



Where innovation
delivers performance

FERRO REPORTS FOURTH QUARTER AND FULL YEAR 2019 RESULTS

Tile Coatings Systems moved to Discontinued Operations following agreement to sell

Fourth Quarter Continuing Operations*

- Net Sales declined 7.7% to \$245.9M
- Gross Profit of \$75.3M, Gross Profit Margin of 30.6%
- Adjusted Gross Profit Margin of 31.0%
- GAAP diluted EPS of \$(0.03), Adjusted EPS of \$0.17
- Net Loss¹ of \$2.2M
- Adjusted EBITDA of \$37.4M, Adjusted EBITDA Margin of 15.2%

Full Year Continuing Operations*

- Net Sales declined 5.9% to \$1,018.4M
- Gross Profit of \$308.8M, Gross Profit Margin of 30.3%
- Adjusted Gross Profit Margin of 31.0%
- GAAP diluted EPS of \$0.41, Adjusted EPS of \$0.83
- Net Income¹ of \$34.3M
- Adjusted EBITDA of \$158.9M, Adjusted EBITDA Margin of 15.6%

*Comparative information is relative to prior-year fourth quarter and full year Continuing Operations.

¹ Note: Net Income (Loss) attributable to Ferro Corporation common shareholders.



Ferro's growth in 2019 was hampered by challenging macro-economic conditions in certain geographies and end markets and by cyclical customer orders falling outside the year. We managed through these challenges with optimization initiatives that enabled operating margins to recover and, with some tailwinds from lower raw material costs, we completed the year comfortably within our revised Total Ferro Adjusted EPS guidance. We are optimistic that the more positive trends in the fourth quarter will continue into 2020, due to continued optimization, as well as economic strengthening in a number of our high-value end markets.

We are making progress toward completion of the sale of our Tile Coatings Systems business, which we announced in December 2019. We are looking forward to completion of the sale, after which Ferro will have a portfolio of businesses more concentrated in specialty materials and more targeted to higher-growth end markets. Our Company also will have better balance to its geographic footprint and the financial flexibility to make greater investments in growth, both organic and inorganic.

2020 will be a transition year for Ferro as we focus on closing the Tile Coatings Systems sale, advancing optimization initiatives, right-sizing the footprint and cost structure of the business, and removing stranded costs. We expect the enhanced profile of Ferro to be in place in 2021, at which point Ferro will be well-positioned to accelerate growth and innovation and to benefit from our ongoing optimization efforts. After the transition, we believe Ferro should yield, on average, double-digit year-on-year Adjusted EBITDA growth.

Peter Thomas
Chairman, President and CEO, Ferro Corporation



Key Results from Continuing Operations*

(amounts in millions, except EPS)

Sales and Gross Profits

	Q4 2019	% Change	2019	% Change
Net Sales	\$ 245.9	-7.7%	\$ 1,018.4	-5.9%
Net Sales (constant currency)	245.9	-6.8%	1,018.4	-3.3%
Gross Profit (GAAP)	75.3	-6.5%	308.8	-9.1%
Adjusted Gross Profit ^{cc}	76.2	-8.7%	316.0	-6.3%

Net Income/(Loss), EBITDA and EPS

	Q4 2019	% Change	2019	% Change
Net Income/(Loss) ¹	\$ (2.2)	NM	\$ 34.3	-38.8%
Adjusted EBITDA	37.4	-11.9%	158.9	-13.9%
GAAP diluted EPS	\$ (0.03)	NM	\$ 0.41	-37.9%
Adjusted EPS	0.17	-48.5%	0.83	-27.2%

Cash Flow

	Q4 2019	% Change	2019	% Change
Net Cash provided by operating activities (GAAP) ²	\$ 85.0	-42.3%	\$ 17.7	NM
Adjusted Free Cash Flow from Operating Activities (Non-GAAP) ³	111.0	-29.6%	130.2	-31.2%

*Comparative information is relative to prior-year fourth quarter and full year Continuing Operations.

¹ Note: Net Income (Loss) attributable to Ferro Corporation common shareholders.

² Note: Table 4 Condensed Consolidated Statements of Cash Flows

³ Note: Table 12 Adjusted Free Cash Flow from Operating Activities (Non-GAAP)

2019 Highlights

In the fourth quarter of 2019, Ferro announced that it had signed a definitive agreement to divest its Tile Coating Systems business. Completion of the transaction is expected to occur in the second half of 2020, subject to the receipt of regulatory approvals and the satisfaction or waiver of other customary conditions to closing. The transaction is expected to yield at close net proceeds of approximately \$430 million to \$440 million. Management expects net proceeds from the transaction to be used primarily to pay down debt. In accordance with U.S. Generally Accepted Accounting Principles (GAAP), the Tile Coatings Systems business now is being classified as “held for sale” and reported as Discontinued Operations.

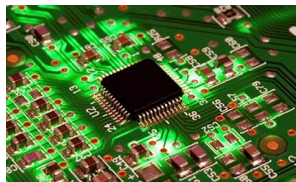
The 2019 full-year GAAP diluted EPS for Continuing Operations was \$0.41 and Adjusted EPS was \$0.83. Discontinued Operations GAAP EPS was a loss of \$0.34. Included in Discontinued Operations are \$42.5 million in impairment charges, \$1.4 million in restructuring costs, and \$13.6 million in transaction costs, for a total of \$57.5 million net of tax, or \$0.69 per share, that historically would have been excluded from Adjusted EPS for the year ended December 31, 2019. Without the effect of those charges, combined Continuing Operations and Discontinued Operations EPS would have been near the midpoint of the Company’s 2019 Full Year Adjusted diluted EPS guidance of \$1.15 to \$1.20.

The 2019 full-year GAAP Net Income¹ for Continuing Operations was \$34.3 million. Adjusted EBITDA from Continuing Operations was \$158.9 million. Discontinued Operations Net Loss¹ was \$28.3 million and Discontinued Operations EBITDA was \$44.4 million. Included in the Discontinued Operations EBITDA are transaction costs of \$17.6 million that historically would have been excluded from adjusted EBITDA for the year ended December 31, 2019. Without the effect of those charges, combined Continued and Discontinued Adjusted EBITDA would have been near the Company’s 2019 Full Year Adjusted EBITDA guidance of \$222 million to \$227 million.

¹ Note: Net Income (Loss) attributable to Ferro Corporation common shareholders.

Segment Results Continuing Operations * (amounts in millions, except EPS)

Performance Colors & Glass



Net Sales	\$ 160.4	-4.8%	\$ 648.7	-6.1%
Net Sales (Constant Currency)	160.4	-3.9%	648.7	-3.4%
Gross Profit (GAAP)	47.9	-0.2%	193.5	-8.9%
Adjusted Gross Profit (Constant Currency)	48.2	-1.2%	196.1	-4.8%

Q4 2019	% Change	2019	% Change
\$ 160.4	-4.8%	\$ 648.7	-6.1%
160.4	-3.9%	648.7	-3.4%
47.9	-0.2%	193.5	-8.9%
48.2	-1.2%	196.1	-4.8%

Color Solutions



Net Sales	\$ 85.5	-12.7%	\$ 369.7	-5.5%
Net Sales (Constant Currency)	85.5	-11.8%	369.7	-3.0%
Gross Profit (GAAP)	27.7	-10.5%	114.9	-7.9%
Adjusted Gross Profit (Constant Currency)	27.8	-16.0%	117.0	-7.5%

Q4 2019	% Change	2019	% Change
\$ 85.5	-12.7%	\$ 369.7	-5.5%
85.5	-11.8%	369.7	-3.0%
27.7	-10.5%	114.9	-7.9%
27.8	-16.0%	117.0	-7.5%

*Comparative information is relative to prior-year fourth quarter and full year.

Full Year 2020 Continuing Operations Guidance

	Net Sales (% of PY Sales)	Adjusted EBITDA	Adjusted Diluted EPS	Net Debt/ Adj. EBITDA Leverage
2019 Results	\$1.018.4M	\$158.9M	\$0.83	3.2x
2020 Guidance	flat to +2.0%	\$160M - \$170M	\$0.82 - \$0.92	Approximately 1.5x²
YoY Change		Flat to +7%	Flat to +11%	
YoY Constant Change ¹	2% to 3%	2% to 9%	1% to 13%	

The 2020 guidance assumes no acquisitions, divestitures, restructuring, acquisition-related professional fees, optimization programs spend, or repurchase of common stock.

¹ Remeasurement of 2019 reported and adjusted results using 2020 guidance exchange rates

² Pro forma year end 2020 Net Debt/Adjusted EBITDA reflects reducing debt with anticipated proceeds from closing the Tile Coating Systems sale, in the second half of 2020 and anticipated cashflows for 2020.

Note: The full-year 2020 guidance uses foreign exchange rates as of February 21, 2020 which includes a USD/EUR exchange rate at 1.085.

Ferro is providing Adjusted Diluted EPS and Adjusted EBITDA guidance on a continuing operations basis. While it is likely that Ferro could incur charges for items excluded from Adjusted Diluted EPS and Adjusted EBITDA such as mark-to-market adjustments of pension and other postretirement benefit obligations, restructuring and impairment charges, and legal and professional expenses related to certain business development activities, it is not possible, without unreasonable effort, to identify the amount or significance of these items or the potential for other transactions that may impact future GAAP net income and cash flow from operating activities. Management does not believe these items to be representative of underlying business performance. Management is unable to reconcile, without unreasonable effort, the Company's forecasted range of these adjusted non-GAAP financial measures to their most directly comparable GAAP financial measures.

Currency Exposure 2019 Weighting	
EUR - Euro	35% to 40%
CNY -Yuan Renminbi	6% to 8%
MXN – Mexican Peso	2% to 4%

2020 Guidance FX sensitivity	
% Change	Operating Profit
+1% all FX change	~\$0.6 million to ~\$0.8 million
+1% Euro change	~\$0.5 million to ~\$0.7 million

Constant Currency

Constant currency results reflect the remeasurement of 2018 reported and adjusted local currency results using 2019 exchange rates, which produces constant currency comparative figures to 2019` reported and adjusted results. These non-GAAP financial measures should not be considered as a substitute for the measures of financial performance prepared in accordance with GAAP.

Conference Call

Ferro will conduct an investor teleconference at 8:00 a.m. EDT Tuesday March 3, 2020. Investors can access this conference via any of the following:

- Webcast can be accessed by clicking on the Investors link at the top of Ferro’s website at ferro.com.
- Live telephone: Call 800-672-1506 within the U.S. or +1 303-223-2698 outside the U.S. Please join the call at least 10 minutes before the start time.
- Webcast replay: Available on Ferro’s Investor website at ferro.com beginning at approximately 4:30 p.m. Eastern Time on March 3, 2020.
- Telephone replay: Call 800-633-8284 within the U.S. or +1 402-977-9140 outside the U.S. (for both U.S. and outside the U.S. access code is 21952346).
- Presentation material and podcast: Earnings presentation material and podcasts can be accessed through the Investors portion of the Company’s website at ferro.com.

About Ferro Corporation

Ferro Corporation (www.ferro.com) is a leading global supplier of technology-based functional coatings and color solutions. Ferro supplies functional coatings for glass, metal, ceramic and other substrates and color solutions in the form of specialty pigments and colorants for a broad range of industries and applications. Ferro products are sold into the building and construction, automotive, electronics, industrial products, household furnishings and appliance markets. The Company’s reportable segments include: Performance Colors and Glass and Color Solutions. Headquartered in Mayfield Heights, Ohio, the Company has approximately 5,900 associates globally and reported 2019 sales of \$1.0 billion. Included within our employee count are approximately 2,100 employees in our foreign consolidated subsidiaries associated with the Tile Coatings Systems business.

Cautionary Note on Forward-Looking Statements

Certain statements in this press release may constitute “forward-looking statements” within the meaning of federal securities laws. These statements are subject to a variety of uncertainties, unknown risks, and other factors concerning the Company’s operations and business environment. Important factors that could cause actual results to differ materially from those suggested by these forward-looking statements and that could adversely affect the Company’s future financial performance include the following:

- Ferro’s ability to successfully complete the sale of its Tile Coatings Systems business, including obtaining the requisite regulatory approvals;
- demand in the industries into which Ferro sells its products may be unpredictable, cyclical, or heavily influenced by consumer spending;
- the effectiveness of the Company’s efforts to improve operating margins through sales growth, price increases, productivity gains, and improved purchasing techniques;
- currency conversion rates and economic, social, political, and regulatory conditions in the U.S. and around the world;
- the availability of reliable sources of energy and raw materials at a reasonable cost;
- challenges associated with a multi-national company such as Ferro competing lawfully with local competitors in certain regions of the world;
- Ferro’s ability to successfully implement and/or administer its optimization initiatives, including its investment and restructuring programs, and to produce the desired results;
- Ferro’s ability to successfully introduce new products and services or enter into new growth markets;
- Ferro’s ability to identify suitable acquisition candidates, complete acquisitions, effectively integrate the acquired businesses and achieve the expected synergies, as well as the acquisitions being accretive and Ferro achieving the expected returns on invested capital;
- the impact of damage to, or the interruption, failure or compromise of the Company’s information systems due to events including but not limited to aging information systems infrastructure, computer viruses and cyber security breaches;
- the implementation and operations of business information systems and processes;
- increasingly aggressive domestic and foreign governmental regulation of hazardous and other materials and regulations affecting health, safety and the environment;
- our ability to address safety, human health, social, product liability and environmental risks associated with our current and historical products, product life cycles and production processes;
- competitive factors, including intense price competition;
- increased, and possibly inconsistent, domestic and foreign regulations of privacy and data security;
- changes in U.S. and other governments’ trade policies;
- restrictive covenants in the Company’s credit facilities could affect its strategic initiatives and liquidity;
- Ferro’s ability to access capital markets, borrowings or financial transactions; sale of products and materials into highly regulated industries;
- limited or no redundancy for certain of the Company’s manufacturing facilities and possible interruption of operations at those facilities;
- our ability to attract and retain key personnel;
- exposure to lawsuits, governmental investigations and proceedings relating to current and historical operations and products;
- Ferro’s ability to protect its intellectual property, including trade secrets, or to successfully resolve claims of infringement brought against it;
- Ferro’s multi-jurisdictional tax structure and its ability to reduce its effective tax rate, including the impact of the Company’s performance on its ability to utilize significant deferred tax assets;
- Ferro’s borrowing costs could be affected adversely by interest rate increases;

Cautionary Note on Forward-Looking Statements (continued)

- management of Ferro's general and administrative expenses;
- the impact of the Tax Cuts and Jobs Act on our business;
- stringent labor and employment laws and relationships with the Company's employees;
- the impact of requirements to fund employee benefit costs, especially post-retirement costs;
- implementation of business processes and information systems, including the outsourcing of functions to third parties;
- risks associated with the manufacture and sale of material into industries making products for sensitive applications;
- risks and uncertainties associated with intangible assets;
- the effectiveness of strategies to increase Ferro's return on invested capital, internal rate of return and other return metrics, and the short-term impact that acquisitions may have on such metrics;
- liens on the Company's assets by its lenders affect its ability to dispose of property and businesses;
- amount and timing of any repurchase of Ferro's common stock; and
- other factors affecting the Company's business that are beyond its control, including disasters, pandemics (such as COVID-19), accidents and governmental actions.

The risks and uncertainties identified above are not the only risks the Company faces. Additional risks and uncertainties not presently known to the Company or that it currently believes to be immaterial also may adversely affect the Company. Should any known or unknown risks and uncertainties develop into actual events, these developments could have material adverse effects on our business, financial condition and results of operations.

This release contains time-sensitive information that reflects management's best analysis only as of the date of this release. The Company does not undertake any obligation to publicly update or revise any forward-looking statements to reflect future events, information or circumstances that arise after the date of this release.

Additional information regarding these risks can be found in our Annual Report on Form 10-K for the year ended December 31, 2019.

Ferro Corporation

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Table 1
Ferro Corporation and Subsidiaries
Consolidated Statements of Operations

(Dollars in thousands, except per share amounts)

	Three Months Ended		Twelve Months Ended	
	December 31, (Unaudited)		December 31,	
	2019	2018	2019	2018
Net sales	\$ 245,857	\$ 266,492	\$ 1,018,366	\$ 1,082,223
Cost of sales	170,581	186,023	709,550	742,488
Gross profit	75,276	80,469	308,816	339,735
Selling, general and administrative expenses	54,668	56,106	212,485	219,947
Restructuring and impairment charges	3,094	2,303	10,955	7,116
Other expense (income):				
Interest expense	5,042	5,207	24,302	23,659
Interest earned	(188)	(142)	(3,325)	(3,672)
Foreign currency losses, net	1,504	1,710	9,166	6,335
Loss on extinguishment of debt	-	-	-	3,226
Miscellaneous expense, net	13,825	14,823	11,722	12,074
Income before income taxes	(2,669)	463	43,511	71,050
Income tax (benefit) expense	(858)	(11,231)	8,119	14,130
Income from continuing operations	(1,811)	11,694	35,392	56,920
Income from discontinued operations, net of taxes	(28,971)	(350)	(27,977)	24,026
Net (loss) income	(30,782)	11,344	7,415	80,946
Less: Net income attributable to noncontrolling interests	475	368	1,377	853
Net income (loss) attributable to Ferro Corporation common shareholders	<u>\$ (31,257)</u>	<u>\$ 10,976</u>	<u>\$ 6,038</u>	<u>\$ 80,093</u>
Amounts attributable to Ferro Corporation:				
Net income attributable to Ferro Corporation from continuing operations, net of income tax	(2,237)	11,444	34,305	56,069
Net income (loss) attributable to Ferro Corporation from discontinued operations, net of income tax	(29,020)	(468)	(28,267)	24,024
Earnings (loss) per share attributable to Ferro Corporation common shareholders:				
Basic earnings:				
Continuing operations	\$ (0.03)	\$ 0.14	\$ 0.41	\$ 0.67
Discontinued operations	\$ (0.35)	\$ (0.00)	\$ (0.34)	\$ 0.28
Diluted earnings:				
Continuing operations	\$ (0.03)	\$ 0.14	\$ 0.41	\$ 0.66
Discontinued operations	\$ (0.35)	\$ (0.00)	\$ (0.34)	\$ 0.28
Shares outstanding:				
Weighted-average basic shares	81,977	83,298	82,083	83,940
Weighted-average diluted shares	82,471	84,278	82,891	85,085
End-of-period basic shares	82,004	83,002	82,004	83,002

Table 2
Ferro Corporation and Subsidiaries
Segment Net Sales and Gross Profit from Continuing Operations (unaudited)

(Dollars in thousands)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Segment Net Sales				
Performance Colors and Glass	160,400	168,554	648,692	691,196
Color Solutions	85,457	97,938	369,674	391,027
Total segment net sales	\$ 245,857	\$ 266,492	\$ 1,018,366	\$ 1,082,223
Segment Gross Profit				
Performance Colors and Glass	47,946	48,060	193,508	212,364
Color Solutions	27,719	30,988	114,939	124,852
Other costs of sales	(389)	1,421	369	2,519
Total gross profit	\$ 75,276	\$ 80,469	\$ 308,816	\$ 339,735
Selling, general and administrative expenses				
Strategic services	23,439	27,164	103,603	110,491
Functional services	28,870	22,479	99,017	93,624
Incentive compensation	898	3,239	2,459	7,391
Stock-based compensation	1,461	3,224	7,406	8,441
Total selling, general and administrative expenses	\$ 54,668	\$ 56,106	\$ 212,485	\$ 219,947

Table 3
Ferro Corporation and Subsidiaries
Consolidated Balance Sheets

(Dollars in thousands)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	\$ 96,202	\$ 96,101
Accounts receivable, net	135,804	154,907
Inventories	264,622	245,771
Other receivables	69,365	71,653
Other current assets	22,373	21,146
Current assets held-for-sale	294,803	298,205
Total current assets	883,169	887,783
Other assets		
Property, plant and equipment, net	300,005	275,539
Goodwill	172,209	172,953
Intangible assets, net	127,820	141,963
Deferred income taxes	98,714	88,526
Operating leased assets	21,684	-
Other non-current assets	72,021	89,741
Non-current assets held-for-sale	158,999	209,571
Total assets	\$ 1,834,621	\$ 1,866,076
LIABILITIES AND EQUITY		
Current liabilities		
Loans payable and current portion of long-term debt	\$ 8,703	\$ 8,921
Accounts payable	138,830	132,753
Accrued payrolls	27,447	36,593
Accrued expenses and other current liabilities	73,759	52,867
Current liabilities held-for-sale	133,006	158,182
Total current liabilities	381,745	389,316
Other liabilities		
Long-term debt, less current portion	798,862	806,081
Postretirement and pension liabilities	174,021	166,681
Operating leased non-current liabilities	15,326	-
Other non-current liabilities	56,976	53,666
Non-current liabilities held-for-sale	37,489	64,483
Total liabilities	1,464,419	1,480,227
Equity		
Total Ferro Corporation shareholders' equity	360,376	376,631
Noncontrolling interests	9,826	9,218
Total liabilities and equity	\$ 1,834,621	\$ 1,866,076

Table 4
Ferro Corporation and Subsidiaries
Condensed Consolidated Statements of Cash Flows

(Dollars in thousands)

	Three Months Ended		Twelve Months Ended	
	December 31, (Unaudited)		December 31,	
	2019	2018	2019	2018
Cash flows from operating activities				
Net (loss) income	\$ (30,782)	\$ 11,344	\$ 7,415	\$ 80,946
Loss (gain) on sale of assets and businesses	31	(321)	(916)	164
Depreciation and amortization	10,738	13,736	55,879	53,974
Interest amortization	975	893	3,755	3,577
Restructuring and impairment charges	34,865	(193)	44,702	4,084
Loss on extinguishment of debt	—	—	—	3,226
Accounts receivable	3,638	56,324	(74,444)	19,885
Inventories	(1,396)	24,911	(10,578)	(33,922)
Accounts payable	53,377	24,784	(10,075)	35,887
Other current assets and liabilities, net	5,485	16,051	9,220	(1,280)
Other adjustments, net	8,019	(422)	(7,248)	16,252
Net cash provided by operating activities	84,950	147,107	17,710	182,793
Cash flows from investing activities				
Capital expenditures for property, plant and equipment and other long-lived assets	(24,150)	(16,465)	(64,970)	(80,619)
Collections of financing receivables	23,663	7,020	84,567	7,020
Business acquisitions, net of cash acquired	—	(27,152)	(251)	(74,954)
Other investing activities	27	—	1,957	37
Net cash (used in) provided by investing activities	(460)	(36,597)	21,303	(148,516)
Cash flows from financing activities				
Net (repayments) borrowings under loan payable	(8,175)	(1,895)	45	(19,077)
Principal payments on term loan facility - Credit Facility	—	—	—	(304,060)
Principal payments on term loan facility - Amended Credit Facility	(2,050)	(2,050)	(8,200)	(6,150)
Proceeds from term loan facility - Amended Credit Facility	—	—	—	466,075
Proceeds from revolving credit facility - Credit Facility	—	—	—	134,950
Principal payments on revolving credit facility - Credit Facility	—	—	—	(212,950)
Proceeds from revolving credit facility - Amended Credit Facility	11,035	72,012	227,101	240,035
Principal payments on revolving credit facility - Amended Credit Facility	(33,506)	(183,945)	(227,101)	(240,035)
Payment of debt issuance costs	—	—	—	(3,466)
Acquisition related contingent consideration payment	—	—	(5,200)	(9,464)
Proceeds from exercise of stock options	1,052	764	1,052	764
Purchase of treasury stock	—	(11,808)	(25,000)	(28,807)
Other financing activities	(1,135)	(4,932)	(1,892)	(8,448)
Net cash (used in) provided by financing activities	(32,779)	(131,854)	(39,195)	9,367
Effect of exchange rate changes on cash and cash equivalents	950	(633)	283	(2,894)
(Decrease) increase in cash and cash equivalents	52,661	(21,977)	101	40,750
Cash and cash equivalents at beginning of period	51,741	126,278	104,301	63,551
Cash and cash equivalents at end of period	104,402	104,301	104,402	104,301
Less: Cash and cash equivalents of discontinued operations at end of period	8,200	8,200	8,200	8,200
Cash and cash equivalents of continuing operations at end of period	\$ 96,202	\$ 96,101	\$ 96,202	\$ 96,101
Cash paid during the period for:				
Interest	\$ 7,954	\$ 9,053	\$ 33,429	\$ 33,910
Income taxes	\$ 8,837	\$ 19,212	\$ 21,682	\$ 36,789

Table 5
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income from Continuing Operations to Adjusted Income
From Continuing Operations for the Three Months Ended December 31 (unaudited)

(Dollars in thousands, except per share amounts)	Cost of sales	Selling general and administrative expenses	Restructuring and impairment charges	Other expense, net	Income tax expense ⁴	Net income (loss) attributable to common shareholders	Diluted earnings (loss) per share
	2019						
As reported from Continuing Operations	\$ 170,581	\$ 54,668	\$ 3,094	\$ 20,183	\$ (858)	\$ (2,237)	\$ (0.03)
Adjustments:							
Restructuring Pension ¹	—	—	(3,094)	—	—	3,094	0.04
Acquisition related costs ²	(15)	(518)	—	—	—	533	0.01
Costs related to optimization projects	(924)	(3,542)	—	—	—	4,466	0.05
Costs related to divested businesses and assets	—	(1,239)	—	(54)	—	1,293	0.02
Tax on adjustments	—	—	—	—	6,290	(6,290)	(0.08)
Total adjustments ⁶	(939)	(5,299)	(3,094)	(13,246)	6,290	16,288	0.20
As adjusted from Continuing Operations	\$ 169,642	\$ 49,369	\$ —	\$ 6,937	\$ 5,432	\$ 14,051	\$ 0.17
As reported from Discontinued Operations⁷	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (29,020)	\$ (0.35)
	2018						
As reported from Continuing Operations	\$ 186,023	\$ 56,106	\$ 2,303	\$ 21,598	\$ (11,231)	\$ 11,444	\$ 0.14
Adjustments:							
Restructuring Pension ¹	—	—	(2,303)	—	—	2,303	0.03
Acquisition related costs ³	(1,794)	(1,120)	—	—	—	2,914	0.03
Costs related to optimization projects	(1,863)	(2,617)	—	—	—	4,480	0.05
Costs related to divested businesses and assets	—	(286)	—	—	—	286	—
Other ⁵	—	—	—	689	—	(689)	(0.01)
Tax on adjustments	—	—	—	—	11,489	(11,489)	(0.14)
Total adjustments ⁶	(3,657)	(4,023)	(2,303)	(17,611)	11,489	16,105	0.18
As adjusted from Continuing Operations	\$ 182,366	\$ 52,083	\$ —	\$ 3,987	\$ 258	\$ 27,548	\$ 0.33
As reported from Discontinued Operations⁷	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (468)	\$ (0.01)

(1) The adjustments relate to pension and other postretirement benefit mark-to-market adjustments and settlements.

(2) The adjustments to "Cost of Sales" primarily include environmental costs related to our recent acquisitions. The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs.

(3) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions. The adjustments to "Selling, general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs.

(4) Income tax expense reflects the reported expense, adjusted for adjustments being tax effected at the respective statutory rate where the item originated, as well as the impacts associated with the Tax Cuts and Jobs Act that were recorded in 2019 and 2018.

(5) The adjustments to "Other expense, net" primarily relate to a earn out adjustments for acquisitions.

(6) Due to rounding, total earnings per share related to adjustments does not always add to the total adjusted earnings per share.

(7) Included in Discontinued Operations are \$33.4 million in impairment charges, \$0.1 million in restructuring charges, and \$3.3 million in acquisition costs totaling \$36.8 million net of tax, or \$0.45 per share, that would have historically been excluded from Adjusted Earnings Per Share for the three months ended December 31, 2019 and \$0.4 million in restructuring charges and

\$0.5 million in acquisition costs totaling \$0.9 million net of tax, or \$0.01 per share, that would have historically been excluded from Adjusted Earnings Per Share for the three months ended December 31, 2018.

It should be noted that adjusted net income, earnings per share and other adjusted items referred to above are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP, and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 6
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income from Continuing Operations to Adjusted Income
From Continuing Operations for the Twelve Months Ended December 31 (unaudited)

(Dollars in thousands, except per share amounts)	Cost of sales	Selling general and administrative expenses	Restructuring and impairment charges	Other expense, net	Income tax expense ⁶	Net income attributable to common shareholders	Diluted earnings per share
	2019						
As reported from Continuing Operations	\$ 709,550	\$ 212,485	\$ 10,955	\$ 41,865	\$ 8,119	\$ 34,305	\$ 0.41
Adjustments:							
Restructuring Pension ¹	—	—	(10,955)	—	—	10,955	0.13
Acquisition related costs ²	(890)	(3,486)	—	(768)	—	5,144	0.06
Costs related to optimization projects	(6,307)	(7,230)	—	(50)	—	13,587	0.16
Costs related to divested businesses and assets	—	(2,971)	—	(255)	—	3,226	0.04
Other ⁴	—	—	—	(86)	—	86	-
Tax on adjustments	—	—	—	—	11,539	(11,539)	(0.14)
Total adjustments ⁷	(7,197)	(13,687)	(10,955)	(14,351)	11,539	34,651	0.42
As adjusted from Continuing Operations	<u>\$ 702,353</u>	<u>\$ 198,798</u>	<u>\$ —</u>	<u>\$ 27,514</u>	<u>\$ 19,658</u>	<u>\$ 68,956</u>	<u>\$ 0.83</u>
As reported from Discontinued Operations⁸	<u>\$ -</u>	<u>\$ -</u>	<u>\$ —</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (28,267)</u>	<u>\$ (0.34)</u>
	2018						
As reported from Continuing Operations	\$ 742,488	\$ 219,947	\$ 7,116	\$ 41,622	\$ 14,130	\$ 56,069	\$ 0.66
Adjustments:							
Restructuring Pension ¹	—	—	(7,116)	—	—	7,116	0.08
Acquisition related costs ³	(3,535)	(10,283)	—	1,289	—	12,529	0.15
Costs related to optimization projects	(2,812)	(7,491)	—	—	—	10,303	0.12
Costs related to divested businesses and assets	-	(670)	—	(2,234)	—	2,904	0.03
Other ⁵	—	—	—	(2,056)	—	2,056	0.02
Tax on adjustments	—	—	—	—	12,367	(12,367)	(0.15)
Total adjustments ⁷	(6,347)	(18,444)	(7,116)	(21,301)	12,367	40,841	0.48
As adjusted from Continuing Operations	<u>\$ 736,141</u>	<u>\$ 201,503</u>	<u>\$ —</u>	<u>\$ 20,321</u>	<u>\$ 26,497</u>	<u>\$ 96,910</u>	<u>\$ 1.14</u>
As reported from Discontinued Operations⁸	<u>\$ -</u>	<u>\$ -</u>	<u>\$ —</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 24,024</u>	<u>\$ 0.28</u>

(1) The adjustments relate to pension and other postretirement benefit mark-to-market adjustments and settlements.

(2) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions and environmental costs related to our recent acquisitions. The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs. The adjustments to "Other expense, net" relate to purchase price adjustments related to an acquisition that is beyond the measurement period.

(3) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions and environmental costs related to our recent acquisitions. The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs. The adjustments to "Other expense, net" primarily relate to earn out adjustments related to an acquisition that are beyond the measurement period.

(4) The adjustments to "Other expense, net" relate to gains and losses on asset sales and impacts of currency related items in Argentina.

(5) The adjustments to "Other expense, net" primarily relate to impacts of currency related items in Argentina, debt extinguishment charges, fees expensed associated with the Amended Credit Facility, a gain recognized on increasing our ownership interest in FMU, earn out adjustments for acquisitions and other acquisition related costs.

- (6) Income tax expense reflects the reported expense, adjusted for adjustments being tax effected at the respective statutory rate where the item originated, as well as the impacts associated with the Tax Cuts and Jobs Act that were recorded in 2019 and 2018.
- (7) Due to rounding, total earnings per share related to adjustments does not always add to the total adjusted earnings per share.
- (8) Included in Discontinued Operations are \$42.5 million in impairment charges, \$1.4 million restructuring charges, and \$13.6 million in acquisition costs totaling \$57.5 million net of tax, or \$0.69 per share, that would have historically been excluded from Adjusted Earnings Per Share for the twelve months ended December 31, 2019 and \$4.7 million restructuring charges and \$2.2 million in acquisition costs totaling \$6.8 million net of tax, or \$0.08 per share, that would have historically been excluded from Adjusted Earnings Per Share for the twelve months ended December 31, 2018.

It should be noted that adjusted net income, earnings per share and other adjusted items referred to above are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP, and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 7
Ferro Corporation and Subsidiaries
Supplemental Information
Constant Currency Schedule of Adjusted Operating Profit from Continuing Operations (unaudited)

(Dollars in thousands)	Three Months Ended			
	December 31,			
	2018	Adjusted 2018 ¹	2019	2019 vs Adjusted 2018
Segment net sales				
Performance Colors and Glass	168,554	166,891	160,400	(6,491)
Color Solutions	97,938	96,864	85,457	(11,407)
Total segment net sales	<u>\$ 266,492</u>	<u>\$ 263,755</u>	<u>\$ 245,857</u>	<u>\$ (17,898)</u>
Segment adjusted gross profit				
Performance Colors and Glass	49,511	48,811	48,226	(585)
Color Solutions	33,352	33,111	27,823	(5,288)
Other costs of sales	1,263	1,530	166	(1,364)
Total adjusted gross profit ²	<u>\$ 84,126</u>	<u>\$ 83,452</u>	<u>\$ 76,215</u>	<u>\$ (7,237)</u>
Adjusted gross profit percentage	31.6%	31.6%	31.0%	
Adjusted selling, general and administrative expenses				
Strategic services	26,564	26,714	26,182	(532)
Functional services	19,710	19,026	19,168	142
Incentive compensation	3,210	3,209	1,720	(1,489)
Stock-based compensation	2,599	2,599	2,299	(300)
Total adjusted selling, general and administrative expenses ³	<u>\$ 52,083</u>	<u>\$ 51,548</u>	<u>\$ 49,369</u>	<u>\$ (2,179)</u>
Adjusted operating profit	<u>\$ 32,043</u>	<u>\$ 31,904</u>	<u>\$ 26,846</u>	<u>\$ (5,058)</u>
Adjusted operating profit as a % of net sales	12.0%	12.1%	10.9%	

- (1) Reflects the remeasurement of 2018 reported and adjusted local currency results using 2019 exchange rates, resulting in constant currency comparative figures to 2019 reported and adjusted results. See Table 5 for Non-GAAP adjustments applicable to the three month period.
- (2) Refer to Table 5 for the reconciliation of adjusted gross profit for the three months ended December 31, 2019 and 2018, respectively.
- (3) Refer to Table 5 for the reconciliation of adjusted SG&A expenses for the three months ended December 31, 2019 and 2018, respectively.

It should be noted that adjusted net sales, gross profit, SG&A expenses, and operating profit are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures are presented within this table, as well as Table 5. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 8
Ferro Corporation and Subsidiaries
Supplemental Information
Constant Currency Schedule of Adjusted Operating Profit from Continuing Operations (unaudited)

(Dollars in thousands)	Twelve Months Ended			
	December 31,			
	2018	Adjusted 2018 ¹	2019	2019 vs Adjusted 2018
Segment net sales				
Performance Colors and Glass	691,196	671,858	648,692	(23,166)
Color Solutions	391,027	381,183	369,674	(11,509)
Total segment net sales	\$ 1,082,223	\$ 1,053,041	\$ 1,018,366	\$ (34,675)
Segment adjusted gross profit				
Performance Colors and Glass	213,424	206,084	196,097	(9,987)
Color Solutions	129,011	126,375	116,951	(9,424)
Other costs of sales	3,647	4,757	2,965	(1,792)
Total adjusted gross profit²	\$ 346,082	\$ 337,216	\$ 316,013	\$ (21,203)
	32.0%	32.0%	31.0%	
Adjusted selling, general and administrative expenses				
Strategic services	104,561	106,398	106,268	(130)
Functional services	82,071	75,563	81,531	5,968
Incentive compensation	7,056	7,089	3,281	(3,808)
Stock-based compensation	7,815	7,815	7,718	(97)
Total adjusted selling, general and administrative expenses³	\$ 201,503	\$ 196,865	\$ 198,798	\$ 1,933
Adjusted operating profit	\$ 144,579	\$ 140,351	\$ 117,215	\$ (23,136)
Adjusted operating profit as a % of net sales	13.4%	13.3%	11.5%	66.7%

(1) Reflects the remeasurement of 2018 reported and adjusted local currency results using 2019 exchange rates, resulting in constant currency comparative figures to 2018 reported and adjusted results. See Table 6 for Non-GAAP adjustments applicable to the twelve month period.

(2) Refer to Table 6 for the reconciliation of adjusted gross profit for the twelve months ended December 31, 2019 and 2018, respectively.

(3) Refer to Table 6 for the reconciliation of adjusted SG&A expenses for the twelve months ended December 31, 2019 and 2018, respectively.

It should be noted that adjusted net sales, gross profit, SG&A expenses, and operating profit are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures are presented within this table, as well as Table 6. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 9
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net income (loss) from Continuing Operations
to Adjusted EBITDA from Continuing Operations (unaudited)

(Dollars in thousands)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Net income attributable to Ferro Corporation from continuing operations, net of income tax	\$ (2,237)	\$ 11,444	\$ 34,305	\$ 56,069
Less: Net income attributable to noncontrolling interests	475	368	1,377	853
Restructuring and impairment charges	3,094	2,303	10,955	7,116
Other expense (income), net	15,141	16,392	17,563	17,963
Interest expense	5,042	5,207	24,302	23,659
Income tax (benefit) expense	(858)	(11,231)	8,119	14,130
Depreciation and amortization	11,449	11,149	45,178	43,554
Less: interest amortization expense and other	(975)	(893)	(3,755)	(3,577)
Cost of sales adjustments ¹	939	3,657	7,197	6,347
SG&A adjustments ¹	5,299	4,023	13,687	18,444
Adjusted EBITDA from Continuing Operations	\$ 37,369	\$ 42,417	\$ 158,928	\$ 184,558
Net sales	\$ 245,857	\$ 266,492	\$ 1,018,366	\$ 1,082,223
Adjusted EBITDA from Continuing Operations as a % of net sales	15.2%	15.9%	15.6%	17.1%

(1) For details of Non-GAAP adjustments, refer to Table 5 and Table 6 for the reconciliation of adjusted cost of sales and adjusted SG&A for the three and twelve months ended December 31, 2019 and 2018, respectively.

It should be noted that adjusted EBITDA is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This Non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measure is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 10
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net income (loss) attributable to Ferro Corporation
common shareholders to EBITDA for Discontinued Operations (unaudited)

(Dollars in thousands)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Net income (loss) attributable to Ferro Corporation from discontinued operations, net of income tax	\$ (28,971)	\$ (350)	\$ (27,977)	\$ 24,026
Less: Net income attributable to noncontrolling interests	(49)	(118)	(290)	(2)
Restructuring and impairment charges	33,626	557	44,378	6,179
Other expense (income), net	1,149	1,058	(392)	5,623
Interest expense	2,718	3,449	11,556	12,835
Income tax (benefit) expense	(1,533)	5,031	2,658	8,916
Depreciation and amortization, net	3,364	3,480	14,454	13,997
EBITDA from Discontinued Operations ¹	<u>\$ 10,304</u>	<u>\$ 13,109</u>	<u>\$ 44,387</u>	<u>\$ 71,574</u>
Net sales from Discontinued Operations	\$ 112,915	\$ 128,982	\$ 487,584	\$ 530,185
EBITDA as a % of net sales from Discontinued Operations	9.1%	10.2%	9.1%	13.5%

- (1) EBITDA from Discontinued Operations includes transaction costs of \$4.5 million and \$17.6 million that would have historically been excluded from adjusted EBITDA for the three and twelve months ended December 31, 2019, respectively. EBITDA from Discontinued Operations includes transaction costs of \$0.5 million and \$2.2 million that would have historically been excluded from adjusted EBITDA for the three and twelve months ended December 31, 2018, respectively.

It should be noted that EBITDA is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This Non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measure is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 11
Ferro Corporation and Subsidiaries
Supplemental Information
Change in Net Debt (unaudited)

(Dollars in thousands)

	Three Months Ended		Twelve Months Ended	
	December 31,		December 31,	
	2019	2018	2019	2018
Beginning of period				
Gross debt	\$ 850,048	\$ 938,340	\$ 826,224	\$ 759,078
Cash	51,741	126,278	104,301	63,551
Debt, net of cash	798,307	812,062	721,923	695,527
Unamortized debt issuance costs	4,121	5,063	4,827	7,451
Debt, net of cash and unamortized debt issuance costs	794,186	806,999	717,096	688,076
End of period				
Gross debt	811,450	826,224	811,450	826,224
Cash	96,202	104,301	96,202	104,301
Debt, net of cash	715,248	721,923	715,248	721,923
Unamortized debt issuance costs	3,885	4,827	3,885	4,827
Debt, net of cash and unamortized debt issuance costs	711,363	717,096	711,363	717,096
Change from FX on Euro term loan	-	-	-	(5,657)
Unamortized debt issuance costs	(236)	(236)	(942)	(2,624)
FX on cash	950	(633)	283	(2,894)
Assumption of debt from acquisitions	-	(6,014)	-	(6,014)
Period decrease (increase) in debt, net of cash, unamortized debt issuance costs, FX, and assumption of debt from acquisitions	\$ 82,109	\$ 96,786	\$ 6,392	\$ (11,831)
Period decrease (increase) in debt, net of cash and unamortized debt issuance costs	\$ 82,823	\$ 89,903	\$ 5,733	\$ (29,020)

It should be noted that the change in net debt is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This Non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measure is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 12
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net Cash Provided by Operating Activities (GAAP) to
Adjusted Free Cash Flow from Operating Activities (Non-GAAP) (unaudited)

(Dollars in thousands)

	Three Months Ended December 31		Twelve Months Ended December 31	
	2019	2018	2019	2018
Cash flows from operating activities				
Net (loss) income	\$ (30,782)	\$ 11,344	\$ 7,415	\$ 80,946
Loss (gain) on sale of assets and businesses	31	(321)	(916)	164
Depreciation and amortization	10,738	13,736	55,879	53,974
Interest amortization	975	893	3,755	3,577
Restructuring and impairment charges	34,865	(193)	44,702	4,084
Loss on extinguishment of debt	-	-	-	3,226
Accounts receivable	3,638	56,324	(74,444)	19,885
Inventories	(1,396)	24,911	(10,578)	(33,922)
Accounts payable	53,377	24,784	(10,075)	35,887
Other current assets and liabilities, net	5,485	16,051	9,220	(1,280)
Other adjustments, net	8,019	(422)	(7,248)	16,252
Net cash provided by operating activities (GAAP)	\$ 84,950	\$ 147,107	\$ 17,710	\$ 182,793
Less: Capital Expenditures	(24,150)	(16,465)	(64,970)	(80,619)
Plus: Cash (remitted) collected for AR securitization	23,663	7,020	84,567	7,020
Free Cash Flow provided by operating activities (Non-GAAP)	84,463	137,662	37,307	109,194
Plus: cash used for restructuring	1,889	3,053	10,659	9,211
Plus: cash used for capital expenditures related to optimization projects ⁽¹⁾	4,623	9,227	23,649	41,014
Plus: Cash used for net working capital investment related to optimization projects ⁽²⁾	9,258	3,001	21,945	8,424
Plus: Cash used for acquisition related professional fees ⁽³⁾	5,033	1,330	21,145	11,627
Plus: Cash used for optimization projects ⁽³⁾	4,466	3,172	14,027	8,995
Plus: Cash used for divested businesses and assets ⁽³⁾	1,293	286	3,159	670
Plus: Other	-	-	(1,725)	-
Adjusted Free Cash Flow from operating activities (Non-GAAP)	111,025	157,731	130,166	189,135
Net Income (Loss) Attributable to Ferro Corporation Common Shareholders	(31,257)	10,976	6,038	80,093
Net Cash Provided by Operating Activities Conversion of Net Income (Loss) Attributable to Ferro Corporation Common Shareholders	-271.8%	1340.3%	293.3%	228.2%

- (1) The adjustment to capital expenditures represents capital spend for certain optimization projects that are not expected to recur in the long-term at the current rate. See Table 10 for the reconciliation of period change in debt, net of cash, unamortized debt issuance costs, FX, and assumption of debt from acquisitions.
- (2) The adjustment to net working capital represents spend for the build in inventory related to the optimization project noted in (1) above. This build in inventory is considered to be outside of the normal operations of the underlying business and expected to be temporary in nature.
- (3) The adjustment represents those cash outlays for (a) acquisition related professional fees, (b) costs related to certain optimization projects, and (c) costs related to divested businesses and assets, as detailed in the description of Non-GAAP adjustments in Table 5 and Table 6 for the three and twelve months ended December 31, 2019 and 2018, respectively.

It should be noted that adjusted free cash flow from continuing operations is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). The Non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance. Additionally, certain elements of these measures are used in the calculation of certain incentive compensation programs for management.

Table 13
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net Sales and Gross Profit (GAAP) to
Adjusted Net Sales and Gross Profit (Non-GAAP) (unaudited)

(Dollars in thousands)

	Net Sales	Gross Profit
	2019	
As Reported (GAAP)	\$ 1,018,366	\$ 308,816
Non-GAAP Adjustments ¹	-	7,197
Constant Currency FX Impact ²	-	-
As Adjusted from Continuing Operations (Non-GAAP measure)	<u>\$ 1,018,366</u>	<u>\$ 316,013</u>
	2018	
As Reported (GAAP)	\$ 1,082,223	\$ 339,735
Non-GAAP Adjustments ¹	-	6,347
Constant Currency FX Impact ²	(29,200)	(8,900)
As Adjusted from Continuing Operations (Non-GAAP measure)	<u>\$ 1,053,023</u>	<u>\$ 337,182</u>
	2017	
As Reported (GAAP)	\$ 996,382	\$ 326,719
Non-GAAP Adjustments ¹	-	8,774
Constant Currency FX Impact ²	(17,700)	(4,900)
As Adjusted from Continuing Operations (Non-GAAP measure)	<u>\$ 978,682</u>	<u>\$ 330,593</u>
	2016	
As Reported (GAAP)	\$ 794,465	\$ 270,226
Non-GAAP Adjustments ¹	-	3,792
Constant Currency FX Impact ²	(9,900)	(2,800)
As Adjusted from Continuing Operations (Non-GAAP measure)	<u>\$ 784,565</u>	<u>\$ 271,218</u>
	2015	
As Reported (GAAP)	\$ 728,579	\$ 223,432
Non-GAAP Adjustments ¹	-	8,270
Constant Currency FX Impact ²	(17,700)	(5,300)
As Adjusted from Continuing Operations (Non-GAAP measure)	<u>\$ 710,879</u>	<u>\$ 226,402</u>

1. For 2019 and 2018, refer to Table 6 for a description of the Non-GAAP adjustments that were recorded in "Cost of Sales". For 2017, 2016, 2015 and 2014, the Non-GAAP adjustments relate to acquisitions related costs, costs related to certain optimization projects, and costs related to divested businesses and assets.

2. Reflects the remeasurement of 2018, 2017, 2016, 2015 and 2014 reported and adjusted results using 2019 average exchange rates, resulting in a constant currency comparative figures to 2019 reported and adjusted results.

It should be noted that adjusted net sales and adjusted gross profit referred to above are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.