UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

March 2, 2020
Date of Report (Date of earliest event reported)

QUAKER CHEMICAL CORPORATION

(Exact name of Registrant as specified in its charter)

Commission File Number 001-12019

PENNSYLVANIA

(State or other jurisdiction of incorporation or organization)

No. 23-0993790 (I.R.S. Employer Identification No.)

901 E. Hector Street Conshohocken, Pennsylvania 19428(Address of principal executive offices)

(Zip Code)

(610) 832-4000

(Registrant's telephone number, including area code)

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following

provisions:		
☐ Written communications pursuant to Rule 425 under	r the Securities Act (17 CFR 230.425)	
☐ Soliciting material pursuant to Rule 14a-12 under th	ne Exchange Act (17 CFR 240.14a-12)	
☐ Pre-commencement communications pursuant to Ru	ule 14d-2(b) under the Exchange Act (17 C	FR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Ru	ule 13e-4(c) under the Exchange Act (17 C	FR 240.13e-4(c))
Securities registered pursuant to Section 12(b) of the Act	t:	
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Title of each class Common Stock, \$1 par value	Trading Symbol(s) KWR	Name of each exchange on which registered New York Stock Exchange
Common Stock, \$1 par value andicate by check mark whether the registrant is an emer or Rule 12b-2 of the Securities Exchange Act of 1934 (§	KWR rging growth company as defined in Rule 4	
Common Stock, \$1 par value Indicate by check mark whether the registrant is an emer	KWR rging growth company as defined in Rule 4	New York Stock Exchange
Common Stock, \$1 par value andicate by check mark whether the registrant is an emer or Rule 12b-2 of the Securities Exchange Act of 1934 (§	KWR rging growth company as defined in Rule 4 (240.12b-2 of this chapter). k if the registrant has elected not to use the	New York Stock Exchange
Common Stock, \$1 par value Indicate by check mark whether the registrant is an emer or Rule 12b-2 of the Securities Exchange Act of 1934 (§ Emerging growth company If an emerging growth company, indicate by check mark	KWR rging growth company as defined in Rule 4 (240.12b-2 of this chapter). k if the registrant has elected not to use the	New York Stock Exchange 405 of the Securities Act of 1933 (§230.405 of this chapter)

INFORMATION TO BE INCLUDED IN THE REPORT

Item 2.02. Results of Operations and Financial Condition.

On March 2, 2020, Quaker Chemical Corporation announced its results of operations for the fourth quarter and full year ended December 31, 2019 in a press release, the text of which is included as Exhibit 99.1 hereto. Supplemental information related to the same periods is also included as Exhibit 99.2 hereto.

Item 9.01. Financial Statements and Exhibits.

The following exhibits are included as part of this report:

Exhibit No. Description

99.1 Press Release of Quaker Chemical Corporation dated March 2, 2020 (furnished herewith).

99.2 Supplemental Information related to the fourth quarter and full year ended December 31, 2019 (furnished herewith).

104 Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURE

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

Date: March 2, 2020

QUAKER CHEMICAL CORPORATION

By:/s/ Mary Dean Hall

Mary Dean Hall Senior Vice President, Chief Financial Officer and Treasurer **NEWS**

Contact:

Mary Dean Hall Senior Vice President, Chief Financial Officer and Treasurer investor@quakerhoughton.com T. 1.610.832.4000



For Release: Immediate

QUAKER HOUGHTON ANNOUNCES FOURTH QUARTER AND FULL YEAR 2019 RESULTS

- · Net income of \$15.2 million and \$31.6 million for the fourth quarter and full year 2019
- · Adjusted EBITDA of \$60.6 million for the fourth quarter of 2019 up 4% versus prior year pro forma and ahead of previously provided guidance
- · Integration going well and synergy achievement on track

March 2, 2020

CONSHOHOCKEN, PA – Quaker Chemical Corporation ("the Company", also known as Quaker Houghton) (NYSE: KWR) today announced fourth quarter and full year 2019, results including net sales of \$391.3 million and \$1,133.5 million, respectively. Fourth quarter net sales increased 85% compared to \$211.5 million in the prior year quarter, and full year net sales increased 31% compared to \$867.5 million in the prior full year. Each increase was driven by additional net sales attributed to the Company's August 1, 2019 combination with Houghton International, Inc. ("Houghton"), herein referred to as "the Combination", as well as its October 1, 2019 acquisition of the operating divisions of Norman Hay plc ("Norman Hay"). Current quarter net sales declined approximately 2% compared to the prior year fourth quarter pro forma net sales of \$401 million, which are adjusted to include the results of Houghton and eliminate the effects of the Combination, with the decline primarily driven by lower volume and a negative impact from foreign currency translation, partially offset by additional net sales from Norman Hay. Similarly, full year pro forma 2019 net sales declined approximately 6% to \$1,562 million compared to \$1,655 million in 2018, driven by the same factors described for the fourth quarter.

The Company's fourth quarter and full year 2019 net income was \$15.2 million and \$31.6 million, or \$0.86 and \$2.08 per diluted share, respectively, compared to fourth quarter and full year 2018 net income of \$7.8 million and \$59.5 million, or \$0.58 and \$4.45 per diluted share, respectively. Excluding one-time costs associated with the Combination and certain tax related items impacting results in both periods, as well as all other non-core items in each period, the Company's fourth quarter and full year 2019 non-GAAP earnings per diluted share were \$1.34 and \$5.83, respectively, compared to prior year fourth quarter and full year non-GAAP earnings per diluted share of \$1.54 and \$6.17, respectively. Both GAAP and non-GAAP earnings per diluted share reflect the increase to the Company's share count resulting from the closing of the Combination on August 1, 2019, as well as earnings attributed to Houghton for the last five months of 2019 and Norman Hay for the fourth quarter of 2019.

The Company's fourth quarter and full year 2019 adjusted EBITDA was \$60.6 million and \$173.1 million respectively, compared to \$29.7 million and \$125.8 million in the fourth quarter and full year of 2018. The Company's current quarter adjusted EBITDA increased approximately 4% compared to prior year fourth quarter pro forma adjusted EBITDA of approximately \$58 million, primarily due to the benefit of Norman Hay in the current quarter and initial benefits of cost savings realized from the Combination. Full year 2019 pro forma adjusted EBITDA was approximately \$234 million, a decrease of 1% compared to approximately \$236 million in the prior year, primarily due to lower full year pro forma net sales partially offset by the fourth quarter benefits mentioned above.

Michael F. Barry, Chairman, Chief Executive Officer and President, commented, "The quarter played out generally as we expected, with significant challenges in end market conditions and foreign exchange headwinds. The negative impact on net sales was largely driven by the compounding conditions of a weak global automotive market, a generally weaker industrial environment in most parts of the world, and continued customer inventory corrections and reductions in consumption. However, there were positives as well. We achieved our targeted gross margin and we have made good progress with our integration and are on track to achieve or exceed our targeted integration cost synergies. Our adjusted EBITDA of \$60.6 million was above our guidance range of \$52 to \$59 million mentioned in the third quarter, due partially to higher than expected synergies in the quarter. Despite the decrease in our pro forma net sales, these positive developments all contributed to our pro forma adjusted EBITDA growing 4% in the fourth quarter compared to the prior year.

As we entered into 2020, we expected most of our business segments to show low to moderate growth during the year. Then two negative events happened; the coronavirus and Boeing's decision to temporarily stop production of the 737 Max. These events have put more uncertainty than usual in our ability to forecast our year. Our current estimate is that the coronavirus and lower 737 Max production may impact adjusted EBITDA by approximately \$10 million and \$6 million, respectively, for the year. However, I continue to be confident in our ability to deliver strong adjusted EBITDA growth in 2020 despite the market uncertainties we are facing. In 2020, I expect that we will deliver approximately \$30 million or more of adjusted EBITDA growth over our 2019 pro forma adjusted EBITDA of \$234 million, primarily driven by synergy benefits, a full year of Norman Hay and additional market share gains more than offsetting the expected negative impacts of the coronavirus and lower production of the 737 Max."

Fourth Quarter 2019 Consolidated Results

Net sales were \$391.3 million in the fourth quarter of 2019 compared to \$211.5 million in the fourth quarter of 2018. The net sales increase of 85% quarter-over-quarter includes additional net sales from Houghton and Norman Hay of \$200.0 million. Excluding Houghton and Norman Hay net sales, current quarter net sales would have declined 10%, primarily driven by a decrease in sales volumes of 9% and a negative impact from foreign currency translation of 1%.

Gross profit in the fourth quarter of 2019 increased \$61.3 million compared to the fourth quarter of 2018 due primarily to the Houghton and Norman Hay sales, noted above. The Company's gross margin in the current quarter was 34.8%, which includes a \$1.5 million expense associated with selling Norman Hay's acquired inventory during the fourth quarter of 2019 which was adjusted to fair value in accordance with purchase accounting. Excluding this one-time increase to cost of goods sold ("COGS") as well as approximately \$0.5 million of accelerated depreciation charges in the current quarter related to the Company's restructuring program, the Company estimates that its gross margin would have been approximately 35.3% in the current quarter compared to 35.4% in the fourth quarter of 2018. This slight decrease in gross margin quarter-over-quarter was primarily the result of price and product mix largely due to lower gross margins in the legacy Houghton business, partially offset by certain COGS decreases as a result of the Company's progress on initial Combination-related logistics and procurement cost savings initiatives.

Selling, general and administrative expenses ("SG&A") in the fourth quarter of 2019 increased \$51.0 million compared to the fourth quarter of 2018 due primarily to additional SG&A from Houghton and Norman Hay as well as \$1.1 million of charges in the current quarter related to certain customer bankruptcies partially offset by lower SG&A due to foreign currency translation, the impact of the sales decline, noted above, on direct selling costs, and the benefits of realized cost savings associated with the Combination.

During the fourth quarter of 2019, the Company incurred \$11.7 million of Combination and other acquisition-related expenses, primarily for legal, financial, and other advisory and consultant expenses for integration activities. Comparatively, the Company incurred \$4.3 million of expenses in the prior year, primarily due to various professional fees related to integration planning and regulatory approval.

The Company initiated a restructuring program during the third quarter of 2019 as part of its global plan to realize cost synergies associated with the Combination. The Company expects reductions in headcount and site closures to occur over the next two years under this program. During the fourth quarter of 2019, the Company recorded additional restructuring expense, net, of \$2.6 million related to this program.

Operating income in the fourth quarter of 2019 was \$20.3 million compared to \$20.1 million in the fourth quarter of 2018. Excluding the Combination and other acquisition-related charges, restructuring expenses and other non-core items, the Company's current quarter non-GAAP operating income increased to \$37.6 million compared to \$24.3 million in the prior year, primarily due to additional net sales and operating income from Houghton and Norman Hay. Also, the Company estimates that during the fourth quarter of 2019 it achieved approximately \$4 million in cost savings related to the Combination on a combined company pro forma basis as compared to the prior year, increasing its year-to-date synergies realized to approximately \$7 million. The Company continues to estimate that total anticipated cost synergies related to the Combination will be at least \$60 million once all cost savings actions have been implemented by the second year after close.

Interest expense, net, increased \$8.5 million compared to the prior year period primarily due to additional borrowings under the Company's new term loans and revolving credit facility to finance the closing of the Combination on August 1, 2019.

The Company's effective tax rates for the fourth quarters of 2019 and 2018 were a benefit of 18.2% and an expense of 59.8%, respectively. The Company's current quarter effective tax rate benefit is primarily driven by a one-time \$5.3 million deferred tax benefit the Company recorded in the fourth quarter of 2019 related to an intercompany intangible asset transfer. The Company expects to see an offsetting impact and incremental deferred tax expense related to this item in future periods. The Company's prior year fourth quarter effective tax rate was largely driven by combination-related expenses incurred in that year, certain of which were non-deductible for the purpose of determining the Company's effective tax rate, as well as an \$8.1 million tax charge related to an adjustment to the Company's initial estimate of the impact from the 2017 U.S. Tax Cuts and Jobs Act ("U.S. Tax Reform"). Excluding the impact of these and all other non-core items in each quarter, described in the Non-GAAP and Pro Forma measures section below, the Company estimates that its effective tax rates for the fourth quarters of 2019 and 2018 would have been approximately 24% and 17%, respectively. The higher current quarter effective tax rate was primarily driven by adjustments to uncertain tax positions and changes in the mix of earnings between higher and lower tax jurisdictions, as well as a prior year fourth quarter favorable return to provision adjustment.

Equity in net income of associated companies increased \$2.1 million in the fourth quarter of 2019 compared to the fourth quarter of 2018, primarily due to additional earnings from Houghton's 50% interest in a joint venture in Korea and higher earnings from the Company's interest in a captive insurance company.

Foreign exchange had minimal impact on the Company's fourth quarter of 2019 earnings as the negative impact from foreign currency translation of less than 1% due to the slight strengthening of the U.S. dollar in the current quarter was offset by slightly higher current quarter foreign exchange transaction gains.

Full Year 2019 Consolidated Results

Net sales were \$1,133.5 million in 2019 compared to \$867.5 million in 2018. The net sales increase of 31% year-over-year includes additional net sales from Houghton and Norman Hay of \$319.4 million. Excluding Houghton and Norman Hay net sales, current year net sales would have declined 6% compared to the prior year, reflecting a decrease in sales volumes of approximately 3% and a negative impact from foreign currency translation of 3%.

Gross profit in 2019 increased \$79.8 million compared to 2018 due primarily to Houghton and Norman Hay sales, noted above. The Company's gross margin in the current year was 34.6% and includes an aggregate \$11.7 million of expense associated with selling Houghton and Norman Hay acquired inventory during 2019, which was adjusted to fair value in accordance with purchase accounting. Excluding these one-time increases to COGS as well as current quarter accelerated depreciation charges, noted above, the Company estimates that its gross margin would have been approximately 35.7% in the current year compared to 36.0% in 2018. This decrease in gross margin year-over-year was primarily the result of price and product mix largely due to lower gross margins in the legacy Houghton business.

SG&A in 2019 increased \$76.0 million compared to 2018 due primarily to additional SG&A from Houghton and Norman Hay, partially offset by lower SG&A due to foreign currency translation, the impact of the sales decline noted above on direct selling costs, lower annual incentive compensation costs and the benefits of realized cost savings associated with the Combination.

During 2019, the Company incurred \$35.5 million of Combination and other acquisition-related expenses, primarily for legal, financial, and other advisory and consultant expenses for integration planning and regulatory approvals, fees associated with closing the Combination and initial costs associated with integration activities. Comparatively, the Company incurred \$16.7 million of expenses in the prior year, primarily due to various professional fees related to integration planning and regulatory approval.

As noted above, the Company initiated a restructuring program during the third quarter of 2019 as part of its global plan to realize cost synergies associated with the Combination. During 2019, the Company recorded restructuring expense of \$26.7 million related to this program.

Operating income in 2019 was \$46.1 million compared to operating income of \$87.8 million in 2018. Excluding the Combination and other acquisition-related charges, restructuring expenses and other non-core items, the Company's current year non-GAAP operating income increased to \$121.9 million compared to \$104.4 million in the prior year, primarily due to additional net sales and operating income from Houghton and Norman Hay.

Other expense, net, was \$0.3 million in 2019 compared to \$0.6 million in 2018, primarily due to higher foreign exchange transaction losses in the prior year, partially offset by a prior year \$0.6 million gain on the sale of a held-for-sale asset.

Interest expense, net, increased \$12.9 million compared to the prior year primarily due to additional borrowings under the Company's new term loans and revolving credit facility to finance the closing of the Combination on August 1, 2019.

The Company's effective tax rates for 2019 and 2018 were 7.2% and 30.1%, respectively. The Company's low current year and relatively inflated prior year effective tax rates are primarily driven by the same drivers described in the fourth quarter discussion above, as well as certain other adjustments recorded in both the full year of 2018 and 2019 as a result of changes to the Company's initial estimates associated with U.S. Tax Reform in December 2017. Excluding the impact of these and all other non-core items in each year, described in the Non-GAAP and Pro Forma measures section below, the Company estimates that its effective tax rates for both 2019 and 2018 would have been approximately 22%.

Equity in net income of associated companies increased \$3.3 million in 2019 compared to 2018, primarily due to additional earnings from Houghton's 50% interest in a joint venture in Korea and higher earnings from the Company's interest in a captive insurance company.

Foreign exchange negatively impacted the Company's 2019 earnings by approximately 2% or \$0.09 per diluted share, as the negative impact from foreign currency translation of approximately 3% due to the strengthening of the U.S. dollar in the current year was partially offset by higher current year foreign exchange transaction gains.

Balance Sheet and Cash Flow Highlights

The Company had net operating cash flow of \$82.4 million in 2019 compared to \$78.8 million in 2018. The \$3.6 million or 5% increase in net operating cash flow year-over-year was primarily driven by the inclusion of operating cash flow from Houghton and Norman Hay and an increase in cash flow from working capital, primarily due to changes in net sales and inventory due to lower production levels as well as efforts to improve working capital.

As previously disclosed, the Company paid approximately \$797.6 million, net of approximately \$75.8 million of cash acquired, to close the Combination in the third quarter of 2019, which included \$170.8 million in cash and the Company's refinancing of \$702.6 million of Houghton's indebtedness at closing. The Company also issued an aggregate of approximately 4.3 million shares of its common stock to the selling shareholders of Houghton, comprising approximately 24.5% of the common stock of the Company at closing. Concurrent with closing of the Combination on August 1, 2019, the Company replaced its previous revolving credit facility with a new syndicated and secured credit facility (the "New Credit Facility") and borrowed \$750.0 million in term loans and \$180.0 million from the multicurrency revolver available in the New Credit Facility.

On October 1, 2019, the Company closed its acquisition of Norman Hay, a private U.K. company that provides specialty chemicals, operating equipment and services to various industrial end markets. The original purchase price was 80.0 million GBP, on a cash-free and debt-free basis, subject to routine and customary post-closing adjustments related to working capital and net indebtedness levels. The Company expects to finalize its post-closing adjustments in the first half of 2020 and currently estimates it will pay approximately 2.7 million GBP to settle such adjustments. Cash paid in the fourth quarter of 2019 for Norman Hay was approximately \$95.3 million, net of cash acquired.

As of December 31, 2019, the Company had outstanding borrowings under the New Credit Facility of \$922.4 million. The Company's total net indebtedness as of December 31, 2019 was \$811.4 million, excluding \$14.2 million of financing related fees recorded as a reduction of long-term debt, which represents a total net indebtedness to full year 2019 pro forma adjusted EBITDA ratio of approximately 3.47 to 1 as of December 31, 2019. The Company currently expects its total net indebtedness to adjusted EBITDA to improve to approximately 3.0 to 1 or better by the end of 2020.

The Company paid \$21.8 million of cash dividends to its shareholders during 2019, a 13% increase compared to the prior year, primarily driven by the shares issued at closing of the Combination, noted above, as well as the current year cash dividend per share increase in May 2019.

Filing Extension Pursuant to Rule 12b-25

The Company will be filing a Notification of Late Filing on Form 12b-25 with respect to its Annual Report on Form 10-K for its fiscal year ended December 31, 2019 (the "Annual Report"). The Company has determined that it is unable to file its Annual Report within the prescribed time period without unreasonable effort or expense. As mentioned above, the Company completed its combination with Houghton on August 1, 2019. As a result of the Combination, in which the Company acquired a complex global organization and the significant effort required to account for the Combination, the Company requires additional time to finalize its financial statements, assess its disclosure controls and procedures and evaluate the effectiveness of its internal controls over financial reporting for the year ended December 31, 2019. The Company's Annual Report will be filed no later than March 17, 2020 in compliance with the extension period. Given the delay in filing the Company's Annual Report, all fourth quarter and full year 2019 figures presented in this press release are preliminary, unaudited and subject to change pending the finalization of the Company's financial statements for the year ended December 31, 2019 and filing of its Annual Report. However, the Company believes the numbers presented in this press release will not change materially, if at all, as a result of the additional time needed to finalize its financial statements for the year ended December 31, 2019 and complete its Annual Report.

Non-GAAP and Pro Forma Measures

The information included in this public release includes non-GAAP (unaudited) financial information that includes EBITDA, adjusted EBITDA, non-GAAP operating income, non-GAAP net income, non-GAAP earnings per diluted share, and pro forma net sales, net income, EBITDA and adjusted EBITDA. The Company believes these non-GAAP financial measures provide meaningful supplemental information as they enhance a reader's understanding of the financial performance of the Company, are indicative of future operating performance of the Company, and facilitate a comparison among fiscal periods, as the non-GAAP financial measures exclude items that are not indicative of future operating performance or not considered core to the Company's operations. Non-GAAP results and pro forma information are presented for supplemental informational purposes only and should not be considered a substitute for the financial information presented in accordance with GAAP.

The Company presents EBITDA which is calculated as net income attributable to the Company before depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies. The Company also presents adjusted EBITDA which is calculated as EBITDA plus or minus certain items that are not indicative of future operating performance or not considered core to the Company's operations. In addition, the Company presents non-GAAP operating income which is calculated as operating income plus or minus certain items that are not indicative of future operating performance or not considered core to the Company's operations. Adjusted EBITDA margin and non-GAAP operating margin are calculated as the percentage of adjusted EBITDA and non-GAAP operating income to consolidated net sales, respectively. The Company believes these non-GAAP measures provide transparent and useful information and are widely used by analysts, investors, and competitors in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

Additionally, the Company presents non-GAAP net income and non-GAAP earnings per diluted share as additional performance measures. Non-GAAP net income is calculated as adjusted EBITDA, defined above, less depreciation and amortization, interest expense, net - adjusted, and taxes on income before equity in net income of associated companies - adjusted, as applicable, for any depreciation, amortization, interest or tax impacts resulting from the non-core items identified in the reconciliation of net income attributable to the Company to adjusted EBITDA. Non-GAAP earnings per diluted share is calculated as non-GAAP net income per diluted share as accounted for under the "two-class share method." The Company believes that non-GAAP net income and non-GAAP earnings per diluted share provide transparent and useful information and are widely used by analysts, investors, and competitors in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

During the first quarter of 2019, the Company updated its calculation methodology to include the use of interest expense net of interest income in the reconciliation of EBITDA and adjusted EBITDA, compared to its historical use of only interest expense, and also to include the non-service component of the Company's pension and postretirement benefit costs in the reconciliation of adjusted EBITDA, non-GAAP net income attributable to Quaker Chemical Corporation and non-GAAP earnings per diluted share. Prior year amounts have been recast for comparability purposes and the change in calculation methodology does not produce materially different results. The Company believes these updated calculations better reflect its underlying operating performance and better aligns the Company's calculations to those commonly used by analysts, investors, and competitors in our industry.

As it relates to the full year 2020 expected adjusted EBITDA growth and other forward-looking information described further above, the Company has not provided guidance for comparable GAAP measures or a quantitative reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure because it is unable to determine with reasonable certainty the ultimate outcome of certain significant items necessary to calculate such measures without unreasonable effort. These items include, but are not limited to, certain non-recurring or non-core items the Company may record that could materially impact net income, such as Combination and other acquisition-related expenses and restructuring expenses, as well as income taxes. These items are uncertain, depend on various factors, and could have a material impact on the U.S. GAAP reported results for the guidance period.

The following tables reconcile the Company's non-GAAP financial measures (unaudited) to their most directly comparable GAAP (unaudited) financial measures (dollars in thousands unless otherwise noted, except per share amounts):

Non-GAAP Operating Income and Margin Reconciliations

		Three Mor Decem			Twelve Mo Decem		
	·	2019		2018	 2019		2018
Operating income	\$	20,276	\$	20,068	\$ 46,134	\$	87,781
Fair value step up of Houghton and Norman Hay inventory sold		1,500		_	11,714		_
Houghton combination and other acquisition-related expenses (a)(b)		12,156		4,257	35,945		16,661
Restructuring expense		2,633		_	26,678		_
Customer bankruptcy costs		1,073		_	1,073		_
Charges related to the settlement of a non-core equipment sale		_		_	384		_
Non-GAAP operating income	\$	37,638	\$	24,325	\$ 121,928	\$	104,442
Non-GAAP operating margin (%)		9.6%	. 	11.5%	 10.8%	,	12.0%

Adjusted EBITDA, Adjusted EBITDA Margin and Non-GAAP Net Income Reconciliations

	Three Mon Decem	 	Twelve Mor Decem	
	 2019	2018	2019	2018
Net income attributable to Quaker Chemical Corporation	\$ 15,240	\$ 7,805	\$ 31,622	\$ 59,473
Depreciation and amortization (b)(c)	21,250	4,803	45,264	19,714
Interest expense, net (d)	9,365	818	16,976	4,041
Taxes on income before equity in net income of associated companies (e)	(2,012)	11,496	2,084	25,050
EBITDA	\$ 43,843	\$ 24,922	\$ 95,946	\$ 108,278
Equity (income) loss in a captive insurance company	(562)	117	(1,822)	(966)
Fair value step up of Houghton and Norman Hay inventory sold	1,500	_	11,714	_
Houghton combination and other acquisition-related expenses (a)	11,572	4,257	35,361	16,051
Restructuring expense	2,633	_	26,678	_
Pension and postretirement benefit costs, non-service components	501	572	2,805	2,285
Customer bankruptcy costs	1,073	_	1,073	_
Insurance insolvency recovery	(60)	(90)	(60)	(90)
Charges related to the settlement of a non-core equipment sale	_	_	384	
Gain on liquidation of an inactive legal entity	_	_	_	(446)
Currency conversion impacts of hyper- inflationary economies	142	(100)	1,033	664
Adjusted EBITDA	\$ 60,642	\$ 29,678	\$ 173,112	\$ 125,776
Adjusted EBITDA margin (%)	15.5%	14.0%	15.3%	14.5%
Adjusted EBITDA	\$ 60,642	\$ 29,678	\$ 173,112	\$ 125,776
Less: Depreciation and amortization – adjusted (b)(c)	20,666	4,803	44,680	19,714
Less: Interest expense, net - adjusted (d)	9,365	(44)	14,896	593
Less: Taxes on income before equity in net income of associated companies –				
adjusted (e)	6,912	4,328	24,825	22,978
Non-GAAP net income	\$ 23,699	\$ 20,591	\$ 88,711	\$ 82,491

Non-GAAP Earnings per Diluted Share Reconciliations

	 Three Mon Deceml	-		Twelve Mor Decem	
	2019		2018	2019	2018
GAAP earnings per diluted share attributable to Quaker Chemical Corporation					
common shareholders (f)	\$ 0.86	\$	0.58	\$ 2.08	\$ 4.45
Equity (income) loss in a captive insurance company per diluted share	(0.03)		0.01	(0.12)	(0.07)
Fair value step up of Houghton and Norman Hay inventory sold per diluted share	0.07		_	0.58	_
Houghton combination and other acquisition-related expenses per diluted share					
(a)(b)	0.56		0.32	2.05	1.21
Restructuring expense per diluted share	0.11		_	1.34	_
Transition tax adjustments per diluted share (e)	_		0.61	(0.03)	0.43
Deferred tax benefit on an intercompany intangible asset transfer per diluted share	(0.30)		_	(0.35)	_
Pension and postretirement benefit costs, non-service components per diluted					
share	0.02		0.03	0.14	0.13
Customer bankruptcy costs per diluted share	0.04		_	0.05	_
Insurance insolvency recovery per diluted share	(0.00)		(0.01)	(0.00)	(0.01)
Charges related to the settlement of a non-core equipment sale per diluted share	_		_	0.02	_
Gain on liquidation of an inactive legal entity per diluted share	_		_	_	(0.03)
Currency conversion impacts of hyper-inflationary economies per diluted share	0.01		0.00	0.07	0.06
Non-GAAP earnings per diluted share (f)	\$ 1.34	\$	1.54	\$ 5.83	\$ 6.17

- (a) Houghton combination and other acquisition-related expenses during the twelve months ended December 31, 2018 includes a \$0.6 million gain on the sale of a held-for-sale asset recorded below operating income, within other income (expense), net. Therefore, this amount is excluded in the reconciliation of Operating income to Non-GAAP operating income but included in the reconciliations of Net income attributable to Quaker Chemical Corporation to Adjusted EBITDA and Non-GAAP net income as well as GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders to Non-GAAP earnings per diluted share.
- (b) The Company recorded \$0.6 million of total accelerated depreciation expense during the three and twelve months ended December 31, 2019. These charges were recorded in COGS and Combination and other acquisition-related expenses. These amounts are included in the caption Houghton combination and other acquisition-related expenses in the reconciliation of Operating income to Non-GAAP operating income and GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders to Non-GAAP earnings per diluted share. In addition, this amount is included within the caption Depreciation and amortization in the reconciliation of Net income attributable to Quaker Chemical Corporation to Adjusted EBITDA, however it is excluded in the reconciliation of Adjusted EBITDA to Non-GAAP net income.
- (c) Depreciation and amortization for the three and twelve months ended December 31, 2019 includes \$0.3 million and \$0.4 million of amortization expense, respectively, recorded within equity in net income of associated companies, attributable to the amortization of the fair value step up for Houghton's 50% interest in a joint venture in Korea as a result of required purchase accounting.
- (d) Interest expense, net adjusted excludes \$2.1 million for the twelve months ended December 31, 2019, and \$0.9 and \$3.5 million for the three and twelve months ended December 31, 2018, respectively, of interest costs the Company incurred to maintain the bank commitment to finance the Combination, prior to executing the Company's new credit facility and closing the Combination on August 1, 2019.

- (e) Taxes on income before equity in net income of associated companies adjusted includes the Company's tax expense adjusted for the impact of any current and deferred income tax expense (benefit), as applicable, of the reconciling items presented in the reconciliation of Net income attributable to Quaker Chemical Corporation to adjusted EBITDA, above, determined utilizing the applicable rates in the taxing jurisdictions in which these adjustments occurred, subject to deductibility. In addition, this caption also includes the impact of certain one-time discrete tax items in each period, including \$5.3 million and \$5.7 million during the three and twelve months ended December 31, 2019, respectively, as well as \$8.1 million and \$5.8 million, during the three and twelve months ended December 31, 2018, respectively.
- (f) The Company's calculation of GAAP and non-GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders for the three and twelve months ended December 31, 2019 was impacted by the approximately 4.3 million share issuance in connection with closing the Combination, noted above, as well as the variability of its earnings, which was primarily due to the Combination and other acquisition-related charges and restructuring expenses incurred. Therefore, the per diluted share result for each of the four quarters of 2019, as reflected on a standalone basis, may not add up to the per diluted share result for the twelve months ended December 31, 2019.

Pro Forma Adjusted Measures and Reconciliations

The Company has provided certain unaudited pro forma financial information in this press release. The unaudited pro forma financial information is based on the historical consolidated financial statements and results of both Quaker and Houghton, and has been prepared to illustrate the effects of the Combination. The unaudited pro forma financial information has been presented for informational purposes only and is not necessarily indicative of Quaker Houghton's past results of operations, nor is it indicative of the future operating results of Quaker Houghton and should not be considered a substitute for the financial information presented in accordance with GAAP. The Company has not provided pro forma financial information as it relates to the acquired operating divisions of Norman Hay plc based on materiality. The following schedules present the Company's unaudited pro forma financial information for net sales, as well as net income attributable to Quaker Houghton and the applicable reconciliation to EBITDA and adjusted EBITDA on a pro forma non-GAAP basis (dollars in millions unless otherwise noted):

	Three months ended December 31, 2018 (a)									
	Qı	ıaker	Но	ughton	Dive	estitures(b)	(Other (c)	Pro	Forma *
Net sales	\$	211	\$	208	\$	(13)	\$	(5)	\$	401
Net income attributable to Quaker Houghton	\$	8	\$	(5)	\$	(1)	\$	5	\$	6
Depreciation and amortization		5		13		_		1		19
Interest expense, net		1		15		_		(7)		9
Taxes on income (d)		11		5		(0)		1		17
EBITDA *		25		28		(2)		0		51
Combination and other acquisition-related expenses		4		2				_		6
Other addbacks (e)		1		0		_		_		1
Adjusted EBITDA *	\$	30	\$	30	\$	(2)	\$	0	\$	58
Adjusted EBITDA margin * (%)		14%		15%		14%		-4%		15%

									Twelve months chaca December 51, 2015 (a)											
	Q	uaker	Ho	ughton	Dives	stitures(b)	Ot	her (c)	Pro F	orma *										
Net sales	\$	1,134	\$	475	\$	(34)	\$	(13)	\$	1,562										
Net income attributable to Quaker Houghton	\$	32	\$	(3)	\$	(6)	\$	10	\$	33										
Depreciation and amortization		45		31		_		3		77										
Interest expense, net		17		33		_		(15)		35										
Taxes on income (d)		2		(1)		(2)		3		2										
EBITDA *		96		60		(8)		1		148										
Combination and other acquisition-related expenses		35		44		_		_		80										
Gain on the sale of divested assets		_		(35)		_		_		(35)										
Fair value step up of Houghton and Norman Hay inventory																				
sold		12		_		_		_		12										
Restructuring expense		27		_		_		_		27										

173

15%

Twelve months ended December 31, 2019 (a)

(8)

24%

1

-4%

234

(0)

68

14%

			Tw	elve montl	hs ende	d December	31, 20	18 (a)		
	Qı	uaker	Hou	ughton	Dives	titures(b)	Otl	ier (c)	Pro	Forma *
Net sales	\$	868	\$	861	\$	(53)	\$	(22)	\$	1,655
Net income attributable to Quaker Houghton	\$	59	\$	(0)	\$	(9)	\$	17	\$	66
Depreciation and amortization		20		54		_		5		79
Interest expense, net		4		56		_		(25)		35
Taxes on income (d)		25		3		(2)		5		30
EBITDA *		108		113		(12)		1		210
Combination and other acquisition-related expenses		16		7		_		_		23
Other addbacks (e)		1		2		_		_		3
Adjusted EBITDA *	\$	126	\$	121	\$	(12)	\$	1	\$	236
Adjusted EBITDA margin * (%)		14%		14%		23%		-4%		149

- * Certain amounts may not calculate due to rounding, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results as presented for combined Quaker Houghton
- (a) Results for the three and twelve months ended December 31, 2018 include Quaker's historical results, while Houghton reflects its stand-alone results for the three and twelve months ended December 31, 2018. Results for the twelve months ended December 31, 2019 include five months of Houghton's operations post-closing of the Combination, while Houghton reflects seven months of results for the period from January 1, 2019 through July 31, 2019. Pro forma results for the three months ended December 31, 2019 have not been presented above as the results for Quaker Houghton as presented in this press release are the applicable comparative results.
- (b) Divestitures includes the elimination of results associated with the divested product lines.

Other addbacks (e)

Adjusted EBITDA margin * (%)

Adjusted EBITDA *

- (c) Other includes: (i) additional depreciation and amortization expense based on the initial estimates of fair value step up and estimated useful lives of depreciable fixed assets, definite-lived intangible assets and investment in associated companies acquired; (ii) adoption of required accounting guidance and alignment of related accounting policies; (iii) elimination of transactions between Quaker and Houghton; and (iv) an adjustment to interest expense, net, to reflect the impact of the new financing and capital structure of the combined Company.
- (d) Taxes on income related to the Divestiture and Other reflect each tax effected at the U.S. tax rate of 21%.
- (e) Other addbacks includes: (i) Equity income in a captive insurance company; (ii) Pension and postretirement benefit costs, non-service components; (iii) Currency conversion impacts of hyper-inflationary economies; (iv) Gain on liquidation of an inactive legal entity; (v) Affiliate management fees; (vi) insurance insolvency recoveries; (vii) customer bankruptcy costs; (viii) charges related to the settlement of a non-core equipment sale and (vi) other non-recurring miscellaneous charges.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the fact that they do not relate strictly to historical or current facts. We have based these forward-looking statements on our current expectations about future events. These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, intentions, financial condition, results of operations, future performance, and business, including but not limited to our current and future results and plans and statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan" or similar expressions. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those projected in such statements. A major risk is that demand for the Company's products and services is largely derived from the demand for its customers' products, which subjects the Company to uncertainties related to downturns in a customer's business and unanticipated customer production shutdowns. Other major risks and uncertainties include, but are not limited to, significant increases in raw material costs, customer financial stability, worldwide economic and political conditions, the impact of widespread public health crises, including the recent spread of the coronavirus, foreign currency fluctuations, significant changes in applicable tax rates and regulations, future terrorist attacks and other acts of violence. Furthermore, the Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, industrial equipment, and durable goods manufacturers. Other factors could also adversely affect us, including those related to the Combination and other acquisitions and the integration of the combined company as well as other acquired businesses. Our forward-looking statements are subject to risks, uncertainties and assumptions about the Company and its operations that are subject to change based on various important factors, some of which are beyond our control. These risks, uncertainties, and possible inaccurate assumptions relevant to the Company's business could cause its actual results to differ materially from expected and historical results. All forward-looking statements included in this press release, including expectations about the timing of the completion of the Company's financial statements and audit for the fiscal year ended December 31, 2019, and the timing, form and content of the Company's Annual Report are based upon information available to the Company as of the date of this press release, which may change. Therefore, we caution you not to place undue reliance on our forward-looking statements. For more information regarding these risks and uncertainties as well as certain additional risks that we face, you should refer to the Risk Factors detailed in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018, as amended, and in our quarterly and other reports filed from time to time with the SEC. We do not intend to, and we disclaim any duty or obligation to, update or revise any forward-looking statements to reflect new information or future events or for any other reason. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

Conference Call

As previously announced, the Company's investor conference call to discuss its fourth quarter performance is scheduled for March 3, 2020 at 8:30 a.m. (ET). A live webcast of the conference call, together with supplemental information, can be accessed through the Company's Investor Relations website at https://investors.quakerhoughton.com. You can also access the conference call by dialing 877-269-7756.

About Quaker Houghton

Quaker Houghton is a global leader in industrial process fluids. With a presence around the world, including operations in over 25 countries, our customers include thousands of the world's most advanced and specialized steel, aluminum, automotive, aerospace, offshore, can, mining, and metalworking companies. Our high-performing, innovative and sustainable solutions are backed by best-in-class technology, deep process knowledge and customized services. With approximately 4,500 employees, including chemists, engineers and industry experts, we partner with our customers to improve their operations so they can run even more efficiently, even more effectively, whatever comes next. Quaker Houghton is headquartered in Conshohocken, Pennsylvania, located near Philadelphia in the United States.

Quaker Chemical Corporation Condensed Consolidated Statements of Income (Dollars in thousands, except share and per share amounts)

		Three Mon Decem				Twelve Mor Decem	
		2019		2018		2019	2018
	(U	naudited)	-		(U	naudited)	
Net sales	\$	391,294	\$	211,481	\$	1,133,503	\$ 867,520
Cost of goods sold		255,162		136,643		741,386	 555,206
Gross profit		136,132		74,838		392,117	312,314
%		34.8%		35.4%		34.6%	36.0%
Selling, general and administrative expenses		101,535		50,513		283,828	207,872
Restructuring and related charges		2,633				26,678	-
Combination and other acquisition-related expenses		11,688		4,257		35,477	 16,661
Operating income		20,276		20,068		46,134	87,781
%		5.2%		9.5%		4.1%	10.1%
Other income (expense), net		135		(11)		(254)	(642)
Interest expense, net		(9,365)		(817)		(16,976)	(4,041)
Income before taxes and equity in net income of associated companies		11,046		19,240		28,904	83,098
Taxes on income before equity in net income of associated companies		(2,012)		11,496		2,084	25,050
Income before equity in net income of associated companies		13,058		7,744		26,820	58,048
Equity in net income of associated companies		2,258		139		5,064	 1,763
Net income		15,316		7,883		31,884	59,811
Less: Net income attributable to noncontrolling interest		76		78		262	 338
Net income attributable to Quaker Chemical Corporation	\$	15,240	\$	7,805	\$	31,622	\$ 59,473
%		3.9%	<u> </u>	3.7%	Ť	2.8%	 6.9%
Share and per share data:							
Basic weighted average common shares outstanding		17,666,163		13,281,786		15,126,928	13,268,047
Diluted weighted average common shares outstanding		17,684,090		13,327,464		15,163,171	13,304,732
Net income attributable to Quaker Chemical Corporation common							
shareholders - basic	\$	0.86	\$	0.59	\$	2.08	\$ 4.46
Net income attributable to Quaker Chemical Corporation common shareholders - diluted	\$	0.86	\$	0.58	\$	2.08	\$ 4.45
	- mor	·e -					
	11101	-					

Quaker Chemical Corporation Condensed Consolidated Balance Sheets (Dollars in thousands, except par value and share amounts)

		Decem	ber 31	. ,
		2019		2018
	J)	J naudited)		_
ASSETS				
Current assets				
Cash and cash equivalents	\$	123,524	\$	104,147
Accounts receivable, net		375,982		202,139
Inventories, net		174,950		94,090
Prepaid expenses and other current assets		41,516		18,134
Total current assets		715,972		418,510
Property, plant and equipment, net		213,469		83,923
Right of use lease assets		42,905		-
Goodwill		607,205		83,333
Other intangible assets, net		1,121,765		63,582
Investments in associated companies		93,822		21,316
Non-current deferred tax assets		14,745		6,946
Other assets		40,433		32,055
Total assets	\$	2,850,316	\$	709,665
LIABILITIES AND EQUITY				
Current liabilities				
Short-term borrowings and current portion of long-term debt	\$	38,332	\$	670
Accounts and other payables		170,929		92,754
Accrued compensation		45,620		25,727
Accrued restructuring		18,043		-
Other current liabilities		87,010		32,319
Total current liabilities		359,934		151,470
Long-term debt		882,437		35,934
Long-term lease liabilities		31,273		-
Non-current deferred tax liabilities		211,094		10,003
Other non-current liabilities		123,212		75,889
Total liabilities		1,607,950		273,296
Equity				
Common stock, \$1 par value; authorized 30,000,000 shares; issued and outstanding 2019 - 17,735,162 shares;				
2018 - 13,338,026 shares		17,735		13,338
Capital in excess of par value		888,218		97,304
Retained earnings		412,979		405,125
Accumulated other comprehensive loss		(78,170)		(80,715)
Total Quaker shareholders' equity		1,240,762		435,052
Noncontrolling interest		1,604		1,317
Total equity	-	1,242,366		436,369
Total liabilities and equity	\$	2,850,316	\$	709,665

Quaker Chemical Corporation Condensed Consolidated Statements of Cash Flows (Dollars in thousands)

	Twelv	ve Months En	ded De	cember 31,
		2019		2018
	(Uı	naudited)		
Cash flows from operating activities				
Net income	\$	31,884	\$	59,811
Adjustments to reconcile net income to net cash provided by operating activities:				
Amortization of deferred issuance costs		1,979		70
Depreciation and amortization		44,895		19,714
Equity in undistributed earnings of associated companies, net of dividends		(2,115)		2,784
Acquisition-related fair value adjustments related to inventory		11,714		-
Deferred income taxes		(24,242)		8,197
Uncertain tax positions (non-deferred portion)		958		(89)
Non-current income taxes payable		856		(8,181)
Deferred compensation and other, net		(6,789)		2,914
Share-based compensation		4,861		3,724
Gain on disposal of property, plant, equipment and other assets		(58)		(657)
Insurance settlement realized		(822)		(1,055)
Combination and other acquisition-related expenses, net of payments		(14,414)		2,727
Restructuring and related charges		26,678		-
Pension and other postretirement benefits		46		(1,392)
Increase (decrease) in cash from changes in current assets and current liabilities, net of acquisitions:				
Accounts receivable		19,926		(2,822)
Inventories		10,844		(10,548)
Prepaid expenses and other current assets		(4,640)		(1,540)
Change in restructuring liabilities		(8,899)		-
Accounts payable and accrued liabilities		(8,915)		190
Estimated taxes on income		(1,373)		4,932
Net cash provided by operating activities		82,374		78,779
Cash flows from investing activities				
Investments in property, plant and equipment		(15,545)		(12,886)
Payments related to acquisitions, net of cash acquired		(893,412)		(500)
Proceeds from disposition of assets		103		866
Insurance settlement interest earned		222		162
Net cash used in investing activities		(908,632)		(12,358)
Cash flows from financing activities				
Proceeds from term loan debt		750,000		_
Borrowings (repayments) on revolving credit facility, net		147,135		(21,120)
Repayments on other debt, net		(8,798)		(5,671)
Financing-related costs		(23,747)		-
Dividends paid		(21,830)		(19,319)
Stock options exercised, other		1,370		82
Distributions to noncontrolling affiliate shareholders				(877)
Net cash provided by (used in) financing activities		844,130		(46,905)
Effect of foreign exchange rate changes on cash		1 250		(C 141)
Effect of foreign exchange rate changes on Cash		1,258		(6,141)
Net increase in cash, cash equivalents and restricted cash		19,130		13,375
Cash, cash equivalents and restricted cash at the beginning of the period		124,425		111,050
Cash, cash equivalents and restricted cash at the end of the period	\$		\$	124,425
, 1	Ψ	1-0,000		14-7,743



Risks and Uncertainties Statement

On August 1, 2019, Quaker Chemical Corporation (the "Company", also known as Quaker Houghton) completed its combination with Houghton international, inc. ("Houghton") (herein referred to as "the Combination"). As a result, five months of operations of Houghton post-closing of the Combination are included in the Company's results described in this presentation. In addition, the Company acquired the operating divisions of Norman Hay plot ("Norman Hay") on October 1, 2019, so three months of operations of Norman Hay post-closing are included in the Company's results described in this presentation. The Company will be filing a Notification of Late Filing on Form 12b-25 with respect to its Annual Report on Form 10-Kfor its fiscal year ended December 31, 2019 (the "Annual Report"). The Company has determined that it is unable to file its Annual Report within the prescribed time period without unreasonable effort or expense. As a result of the Combination, in which the Company acquired a complex global organization, and the significant effort required to account for the Combination, the Company requires additional time to finalize its financial statements, assess its disclosure controls and procedures and evaluate the effectiveness of its internal controls over financial reporting for the year ended December 31, 2019 figures presented in this presentation are preliminary, unaudited and subject to change pending the finalization of the Company's financial statements for the year ended December 31, 2019 and complete its Annual Report.

Regulation G

The attached charts include Company information that does not conform to generally accepted accounting principles ("GAAP"). Management believes that an analysis of this data is meaningful to investors because it provides insight with respect to ongoing operating results of the Company and allows investors to better evaluate the financial results of the Company. These measures should not be viewed as an atternative to GAAP measures of performance. Furthermore, these measures may not be consistent with similar measures provided by other companies. This data should be read in conjunction with the fourth quarter and full year earnings news release, dated March 2, 2020, which has been furnished to the Securities and Exchange Commission ("SEC") on Form 8-K.

Forward-Looking Statements

This presentation contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the fact that they do not relate strictly to historical or current facts. We have based these forward-looking statements on our current expectations about future events. These forward-looking statements with respect to our beliefs, plans, objectives, goals, expectations, sinicipations, intentions, financial condition, results and plans and statements that include the words "may," "could," "should," "beloved," "believe," "exettinate," "intend," "plan" or similar expressions. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those projected in such statements. A major risk is that demand for the Company's products and services is largely derived from the demand for its customers' products, which subjects the Company to uncertainties related to downturns in a customers's business and unanticipated customer production shutdowns. Other major risks and uncertainties that out the company is uncertainties related to downturns in a customer's business and unanticipated outsomer production shutdowns. Other major risks and uncertainties include, but are not limited to, significant increases in raw material costs, customer financial stability, worldwide economic and political conditions, the impact of wide spread public health crises, including the recent spread of the cornoavirus, foreign currency fluctuations, significant changes in applicable tax rates and regulations, future terrorist attacks and other acts of violence. Furthermore, the Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, industrial equipment, and durable goods manufacturers. Other factors could also adversely affect us, including those related to the Combination and other acquisitions



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Speakers

Michael F. Barry

Chairman of the Board, Chief Executive Officer & President

Mary Dean Hall

Senior Vice President, Chief Financial Officer & Treasurer

Robert T. Traub

Senior Vice President, General Counsel & Corporate Secretary

Shane W. Hostetter

Vice President, Finance & Chief Accounting Officer



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Fourth Quarter and Full Year 2019 Headlines

- Net income of \$15.2 million and \$31.6 million for the fourth quarter and full year 2019
- Adjusted EBITDA of \$60.6 million for the fourth quarter of 2019 up 4% versus prior year pro forma and ahead of previously provided guidance
- Integration going well and synergy achievement on track



Chairman Comments

Fourth Quarter 2019

- Net sales negatively impacted by the compounding conditions of a weak global automotive market, a generally weaker global industrial environment and continued customer inventory corrections and reductions in consumption
- Achieved targeted gross margin and have made good progress with our integration and are on track to achieve or exceed our targeted integration cost synergies
- Adjusted EBITDA of \$60.6 million was above our guidance range of \$52 to \$59 million mentioned in the third quarter and 4% higher than pro forma results for the fourth quarter of 2018

2020 Outlook

- Increased uncertainty in 2020 performance due to the coronavirus and Boeing's decision to temporarily stop
 production of the 737 Max aircraft
- Prior to negative impacts from coronavirus and 737 Max production, most of our business segments forecasted to show low to moderate growth in 2020
- Despite market uncertainties, we expect to deliver approximately \$30 million or more of adjusted EBITDA growth in 2020 compared to 2019 pro forma adjusted EBITDA of \$234 million, primarily driven by synergy benefits, a full year of Norman Hay and additional market share gains



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Financial Highlights - Actual Results

Fourth quarter of 2019

- Net sales of \$391.3 million increased 85% compared to prior year due to the inclusion of Houghton and Norman Hay
 - Excluding Houghton and Norman Hay, net sales declined 10% due to lower volumes of 9% and negative foreign exchange translation of 1%
- Gross profit increased \$61.3 million, also due to Houghton and Norman Hay, partially offset by a \$1.5 million one-time expense related to selling acquired Norman Hay inventory at fair value
 - Q4'19 gross margin of 34.8% includes \$0.5 million of accelerated depreciation and Norman Hay's \$1.5 million fair value adjustment; excluding these, gross margin would have been ~35.3% compared to 35.4% in the prior year
- SG&A increased \$51.0 million due to additional Houghton and Norman Hay SG&A, partially offset by lower direct selling costs on the decline in net sales, a benefit from foreign exchange translation and the initial benefits of realized cost savings associated with the Combination
- Below operating income performance includes higher interest expense primarily due to additional borrowings under the Company's new credit facility to finance the closing of the Combination on August 1, 2019, partially offset by higher equity earnings from Houghton's Korea joint venture
- Effective tax rates of (18.2%) and 59.8% for Q4'19 and Q4'18, respectively, include various one-time impacts; without these items ETRs would have been ~24% and ~17% for Q4'19 and Q4'18, respectively



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Financial Highlights – Non-GAAP & Pro Forma

Fourth quarter of 2019

Non-GAAP Results

- Non-GAAP EPS of \$1.34 compared to \$1.54 in the prior year impacted by the increase in share count due to the closing of the Combination
- Non-GAAP operating income increased to \$37.6 million compared to \$24.3 million in the prior year, primarily
 due to additional net sales and operating income from Houghton and Norman Hay
- Non-GAAP adjusted EBITDA increased to \$60.6 million compared to \$29.7 million in the prior year, also primarily due to additional earnings from Houghton and Norman Hay

Pro forma Results

- Actual net sales of \$391.3 million decreased 2% compared to pro forma net sales of approximately \$401 million in the prior year, primarily due to lower volume and a negative impact from foreign currency translation, partially offset by additional net sales from Norman Hay
- Adjusted EBITDA of \$60.6 million increased 4% compared to pro forma adjusted EBITDA of approximately \$58 million in the prior year, primarily due to the benefit of Norman Hay in the current quarter and initial benefits of cost savings realized from the Combination



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Financial Highlights – Actual Results

Full Year of 2019

- Net sales of \$1,133.5 million increased 31% compared to prior year due to the inclusion of Houghton and Norman Hay
 - Excluding Houghton and Norman Hay, net sales declined 6% due to lower volumes of 3% and negative foreign exchange translation of 3%
- Gross profit increased \$79.8 million, also due to Houghton and Norman Hay
 - Gross margin of 34.6% includes \$11.7 million of Houghton and Norman Hay one-time expenses to sell acquired inventory which had been adjusted to fair value and \$0.5 million of accelerated depreciation; excluding these, gross margin would have been ~35.7% compared to 36.0% in the prior year
- SG&A increased \$76.0 million due to additional Houghton and Norman Hay SG&A, partially offset by foreign exchange translation, lower direct selling costs on the decline in net sales, lower incentive compensation costs and the benefits of realized cost savings associated with the Combination
- Below operating income performance driven by higher interest expense primarily due to additional borrowings to finance the Combination partially offset by higher equity earnings from Houghton's Korea joint venture
- Effective tax rates of 7.2% and 30.1% for FY'19 and FY'18, respectively, include various one-time impacts;
 without these items ETRs would have been ~22% in both periods



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Financial Highlights – Non-GAAP & Pro Forma

Non-GAAP Results

- Non-GAAP EPS of \$5.83 compared to \$6.17 in the prior year impacted by the increase to the share count from the Combination partially offset by earnings attributed to Houghton and Norman Hay
- Non-GAAP operating income increased to \$121.9 million compared to \$104.4 million in the prior year, primarily due to additional net sales and operating income from Houghton and Norman Hay
- Non-GAAP adjusted EBITDA increased to \$173.1 million compared to \$125.8 million in the prior year, also due to additional earnings from Houghton and Norman Hay

Pro forma Results

- Net sales of \$1,562 million decreased 6% compared to \$1,655 million in the prior year, primarily due to the same factors impacting Q4'19
- Adjusted EBITDA of \$234 million decreased 1% compared to \$236 million in the prior year, primarily due to lower full year pro forma net sales partially offset by the same benefits impacting Q4'19



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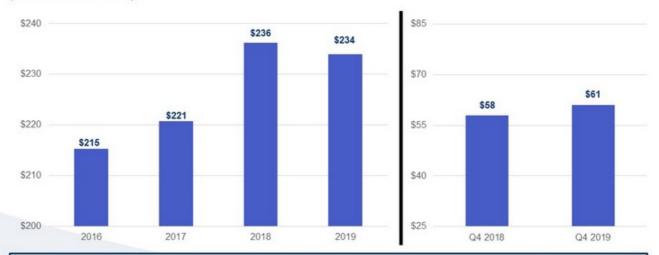
Financial Snapshot 2019 (dollars in millions, unless otherwise noted)

	Q4 2019 Q4 2018		YT	D 2019	YTD 2018		
GAAP							
Net Sales	\$	391.3	\$ 211.5	\$	1,133.5	\$	867.5
Gross Profit		136.1	74.8		392.1		312.3
Operating Income		20.3	20.1		46.1		87.8
Net Income		15.2	7.8		31.6		59.5
Earnings Per Diluted Share		0.86	0.58		2.08		4.45
Non-GAAP							
Non-GAAP Operating Income	\$	37.6	\$ 24.3	\$	121.9	\$	104.4
Non-GAAP Operating Margin (%)		9.6%	11.5%		10.8%		12.0%
Adjusted EBITDA		60.6	29.7		173.1		125.8
Adjusted EBITDA Margin (%)		15.5%	14.0%		15.3%		14.5%
Non-GAAP Earnings Per Diluted Share		1.34	1.54		5.83		6.17
Pro Forma							
Net Sales	\$	391.3	\$ 401	\$	1,562	\$	1,655
Adjusted EBITDA		60.6	58		234		236
Adjusted EBITDA Margin (%)		15.5%	15%		15%		14%



Quaker Houghton's Pro Forma Adjusted EBITDA

(dollars in millions)



FY'19 pro forma adjusted EBITDA decrease primarily due to lower volumes and FX; but Q4'19 increase due to benefits from Norman Hay and lower SG&A due to Combination benefits

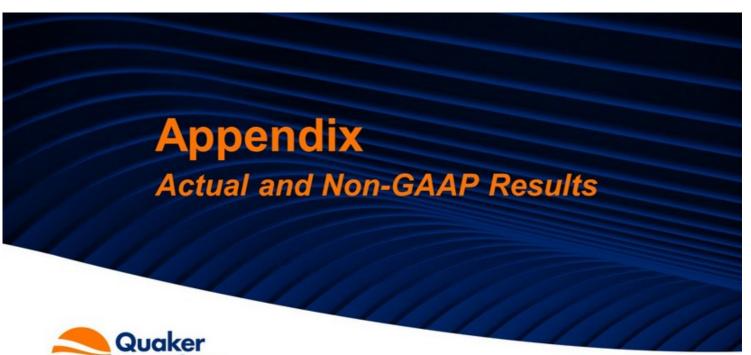


Leverage and Liquidity Update

- At close on August 1, 2019, net debt to TTM adjusted EBITDA of ~3.42x compared to ~3.47x as of December 31, 2019
 - Net debt to adjusted EBITDA expected to improve to ~3.0x or better by end of 2020
- Despite Norman Hay acquisition for ~\$95 million, capex of ~\$5 million and dividends of ~\$7 million in Q4'19, net debt up only ~\$50 million versus Q3'19, with the difference due to good operating cash flow
- Cash and cash equivalents of \$124 million and undrawn revolver of \$221 million as of December 31, 2019 provide ample liquidity
- Cost of debt ~3.1% post closing of the Combination and ~2.9% at December 31, 2019
- Capex still expected to be ~2% of sales in the first two years and 1.5% of sales thereafter



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Non-GAAP and Pro Forma Measures

ine information included in this presentation includes non-GAAP (unaudted) financial information that includes EBITDA, adjusted EBITDA, non-GAAP operating income, non-GAAP net income, non-GAAP earnings per diluted share, and pro forms net sales, net income, EBITDA and adjusted EBITDA. The Company believes these non-GAAP financial measures provide meaningful supplemental information as they enhance a reader's understanding of the financial performance of the Company, and facilitate a comparison among fiscal periods, as the non-GAAP financial measures exclude terms that are not indicative of future operating performance or not considered core to the Company's operations. Non-GAAP results and pro forma information are presented for supplemental informational purposes only and should not be considered a substitute for the financial information presented in accordance with GAAP.

The Company presents EBITDA which is calculated as net income attributable to the Company before depreciation and amortization, interest expense, net, and taxes on income before equity in net income of associated companies. The Company also presents adjusted EBITDA which is calculated as EBITDA plus or minus certain items that are not indicative of future operating performance or not considered core to the Company presents non-GAAP operating income which is calculated as operating income plus or minus certain items that are not indicative of future operating performance or not considered core to the Company's operations. Adjusted EBITDA margin and non-GAAP operating income to consolidated net seles, respectively. The Company believes these non-GAAP measures provide transparent and useful information and are widely used by analysts, investors, and competitors in our industry as well as by management in assessing the operating performance of the Company on a consistent basis.

Additionally, the Company presents non-GAAP net income and non-GAAP earnings per diluted share as additional performance measures. Non-GAAP net income is calculated as adjusted EBITDA, defined above, less depreciation and amortization, interest expense, net - adjusted, and taxes on income before equity in net income of associated companies - adjusted, as applicable, for any depreciation, amortization, interest or tax impacts resulting from the non-core items identified in the reconciliation of net income attributable to the Company to adjusted EBITDA. Non-GAAP earnings per diuted share is calculated as non-GAAP net income per diuted share as accounted for under the "two-class share method." The Company believes that none and non-GAAP earnings per diuted share provide transparent and useful information and are widely used by analysts, investors, and competitors in our industry as well as by management. In assessing the operating performance of the Company on a consistent basis.

During the first quarter of 2019, the Company updated its calculation methodology to include the use of interest expense net of interest income in the reconciliation of EBITDA and adjusted EBITDA, compared to its historical use of only interest expense, and also to include the non-service component of the Company's pension and postretirement benefit costs in the reconciliation of adjusted EBITDA, non-GAAP net income attributable to Quarker Chemical Corporation and non-GAAP earnings per diduted share. Prior year entered in the recast for comparability purposes and the change in calculation methodology does not produce materially different results. The Company's calculations to those commonly used by analysts, investors, and competitors in our industry

In addition, the Company has provided certain unaudited pro forma financial information in this presentation. The unaudited pro forma financial information is based on the historical consolidated financial statements and results of both. Quaker and floughton, and has been prepared to illustrate the effects of the Combination. The unaudited pro forma financial information has been presented for informational purposes only and is not necessarily indicative of Quaker Houghton's peat results of operations, nor is at indicative of the future of Quaker Houghton and should not be considered a substitute forthe financial information presented in accordance with GAAP. The Company has not provided pro forma financial information as it relates to the acquired operating divisions of Norman. Hay pic based on materiality.

As a relates to the full year 2020 expected adjusted EBITDA growth described further above, the Company has not provided guidance for comparable GAAP measures or a quantitative reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure because it is unable to determine with reasonable certainty the ultimate outcome of certain significant fears necessary to calculate such measures without unreasonable effort. These items include, but are not limited to, certain non-recurring or non-core tems the Company may record that could materially impact net income, such as Combination and other acquisition-related expenses and restructuring expenses, as well as income taxes. These items are uncertain, depend on various factors, and could have a material impact on the U.S. GAAP reported results for the guidance period.

The following charts should be read in conjunction with the Company's fourth quarter and full year earnings news release dated March 2, 2020, which has been furnished to the SEC on Form 8-K and the Company's Annual Report for the period ended December 31, 2019, once filed with the SEC, by no later than March 17, 2020. These documents may contain additional explanatory language and information regarding certain of the terms included in the following reconciliations.



Non-GAAP Operating Income Reconciliation (dollars in thousands unless otherwise noted)

	_ 0	4 2019	G	4 2018	_ Y	TD 2019	Y	TD 2018
Operating income	\$	20,276	\$	20,068	\$	46,134	\$	87,781
Fair value step up of Houghton and Norman Hay inventory sold		1,500		-		11,714		-
Houghton combination and other acquisition-related expenses		12,156		4,257		35,945		16,661
Restructuring expense		2,633		-		26,678		-
Customer bankruptcy costs		1,073		-		1,073		
Charges related to the settlement of a non-core equipment sale		-		-		384		
Non-GAAP operating income	\$	37,638	\$	24,325	\$	121,928	\$	104,442
Non-GAAP operating margin (%)		9.6%		11.5%		10.8%		12.0%



Adjusted EBITDA Reconciliation (dollars in thousands unless otherwise noted)

-		Q4 2019		24 2018	_ Y	YTD 2019		YTD 2018	
Net income attributable to Quaker Chemical Corporation	\$	15,240	\$	7,805	\$	31,622	\$	59,473	
Depreciation and amortization		21,250		4,803		45,264		19,714	
Interest expense, net		9,365		818		16,976		4,041	
Taxes on income before equity in net income of associated companies	(2,012)		(2,012) 1			2,084		25,050	
EBITDA		43,843		24,922		95,946		108,278	
Equity (income) loss in a captive insurance company		(562)		117		(1,822)		(966)	
Fair value step up of Houghton and Norman Hay inventory sold		1,500		-		11,714		-	
Houghton combination and other acquisition-related expenses		11,572		4,257		35,361		16,051	
Restructuring expense		2,633		-		26,678		-	
Pension and postretirement benefit costs, non-service components	501			572		2,805		2,285	
Customer bankruptcy costs		1,073	-			1,073	3 -		
Insurance insolvency recovery		(60)		(90)		(60)		(90)	
Charges related to the settlement of a non-core equipment sale		-		-		384		-	
Gain on liquidation of an inactive legal entity		-		-		-		(446)	
Currency conversion impacts of hyper-inflationary economies		142		(100)		1,033		664	
Adjusted EBITDA	\$	60,642	\$	29,678	\$	173,112	\$	125,776	
Adjusted EBITDA Margin (%)		15.5%		14.0%		15.3%		14.5%	



Non-GAAP EPS Reconciliation

<u></u>		Q4 2019		4 2018	YTD 2019		YTD 2	2018
GAAP earnings per diluted share	\$	0.86	\$	0.58	\$	2.08	\$	4.45
Equity (income) loss in a captive insurance company per diluted share		(0.03)		0.01	- 0	(0.12)		(0.07)
Fair value step up of Houghton and Norman Hay inventory sold per diluted share		0.07		-		0.58		-
Houghton combination and other acquisition-related expenses per diluted share		0.56		0.32		2.05		1.21
Restructuring expense per diluted share		0.11		-		1.34		-
Transition tax adjustments per diluted share				0.61		(0.03)		0.43
Deferred tax benefit on an intercompany intangible asset transfer per diluted share		(0.30)				(0.35)		-
Pension and postretirement benefit costs, non-service components per diluted share		0.02		0.03		0.14		0.13
Customer bankruptcy costs per diluted share		0.04		-		0.05		-
Insurance insolvency recovery per diluted share		(0.00)		(0.01)		(0.00)		(0.01)
Charges related to the settlement of a non-core equipment sale per diluted share				-		0.02		-
Gain on liquidation of an inactive legal entity per diluted share				-		-		(0.03)
Currency conversion impacts of hyper-inflationary economies per diluted share		0.01		0.00		0.07		0.06
Non-GAAP earnings per diluted share	\$	1.34	\$	1.54	\$	5.83	\$	6.17



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Segment Performance (dollars in thousands)

		24 2019	Q4 2018		YTD 2019	YTD 2018		
Net sales	100			97	Caraca Communication			
Americas	S	131,439	\$ 72,486	\$	392,121	\$	297,601	
EMEA		101,290	52,231	200	285,570		216,984	
Asia/Pacific		82,605	49,114		247,839		192,502	
Global Specialty Businesses		75,960	37,650	100	207,973		160,433	
Total net sales	\$	391,294	\$ 211,481	\$	1,133,503	\$	867,520	
Segment operating earnings								
Americas	S	26,033	\$ 14,809	\$	78,268	\$	62,686	
EMEA		16,156	8,017		47,388		36,119	
Asia/Pacific		22,198	14,108		67,573		53,739	
Global Specialty Businesses		22,375	9,707	100	58,475		42,931	
Total segment operating earnings		86,762	46,641		251,704		195,475	
Combination and other acquisition-related expenses		(11,688)	(4,257)		(35,477)		(16,661)	
Restructuring and related charges		(2,633)	-		(26,678)		-	
Fair value step up of inventory sold		(1,500)	-		(11,714)		-	
Non-operating and administrative expenses		(36, 306)	(20,471)		(104,572)		(83, 515)	
Depreciation of corporate assets and amortization		(14,359)	(1,845)	-	(27, 129)		(7,518)	
Operating Income		20,276	20,068		46,134		87,781	
Other income (expense), net		135	(11)		(254)		(642)	
Interest expense, net		(9,365)	(817)		(16,976)		(4,041)	
Income before taxes and equity in net income of associated companies	\$	11,046	\$ 19,240	\$	28,904	\$	83,098	







Q4 2018 Pro Forma Reconciliations

(dollars in millions)

	QTD December 2018											
	Quaker		Houghton		Divestitures		Other (a)		Pro	Form a*		
Net sales	S	211	\$	208	\$	(13)	\$	(5)	S	401		
Net Income Attributable to Quaker Houghton	\$	8	S	(5)	S	(1)	S	5	\$	6		
Depreciation and Amortization		5		13				1		19		
Interest Expense, Net		1		15				(7)		9		
Taxes on Income (b)		11		5		(0)		1		17		
EBITDA*		25		28		(2)		0		51		
Combination and Other Acquisition-Related Expenses		4		2						6		
Other Addbacks (c)		1		0		-		2		1		
Adjusted EBITDA*	\$	30	S	30	\$	(2)	\$	0	\$	58		
Adjusted EBITDA Margin* (%)		14%	100	15%	10.00	14%		-4%		15%		

^{*} Certain amounts may not calculate due to round, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

⁽c) Other addbacks include equity income in a captive insurance company, pension and postretirement benefit costs, non-service components, affiliate management fees, insurance insolvency recoveries, currency conversion impacts of hyper-inflationary economies and other non-recurring miscellaneous charges.



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⁽a) Other includes estimated increased to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

⁽b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

Full Year 2019 Pro Forma Reconciliations

(dollars in millions)

				YTD December 2019							
	0	uaker	Houghton		Divestitures		Other (a)		Pro	Form a*	
Net sales	\$	1,134	\$	475	\$	(34)	\$	(13)	\$	1,562	
Net Income Attributable to Quaker Houghton	S	32	S	(3)	s	(6)	S	10	\$	33	
Depreciation and Amortization		45		31				3		77	
Interest Expense, Net		17		33		-		(15)		35	
Taxes on Income (b)		2		(1)		(2)		3		2	
EBITDA*		96	100	60		(8)		1		148	
Combination and Other Acquisition-Related Expenses		35		44		-		-		80	
Gain on Sale of Divested Assets		-		(35)		-		-		(35)	
Fair Value Step Up of Houghton and Norman Hay Inventory Sold		12		-		-		-		12	
Restructuring Expenses		27		-		-		-		27	
Other Addbacks (c)		3		(0)		-		-		3	
Adjusted EBITDA*	\$	173	S	68	\$	(8)	\$	1	\$	234	
Adjusted EBITDA Margin* (%)		15%		14%		24%		-4%		15%	

^{*} Certain amounts may not calculate due to round, including EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

⁽c) Other addbacks include equity income in a captive insurance company, pension and postretirement benefit costs, non-service components, customer bankruptcy costs, insurance insolvency recoveries and currency conversion impacts of hyper-inflationary economies.



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⁽a) Other includes estimated increased to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

⁽b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

Full Year 2018 Pro Forma Reconciliations

(dollars in millions)

	YTD December 2018											
	Quaker		Houghton		Divestitures		Other (a)		Pro	Form a*		
Net sales	S	868	S	861	\$	(53)	\$	(22)	\$	1,655		
Net Income Attributable to Quaker Houghton	S	59	S	(0)	S	(9)	S	17	\$	66		
Depreciation and Amortization		20		54		-		5		79		
Interest Expense, Net		4		56				(25)		35		
Taxes on Income (b)		25		3		(2)		5		30		
EBITDA*		108		113		(12)		1		210		
Combination and Other Acquisition-Related Expenses		16		7		-		-		23		
Other Addbacks (c)		1		2		-				3		
Adjusted EBITDA*	\$	126	S	121	S	(12)	S	1	\$	236		
Adjusted EBITDA Margin* (%)		14%		14%		23%		-4%		14%		

^{*} Certain amounts may not calculate due to round, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

⁽c) Other addbacks include currency conversion impacts on hyper-inflationary economies, a gain on the liquidation of an inactive legal entity and charges related to non-recurring non-income tax and VAT charges.



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⁽a) Other includes estimated increased to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

⁽b) Taxes on income related to both Divestitures and Other reflect each tax effected at the U.S. federal tax rate of 21%.

Full Year 2017 Pro Forma Reconciliations

(dollars in millions) 2017 Other (a) Quaker Pro Forma* Houghton Divestitures Net Income Attributable to Quaker Houghton (47) (9) Depreciation and Amortization 20 55 80 Interest Expense, Net 51 (16)37 Taxes on Income (b) EBITDA* 83 102 0 175 Equity Income in a Captive Insurance Company (3)(3)40 Combination and Other Acquisition-Related Expenses 10 30 Pension and Postretirement Benefit Costs, Non-Service Components Cost Reduction Activities 0 2 Loss on Disposal of Held-for-Sale Asset 0 0 Insurance Insolvency Recovery (1) (1) Affiliate Management Fees Non-Income Tax Settlement Expense 2 Other Addbacks (c) 221 Adjusted EBITDA* 115 116 (11)Adjusted EBITDA Margin* (%) 15% 20%

⁽c) Other Addbacks includes charges related to inventory fair value adjustments in the Wallover acquisition, currency conversion impacts of hyper-inflationary economies and other non-recurring charges.



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^{*} Certain amounts may not calculate due to round, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

⁽a) Other includes estimated increases to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

⁽b) Taxes on Income related to the Divestitures and Other, as described above, each tax effected at the U.S. tax rate of 21%.

Full Year 2016 Pro Forma Reconciliations

(dollars in millions)

•	2016											
	Quaker		Houghton		Divestitures		Other (a)		Pro l	Forma*		
Net Income Attributable to Quaker Houghton	\$	61	\$	(37)	\$	(8)	\$	7	\$	23		
Depreciation and Amortization		20		55		-		5		80		
Interest Expense, Net		1		51		-		(14)		37		
Taxes on Income (b)		23		(5)		(2)		2		18		
EBITDA*		105		64		(10)		0		158		
Equity Income in a Captive Insurance Company		(2)		-		-		-		(2)		
Combination and Other Acquisition-Related Expenses		2		3		-		-		5		
Pension and Postretirement Benefit Costs, Non-Service Components	6	2		(1)		-		-		1		
Cost Reduction Activities		2		4		0.20		2		4		
Impairment of Goodwill and Intangible Assets		-		41		-		-		41		
Affiliate Management Fees		-		2		-		-		2		
Non-Income Tax Settlement Expense		-		2		-		-		2		
Full-Year Impact of Wallover Acquisition		-		3		-		-		3		
Other Addbacks (c)		(0)		1		-		-		1		
Adjusted EBITDA*	\$	107	\$	119	\$	(10)	\$	0	\$	215		
Adjusted EBITDA Margin* (%)		14%		16%		22%		0%		15%		

^{*} Certain amounts may not calculate due to round, including EBITDA, Adjusted EBITDA, Adjusted EBITDA margin (%) as well as the total pro forma financial results presented for combined Quaker Houghton.

⁽c) Other Addbacks includes a charge related to a legal settlement, a charge related to inventory fair value adjustments in the Wallover acquisition, offset by a gain on the sale of an asset, currency conversion impacts of hyper-inflationary economies and a restructuring credit.



⁽a) Other includes estimated increases to depreciation and amortization due to purchase accounting fair value adjustments and a reduction of interest expense based on the average borrowings of the period plus the purchase consideration under the Quaker Houghton facility estimated interest rates.

⁽b) Taxes on Income related to the Divestitures and Other, as described above, each tax effected at the U.S. tax rate of 21%.