million in the three months ended March 31, 2019, and net gains of $0.4 million in the three months ended March 31, 2018, arising from the change in fair value of our financial instruments, which partially offset the related net gains and losses on international trade transactions. The notional amount of foreign currency forward contracts was $410.1 million at March 31, 2019, and $387.2 million at December 31, 2018.

The following table presents the effect on our condensed consolidated statements of operations for the three months ended March 31, 2019 and 2018, respectively, of our foreign currency forward contracts:

	Amount of Gain Recognized in Earnings Three Months Ended March 31,		
	2019	2018	Location of Gain in Earnings
	(Dollars in thousands)		
Foreign currency forward contracts	$ 1,524	$ 391	Foreign currency losses, net

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Location and Fair Value Amount of Derivative Instruments

The following table presents the fair values of our derivative instruments on our condensed consolidated balance sheets. All derivatives are reported on a gross basis.

	March 31, 2019	December 31, 2018	Balance Sheet Location
	(Dollars in thousands)		
Asset derivatives:			
Cross currency swaps	$ 9,164	$ 9,606	Other current assets
Cross currency swaps	13,836	7,498	Other non-current assets
Foreign currency forward contracts	2,291	626	Other current assets
Liability derivatives:			
Interest rate swaps	(1,396)	(755)	Accrued expenses and other current liabilities
Interest rate swaps	(7,831)	(4,489)	Other non-current liabilities
Foreign currency forward contracts	$ (1,270)	$ (896)	Accrued expenses and other current liabilities

10. Income Taxes

Income tax expense for the three months ended March 31, 2019, was $4.3 million, or 23.7% of pre-tax income. Income tax expense for the three months ended March 31, 2018, was $7.5 million, or 24.2% of pre-tax income. The tax expense in the first quarter of 2019 and 2018, as a percentage of pre-tax income, is higher than the U.S. federal statutory income tax rate of 21% primarily as a result of foreign statutory rate differences.

11. Contingent Liabilities

We have recorded environmental liabilities of $6.6 million at March 31, 2019, and $8.5 million at December 31, 2018, for costs associated with the remediation of certain of our current or former properties that have been contaminated. The liability at March 31, 2019, and December 31, 2018, was primarily comprised of liabilities related to a non-operating facility in Brazil, and for retained environmental obligations related to a site in the United States that was part of the sale of our North American and Asian metal powders product lines in 2013. These costs include, but are not limited to, legal and consulting fees, site studies, the design and implementation of remediation plans, post-remediation monitoring, and related activities. The ultimate liability could be affected by numerous uncertainties, including the extent of contamination found, the required period of monitoring, the ultimate cost of required remediation and other circumstances.

In November 2017, Suffolk County Water Authority filed a complaint, Suffolk County Water Authority v. The Dow Chemical Company et al., against the Company and a number of other companies in the U.S. Federal Court for the Eastern District of New York with regard to the product 1,4 dioxane. The plaintiff alleges, among other things, that the Suffolk County water supply is contaminated with 1,4 dioxane and that the defendants are liable for unspecified costs of cleanup and remediation of the water supply, among other damages. The Company has not manufactured 1,4 dioxane since 2008, denies the allegations related to liability for the plaintiff's claims, and is vigorously defending this proceeding. Since December 2018, additional complaints have been filed in the same court by 15 other New York water suppliers against the Company and others making substantially similar allegations regarding the contamination of their respective water supplies with 1,4 dioxane. The Company is likewise vigorously defending these additional actions. The Company currently does not expect the outcome of these proceedings to have a material adverse impact on its consolidated financial condition, results of operations, or cash flows, net of any insurance coverage. However, it is not possible to predict the ultimate outcome of these proceedings due to the unpredictable nature of litigation.

In addition to the proceedings described above, the Company and its consolidated subsidiaries are subject from time to time to various claims, lawsuits, investigations, and proceedings related to products, services, contracts, environmental, health and safety, employment, intellectual property, and other matters, including with respect to divested businesses. The outcome of such matters is unpredictable, our assessment of them may change, and resolution of them could have a material adverse effect on the Company's

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consolidated financial position, results of operations, or cash flows. We do not currently expect the resolution of such matters to materially affect the consolidated financial position, results of operations, or cash flows of the Company.

12. Retirement Benefits

Net periodic benefit (credit) cost of our U.S. pension plans (including our unfunded nonqualified plans), non-U.S. pension plans, and postretirement health care and life insurance benefit plans for the three months ended March 31, 2019 and 2018, respectively, follow:

	U.S. Pension Plans		Non-U.S. Pension Plans		Other Benefit Plans	
	Three Months Ended March 31,					
	2019	2018	2019	2018	2019	2018
	(Dollars in thousands)					
Service cost	$ 3	$ 3	$ 433	$ 461	$ 1	$ 1
Interest cost	2,963	2,788	702	689	175	183
Expected return on plan assets	(3,153)	(3,995)	(210)	(233)	—	—
Amortization of prior service cost	—	—	20	11	—	—
Net periodic benefit (credit) cost	$ (187)	$ (1,204)	$ 945	$ 928	$ 176	$ 184

Interest cost, expected return on plan assets and amortization of prior service cost are recorded in Miscellaneous expense, net on the condensed consolidated statement of operations.

13. Stock-Based Compensation

On May 3, 2018, our shareholders approved the 2018 Omnibus Incentive Plan (the “Plan”), which was adopted by the Board of Directors on February 22, 2018, subject to shareholder approval. The Plan’s purpose is to promote the Company’s long-term financial interests and growth by attracting, retaining and motivating high-quality key employees and directors, motivating such employees and directors to achieve the Company’s short- and long-range performance goals and objectives, and thereby align their interests with those of the Company’s shareholders. The Plan reserves 4,500,000 shares of common stock to be issued for grants of several different types of long-term incentives including stock options, stock appreciation rights, restricted awards, performance awards, other common stock-based awards, and dividend equivalent rights.

The Plan replaced the 2013 Omnibus Incentive Plan (the “Previous Plan”), and no future grants may be made under the Previous Plan. However, any outstanding awards or grants made under the Previous Plan will continue until the end of their specified terms.

In the first quarter of 2019, our Board of Directors granted 0.3 million stock options, 0.2 million performance share units, and 0.2 million restricted stock units under the Plan.

We estimate the fair value of each stock option on the date of grant using the Black-Scholes option pricing model. The following table details the weighted-average grant-date fair values and the assumptions used for estimating the fair values of stock option grants made during the three months ended March 31, 2019:

	Stock Options
Weighted-average grant-date fair value	$ 6.47
Expected life, in years	5.6
Risk-free interest rate	2.5 %
Expected volatility	33.9 %

The weighted average grant date fair value of our performance share units granted in the three months ended March 31, 2019, was $17.61. We measure the fair value of performance share units based on the closing market price of our common stock on the date of the grant. These shares are evaluated each reporting period for respective attainment rates against the performance criteria.

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The weighted-average grant date fair value of our restricted share units granted in the three months ended March 31, 2019, was $17.61. We measure the fair value of restricted share units based on the closing market price of our common stock on the date of the grant. The restricted share units vest over three years.

We recognized stock-based compensation expense of $2.8 million for the three months ended March 31, 2019, and $2.4 million for the three months ended March 31, 2018. At March 31, 2019, unearned compensation cost related to the unvested portion of all stock-based compensation awards was approximately $13.8 million and is expected to be recognized over the remaining vesting period of the respective grants, through the first quarter of 2022.

14. Restructuring and Optimization Programs

Total restructuring and impairment charges were $2.1 million and $4.1 million for the three months ended March 31, 2019 and March 31, 2018, respectively. The charges primarily relate to costs associated with integration of our recent acquisitions and optimization programs, and are further summarized below.

	Employee Severance	Other Costs	Total
	(Dollars in thousands)		
Balances at December 31, 2018	$ 1,151	$ 1,288	$ 2,439
Restructuring charges	1,155	972	2,127
Cash payments	(1,460)	(488)	(1,948)
Non-cash items	(7)	(721)	(728)
Balances at March 31, 2019	$ 839	$ 1,051	$ 1,890

We expect to make cash payments to settle the remaining liability for employee severance benefits and other costs over the next twelve months, except where legal or contractual obligations would require it to extend beyond that period.

15. Leases

The Company determines if a contract is a lease at inception. The Company has leases for equipment, office space, plant sites and distribution centers. Certain of these leases include options to extend the lease and some include options to terminate the lease early. Leases with an initial term of 12 months or less are not recorded on the balance sheet and the related lease expense is recognized on a straight-line basis over the lease term.

The right of use asset represents the right to use an underlying asset for the lease term and the lease liabilities represent the Company’s obligation to make lease payments arising from the lease. Right of use assets and lease liabilities are recognized as of the commencement date based on the present value of the lease payments over the lease term. The lease term may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise the applicable option.

The Company’s lease payments consist of both fixed and variable lease payments. Residual value guarantees are not common within the Company’s lease agreements nor are restrictions or covenants imposed by leases. The Company has elected the practical expedient to combine lease and non-lease components. The Company determined the discount rate to be used in measuring lease liabilities at a portfolio level using a collateralized rate. Specifically, we segregated our lease portfolio into different populations based on (1) lease currency, (2) lease term, and (3) creditworthiness of the lessee and security structure. There are no leases that have not yet commenced but that create significant rights and obligations for the Company.

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The components of lease cost are shown below:

	Three Months Ended March 31, 2019 (Dollars in thousands)	Income Statement Location
Lease Cost		
Operating lease cost(1)	$ 1,751	Selling, general and administrative expenses
Operating lease cost(2)	2,406	Cost of sales
Finance lease cost		
Amortization of right-of-use assets	237	Cost of sales
Interest of lease liabilities	13	Interest expense
Net lease cost	$ 4,407	

(1) Included in operating lease cost is $0.3 million of short-term lease costs and $0.1 million of variable lease costs.

(2) Included in operating lease cost is $0.7 million of short-term lease costs and $0.3 million of variable lease costs.

Supplemental balance sheet information related to leases are shown below:

	March 31, 2019 (Dollars in thousands)	Balance Sheet Location
Assets		
Operating leased assets	$ 27,110	Operating leased assets
Finance leased assets(3)	2,290	Property, plant and equipment, net
Total leased assets	$ 29,400	
Liabilities		
Current		
Operating	$ 9,509	Accrued expenses and other current liabilities
Finance	795	Loans payable and current portion of long-term debt
Noncurrent		
Operating	17,562	Operating lease non-current liabilities

Finance	3,177	Long-term debt, less current portion
Total lease liabilities	$ 31,043	

(3) Finance leases are net of accumulated depreciation of $5.8 million for March 31, 2019.

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Supplemental cash flow information related to leases are shown below:

	Three Months Ended March 31, 2019 (Dollars in thousands)
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from finance leases	$ 13
Operating cash flows from operating leases	2,903
Financing cash flows from finance leases	197
Leased assets obtained in exchange for new finance lease liabilities	129
Lease assets obtained in exchange for new operating lease liabilities	29,641

	Three Months Ended March 31, 2019
Weighted-average remaining lease term (years)	
Operating leases	4.0
Finance leases	5.0
Weighted-average discount rate	
Operating leases	3.7 %
Finance leases	4.2 %

Maturities of lease liabilities are shown below as of March 31, 2019:

	Finance	Operating

	Leases	Leases
	(Dollars in thousands)	
Remaining in 2019	$ 809	$ 8,411
2020	786	7,844
2021	546	5,781
2022	1,335	3,512
2023	323	1,888
2024	285	850
Thereafter	696	1,563
Net minimum lease payments	$ 4,780	$ 29,849
Less: interest	808	2,778
Present value of lease liabilities	$ 3,972	$ 27,071

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Maturities of lease liabilities under ASC 840 are shown below as of December 31, 2018:

	Capital Leases	Operating Leases
	(Dollars in thousands)	
2019	$ 1,048	$ 11,419
2020	755	7,314
2021	477	5,302
2022	1,287	3,301
2023	279	1,971
Thereafter	992	2,401
Net minimum lease payments	$ 4,838	$ 31,708
Less: interest	875	
Present value of lease liabilities	$ 3,963	
Less: current portion	679	
Long-term obligations	$ 3,284	

16. Earnings Per Share

Details of the calculation of basic and diluted earnings per share are shown below:

	Three Months Ended March 31,	
	2019	2018
	(Dollars in thousands, except per share amounts)	
Basic earnings per share computation:		
Net income attributable to Ferro Corporation common shareholders	$ 13,604	$ 23,391
Weighted-average common shares outstanding	82,480	84,228
Basic earnings per share attributable to Ferro Corporation common shareholders	$ 0.16	$ 0.28
Diluted earnings per share computation:		
Net income attributable to Ferro Corporation common shareholders	$ 13,604	$ 23,391
Weighted-average common shares outstanding	82,480	84,228
Assumed exercise of stock options	596	839
Assumed satisfaction of restricted stock unit conditions	145	279
Assumed satisfaction of performance share unit conditions	80	164
Weighted-average diluted shares outstanding	83,301	85,510
Diluted earnings per share attributable to Ferro Corporation common shareholders	$ 0.16	$ 0.27

The number of anti-dilutive or unearned shares was 2.2 million for the three months ended March 31, 2019, and 1.7 million for the three months ended March 31, 2018. These shares were excluded from the calculation of diluted earnings per share due to their anti-dilutive impact.

17. Share Repurchase Program

The Company’s Board of Directors has approved a share repurchase program under which the Company is authorized to repurchase up to $150 million of the Company’s outstanding shares of common stock on the open market, including through a Rule 10b5-1 plan, or in privately negotiated transactions.

The timing and amount of shares to be repurchased will be determined by the Company, based on evaluation of market and business conditions, share price, and other factors. The share repurchase program does not obligate the Company to repurchase any dollar amount or number of common shares, and may be suspended or discontinued at any time.

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For the three months ended March 31, 2019, the Company repurchased 1,440,678 shares of common stock at an average price of $17.35 per share for a total cost of $25.0 million. As of March 31, 2019, $46.2 million remains authorized under the program for the purchase of common stock.

18. Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive income (loss) by component, net of tax, were as follows:

	Three Months Ended March 31,			
	Postretirement Benefit Liability Adjustments	Translation Adjustments	Net Gain on Cash Flow Hedges	Total
	(Dollars in thousands)			
Balances at December 31, 2017	$ 1,165	$ (77,578)	$ 945	$ (75,468)
Other comprehensive income before reclassifications, before tax	—	5,461	1,845	7,306
Reclassification to earnings:				
Postretirement benefit liabilities income, before tax	16	—	—	16
Cash flow hedge loss, before tax	—	—	(136)	(136)
Current period other comprehensive income, before tax	16	5,461	1,709	7,186
Tax effect	9	(198)	395	206
Current period other comprehensive income, net of tax	7	5,659	1,314	6,980
Balances at March 31, 2018	$ 1,172	$ (71,919)	$ 2,259	$ (68,488)
Balances at December 31, 2018	$ 1,126	$ (103,190)	$ (3,297)	$ (105,361)
Other comprehensive income before reclassifications, before tax	—	4,036	973	5,009
Reclassification to earnings:				
Cash flow hedge loss, before tax	—	—	(6,754)	(6,754)
Current period other comprehensive income (loss), before tax	—	4,036	(5,781)	(1,745)
Tax effect	—	634	(1,467)	(833)
Current period other comprehensive income (loss), net of tax	—	3,402	(4,314)	(912)
Balances at March 31, 2019	$ 1,126	$ (99,788)	$ (7,611)	$ (106,273)

19. Reporting for Segments

Net sales to external customers by segment are presented in the table below. Sales between segments were not material.

	Three Months Ended March 31,	
	2019	2018
	(Dollars in thousands)	
Performance Coatings	$ 170,347	$ 184,648
Performance Colors and Glass	120,845	120,505
Color Solutions	96,356	100,379
Total net sales	$ 387,548	$ 405,532

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Each segment's gross profit and reconciliations to income before income taxes are presented in the table below:

	Three Months Ended March 31,	
	2019	2018
	(Dollars in thousands)	
Performance Coatings	$ 33,645	$ 43,765
Performance Colors and Glass	39,467	43,328
Color Solutions	28,396	32,149
Other cost of sales	348	(556)
Total gross profit	101,856	118,686
Selling, general and administrative expenses	72,080	73,092
Restructuring and impairment charges	2,127	4,106
Other expense, net	9,471	10,376
Income before income taxes	$ 18,178	$ 31,112

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

Net sales for the three months ended March 31, 2019, decreased by $18.0 million, or 4.4%, compared with the prior-year same period. The decrease in net sales was driven by lower sales in Performance Coatings and Color Solutions of $14.3 million and $4.0 million, respectively, partially mitigated by an increase in sales in Performance Colors and Glass of $0.3 million. During the three months ended March 31, 2019, gross profit decreased $16.8 million, or 14.2%, compared with the prior-year same period; as a percentage of net sales, it decreased approximately 300 basis points to 26.3%. Our total gross profit for the first quarter of 2019 was $101.9 million, compared with $118.7 million for the three months ended March 31, 2018. The decrease in gross profit was attributable to decreases in Performance Coatings, Performance Colors and Glass and Color Solutions of $10.1 million, $3.9 million and $3.8 million, respectively.

For the three months ended March 31, 2019, selling, general and administrative ("SG&A") expenses decreased $1.0 million, or 1.4%, compared with the prior-year same period. As a percentage of net sales, it increased approximately 60 basis points to 18.6%.

For the three months ended March 31, 2019, net income was $13.9 million, compared with net income of $23.6 million for the prior-year same period, and net income attributable to common shareholders was $13.6 million, compared with net income attributable to common shareholders of $23.4 million for the prior-year same period.

Outlook

Throughout 2019, we will continue to execute the dynamic and optimization phase of the Company's value creation strategy, which includes organic and inorganic growth and optimization initiatives. We expect organic growth from new products and positioning our portfolio to continue transitioning to the higher end of our target markets. We also intend to advance the business through acquisitions, and investments in technology, facilities and equipment. We will continue to implement optimization initiatives throughout the Company to further improve efficiency, productivity and profitability. We will be judicious through the remainder of 2019 with our strategic investments, which may include acquisitions, share repurchases and debt retirement, and remain mindful of our overall leverage.

We believe that 2019 gross margins will compare favorably to the prior year due in part to stabilizing raw materials costs after a period of price inflation.

In the first half of 2019, we expect that uncertainty throughout the global macro-economic landscape could result in slower growth across several industries and geographic regions, particularly Europe and Asia. We expect demand will continue for our technology-driven functional coatings and color solutions in the niche markets on which we focus, and that we will continue to develop innovative new products relevant to the megatrends our customers are addressing with their products. We are actively implementing optimization initiatives throughout our global footprint to increase productivity and efficiency.

Foreign currency rates may continue to be volatile through 2019, and changes in interest rates could adversely impact reported results. We expect cash flow from operating activities to continue to be available for debt pay down and other strategic investments.

Factors that could adversely affect our future performance include those described under the heading “Risk Factors” in Item 1A of Part I of this Annual Report on Form 10-K for the year ended December 31, 2018.

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Results of Operations - Consolidated

Comparison of the three months ended March 31, 2019 and 2018

For the three months ended March 31, 2019, net income was $13.9 million, compared with net income of $23.6 million for the three months ended March 31, 2018. For the three months ended March 31, 2019, net income attributable to common shareholders was $13.6 million, or earnings per share of $0.16, compared with net income attributable to common shareholders of $23.4 million, or earnings per share of $0.28, for the three months ended March 31, 2018.

Net Sales

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Net sales	$ 387,548	$ 405,532	$ (17,984)	(4.4) %
Cost of sales	285,692	286,846	(1,154)	(0.4) %
Gross profit	$ 101,856	$ 118,686	$ (16,830)	(14.2)%
Gross profit as a % of net sales	26.3 %	29.3 %		

Net sales decreased by $18.0 million, or 4.4%, for the three months ended March 31, 2019, compared with the prior-year same period, driven by lower sales in Performance Coatings and Color Solutions of $14.3 million and $4.0 million, respectively, partially mitigated by an increase in sales in Performance Colors and Glass of $0.3 million. The decrease in net sales was driven by unfavorable foreign currency impacts of $20.7 million and lower volume and mix of $19.0 million, partially mitigated by sales from acquisitions of $15.7 million and higher product pricing of $6.0 million.

Gross Profit

Gross profit decreased $16.8 million, or 14.2%, for the three months ended March 31, 2019, compared with the prior-year same period, and as a percentage of net sales, it decreased 300 basis points to 26.3%. The decrease in gross profit was attributable to decreases in Performance Coatings, Performance Colors and Glass and Color Solutions of $10.1 million, $3.9 million and $3.8 million, respectively. The decrease in gross profit was driven by lower sales volumes and mix of $9.3 million, higher manufacturing costs of $7.8 million, unfavorable foreign currency impacts of $5.9 million and higher raw material costs of $5.1 million, partially mitigated by favorable product pricing of $6.0 million and gross profit from acquisitions of $4.4 million.

Geographic Revenues

The following table presents our sales on the basis of where sales originated.

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Geographic Revenues on a sales origination basis				
EMEA	$ 206,441	$ 220,943	$ (14,502)	(6.6) %
United States	95,578	91,536	4,042	4.4 %
Asia Pacific	48,260	52,400	(4,140)	(7.9) %
Latin America	37,269	40,653	(3,384)	(8.3) %
Net sales	$ 387,548	$ 405,532	$ (17,984)	(4.4) %

The decline in net sales of $18.0 million, compared with the prior-year same period, was driven by a decrease in sales from EMEA, Asia Pacific and Latin America, partially mitigated by an increase in sales from the United States. The decrease in sales from EMEA was attributable to lower sales in Performance Coatings, Color Solutions and Performance Colors and Glass of $5.7 million, $4.9 million and $3.9 million, respectively. The decrease in sales from Asia Pacific was attributable to lower sales in Performance Coatings and Color Solutions of $3.1 million and $1.1 million, respectively, partially mitigated by an increase in sales in Performance

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Colors and Glass of $0.1 million. The decrease in sales from Latin America was attributable to lower sales in Performance Coatings of $4.4 million, partially mitigated by an increase in sales from Performance Colors and Glass of $1.0 million. The increase in sales from the United States was attributable to higher sales in Performance Colors and Glass and Color Solutions of $3.2 million and $2.0 million, respectively, partially offset by a decrease in sales in Performance Coatings of $1.1 million.

The following table presents our sales on the basis of where sold products were shipped.

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Geographic Revenues on a shipped-to basis				
EMEA	$ 193,829	$ 210,331	$ (16,502)	(7.8) %
Asia Pacific	86,743	76,260	10,483	13.7 %
United States	67,015	71,365	(4,350)	(6.1) %
Latin America	39,961	47,576	(7,615)	(16.0) %
Net sales	$ 387,548	$ 405,532	$ (17,984)	(4.4) %

Selling, General and Administrative Expenses

The following table includes SG&A components with significant changes between 2019 and 2018.

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Personnel expenses (excluding R&D personnel expenses)	$ 34,411	$ 33,757	654	1.9 %
Research and development expenses	10,998	10,841	157	1.4 %
Business development	2,475	2,423	52	2.1 %
Incentive compensation	1,375	2,966	(1,591)	(53.6) %

Stock-based compensation	2,769	2,430	339	14.0 %
Intangible asset amortization	2,343	2,073	270	13.0 %
Pension and other postretirement benefits	323	342	(19)	(5.6) %
Bad debt	230	105	125	119.0 %
All other expenses	17,156	18,155	(999)	(5.5) %
Selling, general and administrative expenses	$ 72,080	$ 73,092	$ (1,012)	(1.4) %

SG&A expenses were $1.0 million lower in the three months ended March 31, 2019, compared with the prior-year same period. The lower SG&A expenses compared to the prior-year same period are primarily driven by lower incentive compensation and an adjustment to an environmental reserve, partially offset by greater expenses associated with businesses acquired within the last year.

The following table presents SG&A expenses attributable to sales, research and development and operations costs as strategic services and other SG&A costs as functional services.

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Strategic services	$ 40,325	$ 41,178	$ (853)	(2.1) %
Functional services	27,611	26,518	1,093	4.1 %
Incentive compensation	1,375	2,966	(1,591)	(53.6) %
Stock-based compensation	2,769	2,430	339	14.0 %
Selling, general and administrative expenses	$ 72,080	$ 73,092	$ (1,012)	(1.4) %

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Restructuring and Impairment Charges

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Employee severance	$ 1,155	$ 657	$ 498	75.8 %
Other restructuring costs	972	3,449	(2,477)	(71.8)%
Restructuring and impairment charges	$ 2,127	$ 4,106	$ (1,979)	(48.2)%

Restructuring and impairment charges decreased in the first quarter of 2019 compared with the prior-year same period. The decrease primarily relates to lower costs associated with integration of our recent acquisitions and optimization programs in the first quarter of 2019, compared with the prior-year same period, partially offset by an increase in employee severance costs.

Interest Expense

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Interest expense	$ 8,597	$ 7,251	$ 1,346	18.6 %
Amortization of bank fees	900	870	30	3.4 %
Interest swap amortization	(316)	—	(316)	— %
Interest capitalization	(636)	(159)	(477)	300.0 %
Interest expense	$ 8,545	$ 7,962	$ 583	7.3 %

Interest expense increased in the first quarter of 2019 compared with the prior-year same period. The increase in interest expense was due to an increase in the average long-term debt balance during the three months ended March 31, 2019, compared with the prior-year same period, offset by an increase in capitalized interest.

Income Tax Expense

During the first quarter of 2019, income tax expense was $4.3 million, or 23.7% of pre-tax income. In the first quarter of 2018, we recorded tax expense of $7.5 million, or 24.2% of pre-tax income. The tax expense in the first quarter of 2019 and 2018, as a percentage of pre-tax income, is higher than the U.S. federal statutory income tax rate of 21% primarily as a result of foreign statutory rate differences.

Results of Operations - Segment Information

Comparison of the three months ended March 31, 2019 and 2018

Performance Coatings

	Three Months Ended March 31,				Change due to				
	2019	2018	$ Change	% Change	Price	Volume / Mix	Currency	Acquisitions	Other
	(Dollars in thousands)								
Segment net sales	$ 170,347	$ 184,648	$ (14,301)	(7.7) %	$ 2,764	$ (15,088)	$ (10,734)	$ 8,757	$ —
Segment gross profit	33,645	43,765	(10,120)	(23.1) %	2,764	(5,693)	(2,637)	1,466	(6,020)
Gross profit as a % of segment net sales	19.8 %	23.7 %							

Net sales decreased in Performance Coatings compared with the prior-year same period, primarily driven by decreases in sales of frits and glazes and colors of $9.9 million and $6.0 million, respectively. The decrease in net sales was driven by unfavorable volume

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and mix of $15.1 million, unfavorable foreign currency impacts of $10.7 million, partially mitigated by sales from acquisitions of $8.8 million and higher product pricing of $2.8 million. Gross profit decreased $10.1 million from the prior-year same period, primarily driven by lower sales volume and mix of $5.7 million, higher raw material costs of $3.8 million, unfavorable foreign currency impacts of $2.6 million and higher manufacturing costs of $2.2 million, partially mitigated by favorable product pricing impacts of $2.8 million and gross profit from acquisitions of $1.5 million.

	Three Months Ended March 31,			
	2019	2018	$ Change	% Change
	(Dollars in thousands)			
Segment net sales by Region				
EMEA	$ 113,426	$ 119,116	$ (5,690)	(4.8) %
Latin America	22,365	26,766	(4,401)	(16.4)%
Asia Pacific	22,865	25,947	(3,082)	(11.9)%
United States	11,691	12,819	(1,128)	(8.8) %
Total	$ 170,347	$ 184,648	$ (14,301)	(7.7) %

The net sales decrease of $14.3 million was driven by lower sales from all regions. The decrease in sales from EMEA was primarily attributable to lower sales of colors of $5.4 million, frits and glazes of $3.9 million and opacifiers of $3.4 million, partially mitigated by an increase in sales from Quimicer of $7.8 million. The decrease in sales from Latin America was primarily driven by lower sales of frits and glazes and opacifiers of $2.7 million and $0.7 million, respectively. The decrease in sales from Asia Pacific was driven by lower sales of frits and glazes and colors of $3.2 million and $0.5 million, respectively, partially mitigated by sales from FMU, which contributed $1.0 million. The decrease in sales from the United States was fully attributable to lower sales of porcelain enamel.

Performance Colors and Glass

Three Months Ended March 31,				Change due to				
2019	2018	$ Change	% Change	Price	Volume / Mix	Currency	Acquisitions	Other

(Dollars in thousands)