

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

FORM 10-Q

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

For the quarterly period ended March 31, 2019

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 001-12019

QUAKER CHEMICAL CORPORATION

(Exact name of Registrant as specified in its charter)

Pennsylvania  
(State or other jurisdiction of  
incorporation or organization)

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

One Quaker Park, 901 E. Hector Street,  
Conshohocken, Pennsylvania  
(Address of principal executive offices)

19428 - 2380  
(Zip Code)

Registrant's telephone number, including area code: 610-832-4000

Not Applicable

Former name, former address and former fiscal year, if changed since last report.

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

Large accelerated filer   
Non-accelerated filer   
Emerging growth company

Accelerated filer   
Smaller reporting company

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

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

Securities registered pursuant to Section 12(b) of the Act:

Title of each class  
Common Stock, \$1 par value

Trading Symbol(s)  
KWR

Name of each exchange on which registered  
New York Stock Exchange

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Number of Shares of Common Stock  
Outstanding on March 31, 2019

13,333,668

<b>PART I.</b>	<b>FINANCIAL INFORMATION</b>	
<b>Item 1.</b>	Financial Statements (unaudited)	
	<a href="#">Condensed Consolidated Statements of Income for the Three Months Ended March 31, 2019 and March 31, 2018</a>	2
	<a href="#">Condensed Consolidated Statements of Comprehensive Income for the Three Months Ended March 31, 2019 and March 31, 2018</a>	3
	<a href="#">Condensed Consolidated Balance Sheets at March 31, 2019 and December 31, 2018</a>	4
	<a href="#">Condensed Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2019 and March 31, 2018</a>	5
	<a href="#">Notes to Condensed Consolidated Financial Statements</a>	6
<b>Item 2.</b>	<a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a>	21
<b>Item 3.</b>	<a href="#">Quantitative and Qualitative Disclosures about Market Risk</a>	30
<b>Item 4.</b>	<a href="#">Controls and Procedures</a>	31
<b>PART II.</b>	<b>OTHER INFORMATION</b>	32
<b>Item 1.</b>	<a href="#">Legal Proceedings</a>	32
<b>Item 2.</b>	<a href="#">Unregistered Sales of Equity Securities and Use of Proceeds</a>	32
<b>Item 6.</b>	<a href="#">Exhibits</a>	33
<b>Signatures</b>		33

**PART I**  
**FINANCIAL INFORMATION**

**Item 1. Financial Statements (Unaudited).**

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

	Unaudited			
	Three Months Ended March 31,			
	2019		2018	
Net sales	\$	211,210	\$	212,055
Cost of goods sold		135,443		136,608
Gross profit		75,767		75,447
Selling, general and administrative expenses		51,455		50,007
Combination-related expenses		4,483		5,209
Operating income		19,829		20,231
Other expense, net		(635)		(369)
Interest expense		(1,214)		(1,692)
Interest income		438		489
Income before taxes and equity in net income (loss) of associated companies		18,418		18,659
Taxes on income before equity in net income (loss) of associated companies		4,929		5,556
Income before equity in net income (loss) of associated companies		13,489		13,103
Equity in net income (loss) of associated companies		411		(316)
Net income		13,900		12,787
Less: Net income attributable to noncontrolling interest		56		55
Net income attributable to Quaker Chemical Corporation	\$	13,844	\$	12,732
<b>Per share data:</b>				
Net income attributable to Quaker Chemical Corporation common shareholders – basic	\$	1.04	\$	0.96
Net income attributable to Quaker Chemical Corporation common shareholders – diluted	\$	1.03	\$	0.95
Dividends declared	\$	0.370	\$	0.355

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

**Quaker Chemical Corporation**  
**Condensed Consolidated Statements of Comprehensive Income**  
*(Dollars in thousands)*

	Unaudited	
	Three Months Ended March 31,	
	2019	2018
Net income	\$ 13,900	\$ 12,787
Other comprehensive income, net of tax		
Currency translation adjustments	(432)	6,859
Defined benefit retirement plans	706	84
Unrealized gain (loss) on available-for-sale securities	1,273	(486)
Other comprehensive income	1,547	6,457
Comprehensive income	15,447	19,244
Less: Comprehensive income attributable to noncontrolling interest	(55)	(150)
Comprehensive income attributable to Quaker Chemical Corporation	\$ 15,392	\$ 19,094

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

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

	Unaudited	
	March 31, 2019	December 31, 2018
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	\$ 71,960	\$ 104,147
Accounts receivable, net	208,003	202,139
Inventories		
Raw materials and supplies	46,337	48,134
Work-in-process and finished goods	46,610	45,956
Prepaid expenses and other current assets	18,403	18,134
Total current assets	391,313	418,510
Property, plant and equipment, at cost	254,400	254,237
Less accumulated depreciation	(172,084)	(170,314)
Net property, plant and equipment	82,316	83,923
Right of use lease assets	26,069	—
Goodwill	83,204	83,333
Other intangible assets, net	61,421	63,582
Investments in associated companies	22,726	21,316
Non-current deferred tax assets	9,333	6,946
Other assets	32,141	32,055
Total assets	\$ 708,523	\$ 709,665
<b>LIABILITIES AND EQUITY</b>		
Current liabilities		
Short-term borrowings and current portion of long-term debt	\$ 661	\$ 670
Accounts and other payables	91,145	92,754
Accrued compensation	15,959	25,727
Other current liabilities	39,743	32,319
Total current liabilities	147,508	151,470
Long-term debt	11,720	35,934
Long-term lease liabilities	20,231	—
Non-current deferred tax liabilities	9,194	10,003
Other non-current liabilities	73,507	75,889
Total liabilities	262,160	273,296
Commitments and contingencies (Note 18)		
Equity		
Common stock, \$1 par value; authorized 30,000,000 shares; issued and outstanding 2019 – 13,333,668 shares; 2018 – 13,338,026 shares	13,334	13,338
Capital in excess of par value	96,832	97,304
Retained earnings	413,992	405,125
Accumulated other comprehensive loss	(79,167)	(80,715)
Total Quaker shareholders' equity	444,991	435,052
Noncontrolling interest	1,372	1,317
Total equity	446,363	436,369
Total liabilities and equity	\$ 708,523	\$ 709,665

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

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

	Unaudited	
	Three Months Ended March 31,	
	2019	2018
Cash flows from operating activities		
Net income	\$ 13,900	\$ 12,787
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	3,047	3,194
Amortization	1,812	1,853
Equity in undistributed earnings of associated companies, net of dividends	(186)	511
Deferred compensation, deferred taxes and other, net	(6,842)	428
Share-based compensation	1,012	1,083
Gain on disposal of property, plant, equipment and other assets	(9)	(52)
Insurance settlement realized	(190)	(85)
Combination-related expenses, net of payments	(1,012)	2,161
Pension and other postretirement benefits	(1,346)	(2,632)
(Decrease) increase in cash from changes in current assets and current liabilities, net of acquisitions:		
Accounts receivable	(5,470)	(5,827)
Inventories	946	(7,758)
Prepaid expenses and other current assets	366	(1,055)
Accounts payable and accrued liabilities	(6,008)	(1,862)
Net cash provided by operating activities	20	2,746
Cash flows from investing activities		
Investments in property, plant and equipment	(2,537)	(3,449)
Payments related to acquisitions, net of cash acquired	(500)	(500)
Proceeds from disposition of assets	8	29
Insurance settlement interest earned	65	19
Net cash used in investing activities	(2,964)	(3,901)
Cash flows from financing activities		
Proceeds from long-term debt	—	8,166
Repayments of long-term debt	(23,948)	(197)
Dividends paid	(4,935)	(4,724)
Stock options exercised, other	(1,489)	(866)
Distributions to noncontrolling affiliate shareholders	—	(834)
Net cash (used in) provided by financing activities	(30,372)	1,545
Effect of foreign exchange rate changes on cash	1,004	2,246
Net (decrease) increase in cash, cash equivalents and restricted cash	(32,312)	2,636
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	\$ 92,113	\$ 113,686

*The accompanying notes are an integral part of these condensed consolidated financial statements.*

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 1 – Condensed Financial Information**

The condensed consolidated financial statements included herein are unaudited and have been prepared in accordance with generally accepted accounting principles in the United States (“U.S. GAAP”) for interim financial reporting and the United States Securities and Exchange Commission (“SEC”) regulations. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the financial statements reflect all adjustments which are necessary for a fair statement of the financial position, results of operations and cash flows for the interim periods. The results for the three months ended March 31, 2019 are not necessarily indicative of the results to be expected for the full year. These financial statements should be read in conjunction with the Company’s Annual Report filed on Form 10-K for the year ended December 31, 2018.

*Hyper-inflationary economies*

Economies that have a cumulative three-year rate of inflation exceeding 100% are considered hyper-inflationary under U.S. GAAP. A legal entity which operates within an economy deemed to be hyper-inflationary is required to remeasure its monetary assets and liabilities to the applicable published exchange rates and record the associated gains or losses resulting from the remeasurement directly to the Condensed Consolidated Statements of Income. The Company has a 50-50 joint venture in a Venezuelan affiliate, Kelko Quaker Chemical, S.A. Venezuela’s economy has been considered hyper-inflationary under U.S. GAAP since 2010. During the three months ended March 31, 2018 the Company recorded a \$0.2 million remeasurement loss associated with the applicable currency conversions related to Venezuela. These losses were recorded within equity in net income (loss) of associated companies in the Company’s Condensed Consolidated Statements of Income. Due to heightened foreign exchange controls and restrictions currently present within Venezuela, during the third quarter of 2018 the Company concluded that it no longer had significant influence over this affiliate. Prior to this determination, the Company historically accounted for this affiliate under the equity method. As of March 31, 2019 and December 31, 2018, the Company has no remaining carrying value for its investment in Kelko Venezuela.

Based on various indices or index compilations currently being used to monitor inflation in Argentina as well as recent economic instability, effective July 1, 2018, Argentina’s economy was considered hyper-inflationary under U.S. GAAP. As a result, the Company began applying hyper-inflationary accounting with respect to the Company’s wholly owned Argentina subsidiary beginning July 1, 2018. As of, and for the three months ended March 31, 2019, the Company’s Argentina subsidiary represented less than 1% of the Company’s consolidated total assets and less than 1% of the Company’s consolidated net sales. During the three months ended March 31, 2019, the Company recorded a \$0.2 million remeasurement loss associated with the applicable currency conversions related to Argentina. These losses were recorded within foreign exchange losses, net, which is a component of other expense, net, in the Company’s Condensed Consolidated Statements of Income.

**Note 2 – Houghton Combination**

On April 4, 2017, Quaker entered into a share purchase agreement with Gulf Houghton Lubricants, Ltd. to purchase the entire issued and outstanding share capital of Houghton International, Inc. (“Houghton”) (herein referred to as “the Combination”). The shares will be bought for aggregate purchase consideration consisting of: (i) \$172.5 million in cash; (ii) a number of shares of common stock, \$1.00 par value per share, of the Company comprising 24.5% of the common stock outstanding upon the closing of the Combination; and (iii) the Company’s assumption of Houghton’s net indebtedness as of the closing of the Combination, which was approximately \$690 million at signing. At closing, the total aggregate purchase consideration is dependent on the Company’s stock price and the level of Houghton’s indebtedness.

The Company secured \$1.15 billion in commitments from Bank of America Merrill Lynch and Deutsche Bank to fund the Combination and to provide additional liquidity, and has since replaced these commitments with a syndicated bank agreement (“the New Credit Facility”) with a group of lenders for \$1.15 billion. The New Credit Facility is contingent upon and will not be effective until the closing of the Combination. During the first quarter of 2019, the Company extended the bank commitment for the New Credit Facility through July 15, 2019. The New Credit Facility is comprised of a \$400.0 million multicurrency revolver, a \$600.0 million USD term loan and a \$150.0 million EUR equivalent term loan, each with a five-year term from the date the New Credit Facility becomes effective. The maximum amount available under the New Credit Facility can be increased by \$200.0 million at the Company’s option if the lenders agree and the Company satisfies certain conditions. Borrowings under the New Credit Facility will bear interest at a base rate or LIBOR rate plus a margin. The Company currently estimates the annual floating rate cost will be in the 3.75% to 4.0% range based on current market interest rates. The New Credit Facility will be subject to certain financial and other covenants, including covenants that the Company’s consolidated net debt to adjusted EBITDA ratio cannot exceed 4.25 to 1 and the Company’s consolidated adjusted EBITDA to interest expense ratio cannot be less than 3.0 to 1. Both the USD and EUR equivalent term loans will have quarterly principal amortization during their respective five-year terms, with 5.0% amortization of the principal balance due in years 1 and 2, 7.5% in year 3, and 10.0% in years 4 and 5, with the remaining principal amounts due at maturity. Until closing, the Company will incur certain interest costs paid to maintain the bank commitment (“ticking fees”), which began to accrue on September 29, 2017 and bear an interest rate of 0.30% per annum.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

The Company received regulatory approval for the Combination from China and Australia in 2017. In addition, at a shareholder meeting held during 2017, the Company's shareholders overwhelmingly approved the issuance of the new shares of the Company's common stock at closing of the Combination. The European Commission ("EC") conditionally approved the Combination in December 2018, including the remedy proposed by Quaker and Houghton. The Company expects to receive final approval from the EC once certain conditions are met, including their review and approval of the final purchase agreement between Quaker, Houghton, and the buyer of the divested product lines, which was finalized and signed at the end of March 2019. The Company continues to be in productive discussions with the U.S. Federal Trade Commission ("FTC"). Given the time lapse since the Company's initial filing, the FTC requested updated information as part of their approval process late in the fourth quarter of 2018. In addition, the government shutdown in the U.S. late in the fourth quarter of 2018 and early in 2019 extended the timeline to receive the final approval. Given current information, the Company expects that final approval from the FTC and EC and closing of the combination will occur in the next couple of months.

The Company incurred costs of \$5.3 million and \$6.1 million during the three months ended March 31, 2019 and 2018, respectively, primarily for certain legal, financial, and other advisory and consultant costs related to regulatory approvals, integration planning associated with the Combination and certain one-time labor-related costs and ticking fees. As of March 31, 2019 and December 31, 2018, the Company had current liabilities related to the Combination of \$7.2 million and \$8.2 million, respectively, primarily recorded within other current liabilities on its Condensed Consolidated Balance Sheets.

**Note 3 – Recently Issued Accounting Standards**

The Financial Accounting Standards Board ("FASB") issued an accounting standard update in August 2018 that modifies certain disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The amendments in this accounting standard update remove disclosures that are no longer considered cost beneficial, clarify the specific requirements of certain disclosures, and add new disclosure requirements as relevant. The guidance within this accounting standard update is effective for annual periods beginning after December 15, 2020, and should be applied retrospectively to all periods presented. Early adoption is permitted. The Company has not early adopted the guidance and is currently evaluating its implementation.

The FASB issued an accounting standard update in August 2018 that clarifies the accounting for implementation costs incurred in a cloud computing arrangement under a service contract. This guidance generally aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement under a service contract with the requirements for capitalizing implementation costs related to internal-use software. The guidance within this accounting standard update is effective for annual periods beginning after December 15, 2019 and should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. Early adoption is permitted. The Company has not early adopted the guidance and is currently evaluating its implementation.

The FASB issued an accounting standard update in August 2018 that modifies certain disclosure requirements for fair value measurements. The guidance removes certain disclosure requirements regarding transfers between levels of the fair value hierarchy as well as certain disclosures related to the valuation processes for certain fair value measurements. Further, the guidance added certain disclosure requirements including unrealized gains and losses and significant unobservable inputs used to develop certain fair value measurements. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2019, and should be applied prospectively in the initial year of adoption or prospectively to all periods presented, depending on the amended disclosure requirement. Early adoption is permitted. The Company has not early adopted the guidance and is currently evaluating its implementation.

The FASB issued an accounting standard update in February 2018 that allows a reclassification from accumulated other comprehensive (loss) income ("AOCI") to retained earnings for stranded tax effects resulting from U.S. Tax Reform enacted in December 2017. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2018, and should be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in U.S. Tax Reform is recognized. Early adoption was permitted. The Company adopted this guidance in the first quarter of 2019, as required, but elected not to reclassify any stranded tax effects resulting from U.S. Tax Reform, therefore adoption of this guidance did not have an impact on its financial statements.

The FASB issued an accounting standard update in June 2016 related to the accounting for and disclosure of credit losses. The guidance introduces a new model for recognizing credit losses on financial instruments, including customer accounts receivable, based on an estimate of current expected credit losses. The guidance within this accounting standard update is effective for annual and interim periods beginning after December 15, 2019, and aspects of the guidance which may be applicable to Quaker should be applied on a modified retrospective basis. Early adoption is permitted. The Company has not early adopted the guidance and is currently evaluating its implementation.



**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

The FASB issued an accounting standard update in February 2016 regarding the accounting and disclosure for leases. During 2018 and 2019, the FASB issued a series of accounting standard updates to clarify and expand on the original 2016 implementation guidance, including providing an accounting policy election for lessors, certain targeted improvements around comparative reporting requirements and accounting for lease and non-lease components by lessors as well as other technical corrections and improvements. The amendments in these 2018 and 2019 updates did not change the core principles of the guidance previously issued in February 2016. The guidance within all of the leasing accounting standard updates are effective for annual and interim periods beginning after December 15, 2018, and should be applied on a modified retrospective basis, applying the transition requirements either (a) at the beginning of the earliest period presented in the financial statements in the year of adoption (January 1, 2017) or (b) in the period of adoption (January 1, 2019). Early adoption was permitted.

As part of the Company's implementation planning and its impact assessment related to the new lease accounting guidance, the Company developed a detailed project plan, identified and established a cross-functional implementation team and developed pre-adoption internal controls. In addition, the Company gathered an inventory of the Company's outstanding leases globally, performed certain review procedures to ensure completeness of its lease population and abstracted required information from its lease population for inclusion within the Company's leasing software. Also, the Company is considering how the new lease accounting guidance may impact Houghton and the pending Combination.

The Company adopted the guidance in the first quarter of 2019, as required, electing to use a modified retrospective transition approach and applied transition requirements as of January 1, 2019, as permitted. Comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. In addition, the Company elected to apply certain of the permitted transition practical expedients within the new lease accounting related to lease identification, lease classification, and initial direct costs. The Company made certain accounting policy elections as a result of adopting the new lease accounting guidance which include not separating lease and non-lease components, applying a portfolio approach in the development of the Company's discount rates, applying the short-term lease exemption and establishing a capitalization threshold policy.

Adoption of the lease accounting guidance did not have a material impact on the Company's reported earnings or cash flows, however, adoption did result in a material impact to the Company's balance sheet to establish the right of use lease assets and associated lease liabilities. Specifically, the Company recorded a cumulative effect of an accounting change that resulted in an increase to its right of use lease assets of \$27.3 million, an increase of \$5.3 million of short-term lease liabilities and \$21.4 million of long-term lease liabilities, a decrease in property, plant and equipment, net of \$1.1 million, a decrease in other current liabilities of \$0.4 million and a decrease to retained earnings of less than \$0.1 million. See Note 5 of Notes to Condensed Consolidated Financial Statements.

**Note 4 – Net Sales and Revenue Recognition**

*Business Description*

The Company develops, produces, and markets a broad range of formulated chemical specialty products and offers chemical management services ("CMS") for various heavy industrial and manufacturing applications in a global portfolio throughout its four regions: North America, Europe, Middle East and Africa ("EMEA"), Asia/Pacific and South America. The major product lines in the Company's global portfolio include: (i) rolling lubricants (used by manufacturers of steel in the hot and cold rolling of steel and by manufacturers of aluminum in the hot rolling of aluminum); (ii) machining and grinding compounds (used by metalworking customers in cutting, shaping, and grinding metal parts which require special treatment to enable them to tolerate the manufacturing process, achieve closer tolerance, and improve tool life); (iii) corrosion preventives (used by steel and metalworking customers to protect metal during manufacture, storage, and shipment); (iv) hydraulic fluids (used by steel, metalworking, and other customers to operate hydraulic equipment); (v) specialty greases (used in automotive and aerospace production processes and applications, the manufacturing of steel, and various other applications); and (vi) metal finishing compounds (used to prepare metal surfaces for special treatments such as galvanizing and tin plating and to prepare metal for further processing).

A substantial portion of the Company's sales worldwide are made directly through its own employees and its CMS programs, with the balance being handled through distributors and agents. The Company's employees visit the plants of customers regularly, work on site, and, through training and experience, identify production needs which can be resolved or alleviated either by adapting the Company's existing products or by applying new formulations developed in its laboratories. The chemical specialty industry comprises many companies of similar size as well as companies larger and smaller than Quaker. The offerings of many of the Company's competitors differ from those of Quaker; some offer a broad portfolio of fluids, including general lubricants, while others have a more specialized product range. All competitors provide different levels of technical services to individual customers. Competition in the industry is based primarily on the ability to provide products that meet the needs of the customer, render technical services and laboratory assistance to the customer, and to a lesser extent on price.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

As part of the Company's CMS, certain third-party product sales to customers are managed by the Company. Where the Company acts as a principal, revenues are recognized on a gross reporting basis at the selling price negotiated with its customers. Where the Company acts as an agent, revenue is recognized on a net reporting basis at the amount of the administrative fee earned by the Company for ordering the goods. In determining whether the Company is acting as a principal or an agent in each arrangement, the Company considers whether it is primarily responsible for fulfilling the promise to provide the specified good, has inventory risk before the specified good has been transferred to the customer and has discretion in establishing the prices for the specified goods. The Company transferred third-party products under arrangements recognized on a net reporting basis of \$10.4 million and \$11.6 million for the three months ended March 31, 2019 and 2018, respectively.

A significant portion of the Company's revenues are realized from the sale of process fluids and services to manufacturers of steel, automobiles, aircraft, appliances, and durable goods, and, therefore, the Company is subject to the same business cycles as those experienced by these manufacturers and their customers. The Company's financial performance is generally correlated to the volume of global production within the industries it serves, rather than discretely related to the financial performance of such industries. Furthermore, steel customers typically have limited manufacturing locations compared to metalworking customers and generally use higher volumes of products at a single location. As previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018, during 2018 the Company's five largest customers (each composed of multiple subsidiaries or divisions with semiautonomous purchasing authority) accounted for approximately 17% of consolidated net sales, with its largest customer accounting for approximately 8% of consolidated net sales.

*Revenue Recognition Model*

The Company applies the FASB's guidance on revenue recognition which requires the Company to recognize revenue in an amount that reflects the consideration to which the Company expects to be entitled in exchange for goods or services transferred to its customers. To do this, the Company applies the five-step model in the FASB's guidance, which requires the Company to: (i) identify the contract with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when, or as, the Company satisfies a performance obligation.

The Company identifies a contract with a customer when a sales agreement indicates approval and commitment of the parties; identifies the rights of the parties; identifies the payment terms; has commercial substance; and it is probable that the Company will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer. In most instances, the Company's contract with a customer is the customer's purchase order. For certain customers, the Company may also enter into a sales agreement which outlines a framework of terms and conditions which apply to all future and subsequent purchase orders for that customer. In these situations, the Company's contract with the customer is both the sales agreement as well as the specific customer purchase order. Because the Company's contract with a customer is typically for a single transaction or customer purchase order, the duration of the contract is almost always one year or less. As a result, the Company has elected to apply certain practical expedients and omit certain disclosures of remaining performance obligations for contracts which have an initial term of one year or less as permitted by the FASB.

The Company identifies a performance obligation in a contract for each promised good or service that is separately identifiable from other promises in the contract and for which the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer. The Company determines the transaction price as the amount of consideration it expects to be entitled to in exchange for fulfilling the performance obligations, including the effects of any variable consideration, significant financing elements, amounts payable to the customer or noncash consideration. For any contracts that have more than one performance obligation, the Company allocates the transaction price to each performance obligation in an amount that depicts the amount of consideration to which the Company expects to be entitled in exchange for satisfying each performance obligation.

In accordance with the last step of the FASB's guidance, the Company recognizes revenue when, or as, it satisfies the performance obligation in a contract by transferring control of a promised good or service to the customer. The Company recognizes revenue over time whenever the customer simultaneously receives and consumes the benefits provided by the Company's performance; the Company's performance creates or enhances an asset that the customer controls as the asset is created or enhanced; or the Company's performance does not create an asset with an alternative use to the entity, and the entity has an enforceable right to payment, including a profit margin, for performance completed to date. For performance obligations not satisfied over time, the Company determines the point in time at which a customer obtains control of a promised asset and the Company satisfies a performance obligation by considering when the Company has a right to payment for the asset; the customer has legal title to the asset; the Company has transferred physical possession of the asset; the customer has the significant risks and rewards of ownership of the asset; or the customer has accepted the asset.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

The Company typically satisfies its performance obligations and recognizes revenue at a point in time for product sales, generally when products are shipped or delivered to the customer, depending on the terms underlying each arrangement. In circumstances where the Company's products are on consignment, revenue is generally recognized upon usage or consumption by the customer. For any CMS or other services provided by the Company to the customer, the Company typically satisfies its performance obligations and recognizes revenue over time, as the promised services are performed. The Company uses input methods to recognize revenue over time related to these services, including labor costs and time incurred. The Company believes that these input methods represent the most indicative measure of the CMS or other service work performed by the Company.

*Other Considerations*

The Company does not have standard payment terms for all customers globally, however the Company's general payment terms require customers to pay for products or services provided after the performance obligation is satisfied. The Company does not have significant financing arrangements with its customers. The Company does not have significant amounts of variable consideration in its contracts with customers and where applicable, the Company's estimates of variable consideration are not constrained. The Company records certain third-party license fees in other expense, net, in its Condensed Consolidated Statements of Income, which generally include sales-based royalties in exchange for the license of intellectual property. These license fees are recognized in accordance with their agreed-upon terms and when performance obligations are satisfied, which is generally when the third party has a subsequent sale.

*Practical Expedients and Accounting Policy Elections*

The Company has made certain accounting policy elections and elected to use certain practical expedients as permitted by the FASB in applying the guidance on revenue recognition. It is the Company's policy to not adjust the promised amount of consideration for the effects of a significant financing component as the Company expects, at contract inception, that the period between when the Company transfers a promised good or service to the customer and when the customer pays for that good or service will be one year or less. In addition, it is the Company's policy to expense costs to obtain a contract as incurred when the expected period of benefit, and therefore the amortization period, is one year or less. It is also the Company's accounting policy to exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by the entity from a customer, including sales, use, value added, excise and various other taxes. Lastly, the Company has elected to account for shipping and handling activities that occur after the customer has obtained control of a good as a fulfillment cost rather than an additional promised service.

*Contract Assets and Liabilities*

The Company recognizes a contract asset or receivable on its Condensed Consolidated Balance Sheet when the Company performs a service or transfers a good in advance of receiving consideration. A receivable is the Company's right to consideration that is unconditional and only the passage of time is required before payment of that consideration is due. A contract asset is the Company's right to consideration in exchange for goods or services that the Company has transferred to a customer. The Company had no material contract assets recorded on its Condensed Consolidated Balance Sheets as of March 31, 2019 or December 31, 2018.

A contract liability is recognized when the Company receives consideration, or if it has the unconditional right to receive consideration, in advance of performance. A contract liability is the Company's obligation to transfer goods or services to a customer for which the Company has received consideration, or a specified amount of consideration is due, from the customer. The Company's contract liabilities primarily represent deferred revenue recorded for customer payments received by the Company prior to the Company satisfying the associated performance obligation. Deferred revenues are presented within other current liabilities in the Company's Condensed Consolidated Balance Sheets. The Company had approximately \$1.3 million and \$1.3 million of deferred revenue as of March 31, 2019 and December 31, 2018, respectively. During the three months ended March 31, 2019, the Company satisfied the associated performance obligations and recognized revenue of \$1.3 million related to advance customer payments recorded as of December 31, 2018.

*Disaggregated Revenue*

The Company sells its various industrial process fluids, its chemical specialties and its technical expertise as a global product portfolio. The Company generally manages and evaluates its performance by geography first, and then by customer industry, rather than by individual product lines. The Company has provided annual net sales information for its product lines greater than 10% in its previously filed Form 10-K for the year ended December 31, 2018, and those annual percentages are generally consistent with the current quarter's net sales by product line. Also, net sales of each of the Company's major product lines are generally spread throughout all four of the Company's regions, and in most cases, approximately proportionate to the level of total sales in each region.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

The following tables disaggregate the Company's net sales by region, customer industry, and timing of revenue recognized for the three months ended March 31, 2019 and 2018. The Company has made certain reclassifications of disaggregated customer industry disclosures for the three months ended March 31, 2018 to conform with the Company's current period customer industry segmentation.

	Three Months Ended March 31, 2019				
	North America	EMEA	Asia/Pacific	South America	Consolidated Total
Net sales	\$ 95,253	\$ 56,288	\$ 50,527	\$ 9,142	\$ 211,210
<b>Customer Industries</b>					
Primary metals	\$ 39,685	\$ 24,883	\$ 32,092	\$ 5,290	\$ 101,950
Metalworking	40,436	28,248	16,468	3,761	88,913
Coatings and other	15,132	3,157	1,967	91	20,347
	<u>\$ 95,253</u>	<u>\$ 56,288</u>	<u>\$ 50,527</u>	<u>\$ 9,142</u>	<u>\$ 211,210</u>
<b>Timing of Revenue Recognized</b>					
Product sales at a point in time	\$ 92,483	\$ 56,234	\$ 48,651	\$ 9,064	\$ 206,432
Services transferred over time	2,770	54	1,876	78	4,778
	<u>\$ 95,253</u>	<u>\$ 56,288</u>	<u>\$ 50,527</u>	<u>\$ 9,142</u>	<u>\$ 211,210</u>
	Three Months Ended March 31, 2018				
	North America	EMEA	Asia/Pacific	South America	Consolidated Total
Net sales	\$ 91,820	\$ 62,055	\$ 48,777	\$ 9,403	\$ 212,055
<b>Customer Industries</b>					
Primary metals	\$ 37,558	\$ 27,314	\$ 30,907	\$ 5,299	\$ 101,078
Metalworking	40,589	31,170	17,526	3,783	93,068
Coatings and other	13,673	3,571	344	321	17,909
	<u>\$ 91,820</u>	<u>\$ 62,055</u>	<u>\$ 48,777</u>	<u>\$ 9,403</u>	<u>\$ 212,055</u>
<b>Timing of Revenue Recognized</b>					
Product sales at a point in time	\$ 88,986	\$ 61,999	\$ 46,848	\$ 9,319	\$ 207,152
Services transferred over time	2,834	56	1,929	84	4,903
	<u>\$ 91,820</u>	<u>\$ 62,055</u>	<u>\$ 48,777</u>	<u>\$ 9,403</u>	<u>\$ 212,055</u>

**Note 5 - Leases**

The Company determines if an arrangement is a lease at its inception. This determination generally depends on whether the arrangement conveys the right to control the use of an identified fixed asset explicitly or implicitly for a period of time in exchange for consideration. Control of an underlying asset is conveyed if the Company obtains the rights to direct the use of, and to obtain substantially all of the economic benefits from the use of, the underlying asset. Lease expense for variable leases and short-term leases is recognized when the obligation is incurred.

The Company has operating leases for certain facilities, vehicles and machinery and equipment with remaining lease terms up to 8 years. In addition, the Company has certain land use leases with remaining lease terms up to 96 years. The lease term for all of the Company's leases includes the non-cancellable period of the lease plus any additional periods covered by an option to extend the lease that the Company is reasonably certain it will exercise. Operating leases are included in right of use lease assets, other current liabilities and long-term lease liabilities on the Condensed Consolidated Balance Sheet. Right of use lease assets and liabilities are recognized at each lease's commencement date based on the present value of its lease payments over its respective lease term. The Company uses the stated borrowing rate for a lease when readily determinable. When a stated borrowing rate is not available in a lease agreement, the Company uses its incremental borrowing rate based on information available at the lease's commencement date to determine the present value of its lease payments. In determining the incremental borrowing rate used to present value each of its

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

leases, the Company considers certain information including fully secured borrowing rates readily available to the Company and its subsidiaries. The Company has one immaterial finance lease, which is included in property, plant and equipment, current portion of long-term debt and long-term debt on the Condensed Consolidated Balance Sheet.

Operating lease expense is recognized on a straight-line basis over the lease term. Operating lease expense for the three months ended March 31, 2019 was \$1.8 million. Short-term lease expense for the three months ended March 31, 2019 was \$0.1 million. The Company has no material variable lease costs or sublease income for the three months ended March 31, 2019. Cash paid for operating leases during the three months ended March 31, 2019 was \$1.7 million. Subsequent to the Company's adoption of the new lease accounting guidance and cumulative effect of an accounting change on January 1, 2019, the Company recorded new right of use lease assets and associated lease liabilities of approximately \$0.3 million during the three months ended March 31, 2019.

Supplemental balance sheet information related to the Company's leases is as follows:

		<b>March 31, 2019</b>
Right of use lease assets	\$	26,069
Other current liabilities		5,258
Long-term lease liabilities		20,231
<b>Total operating lease liabilities</b>	<b>\$</b>	<b>25,489</b>
Weighted average remaining lease term (years)		6.1
Weighted average discount rate		4.65%

Maturities of operating lease liabilities as of March 31, 2019 were as follows:

		<b>March 31, 2019</b>
For the remainder of 2019	\$	4,844
For the year ended December 31, 2020		5,465
For the year ended December 31, 2021		4,486
For the year ended December 31, 2022		3,534
For the year ended December 31, 2023		2,758
For the year ended December 31, 2024 and beyond		8,419
<b>Total lease payments</b>		<b>29,506</b>
Less: imputed interest		(4,017)
<b>Present value of lease liabilities</b>	<b>\$</b>	<b>25,489</b>

Pursuant to the Company's adoption of the new lease accounting guidance using a modified retrospective transition approach, as permitted, comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. As previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018, the following table presents the Company's future minimum rental commitments under operating leases as of December 31, 2018:

For the year ended 2019	\$	7,068
For the year ended 2020		5,635
For the year ended 2021		4,509
For the year ended 2022		3,523
For the year ended 2023		2,659
For the year ended 2024 and beyond		7,779

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 6 – Business Segments**

The Company's reportable operating segments are organized by geography as follows: (i) North America, (ii) EMEA, (iii) Asia/Pacific and (iv) South America. Operating earnings, excluding indirect operating expenses, for the Company's reportable operating segments is comprised of revenues less cost of goods sold ("COGS") and selling, general and administrative expenses ("SG&A") directly related to the respective region's product sales. The indirect operating expenses consist of SG&A not directly attributable to the product sales of each respective reportable operating segment. Other items not specifically identified with the Company's reportable operating segments include interest expense, interest income, license fees from non-consolidated affiliates, amortization expense and other expense, net.

The following table presents information about the performance of the Company's reportable operating segments for the three months ended March 31, 2019 and 2018:

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2019</b>	<b>2018</b>
Net sales		
North America	\$ 95,253	\$ 91,820
EMEA	56,288	62,055
Asia/Pacific	50,527	48,777
South America	9,142	9,403
Total net sales	<u>\$ 211,210</u>	<u>\$ 212,055</u>
Operating earnings, excluding indirect operating expenses		
North America	\$ 20,872	\$ 20,365
EMEA	8,782	10,293
Asia/Pacific	13,082	12,142
South America	1,197	635
Total operating earnings, excluding indirect operating expenses	43,933	43,435
Combination-related expenses	(4,483)	(5,209)
Non-operating charges	(17,733)	(16,039)
Depreciation of corporate assets and amortization	(1,888)	(1,956)
Operating income	19,829	20,231
Other expense, net	(635)	(369)
Interest expense	(1,214)	(1,692)
Interest income	438	489
Income before taxes and equity in net income (loss) of associated companies	<u>\$ 18,418</u>	<u>\$ 18,659</u>

Inter-segment revenues for the three months ended March 31, 2019 and 2018 were \$1.8 million and \$3.1 million for North America, \$5.3 million and \$5.6 million for EMEA, less than \$0.1 million and \$0.4 million for Asia/Pacific and less than \$0.1 million and \$0 for South America, respectively. However, all inter-segment transactions have been eliminated from each reportable operating segment's net sales and earnings for all periods presented above.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 7 – Share-Based Compensation**

The Company recognized the following share-based compensation expense in SG&A in its Condensed Consolidated Statements of Income for the three months ended March 31, 2019 and 2018:

	Three Months Ended March 31,			
	2019		2018	
Stock options	\$	260	\$	252
Nonvested restricted stock awards and restricted stock units		698		775
Employee stock purchase plan		23		22
Director stock ownership plan		31		34
<b>Total share-based compensation expense</b>	<b>\$</b>	<b>1,012</b>	<b>\$</b>	<b>1,083</b>

During the first quarter of 2019, the Company granted 232 nonvested restricted shares under its long-term incentive plan. The Company had no grants of stock options or restricted stock units during the first quarter of 2019. Nonvested restricted shares granted are generally subject only to time vesting, generally over a three-year period. The fair value of the nonvested restricted shares granted in the first quarter of 2019 are based on the trading price of the Company's common stock on the date of grant. The Company adjusts the grant date fair value of these awards for expected forfeitures based on historical experience.

As of March 31, 2019, unrecognized compensation expense related to stock options granted was \$1.0 million, to be recognized over a weighted average remaining period of 1.6 years, unrecognized compensation expense related to the nonvested restricted shares was \$1.7 million, to be recognized over a weighted average remaining period of 1.6 years, and unrecognized compensation expense related to nonvested restricted stock units was \$0.2 million, to be recognized over a weighted average remaining period of 1.7 years.

**Note 8 – Pension and Other Postretirement Benefits**

The components of net periodic benefit cost for the three months ended March 31, 2019 and 2018 are as follows:

	Three Months Ended March 31,					
	Pension Benefits				Other Postretirement Benefits	
	2019		2018		2018	
Service cost	\$	986	\$	988	\$	2
Interest cost		1,111		1,049		35
Expected return on plan assets		(984)		(1,290)		—
Actuarial loss amortization		775		800		15
Prior service cost amortization		(42)		(31)		—
<b>Total net periodic benefit cost</b>	<b>\$</b>	<b>1,846</b>	<b>\$</b>	<b>1,516</b>	<b>\$</b>	<b>37</b>

The Company previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018 that the Company began the process of terminating the Company's primary non-contributory U.S. pension plan (the "U.S. Pension Plan") during the fourth quarter of 2018. As part of this process, and considering the fully funded status of the U.S. Pension Plan, the asset allocation of the U.S. Pension Plan was adjusted modeling a glide path that is more heavily allocated to fixed income securities with lengthened durations to match the projected liabilities. As a result, the expected return on plan assets declined during the three months ended March 31, 2019 compared to the three months ended March 31, 2018. In order to terminate the U.S. Pension Plan in accordance with IRS and Pension Benefit Guaranty Corporation requirements, the Company will be required to fully fund the U.S. Pension Plan on a termination basis and will commit to contribute additional assets if necessary, to do so. The amount necessary to do so is not yet known but is currently estimated to be between \$0 and \$10 million. In addition, the Company expects to record a pension settlement charge at plan termination. This settlement charge will include the immediate recognition into expense of the related unrecognized losses within AOCI on the balance sheet as of the plan termination date. The Company does not have a current estimate for this future settlement charge, however, the gross AOCI related to the U.S. Pension Plan was approximately \$19 million as of March 31, 2019. The Company currently estimates that the U.S. Pension Plan termination will be completed during 2020.

*Employer Contributions*

The Company previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018 that it expected to make minimum cash contributions of \$5.2 million to its pension plans and approximately \$0.4 million to its other postretirement benefit plans in 2019. As of March 31, 2019, \$2.9 million and \$0.2 million of contributions have been made to the Company's pension plans and its postretirement benefit plans, respectively.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 9 – Other Expense, Net**

The components of other expense, net for the three months ended March 31, 2019 and 2018 are as follows:

	Three Months Ended March 31,	
	2019	2018
Income from third party license fees	\$ 220	\$ 250
Foreign exchange losses, net	(237)	(229)
Gain on fixed asset disposals, net	9	52
Non-income tax refunds and other related credits	152	36
Pension and postretirement benefit costs, non-service components	(896)	(576)
Other non-operating income	148	157
Other non-operating expense	(31)	(59)
Total other expense, net	<u>\$ (635)</u>	<u>\$ (369)</u>

**Note 10 – Income Taxes and Uncertain Income Tax Positions**

The Company's effective tax rate for the three months ended March 31, 2019 was 26.8% compared to 29.8% for the three months ended March 31, 2018. These effective tax rates include the impacts of certain non-deductible costs related to the pending Combination. The Company's lower effective tax rate for the three months ended March 31, 2019 was largely driven by a positive impact from changes in uncertain tax positions and a shift in earnings to entities with lower effective tax rates compared to the three months ended March 31, 2018, which more than offset higher tax expense during the three months ended March 31, 2019 related to the Company recording earnings in one of its subsidiaries at a statutory tax rate of 25% while it awaits recertification of a concessionary 15% tax rate, which was available to the Company during the first three months of 2018.

As previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018, the Company recognized a deferred tax liability of \$7.9 million in the fourth quarter of 2018 related to the Company's estimate of non-U.S. taxes it will incur to repatriate certain foreign earnings. The Company incurred tax payments related to the repatriation of a portion of these foreign earnings during the first quarter of 2019 and reduced this deferred tax liability by approximately \$3.2 million.

As of March 31, 2019, the Company's cumulative liability for gross unrecognized tax benefits was \$7.7 million. As of December 31, 2018, the Company's cumulative liability for gross unrecognized tax benefits was \$7.1 million.

The Company continues to recognize interest and penalties associated with uncertain tax positions as a component of taxes on income before equity in net income (loss) of associated companies in its Condensed Consolidated Statements of Income. The Company recognized an expense of \$0.1 million for interest and an expense of less than \$0.1 million for penalties in its Condensed Consolidated Statement of Income for the three months ended March 31, 2019, and recognized an expense of \$0.1 million for interest and an expense of \$0.1 million for penalties in its Condensed Consolidated Statement of Income for the three months ended March 31, 2018. As of March 31, 2019, the Company had accrued \$0.7 million for cumulative interest and \$0.8 million for cumulative penalties in its Condensed Consolidated Balance Sheets, compared to \$0.6 million for cumulative interest and \$0.8 million for cumulative penalties accrued at December 31, 2018.

During the three months ended March 31, 2019 and 2018, the Company recognized a decrease of less than \$0.1 million and \$0.1 million, respectively, in its cumulative liability for gross unrecognized tax benefits due to the expiration of the applicable statutes of limitations for certain tax years.

The Company estimates that during the year ending December 31, 2019 it will reduce its cumulative liability for gross unrecognized tax benefits by approximately \$1.0 million due to the expiration of the statute of limitations with regard to certain tax positions. This estimated reduction in the cumulative liability for unrecognized tax benefits does not consider any increase in liability for unrecognized tax benefits with regard to existing tax positions or any increase in cumulative liability for unrecognized tax benefits with regard to new tax positions for the year ending December 31, 2019.

The Company and its subsidiaries are subject to U.S. Federal income tax, as well as the income tax of various state and foreign tax jurisdictions. Tax years that remain subject to examination by major tax jurisdictions include Brazil from 2000, Italy from 2007, the Netherlands and the United Kingdom from 2013, Mexico, Spain and China from 2014, India from fiscal year beginning April 1, 2016 and ending March 31, 2017, the U.S. from 2015, and various U.S. state tax jurisdictions from 2009.



**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

As previously reported, the Italian tax authorities have assessed additional tax due from the Company's subsidiary, Quaker Italia S.r.l., relating to the tax years 2007 through 2013. The Company has filed for competent authority relief from these assessments under the Mutual Agreement Procedures ("MAP") of the Organization for Economic Co-Operation and Development for all years except 2007. During 2018, the Italian tax authorities assessed additional tax due from Quaker Italia, S.r.l., relating to the tax years 2014 and 2015. The Company met with the Italian tax authorities in the fourth quarter of 2018 to discuss these assessments and no resolution was agreed upon, so the Company filed an appeal with the first level of tax court in Italy. If the appeal is not successful in materially reducing the assessed tax, then the Company will further evaluate its options including potentially filing for competent authority relief from these assessments under MAP, consistent with the Company's previous filings for 2008 through 2013. As of March 31, 2019, the Company believes it has adequate reserves for uncertain tax positions with respect to these and all other audits.

**Note 11 – Earnings Per Share**

The following table summarizes earnings per share calculations for the three months ended March 31, 2019 and 2018:

	Three Months Ended	
	March 31,	
	2019	2018
<b>Basic earnings per common share</b>		
Net income attributable to Quaker Chemical Corporation	\$ 13,844	\$ 12,732
Less: income allocated to participating securities	(46)	(62)
Net income available to common shareholders	\$ 13,798	\$ 12,670
Basic weighted average common shares outstanding	13,291,589	13,245,026
<b>Basic earnings per common share</b>	\$ 1.04	\$ 0.96
<b>Diluted earnings per common share</b>		
Net income attributable to Quaker Chemical Corporation	\$ 13,844	\$ 12,732
Less: income allocated to participating securities	(46)	(62)
Net income available to common shareholders	\$ 13,798	\$ 12,670
Basic weighted average common shares outstanding	13,291,589	13,245,026
Effect of dilutive securities	46,901	33,580
Diluted weighted average common shares outstanding	13,338,490	13,278,606
<b>Diluted earnings per common share</b>	\$ 1.03	\$ 0.95

Certain stock options and restricted stock units are not included in the diluted earnings per share calculation when the effect would have been anti-dilutive. There were no anti-dilutive shares for the three months ended March 31, 2019. Comparatively, the calculated amount of anti-dilutive shares not included in the diluted earnings per share calculation were 2,862 for the three months ended March 31, 2018.

**Note 12 – Restricted Cash**

The Company has restricted cash recorded in other assets related to proceeds from an inactive subsidiary of the Company which previously executed separate settlement and release agreements with two of its insurance carriers for an original total value of \$35.0 million. The proceeds of both settlements are restricted and can only be used to pay claims and costs of defense associated with the subsidiary's asbestos litigation. The proceeds of the settlement and release agreements have been deposited into interest bearing accounts which earned \$0.1 million and less than \$0.1 million in the three months ended March 31, 2019 and 2018, respectively, offset by \$0.2 million and less than \$0.1 million of net payments during the three months ended March 31, 2019 and 2018 respectively. Due to the restricted nature of the proceeds, a corresponding deferred credit was established in other non-current liabilities for an equal and offsetting amount, and will remain until the restrictions lapse or the funds are exhausted via payments of claims and costs of defense. The following table provides a reconciliation of cash, cash equivalents and restricted cash as of March 31, 2019 and 2018 and December 31, 2018 and 2017:

	March 31,		December 31,	
	2019	2018	2018	2017
Cash and cash equivalents	\$ 71,960	\$ 92,581	\$ 104,147	\$ 89,879
Restricted cash included in other assets	20,153	21,105	20,278	21,171
<b>Cash, cash equivalents and restricted cash</b>	<b>\$ 92,113</b>	<b>\$ 113,686</b>	<b>\$ 124,425</b>	<b>\$ 111,050</b>

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 13 – Goodwill and Other Intangible Assets**

The Company completes its annual impairment test during the fourth quarter of each year, or more frequently if triggering events indicate a possible impairment in one or more of its reporting units. The Company continually evaluates financial performance, economic conditions and other relevant developments in assessing if an interim period impairment test for one or more of its reporting units is necessary. The Company has recorded no impairment charges in its past.

Changes in the carrying amount of goodwill for the three months ended March 31, 2019 were as follows:

	North America	EMEA	Asia/Pacific	South America	Total
Balance as of December 31, 2018	\$ 47,303	\$ 19,335	\$ 14,587	\$ 2,108	\$ 83,333
Currency translation adjustments	82	(414)	232	(29)	(129)
Balance as of March 31, 2019	\$ 47,385	\$ 18,921	\$ 14,819	\$ 2,079	\$ 83,204

Gross carrying amounts and accumulated amortization for definite-lived intangible assets as of March 31, 2019 and December 31, 2018 were as follows:

	Gross Carrying Amount		Accumulated Amortization	
	2019	2018	2019	2018
Customer lists and rights to sell	\$ 74,574	\$ 74,989	\$ 30,565	\$ 29,587
Trademarks, formulations and product technology	33,128	33,275	17,011	16,469
Other	5,826	5,840	5,631	5,566
Total definite-lived intangible assets	\$ 113,528	\$ 114,104	\$ 53,207	\$ 51,622

The Company recorded \$1.8 million and \$1.9 million of amortization expense for the three months ended March 31, 2019 and 2018, respectively. Estimated annual aggregate amortization expense for the current year and subsequent five years is as follows:

For the year ended December 31, 2019	\$ 7,148
For the year ended December 31, 2020	6,841
For the year ended December 31, 2021	6,491
For the year ended December 31, 2022	6,337
For the year ended December 31, 2023	6,120
For the year ended December 31, 2024	5,694

The Company has two indefinite-lived intangible assets totaling \$1.1 million for trademarks as of March 31, 2019 and December 31, 2018.

**Note 14 – Debt**

The Company's primary credit facility ("the Credit Facility") is a \$300.0 million syndicated multicurrency credit agreement with a group of lenders. The maximum amount available under the Credit Facility can be increased to \$400.0 million at the Company's option if the lenders agree and the Company satisfies certain conditions. Borrowings under the Credit Facility generally bear interest at a base rate or LIBOR rate plus a margin. The Credit Facility has certain financial and other covenants, with the key financial covenant requiring that the Company's consolidated total debt to adjusted EBITDA ratio cannot exceed 3.50 to 1. As of March 31, 2019 and December 31, 2018, the Company's total debt to adjusted EBITDA ratio was below 1.0 to 1, and the Company was also in compliance with all of its other covenants. During the first quarter of 2019, the Credit Facility was amended and restated to extend the maturity date to July 15, 2020. As of March 31, 2019 the Company had no Credit Facility borrowings outstanding. As of December 31, 2018, the Company had Credit Facility borrowings of \$24.0 million. The Company's other debt obligations are primarily industrial development bonds and municipality-related loans, which totaled \$12.4 million as of March 31, 2019 and \$12.6 million as of December 31, 2018.

Quaker Chemical Corporation  
Notes to Condensed Consolidated Financial Statements - Continued  
(Dollars in thousands, except share and per share amounts, unless otherwise stated)  
(Unaudited)

Note 15 – Equity

The following tables present the changes in equity, net of tax, for the three months ended March 31, 2019 and 2018:

	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total
<b>Balance at December 31, 2018</b>	\$ 13,338	\$ 97,304	\$ 405,125	\$ (80,715)	\$ 1,317	\$ 436,369
Cumulative effect of an accounting change	—	—	(44)	—	—	(44)
<b>Balance at January 1, 2019</b>	13,338	97,304	405,081	(80,715)	1,317	436,325
Net income	—	—	13,844	—	56	13,900
Amounts reported in other comprehensive income (loss)	—	—	—	1,548	(1)	1,547
Dividends (\$0.37 per share)	—	—	(4,933)	—	—	(4,933)
Share issuance and equity-based compensation plans	(4)	(472)	—	—	—	(476)
<b>Balance at March 31, 2019</b>	<u>\$ 13,334</u>	<u>\$ 96,832</u>	<u>\$ 413,992</u>	<u>\$ (79,167)</u>	<u>\$ 1,372</u>	<u>\$ 446,363</u>
<b>Balance at December 31, 2017</b>	\$ 13,308	\$ 93,528	\$ 365,936	\$ (65,100)	\$ 1,946	\$ 409,618
Cumulative effect of an accounting change	—	—	(754)	—	—	(754)
<b>Balance at January 1, 2018</b>	13,308	93,528	365,182	(65,100)	1,946	408,864
Net income	—	—	12,732	—	55	12,787
Amounts reported in other comprehensive income	—	—	—	6,362	95	6,457
Dividends (\$0.355 per share)	—	—	(4,729)	—	—	(4,729)
Distributions to noncontrolling affiliate shareholders	—	—	—	—	(834)	(834)
Share issuance and equity-based compensation plans	15	203	—	—	—	218
<b>Balance at March 31, 2018</b>	<u>\$ 13,323</u>	<u>\$ 93,731</u>	<u>\$ 373,185</u>	<u>\$ (58,738)</u>	<u>\$ 1,262</u>	<u>\$ 422,763</u>

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

The following tables show the reclassifications from and resulting balances of AOCI for the three months ended March 31, 2019 and 2018:

	Currency Translation Adjustments	Defined Benefit Retirement Plans	Unrealized Gain (Loss) in Available-for- Sale Securities	Total
<b>Balance at December 31, 2018</b>	\$ (49,322)	\$ (30,551)	\$ (842)	\$ (80,715)
Other comprehensive (loss) income before reclassifications				
reclassifications	(431)	160	1,707	1,436
Amounts reclassified from AOCI	—	733	(96)	637
Current period other comprehensive (loss) income	(431)	893	1,611	2,073
Related tax amounts	—	(187)	(338)	(525)
Net current period other comprehensive (loss) income	(431)	706	1,273	1,548
<b>Balance at March 31, 2019</b>	<b>\$ (49,753)</b>	<b>\$ (29,845)</b>	<b>\$ 431</b>	<b>\$ (79,167)</b>
<b>Balance at December 31, 2017</b>	<b>\$ (31,893)</b>	<b>\$ (34,093)</b>	<b>\$ 886</b>	<b>\$ (65,100)</b>
Other comprehensive income (loss) before reclassifications				
reclassifications	6,764	(697)	(443)	5,624
Amounts reclassified from AOCI	—	783	(172)	611
Current period other comprehensive income (loss)	6,764	86	(615)	6,235
Related tax amounts	—	(2)	129	127
Net current period other comprehensive income (loss)	6,764	84	(486)	6,362
<b>Balance at March 31, 2018</b>	<b>\$ (25,129)</b>	<b>\$ (34,009)</b>	<b>\$ 400</b>	<b>\$ (58,738)</b>

All reclassifications related to unrealized gain (loss) in available-for-sale securities relate to the Company's equity interest in a captive insurance company and are recorded in equity in net income (loss) of associated companies. The amounts reported in other comprehensive income for non-controlling interest are related to currency translation adjustments.

**Note 16 – Business Combinations and Asset Acquisitions**

In March 2018, the Company purchased certain formulations and product technology for the mining industry for its North America reportable operating segment for \$1.0 million. The Company allocated the entire purchase price to intangible assets representing formulations and product technology, to be amortized over 10 years. In accordance with the terms of the agreement, \$0.5 million of the purchase price was paid at signing, with the remaining \$0.5 million of the purchase price paid during the first quarter of 2019.

The results of operations of acquired businesses and assets are included in the Condensed Consolidated Statements of Income from their respective acquisition dates. Transaction expenses associated with acquisitions are included in SG&A in the Company's Condensed Consolidated Statements of Income. Certain pro forma and other information is not presented, as the operations of the acquired businesses and assets are not material to the overall operations of the Company for the periods presented.

**Quaker Chemical Corporation**  
**Notes to Condensed Consolidated Financial Statements - Continued**  
*(Dollars in thousands, except share and per share amounts, unless otherwise stated)*  
*(Unaudited)*

**Note 17 – Fair Value Measurements**

The Company has valued its company-owned life insurance policies at fair value. These assets are subject to fair value measurement as follows:

Assets	Fair Value Measurements at March 31, 2019			
	Total Fair Value	Using Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Company-owned life insurance	\$ 1,635	\$ —	\$ 1,635	\$ —
Total	<u>\$ 1,635</u>	<u>\$ —</u>	<u>\$ 1,635</u>	<u>\$ —</u>

Assets	Fair Value Measurements at December 31, 2018			
	Total Fair Value	Using Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Company-owned life insurance	\$ 1,491	\$ —	\$ 1,491	\$ —
Total	<u>\$ 1,491</u>	<u>\$ —</u>	<u>\$ 1,491</u>	<u>\$ —</u>

The fair values of Company-owned life insurance assets are based on quotes for like instruments with similar credit ratings and terms. The Company did not hold any Level 3 investments as of March 31, 2019 or December 31, 2018, respectively, so related disclosures have not been included.

**Note 18 – Commitments and Contingencies**

The Company previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018 that AC Products, Inc. (“ACP”), a wholly owned subsidiary, has been operating a groundwater treatment system to hydraulically contain groundwater contamination emanating from ACP’s site, the principal contaminant of which is perchloroethylene. As of March 31, 2019, ACP believes it is close to meeting the conditions for closure of the groundwater treatment system but continues to operate this system while in discussions with the relevant authorities. As of March 31, 2019, the Company believes that the range of potential-known liabilities associated with the balance of the ACP water remediation program is approximately \$0.1 million to \$1.0 million. The low and high ends of the range are based on the length of operation of the treatment system as determined by groundwater modeling. Costs of operation include the operation and maintenance of the extraction well, groundwater monitoring and program management.

The Company previously disclosed in its Annual Report filed on Form 10-K for the year ended December 31, 2018 that an inactive subsidiary of the Company that was acquired in 1978 sold certain products containing asbestos, primarily on an installed basis, and is among the defendants in numerous lawsuits alleging injury due to exposure to asbestos. During the three months ended March 31, 2019, there have been no significant changes to the facts or circumstances of this previously disclosed matter, aside from on-going claims, immaterial settlements and routine payments associated with this litigation. Based on a continued analysis of the existing and anticipated future claims against this subsidiary, it is currently projected that the subsidiary’s total liability over the next 50 years for these claims is approximately \$1.7 million (excluding costs of defense).

The Company believes, although there can be no assurance regarding the outcome of other unrelated environmental matters, that it has made adequate accruals for costs associated with other environmental problems of which it is aware. Approximately \$0.2 million was accrued as of March 31, 2019 and December 31, 2018, respectively, to provide for such anticipated future environmental assessments and remediation costs. The Company is party to other litigation which management currently believes will not have a material adverse effect on the Company’s results of operations, cash flows or financial condition.

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

**Executive Summary**

Quaker Chemical Corporation is a leading global provider of process fluids, chemical specialties, and technical expertise to a wide range of industries, including steel, aluminum, automotive, mining, aerospace, tube and pipe, cans, and others. For over 100 years, Quaker has helped customers around the world achieve production efficiency, improve product quality, and lower costs through a combination of innovative technology, process knowledge, and customized services. Headquartered in Conshohocken, Pennsylvania USA, Quaker serves businesses worldwide with a network of dedicated and experienced professionals whose mission is to make a difference.

The Company's first quarter of 2019 operating performance was solid despite a significant negative impact from foreign currency translation on reported results. Specifically, net sales of \$211.2 million in the first quarter of 2019 benefited from a 3% increase in volume and a 1% increase from selling price and product mix, but these were offset by a negative impact from foreign currency translation of approximately 5%. Despite relatively flat net sales compared to the prior year, the Company's gross profit increased quarter-over-quarter as a result of a higher gross margin of 35.9% in the first quarter of 2019 compared to 35.6% in the prior year period, primarily due to pricing initiatives and the mix of certain products sold.

The Company reported first quarter of 2019 net income of \$13.8 million or \$1.03 per diluted share compared to the first quarter of 2018 net income of \$12.7 million or \$0.95 per diluted share. Both the first quarters of 2019 and 2018 results were impacted by expenses related to the Company's pending combination with Houghton International, Inc. ("Houghton") (herein referred to as "the Combination"). Excluding Houghton costs and all other non-core items in each period, the Company's adjusted EBITDA decreased slightly to \$29.6 million in the first quarter of 2019 compared to \$30.9 million in the prior year, due primarily to the negative impact from foreign exchange on earnings of approximately 4% in the current quarter. Despite this negative foreign exchange impact of approximately \$0.06 per diluted share, the Company's non-GAAP earnings per diluted share was \$1.41 in both the first quarters of 2019 and 2018. See the Non-GAAP Measures section of this Item below, as well as other items discussed in the Company's Consolidated Operations Review in the Operations section of this Item, below.

From a regional perspective, the Company's first quarter of 2019 operating performance reflected a mix of market share gains, base volume growth, and benefits from selling price increases in certain regions, as well as higher gross margins in certain regions. However, operating performance in all regions was negatively impacted by foreign currency translation. North America's net sales increased 4% quarter-over-quarter driven primarily by increases in selling price and product mix, which resulted in higher gross profit and operating earnings in the current quarter. The Europe, Middle East and Africa ("EMEA") region's net sales decreased 9% quarter-over-quarter, primarily due to negative foreign currency translation of 8%, which also resulted in a decrease in gross profit and operating earnings despite a slightly higher gross margin in the current quarter. Asia/Pacific's net sales increased 4% quarter-over-quarter and benefited from higher volumes of 11% partially offset by the negative impact of foreign currency translation of 6%. This increase in net sales, coupled with a higher gross margin quarter-over-quarter, drove an increase in gross profit and operating earnings. South America's net sales were also significantly impacted by negative foreign currency translation of 14% in the first quarter of 2019, however, this was partially offset by higher volumes of 6% and an increase in selling price and product mix of 5%. Despite a decrease in net sales of 3% due to negative foreign currency translation, South America's operating earnings nearly doubled due to a higher gross margin quarter-over-quarter and the benefit of lower SG&A. See the Reportable Operating Segments Review, in the Operations section of this Item, below.

The Company had net operating cash flow of less than \$0.1 million in the first quarter of 2019 compared to \$2.7 million in the first quarter of 2018. The decrease in net operating cash flow quarter-over-quarter was primarily due to higher cash tax payments as well as an increase in cash payments, net of expenses incurred, related to the pending Houghton Combination, partially offset by improved working capital in the current quarter compared to the prior year. The key drivers of the Company's operating cash flow and working capital are further discussed in the Company's Liquidity and Capital Resources section of this Item, below.

Overall, the Company is pleased to begin 2019 with a good quarter despite the negative impact from foreign exchange and a decline in the Company's underlying markets in the first quarter. Despite these significant headwinds, the Company's continued market share gains drove solid volume growth of 3% and the benefit of recent pricing initiatives and the mix of products sold contributed to the Company's gross margin improvement compared to the first quarter of 2018. These improvements in the Company's operating performance offset approximately 4% or \$0.06 per diluted share of negative foreign exchange impact on earnings and resulted in non-GAAP earnings per diluted share of \$1.41 in the first quarter of 2019 which was comparable to the first quarter of 2018.

Looking forward to the remainder of 2019, the Company expects that it will receive final regulatory approval and close the Combination in the next couple of months. As previously disclosed, the Combination will approximately double the Company's annual sales and adjusted EBITDA, not including estimated synergies, which are expected to meet or exceed \$45 million once fully achieved by the third year. Depending upon the exact timing of the Combination's close, the Company anticipates it will realize some of the Houghton sales and adjusted EBITDA in 2019.

For Quaker's current business, the Company expects the foreign currency headwinds and underlying market challenges it saw in the first quarter of 2019 to continue in the second quarter of 2019. However, the Company expects more favorable comparisons in the second half of 2019 as many of the foreign exchange and market headwinds the Company faced in the first quarter of 2019 began near the end of the second quarter of 2018 and gradually worsened throughout the prior year. Related to gross margin, the Company anticipates continued incremental improvement in the second quarter of 2019 and expects gross margin will be in the low to mid 36% range. Overall, the Company remains confident in its future and expects 2019 to be another good year with net sales and earnings growth in Quaker's current business despite its current market challenges.

#### **Liquidity and Capital Resources**

At March 31, 2019, Quaker had cash, cash equivalents and restricted cash of \$92.1 million, including \$20.2 million of restricted cash. Total cash, cash equivalents and restricted cash was \$124.4 million at December 31, 2018, which included \$20.3 million of restricted cash. The \$32.3 million decrease in cash, cash equivalents and restricted cash was the net result of \$3.0 million of cash used in investing activities and \$30.4 million of cash used in financing activities, partially offset by less than \$0.1 million of cash provided by operating activities and a \$1.0 million positive impact due to the effect of foreign currency translation on cash.

Net cash flows provided by operating activities were less than \$0.1 million in the first three months of 2019 compared to \$2.7 million in the first three months of 2018. The Company's operating cash flows for both the first three months of 2019 and 2018, respectively, were impacted by the timing and amount of combination-related expenses and associated cash payments, described below, with higher cash payments, net of expenses incurred, in the first three months of 2019. In addition, the Company had higher cash tax payments in the first three months of 2019, including withholding taxes previously reserved for and related to the repatriation of certain foreign earnings in the first quarter of 2019. These higher cash outflows were partially offset by lower cash invested in working capital in the current year primarily due to lower levels of inventory partially offset by an associated decrease in accounts payable. In addition, the first three months of 2018 working capital was impacted by lower receipts on accounts receivable due to an uncommon significant collection from a certain customer during the fourth quarter of 2017.

Net cash flows used in investing activities decreased from \$3.9 million in the first three months of 2018 to \$3.0 million in the first three months of 2019. This decrease in cash outflows was driven by lower additions to property, plant and equipment year-over-year, primarily due to higher purchases of certain machinery and equipment in the Company's North America reportable operating segment during the first three months of 2018. In addition, during the three months ended March 31, 2018 the Company paid \$0.5 million for certain formulations and product technology in the mining industry for its North America reportable operating segment and, in accordance with the terms of the agreement, the remaining \$0.5 million purchase price was paid during the first three months of 2019.

Net cash flows used in financing activities were \$30.4 million in the first three months of 2019 compared to cash provided by financing activities of \$1.5 million in the first three months of 2018. The \$31.9 million increase in net cash outflows was driven primarily by the Company's use of cash on hand for the repayments of long-term debt of \$23.9 million in the first three months of 2019 compared to net proceeds from long-term debt of \$8.0 million in the first three months of 2018. In addition, the Company paid \$4.9 million of cash dividends during the first quarter of 2019, a \$0.2 million or 4% increase in cash dividends compared to the prior year. Finally, during the first three months of 2018, one of the Company's less than 100% owned consolidated affiliates made a distribution to its noncontrolling affiliate shareholder of approximately \$0.8 million. There were no similar distributions during the first three months of 2019.

The Company's primary credit facility ("the Credit Facility") is a \$300.0 million syndicated multicurrency credit agreement with a group of lenders. The maximum amount available under the Credit Facility can be increased to \$400.0 million at the Company's option if the lenders agree and the Company satisfies certain conditions. Borrowings under the Credit Facility generally bear interest at a base rate or LIBOR rate plus a margin. The Credit Facility has certain financial and other covenants, with the key financial covenant requiring that the Company's consolidated total debt to adjusted EBITDA ratio cannot exceed 3.50 to 1. As of March 31, 2019 and December 31, 2018, the Company's total debt to adjusted EBITDA ratio was below 1.0 to 1, and the Company was also in compliance with all of its other covenants. During the first quarter of 2019, the Credit Facility was amended and restated to extend the maturity date to July 15, 2020. As of March 31, 2019 the Company had no Credit Facility borrowings outstanding. As of December 31, 2018, the Company had total Credit Facility borrowings of \$24.0 million. The Company's other debt obligations were primarily industrial development bonds and municipality-related loans, which totaled \$12.4 million as of March 31, 2019 and \$12.6 million as of December 31, 2018.

On April 4, 2017, Quaker entered into a share purchase agreement with Gulf Houghton Lubricants, Ltd. to purchase the entire issued and outstanding share capital of Houghton. The shares will be bought for aggregate purchase consideration consisting of: (i) \$172.5 million in cash; (ii) a number of shares of common stock, \$1.00 par value per share, of the Company comprising 24.5% of the common stock outstanding upon the closing of the Combination; and (iii) the Company's assumption of Houghton's net indebtedness as of the closing of the Combination, which was approximately \$690 million at signing. See Note 2 to Condensed Consolidated Financial Statements.

In connection with the Combination, the Company secured \$1.15 billion in commitments from Bank of America Merrill Lynch and Deutsche Bank to fund the purchase consideration and provide additional liquidity, and has since replaced these commitments with a syndicated bank agreement ("the New Credit Facility") with a group of lenders for \$1.15 billion. The New Credit Facility is contingent upon and will not be effective until the closing of the Combination. During the first quarter of 2019, the Company extended the bank commitment through July 15, 2019. The New Credit Facility is comprised of a \$400.0 million multicurrency revolver, a \$600.0 million USD term loan and a \$150.0 million EUR equivalent term loan, each with a five-year term from the date the New Credit Facility becomes effective. The maximum amount available under the New Credit Facility can be increased by \$200.0 million at the Company's option if the lenders agree and the Company satisfies certain conditions. Borrowings under the New Credit Facility will bear interest at a base rate or LIBOR rate plus a margin, and the Company currently estimates the annual floating rate cost will be in the 3.75% to 4.0% range based on current market interest rates. The New Credit Facility will be subject to certain financial and other covenants, including covenants that the Company's consolidated net debt to adjusted EBITDA ratio cannot exceed 4.25 to 1 and the Company's consolidated adjusted EBITDA to interest expense ratio cannot be less than 3.0 to 1. Both the USD and EUR equivalent term loans will have quarterly principal amortization during their respective five-year terms, with 5% amortization of the principal balance due in years 1 and 2, 7.5% in year 3, and 10% in years 4 and 5, with the remaining principal amounts due at maturity. Until closing, the Company will incur certain interest costs paid to maintain the bank commitment ("ticking fees"), which began to accrue on September 29, 2017. The ticking fees bear an interest rate of 0.30% per annum.

The Company incurred \$5.3 million of total combination-related expenses during the first quarter of 2019, including \$0.9 million of ticking fees, described in the Non-GAAP Measures section of this Item below, and had net cash outflows of \$6.4 million related to these costs. Comparatively, during the first quarter of 2018, combination-related expenses totaled \$6.1 million, including \$0.9 million of ticking fees, and net cash outflows related to these costs were \$3.9 million. The Company currently estimates it will incur additional expenses and have associated cash outflows of approximately \$25 to \$30 million through closing of the Combination for similar combination-related expenses, including cash payments for bank fees which we expect to capitalize. In addition, post-closing of the combination, the Company expects it will incur significant additional costs and make associated cash payments to integrate the Company and Houghton and to begin realizing the Combination's total anticipated cost synergies, which we currently estimate to meet or exceed \$45 million. The timing and an accurate range of these additional costs and cash payments post-closing are not estimable at this time. However, based on market precedent, the Company currently projects these costs and cash payments to approximate one times anticipated synergies, and the Company expects them to be incurred over a three-year period post-close.

The Company received regulatory approval for the Combination from China and Australia in 2017. In addition, at a shareholder meeting held during 2017, the Company's shareholders overwhelmingly approved the issuance of the new shares of the Company's common stock at closing of the Combination. The European Commission ("EC") conditionally approved the Combination in December 2018, including the remedy proposed by Quaker and Houghton. Quaker expects to receive final approval from the EC once certain conditions are met including their review and approval of the final purchase agreement between Quaker, Houghton, and the buyer of the divested product lines, which was finalized and signed at the end of March 2019. Quaker continues to be in productive discussions with the U.S. Federal Trade Commission ("FTC"). Given the time lapse since Quaker's initial filing, the FTC requested updated information as part of their approval process late in the fourth quarter of 2018. In addition, the government shutdown in the U.S. late in the fourth quarter of 2018 and early in 2019 extended the timeline to receive the final approval. The proposed remedy being discussed with the FTC and conditionally approved by the EC continues to be consistent with Quaker's previous guidance that the total divested product lines will be approximately 3% of the combined company's revenue. Given current information, the Company expects that final approval from the FTC and EC and closing of the combination will occur in the next couple of months. Given these contingencies and the overall timing of the Combination, the Company has not recorded any estimated costs for additional expenses that the Company expects, but had yet to incur, as of March 31, 2019, related to the Combination.

In the fourth quarter of 2018, the Company began the process of terminating its primary non-contributory U.S. pension plan (the "U.S. Pension Plan") after receiving approval from its Board of Directors. Participants of the U.S. Pension Plan will have their benefits either converted into a lump sum cash payment or an annuity contract placed with an insurance carrier. The U.S. Pension Plan is fully-funded on a U.S. GAAP basis. In order to terminate the U.S. Pension Plan in accordance with IRS and Pension Benefit Guaranty Corporation requirements, the Company will be required to fully fund the U.S. Pension Plan on a termination basis and will commit to contribute additional assets if necessary, to do so. The amount necessary to do so is not yet known but is currently estimated to be between \$0 and \$10 million. The Company currently estimates that the U.S. Pension Plan termination will be completed during 2020.

As of March 31, 2019, the Company's gross liability for uncertain tax positions, including interest and penalties, was \$9.3 million. The Company cannot determine a reliable estimate of the timing of cash flows by period related to its uncertain tax position liability. However, should the entire liability be paid, the amount of the payment may be reduced by up to \$4.9 million as a result of offsetting benefits in other tax jurisdictions.



**Quaker Chemical Corporation**  
**Management's Discussion and Analysis**

The Company believes it is capable of supporting its operating requirements and funding its business objectives, including but not limited to, payments of dividends to shareholders, costs related to the Combination, pension plan contributions, capital expenditures, other business opportunities and other potential contingencies, through internally generated funds supplemented with debt or equity as needed.

**Non-GAAP Measures**

The information in this Form 10-Q filing includes non-GAAP (unaudited) financial information that includes EBITDA, adjusted EBITDA, non-GAAP operating income, non-GAAP net income and non-GAAP earnings per diluted share. 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 more indicative of future operating performance of the Company, and facilitate a better 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 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 (loss) 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 (loss) 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 its reconciliation of EBITDA and adjusted EBITDA, compared to the 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.

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

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2019</b>	<b>2018</b>
Operating income	\$ 19,829	\$ 20,231
Houghton combination-related expenses (a)	4,483	5,209
<b>Non-GAAP operating income</b>	<b>\$ 24,312</b>	<b>\$ 25,440</b>
Non-GAAP operating margin (%) (e)	11.5%	12.0%

**Quaker Chemical Corporation**  
**Management's Discussion and Analysis**

	Three Months Ended	
	March 31,	
	2019	2018
Net income attributable to Quaker Chemical Corporation	\$ 13,844	\$ 12,732
Depreciation and amortization	4,859	5,047
Interest expense, net (a)	776	1,203
Taxes on income before equity in net income (loss) of associated companies	4,929	5,556
<b>EBITDA</b>	<b>\$ 24,408</b>	<b>\$ 24,538</b>
Equity (income) loss in a captive insurance company (b)	(346)	372
Houghton combination-related expenses (a)	4,483	5,209
Pension and postretirement benefit costs, non-service components (c)	896	576
Currency conversion impacts of hyper-inflationary economies (d)	194	218
Adjusted EBITDA	\$ 29,635	\$ 30,913
Adjusted EBITDA margin (%) (e)	14.0%	14.6%
<b>Adjusted EBITDA</b>	<b>\$ 29,635</b>	<b>\$ 30,913</b>
Less: Depreciation and amortization	4,859	5,047
Less: Interest expense, net - adjusted (a)	(86)	339
Less: Taxes on income before equity in net income (loss) of associated companies - adjusted (f)	6,040	6,659
<b>Non-GAAP net income</b>	<b>\$ 18,822</b>	<b>\$ 18,868</b>

	Three Months Ended	
	March 31,	
	2019	2018
GAAP earnings per diluted share attributable to Quaker Chemical Corporation common shareholders	\$ 1.03	\$ 0.95
Equity (income) loss in a captive insurance company per diluted share (b)	(0.03)	0.03
Houghton combination-related expenses per diluted share (a)	0.35	0.38
Pension and postretirement benefit costs, non-service components per diluted share (c)	0.05	0.03
Currency conversion impacts of hyper-inflationary economies per diluted share (d)	0.01	0.02
<b>Non-GAAP earnings per diluted share (g)</b>	<b>\$ 1.41</b>	<b>\$ 1.41</b>

- (a) Houghton combination-related expenses include certain legal, financial, and other advisory and consultant costs incurred in connection with regulatory approvals and integration planning, as well as certain one-time labor costs associated with the pending Combination. These costs are not indicative of the future operating performance of the Company. Approximately \$1.2 million and \$1.8 million of these pre-tax costs were considered non-deductible for the purpose of determining the Company's effective tax rate for the three months ended March 31, 2019 and 2018, respectively, and, therefore, taxes on income before equity in net income (loss) of associated companies - adjusted reflects the impact of these items. During both the three months ended March 31, 2019 and 2018, the Company incurred \$0.9 million of ticking fees to maintain the bank commitment related to the pending Combination. These interest costs are included in the caption interest expense, net in the reconciliation of net income attributable to the Company to EBITDA, but are excluded from interest expense, net - adjusted in the reconciliation of adjusted EBITDA to non-GAAP net income attributable to the Company. See Note 2 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.
- (b) Equity (income) loss in a captive insurance company represents the after-tax (income) loss attributable to the Company's interest in Primex, Ltd. ("Primex"), a captive insurance company. The Company holds a 33% investment in and has significant influence over Primex, and therefore accounts for this interest under the equity method of accounting. The income attributable to Primex is not indicative of the future operating performance of the Company and is not considered core to the Company's operations.
- (c) Pension and postretirement benefit costs, non-service components represent the pre-tax, non-service component of the Company's pension and postretirement net periodic benefit cost in each period. These costs are not indicative of the future operating performance of the Company. See Note 8 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.

- (d) Currency conversion impacts of hyper-inflationary economies represents the foreign currency remeasurement impacts associated with the Company's affiliates whose local economies are designated as hyper-inflationary under U.S. GAAP. An entity which operates within an economy deemed to be hyper-inflationary under U.S. GAAP is required to remeasure its monetary assets and liabilities to the applicable published exchange rates and record the associated gains or losses resulting from the remeasurement directly to the Condensed Consolidated Statements of Income. Venezuela's economy has been considered hyper-inflationary under U.S. GAAP since 2010 while Argentina's economy has been considered hyper-inflationary beginning July 1, 2018. During the three months ended March 31, 2019, the Company incurred non-deductible, pre-tax charges related to the Company's Argentina affiliate. During the three months ended March 31, 2018, the Company incurred after-tax charges related to the Company's Venezuela affiliate. The charges incurred related to the immediate recognition of foreign currency remeasurement in the Condensed Consolidated Statements of Income associated with these entities are not indicative of the future operating performance of the Company. See Note 1 of Notes to Condensed Consolidated Financial Statements, which appears in Item 1 of this Report.
- (e) The Company calculates adjusted EBITDA margin and non-GAAP operating margin as the percentage of adjusted EBITDA and non-GAAP operating income to consolidated net sales.
- (f) Taxes on income before equity in net income (loss) of associated companies – adjusted presents 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, which was determined utilizing the applicable rates in the taxing jurisdictions in which these adjustments occurred, subject to deductibility. Houghton combination-related expenses described in (a) resulted in incremental taxes of \$0.9 million and \$1.0 million for the three months ended March 31, 2019 and 2018, respectively. Pension and postretirement benefit costs, non-service components described in (c) resulted in incremental taxes of \$0.2 million and \$0.1 million for the three months ended March 31, 2019 and 2018, respectively.
- (g) The Company calculates non-GAAP earnings per diluted share as non-GAAP net income attributable to the Company per weighted average diluted shares outstanding using the "two-class share method" to calculate such in each given period.

#### **Operations**

##### Consolidated Operations Review – Comparison of the First Quarter of 2019 with the First Quarter of 2018

Net sales were \$211.2 million in the first quarter of 2019 compared to \$212.1 million in the first quarter of 2018. Net sales decreased less than 1% or approximately \$0.8 million quarter-over-quarter as the benefit from increases in volume of 3% and selling price and product mix of 1% were more than offset by the negative impact from foreign currency translation of approximately 5% or \$9.6 million.

Costs of goods sold ("COGS") in the first quarter of 2019 of \$135.4 million decreased 1% from \$136.6 million in the first quarter of 2018. The decrease in COGS was primarily due to product mix and the positive impact of foreign currency translation partially offset by the increase in product volumes, noted above.

Gross profit in the first quarter of 2019 increased \$0.3 million or less than 1% from the first quarter of 2018. The increase in gross profit was primarily due to a higher gross margin of 35.9% in the first quarter of 2019 compared to 35.6% in the first quarter of 2018, partially offset by the slight decrease in net sales, noted above. The increase in the Company's first quarter of 2019 gross margin was primarily driven by pricing initiatives and the mix of certain products sold.

SG&A in the first quarter of 2019 increased \$1.4 million compared to the first quarter of 2018 primarily due to the impact of higher labor-related costs, including annual merit increases, and professional fees, partially offset by the impact of foreign currency translation.

During the first quarter of 2019, the Company incurred \$4.5 million of costs related to the pending Combination with Houghton, described in the Non-GAAP Measures section of this Item, above. The Company incurred \$5.2 million of similar combination-related expenses in the first quarter of 2018.

Operating income in the first quarter of 2019 was \$19.8 million compared to \$20.2 million in the first quarter of 2018. Excluding Houghton combination-related expenses, the Company's current quarter non-GAAP operating income decreased to \$24.3 million compared to \$25.4 million in the prior year due primarily to the negative impact from foreign currency translation on operating earnings.

The Company had other expense, net, of \$0.6 million and \$0.4 million in the first quarter of 2019 and 2018, respectively. The current quarter increase of approximately \$0.3 million in other expense, net, was primarily driven by an increase in non-service related pension and postretirement benefit costs. In addition, the Company had a consistent amount of reported foreign currency transaction losses in both the first quarter of 2019 and 2018, respectively, however, the losses in the first quarter of 2019 include approximately \$0.2 million related to the Company's Argentina subsidiary being designated as hyper-inflationary, described in the Non-GAAP Measures section of this Item, above.

Interest expense decreased \$0.5 million during the first quarter of 2019 compared to the first quarter of 2018, primarily due to lower average outstanding borrowings on the Company's existing credit facility during the current quarter as compared to the prior year. Interest income was relatively consistent quarter-over-quarter.

The Company's effective tax rates for the first quarters of 2019 and 2018 were 26.8% and 29.8%, respectively. The Company's first quarters of 2019 and 2018 effective tax rates include the impacts of Houghton combination-related expenses, certain of which were non-deductible for the purpose of determining the Company's effective tax rate. Excluding the impact of Houghton combination-related expenses and all other non-core items in each quarter, the Company estimates that its first quarters of 2019 and 2018 effective tax rates would have been approximately 24% and 26%, respectively. The Company's lower first quarter of 2019 effective tax rate was largely driven by a positive impact from changes in uncertain tax positions and a shift in earnings to entities with lower effective tax rates quarter-over-quarter, which more than offset higher current quarter tax expense related to the Company recording earnings in one of its subsidiaries at a statutory tax rate of 25% during the first quarter of 2019 while it awaits recertification of a concessionary 15% tax rate. This concessionary 15% tax rate was available to the Company during the first quarter of 2018. The Company has experienced and expects to continue to experience volatility in its effective tax rates due to several factors, including the timing of tax audits and the expiration of applicable statutes of limitations as they relate to uncertain tax positions, the unpredictability of the timing and amount of certain incentives in various tax jurisdictions, the treatment of certain acquisition-related costs and the timing and amount of certain share-based compensation-related tax benefits, among other factors.

Equity in net income (loss) of associated companies increased \$0.7 million in the first quarter of 2019 compared to the first quarter of 2018. The increase was primarily from earnings related to the Company's interest in a captive insurance company in the current quarter compared to a loss in the prior year, as well as a currency conversion charge recorded at the Company's Venezuela affiliate during the first quarter of 2018. These items are further described in the Non-GAAP Measures section of this Item, above.

The Company's net income attributable to noncontrolling interest was consistent at \$0.1 million in both the first quarters of 2019 and 2018, respectively.

Foreign exchange negatively impacted the Company's first quarter of 2019 earnings by approximately 4% or \$0.06 per diluted share, primarily due to a negative impact from foreign currency translation partially offset by a slightly positive foreign currency transaction impact quarter-over-quarter.

#### Reportable Operating Segments Review - Comparison of the First Quarter of 2019 with the First Quarter of 2018

The Company sells its industrial process fluids, chemical specialties and technical expertise to a wide range of industries in a global product portfolio throughout its four segments: (i) North America, (ii) EMEA, (iii) Asia/Pacific and (iv) South America.

##### *North America*

North America represented approximately 45% of the Company's consolidated net sales in the first quarter of 2019. The segment's net sales were \$95.3 million, an increase of \$3.4 million or 4% compared to the first quarter of 2018. The increase in net sales was primarily due to an increase in selling price and product mix of approximately 4%. This segment's operating earnings, excluding indirect expenses, were \$20.9 million, an increase of \$0.5 million or 2% compared to the first quarter of 2018. The increase in operating earnings was driven by higher gross profit on the increase in net sales, noted above, as well as lower SG&A, partially offset by a decline in gross margin quarter-over-quarter. The decline in gross margin quarter-over-quarter was largely due to a change in product mix and an increase in certain raw material costs.

##### *EMEA*

EMEA represented approximately 27% of the Company's consolidated net sales in the first quarter of 2019. The segment's net sales were \$56.3 million, a decrease of \$5.8 million or 9% compared to the first quarter of 2018. The decrease in net sales was primarily due to the negative impact of foreign currency translation of 8% and a decrease in selling price and product mix of 1%. Volumes quarter-over-quarter increased less than 1% as continued market share gains were offset by a decrease in volume associated with a specific piece of business which the Company stopped selling during the second half of 2018 primarily due to its limited profitability. The foreign exchange impact was primarily due to a weakening of the euro against the U.S. dollar, as this exchange rate averaged 1.14 in the first quarter of 2019 compared to 1.23 in the first quarter of 2018. This segment's operating earnings, excluding indirect expenses, were \$8.8 million, a decrease of \$1.5 million or 15% compared to the first quarter of 2018. The decrease in operating earnings was driven by lower gross profit on the decrease in net sales primarily due to foreign currency translation, noted above, partially offset by a higher gross margin and slightly lower SG&A in the current quarter.

*Asia/Pacific*

Asia/Pacific represented approximately 24% of the Company's consolidated net sales in the first quarter of 2019. The segment's net sales were \$50.5 million, an increase of \$1.8 million or 4% compared to the first quarter of 2018. The increase in net sales was primarily due to higher volumes of 11% partially offset by the negative impact of foreign currency translation of 6% and a decrease in selling price and product mix of 1%. The foreign exchange impact was primarily due to the weakening of the Chinese renminbi against the U.S. dollar, as this exchange rate averaged 6.75 in the first quarter of 2019 compared to 6.36 in the first quarter of 2018. This segment's operating earnings, excluding indirect expenses, were \$13.1 million, an increase of \$0.9 million or 8% compared to the first quarter of 2018. The increase in operating earnings was primarily driven by higher gross profit on the increased net sales, noted above, as well as a higher gross margin in the first quarter of 2019 primarily due to favorable product mix. Partially offsetting these increases to operating earnings was higher SG&A quarter-over-quarter primarily due to higher labor costs associated with annual merit increases and improved segment performance.

*South America*

South America represented approximately 4% of the Company's consolidated net sales in the first quarter of 2019. The segment's net sales were \$9.1 million, a decrease of \$0.3 million or 3% compared to the first quarter of 2018. The decrease in net sales was primarily due to the negative impact of foreign currency translation of 14%, partially offset by higher volumes of 6% and an increase in selling price and product mix of 5%. The foreign exchange impact was primarily due to the weakening of the Brazilian real against the U.S. dollar, as this exchange rate averaged 3.77 in the first quarter of 2019 compared to 3.24 in the first quarter of 2018. This segment's operating earnings, excluding indirect expenses, were \$1.2 million, an increase of \$0.6 million compared to the first quarter of 2018. The increase in operating earnings was primarily due to higher gross profit driven by an increase in gross margin quarter-over-quarter as well as lower SG&A. The increase in gross margin in the first quarter of 2019 compared to the prior year was primarily due to the benefits of certain selling price initiatives which offset higher raw material costs.

**Factors That May Affect Our Future Results**

(Cautionary Statements Under the Private Securities Litigation Reform Act of 1995)

Certain information included in this Report and other materials filed or to be filed by Quaker with the SEC (as well as information included in oral statements or other written statements made or to be made by us) contain or may contain 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:

- statements relating to our business strategy;
- 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.

Such statements include information relating to current and future business activities, operational matters, capital spending, and financing sources. From time to time, forward-looking statements are also included in Quaker's other periodic reports on Forms 10-K, 10-Q and 8-K, press releases, and other materials released to, or statements made to, the public.

Any or all of the forward-looking statements in this Report, in Quaker's Annual Report to Shareholders for 2018 and in any other public statements we make may turn out to be wrong. This can occur as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties. Many factors discussed in this Report will be important in determining our future performance. Consequently, actual results may differ materially from those that might be anticipated from our forward-looking statements.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. However, any further disclosures made on related subjects in Quaker's subsequent reports on Forms 10-K, 10-Q, 8-K and other related filings should be consulted. Our forward-looking statements are subject to risks, uncertainties and assumptions about us and our operations that are subject to change based on various important factors, some of which are beyond our control. A major risk is that the demand for the Company's products and services is largely derived from the demand for our 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, foreign currency fluctuations, significant changes in applicable tax rates and regulations, future terrorist attacks and other acts of violence. Other factors could also adversely affect us, including factors related to the previously announced pending Houghton combination and the risk that the transaction may not receive regulatory approval or that regulatory approval may include conditions or other terms not acceptable to us. Furthermore, the

**Quaker Chemical Corporation**  
**Management's Discussion and Analysis**

Company is subject to the same business cycles as those experienced by steel, automobile, aircraft, appliance, and durable goods manufacturers. These risks, uncertainties, and possible inaccurate assumptions relevant to our business could cause our actual results to differ materially from expected and historical results.

Other factors beyond those discussed in this Report, could also adversely affect us including, but not limited to the following related to the Combination:

- the risk that a required regulatory approval will not be obtained or is subject to conditions that are not anticipated or acceptable to us;
- the potential that regulatory authorities may require that we make divestitures in connection with the Combination of a greater amount than we anticipated, which would result in a smaller than anticipated combined business;
- the risk that a closing condition to the Combination may not be satisfied in a timely manner;
- risks associated with the financing of the Combination;
- the occurrence of any event, change or other circumstance that could give rise to a material change in the share purchase agreement;
- potential adverse effects on Quaker Chemical's business, properties or operations caused by the implementation of the Combination;
- Quaker Chemical's ability to promptly, efficiently and effectively integrate the operations of Houghton and Quaker Chemical;
- risks related to each company's distraction from ongoing business operations due to the Combination; and,
- the outcome of any legal proceedings that may be instituted against the companies related to the Combination.

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, refer to the Risk Factors section, which appears in Item 1A of our Form 10-K for the year ended December 31, 2018, as well as the proxy statement the Company filed on July 31, 2017 and in our quarterly and other reports filed from time to time with the SEC. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk.**

We have evaluated the information required under this Item that was disclosed in Part II, Item 7A, of our Annual Report on Form 10-K for the year ended December 31, 2018, and we believe there has been no material change to that information.

**Item 4. Controls and Procedures.**

*Evaluation of disclosure controls and procedures.* As required by Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), our management, including our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, our principal executive officer and our principal financial officer have concluded that as of the end of the period covered by this report our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) were effective.

*Changes in internal control over financial reporting.* As required by Rule 13a-15(d) under the Exchange Act, our management, including our principal executive officer and principal financial officer, has evaluated our internal control over financial reporting to determine whether any changes to our internal control over financial reporting occurred during the quarter ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, no such changes to our internal control over financial reporting occurred during the quarter ended March 31, 2019.



**PART II.  
OTHER INFORMATION**

Items 1A, 3, 4 and 5 of Part II are inapplicable and have been omitted.

**Item 1. Legal Proceedings.**

Incorporated by reference is the information in Note 18 of the Notes to the Condensed Consolidated Financial Statements in Part I, Item 1, of this Report.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.**

The following table sets forth information concerning shares of the Company's common stock acquired by the Company during the period covered by this report:

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid Per Share (2)	(c) Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs (3)
January 1 - January 31	740	\$ 192.39	—	\$ 86,865,026
February 1 - February 28	6,834	\$ 212.05	—	\$ 86,865,026
March 1 - March 31	1,946	\$ 202.88	—	\$ 86,865,026
<b>Total</b>	<b>9,520</b>	<b>\$ 208.65</b>	<b>—</b>	<b>\$ 86,865,026</b>

- (1) All of these shares were acquired from employees upon their surrender of Quaker shares in payment of the exercise price of employee stock options exercised or for the payment of taxes upon exercise of employee stock options or the vesting of restricted stock.
- (2) The price paid for shares acquired from employees pursuant to employee benefit and share-based compensation plans, is, in each case, based on the closing price of the Company's common stock on the date of exercise or vesting, as specified by the plan pursuant to which the applicable option or restricted stock was granted.
- (3) On May 6, 2015, the Board of Directors of the Company approved, and the Company announced, a new share repurchase program, pursuant to which the Company is authorized to repurchase up to \$100,000,000 of Quaker Chemical Corporation common stock (the "2015 Share Repurchase Program"). The 2015 Share Repurchase Program, which replaced the Company's other share repurchase plans then in effect, has no expiration date. There were no shares acquired by the Company pursuant to the 2015 Share Repurchase Program during the quarter ended March 31, 2019.

**Item 6. Exhibits.**

(a) Exhibits

- 31.1 – [Certification of Chief Executive Officer of the Company pursuant to Rule 13a-14\(a\) of the Securities Exchange Act of 1934](#)
- 31.2 – [Certification of Chief Financial Officer of the Company pursuant to Rule 13a-14\(a\) of the Securities Exchange Act of 1934](#)
- 32.1 – [Certification of Chief Executive Officer of the Company Pursuant to 18 U.S. C. Section 1350](#)
- 32.2 – [Certification of Chief Financial Officer of the Company Pursuant to 18 U.S. C. Section 1350](#)
- 101.INS – XBRL Instance Document
- 101.SCH – XBRL Extension Schema Document
- 101.CAL – XBRL Calculation Linkbase Document
- 101.DEF – XBRL Definition Linkbase Document
- 101.LAB – XBRL Label Linkbase Document
- 101.PRE – XBRL Presentation Linkbase Document

\*\*\*\*\*

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 thereunto duly authorized.

QUAKER CHEMICAL CORPORATION  
(Registrant)

/s/ Mary Dean Hall

**Mary Dean Hall, Vice President, Chief Financial Officer and Treasurer (officer duly authorized on behalf of, and principal financial officer of, the Registrant)**

Date: May 2, 2019

## CERTIFICATION OF CHIEF EXECUTIVE OFFICER OF THE COMPANY PURSUANT TO RULE 13a-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Michael F. Barry, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quaker Chemical Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2019

/s/ Michael F. Barry  
Michael F. Barry  
Chief Executive Officer

---

## CERTIFICATION OF CHIEF FINANCIAL OFFICER OF THE COMPANY PURSUANT TO RULE 13a-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

I, Mary Dean Hall, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quaker Chemical Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2019

/s/ Mary Dean Hall  
Mary Dean Hall  
Chief Financial Officer

---

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned hereby certifies that the Form 10-Q Quarterly Report of Quaker Chemical Corporation (the "Company") for the quarterly period ended March 31, 2019 filed with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 2, 2019

/s/ Michael F. Barry

Michael F. Barry  
Chief Executive Officer of Quaker Chemical Corporation

---

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned hereby certifies that the Form 10-Q Quarterly Report of Quaker Chemical Corporation (the "Company") for the quarterly period ended March 31, 2019 filed with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 2, 2019

/s/ Mary Dean Hall

Mary Dean Hall  
Chief Financial Officer of Quaker Chemical Corporation

---