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 October 1, 2017

or

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

Commission File Number 1-11430
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MINERALS TECHNOLOGIES INC.
(Exact name of registrant as specified in its charter)

DELAWARE	**25-1190717**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

622 Third Avenue, New York, NY 10017-6707
(Address of principal executive offices, including zip code)

(212) 878-1800
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

YES ☒ **NO** ☐

Indicate by check mark whether the registrant has submitted electronically 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 and emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer ☒
Accelerated Filer ☐
Non- accelerated Filer ☐ (Do not check if a smaller reporting company)
Smaller Reporting Company ☐
Emerging Growth 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** ☒

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

Class	**Outstanding at October 24, 2017**
Common Stock, $0.10 par value	**35,366,871**

MINERALS TECHNOLOGIES INC.

INDEX TO FORM 10-Q

		Page No.
PART I.	**FINANCIAL INFORMATION**	
Item 1.	Financial Statements:	
	Condensed Consolidated Statements of Income for the three-month and nine-month periods ended October 1, 2017 and October 2, 2016 (Unaudited)	3
	Condensed Consolidated Statements of Comprehensive Income for the three-month and nine-month periods ended October 1, 2017 and October 2, 2016 (Unaudited)	4
	Condensed Consolidated Balance Sheets as of October 1, 2017 (Unaudited) and December 31, 2016	5
	Condensed Consolidated Statements of Cash Flows for the nine-month periods ended October 1, 2017 and October 2, 2016 (Unaudited)	6
	Notes to Condensed Consolidated Financial Statements (Unaudited)	7
	Review Report of Independent Registered Public Accounting Firm	20
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	21
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	33
Item 4.	Controls and Procedures	34
PART II.	**OTHER INFORMATION**	
Item 1.	Legal Proceedings	35
Item 1A.	Risk Factors	36
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	36
Item 3.	Default Upon Senior Securities	37
Item 4.	Mine Safety Disclosures	37
Item 5.	Other Information	37
Item 6.	Exhibits	37
Signature		38

PART 1. FINANCIAL INFORMATION

ITEM 1. Financial Statements

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(in millions, except per share data)			
Product sales	$ 405.4	$ 379.7	$ 1,187.9	$ 1,171.1
Service revenue	19.0	19.8	55.6	65.6
Total net sales	424.4	399.5	1,243.5	1,236.7
Cost of goods sold	293.0	272.0	854.7	840.8
Cost of service revenue	12.2	12.3	36.2	46.9
Total cost of sales	305.2	284.3	890.9	887.7
Production margin	119.2	115.2	352.6	349.0
Marketing and administrative expenses	45.6	42.4	134.1	134.2
Research and development expenses	5.9	5.9	17.8	17.9
Acquisition related transaction and integration costs	0.5	1.9	2.8	5.1
Restructuring and other items, net	0.4	(2.3)	0.9	27.4
Income from operations	66.8	67.3	197.0	164.4
Interest expense, net	(10.5)	(13.4)	(32.5)	(41.4)
Debt modification costs and fees	-	-	(3.9)	-
Other non-operating income (deductions), net	(1.7)	(0.6)	(3.4)	1.7
Total non-operating deductions, net	(12.2)	(14.0)	(39.8)	(39.7)
Income from continuing operations before provision for taxes and equity in earnings	54.6	53.3	157.2	124.7
Provision for taxes on income	12.1	11.5	35.6	26.7
Equity in earnings of affiliates, net of tax	0.4	0.7	0.7	1.6
Consolidated net income	42.9	42.5	122.3	99.6
Less:				
Net income attributable to non-controlling interests	1.2	0.9	3.0	2.9
Net income attributable to Minerals Technologies Inc. (MTI)	$ 41.7	$ 41.6	$ 119.3	$ 96.7
Earnings per share:				
Basic:				
Income from continuing operations attributable to MTI	$ 1.18	$ 1.19	$ 3.40	$ 2.78
Diluted:				
Income from continuing operations attributable to MTI	$ 1.17	$ 1.18	$ 3.35	$ 2.75
Cash dividends declared per common share	$ 0.05	$ 0.05	$ 0.15	$ 0.15
Shares used in computation of earnings per share:				
Basic	35.3	34.9	35.1	34.8
Diluted	35.6	35.3	35.6	35.1

See accompanying Notes to Condensed Consolidated Financial Statements.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	**Oct. 2, 2016**	**Oct. 1, 2017**	**Oct. 2, 2016**
	(millions of dollars)			
Consolidated net income	$ 42.9	$ 42.5	$ 122.3	$ 99.6
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	8.0	1.2	33.8	2.0
Pension and postretirement plan adjustments	1.0	1.2	3.7	3.8
Unrealized gains (losses) on cash flow hedges	0.1	0.4	(0.2)	(0.3)
Total other comprehensive income (loss), net of tax	9.1	2.8	37.3	5.5
Total comprehensive income including non-controlling interests	52.0	45.3	159.6	105.1
Comprehensive income attributable to non-controlling interest	(1.3)	(0.4)	(3.9)	(2.2)
Comprehensive income attributable to MTI	$ 50.7	$ 44.9	$ 155.7	$ 102.9

See accompanying Notes to Condensed Consolidated Financial Statements.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	Oct. 1, 2017*	December 31, 2016**
	(millions of dollars)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 211.7	$ 188.5
Short-term investments, at cost which approximates market	2.8	2.0
Accounts receivable, net	389.1	341.3
Inventories	221.2	186.9
Prepaid expenses and other current assets	36.0	32.4
Total current assets	860.8	751.1
Property, plant and equipment	2,189.1	2,141.4
Less accumulated depreciation and depletion	(1,130.0)	(1,089.6)
Property, plant and equipment, net	1,059.1	1,051.8
Goodwill	779.6	778.7
Intangible assets	198.4	204.4
Other assets and deferred charges	85.5	77.4
Total assets	$ 2,983.4	$ 2,863.4
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt	$ 6.2	$ 6.1
Current maturities of long-term debt	6.5	6.8
Accounts payable	181.0	144.9
Other current liabilities	130.0	137.7
Total current liabilities	323.7	295.5
Long-term debt, net of unamortized discount and deferred financing costs	990.2	1,069.9
Deferred income taxes	247.8	238.8
Other non-current liabilities	219.4	228.3
Total liabilities	1,781.1	1,832.5
Shareholders' equity:		
Common stock	4.9	4.8
Additional paid-in capital	420.0	400.0
Retained earnings	1,533.2	1,419.1
Accumulated other comprehensive loss	(184.8)	(221.1)
Less common stock held in treasury	(597.0)	(596.3)
Total MTI shareholders' equity	1,176.3	1,006.5
Non-controlling interests	26.0	24.4
Total shareholders' equity	1,202.3	1,030.9
Total liabilities and shareholders' equity	$ 2,983.4	$ 2,863.4

* Unaudited
** Condensed from audited financial statements

See accompanying Notes to Condensed Consolidated Financial Statements.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)	
Operating Activities:		
Consolidated net income	$ 122.3	$ 99.6
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation, depletion and amortization	67.0	66.6
Impairment of assets	-	18.5
Non-cash debt modification fees	1.8	-
Other non-cash items	8.9	8.2
Net changes in operating assets and liabilities	(49.4)	(28.7)
Net cash provided by operating activities	150.6	164.2
Investing Activities:		
Purchases of property, plant and equipment	(54.2)	(48.9)
Proceeds from sale of assets	1.3	2.9
Proceeds from sale of short-term investments	2.8	4.9
Purchases of short-term investments	(3.5)	(6.6)
Other investing activities	(0.9)	-
Net cash used in investing activities	(54.5)	(47.7)
Financing Activities:		
Proceeds from issuance of long-term debt	-	1.2
Repayment of long-term debt	(84.9)	(141.2)
Net repayment of short-term debt	(0.2)	(0.1)
Purchase of common shares for treasury	(0.7)	(2.6)
Proceeds from issuance of stock under option plan	14.4	4.1
Excess tax benefits related to stock incentive programs	(3.6)	-
Dividends paid to non-controlling interests	(2.4)	(1.5)
Cash dividends paid	(5.3)	(5.3)
Net cash used in financing activities	(82.7)	(145.4)
Effect of exchange rate changes on cash and cash equivalents	9.8	(0.8)
Net increase (decrease) in cash and cash equivalents	23.2	(29.7)
Cash and cash equivalents at beginning of period	188.5	229.4
Cash and cash equivalents at end of period	$ 211.7	$ 199.7
Supplemental disclosure of cash flow information:		
Interest paid	$ 28.9	$ 45.6
Income taxes paid	$ 35.5	$ 24.1

See accompanying Notes to Condensed Consolidated Financial Statements.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Basis of Presentation and Summary of Significant Accounting Policies

The accompanying unaudited condensed consolidated financial statements have been prepared by management of Minerals Technologies Inc. (the “Company”, “MTI”, “we” or “us”) in accordance with the rules and regulations of the United States Securities and Exchange Commission. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles have been condensed or omitted. Therefore, these financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2016. In the opinion of management, all adjustments, consisting solely of normal recurring adjustments necessary for a fair presentation of the financial information for the periods indicated, have been included. The results for the three-month and nine-month periods ended October 1, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017.

Company Operations

The Company is a resource-and technology-based company that develops, produces and markets worldwide a broad range of specialty mineral, mineral-based and synthetic mineral products and supporting systems and services.

During the first quarter of 2017, the Company announced the reorganization of its Performance Materials and Construction Technologies business segments into one operating segment, in order to generate greater alignment, speed decision making and accelerate growth.

The Company now has four reportable segments: Specialty Minerals, Performance Materials, Refractories and Energy Services.

- The Specialty Minerals segment produces and sells the synthetic mineral product precipitated calcium carbonate ("PCC") and mines, processes and sells other natural mineral products, primarily limestone and talc.

- The Performance Materials segment is a leading global supplier of bentonite and bentonite-related products, chromite and leonardite. This segment also provides products for non-residential construction, environmental and infrastructure projects worldwide, serving customers engaged in a broad range of construction projects.

- The Refractories segment produces and markets monolithic and shaped refractory materials and specialty products, services and application and measurement equipment, and calcium metal and metallurgical wire products.

- The Energy Services segment provides services to improve the production, costs, compliance, and environmental impact of activities performed in the oil and gas industry. This segment offers a range of patented and unpatented technologies, products and services for all phases of oil and gas production and refining throughout the world.

Use of Estimates

The Company employs accounting policies that are in accordance with U.S. generally accepted accounting principles and require management to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reported period. Significant estimates include those related to revenue recognition, valuation of accounts receivable, valuation of inventories, valuation of long-lived assets, goodwill and other intangible assets, pension plan assumptions, valuation of product liability and asset retirement obligation, income tax, income tax valuation allowances, and litigation and environmental liabilities. Actual results could differ from those estimates.

Recently Issued Accounting Standards

Changes to accounting principles generally accepted in the United States of America (U.S. GAAP) are established by the Financial Accounting Standards Board (FASB) in the form of accounting standards updates (ASUs) to the FASB’s Accounting Standards Codification. The Company considers the applicability and impact of all ASUs. ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on our consolidated financial position and results of operations.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Revenue from Contracts with Customers

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers” which will supersede nearly all existing revenue recognition guidance under U.S. GAAP. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. Other major provisions include capitalization of certain contract costs, consideration of time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity’s contracts with customers. The guidance is effective for the interim and annual periods beginning on or after December 15, 2017. The guidance permits the use of either a retrospective or cumulative effect transition method. The Company has elected to use the cumulative effect transition method. The Company has completed a high level accounting diagnostic and is in the process of contract review and continues to evaluate the impact of this ASU on the Company’s consolidated financial statements and related disclosures. At this time, the Company does not believe the adoption of this guidance will have a material impact on the Company’s consolidated financial statements and are reviewing the additional disclosure requirements upon adoption.

Leases

In February 2016, the FASB issued ASU 2016-02, “Leases”, which requires lessees to recognize most leases on-balance sheet, thereby increasing their reported assets and liabilities, in some cases very significantly. Lessor accounting remains substantially similar to current U.S. GAAP. ASU 2016-02 is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2018. ASU 2016-02 mandates a modified retrospective transition method for all entities. The Company is currently evaluating the impact of this ASU on the Company’s consolidated financial statements and related disclosures. Based on the current status of this assessment, the adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Intangibles – Goodwill and Other

In January 2017, the FASB issued ASU 2017-04, “Intangibles-Goodwill and Other: Simplifying the Test for Goodwill Impairment”, which no longer requires an entity to perform a hypothetical purchase price allocation to measure goodwill impairment. Instead, goodwill will be measured using the difference between the carrying amount and the fair value of the reporting unit. The guidance is effective for the interim and annual periods beginning on or after December 15, 2019, with early adoption permitted. The adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Compensation – Retirement Benefits

In March 2017, the FASB issued ASU 2017-07, “Compensation – Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”, which requires companies to present the service cost component of the net benefit cost in the same line items in which they report compensation cost. All other components of net periodic benefit cost will be presented outside operating income. The guidance is effective for the interim and annual periods beginning on or after December 15, 2017. The adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Adoption of ASU 2016-09, Stock Compensation- Improvements to Employee Share-Based Payment Accounting

On January 1, 2017, the Company adopted the provisions of ASU 2016-09, “Stock Compensation – Improvements to Employee Share-Based Payment Accounting”, an amendment to account standards codification (“ASC”) 718, which simplifies several aspects of accounting for share-based payments, including accounting for income taxes, forfeitures, statutory withhold rates as well as presentation on the statement of cash flows. The Company has elected to adopt the standard on a prospective basis. As a result of this adoption, the Company recognizes excess tax benefits in the current account period. The cash flow benefit of the excess tax benefit is included as an operating activity in the Condensed Consolidated Statement of Cash Flows for the period ended October 1, 2017. Additionally, taxes paid for shares withheld for tax-withholding purposes are reported as financing activities in the Condensed Consolidated Statements of Cash Flows. Previously, this activity was included in operating activities. Prior year Condensed Consolidated Statement of Cash Flows has not been restated. In accordance with the standard, the Company will continue to account for forfeitures using an estimated forfeiture rate.

Note 2. Earnings Per Share (EPS)

Basic earnings per share are based upon the weighted average number of common shares outstanding during the period. Diluted earnings per share are based upon the weighted average number of common shares outstanding during the period assuming the issuance of common shares for all potentially dilutive common shares outstanding.

The following table sets forth the computation of basic and diluted earnings per share:

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(in millions, except per share data)			
Net income attributable to MTI	$ 41.7	$ 41.6	$ 119.3	$ 96.7
Weighted average shares outstanding	35.3	34.9	35.1	34.8
Dilutive effect of stock options and stock units	0.3	0.4	0.5	0.3
Weighted average shares outstanding, adjusted	35.6	35.3	35.6	35.1
Basic earnings per share attributable to MTI	$ 1.18	$ 1.19	$ 3.40	$ 2.78
Diluted earnings per share attributable to MTI	$ 1.17	$ 1.18	$ 3.35	$ 2.75

Options to purchase 184,569 shares and 10,239 shares of common stock for the three-month and nine-month periods ended October 1, 2017 and October 2, 2016, respectively, were not included in the computation of diluted earnings per share because they were anti-dilutive, as the exercise prices of the options were greater than the average market price of the common shares.

In the first quarter of 2017, the Company adopted the provisions of ASU 2016-09, "Stock Compensation – Improvements to Employee Share-Based Payment Accounting". Under the new guidance excess income tax benefits are no longer included in the calculation of assumed proceeds. As such, the dilutive effect of stock options and stock units for the period ended October 1, 2017 is reflective of the new guidance.

Note 3. Restructuring and Other Items, net

During 2014, the Company announced a restructuring program which resulted in a 10% permanent reduction of its workforce. The reductions included elimination of duplicate corporate functions, deployment of our shared service model, and consolidation and alignment of various corporate functions and regional locations across the Company.

During the third quarter and first nine months of 2016, the Company incurred additional restructuring charges for lease termination costs, inventory write-offs and impairment of assets relating to its exit from the Nitrogen and Pipeline product lines and restructuring of other onshore services within the Energy Services segment as a result of the significant reduction in oil prices and overcapacity in the onshore oil service market. Included in the $2.3 million income recorded in the third quarter of 2016 were gains on previously impaired assets of $2.9 million. The Company expects to realize annualized savings from this restructuring program of $11.5 million.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The following table outlines the amount of restructuring charges recorded within the Condensed Consolidated Statements of Income.

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Restructuring Charges	$ 1.3	$ 0.6	$ 1.8	$ 11.8
Impairment of Assets	-	-	-	18.5
Other	(0.9)	(2.9)	(0.9)	(2.9)
Total restructuring and other items, net	$ 0.4	$ (2.3)	$ 0.9	$ 27.4

At October 1, 2017, the Company had $1.2 million included within accrued liabilities within our Condensed Consolidated Balance Sheets for cash expenditures needed to satisfy remaining obligations under these workforce reduction initiatives. The Company expects to pay these amounts by the end of December 2017.

The following table is a reconciliation of our restructuring liability balance as of October 1, 2017:

	(millions of dollars)
Restructuring liability, December 31, 2016	$ 3.6
Additional provisions	1.8
Cash payments	(4.2)
Restructuring liability, October 1, 2017	$ 1.2

Note 4. Income Taxes

As of October 1, 2017, the Company had approximately $14.5 million of total unrecognized income tax benefits. Included in this amount were a total of $11.8 million of unrecognized income tax benefits that, if recognized, would affect the Company's effective tax rate. While it is expected that the amount of unrecognized tax benefits will change in the next 12 months, the Company does not expect the change to have a significant impact on the results of operations or the financial position of the Company.

The Company's accounting policy is to recognize interest and penalties accrued relating to unrecognized income tax benefits as part of its provision for income taxes. The Company had a net decrease of approximately $0.1 million during the three months ended October 1, 2017, an increase of $0.2 million during the nine months ended October 1, 2017, and had an accrued balance of $1.4 million of interest and penalties as of October 1, 2017.

The Company operates in multiple taxing jurisdictions, both within and outside the U.S. In certain situations, a taxing authority may challenge positions that the Company has adopted in its income tax filings. The Company, with a few exceptions (none of which are material), is no longer subject to income tax examinations by tax authorities for years prior to 2010.

Provision for taxes was $12.1 million and $35.6 million during the three and nine-months ended October 1, 2017, respectively. The effective tax rate was 22.6% as compared to 21.4% in the prior year. The higher effective tax rate was primarily due to a change in the mix of earnings and non-deductible acquisition costs in the prior year.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 5. Inventories

The following is a summary of inventories by major category:

	Oct. 1, 2017	December 31, 2016
	(millions of dollars)	
Raw materials	$ 83.8	$ 70.6
Work-in-process	6.3	5.4
Finished goods	95.1	80.5
Packaging and supplies	36.0	30.4
Total inventories	$ 221.2	$ 186.9

Note 6. Goodwill and Other Intangible Assets

Goodwill and other intangible assets with indefinite lives are not amortized, but instead are assessed for impairment at least annually. The carrying amount of goodwill was $779.6 million and $778.7 million as of October 1, 2017 and December 31, 2016, respectively. The net change in goodwill since December 31, 2016 was attributable to the effects of foreign exchange.

Acquired intangible assets subject to amortization as of October 1, 2017 and December 31, 2016 were as follows:

		Oct. 1, 2017		Dec. 31, 2016	
	Weighted Average Useful Life (Years)	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
		(millions of dollars)			
Tradenames	34	$ 199.8	$ 19.4	$ 199.8	$ 15.3
Technology	12	18.8	4.5	18.8	3.6
Patents and trademarks	17	6.4	5.2	6.4	4.8
Customer relationships	30	4.5	2.0	4.5	1.4
	28	$ 229.5	$ 31.1	$ 229.5	$ 25.1

The weighted average amortization period for acquired intangible assets subject to amortization is approximately 28 years. Estimated amortization expense is $2.0 million for the remainder of 2017, $7.9 million per year for 2018–2021 and $164.8 million thereafter.

Note 7. Derivative Financial Instruments

As a multinational corporation with operations throughout the world, the Company is exposed to certain market risks. The Company uses a variety of practices to manage these market risks, including, when considered appropriate, derivative financial instruments. The Company's objective is to offset gains and losses resulting from interest rates and foreign currency exposures with gains and losses on the derivative contracts used to hedge them. The Company uses derivative financial instruments only for risk management and not for trading or speculative purposes.

By using derivative financial instruments to hedge exposures to changes in interest rates and foreign currencies, the Company exposes itself to credit risk and market risk. Credit risk is the risk that the counterparty will fail to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty owes the Company, which creates credit risk for the Company. When the fair value of a derivative contract is negative, the Company owes the counterparty, and therefore, it does not face any credit risk. The Company minimizes the credit risk in derivative instruments by entering into transactions with major financial institutions.

Market risk is the adverse effect on the value of a financial instrument that results from a change in interest rates, currency exchange rates, or commodity prices. The market risk associated with interest rate and forward exchange contracts is managed by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken.

Cash flow hedges:

For derivative instruments that are designated and qualify as cash flow hedges, the Company records the effective portion of the gain or loss in accumulated other comprehensive income (loss) as a separate component of shareholders' equity. The Company subsequently reclassifies the effective portion of gain or loss into earnings in the period during which the hedged transaction is recognized in earnings.

The Company utilizes interest rate swaps to limit exposure to market fluctuations on floating-rate debt. During the second quarter of 2016, the Company entered into a floating to fixed interest rate swap for an initial aggregate notional amount of $300 million. The notional amount at October 1, 2017 was $214 million. This interest rate swap is designated as a cash flow hedge. The gains and losses associated with this interest rate swap are recorded in accumulated other comprehensive income (loss). The fair value of this swap was an asset of $2.1 million at October 1, 2017 and is recorded in other non-current assets on the Condensed Consolidated Balance Sheet.

Assets and liabilities measured at fair value are based on one or more of three valuation techniques. The three valuation techniques are as follows:

- Market approach - prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.
- Cost approach - amount that would be required to replace the service capacity of an asset or replacement cost.
- Income approach - techniques to convert future amounts to a single present amount based on market expectations, including present value techniques, option-pricing and other models.

The Company primarily applies the income approach for interest rate derivatives for recurring fair value measurements and attempts to utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs.

The fair value of our interest rate swap contract is determined based on inputs that are readily available in public markets or can be derived from information available in publicly quoted markets and are categorized as Level 2.

Note 8. Long-Term Debt and Commitments

The following is a summary of long-term debt:

	Oct. 1, 2017	December 31, 2016
	(millions of dollars)	
Term Loan Facility-Variable Tranche due February 14, 2024, net of unamortized discount and deferred financing costs of $23.5 million and $25.8 million	$ 684.5	$ 762.3
Term Loan Facility- Fixed Tranche due May 9, 2021, net of unamortized discount of $0.5 million and $0.6 million	299.5	299.4
Japan Loan Facilities	5.8	5.8
China Loan Facilities	6.9	9.2
Total	$ 996.7	$ 1,076.7
Less: Current maturities	6.5	6.8
Long-term debt	$ 990.2	$ 1,069.9

On May 9, 2014, in connection with the acquisition of AMCOL International Corporation (“AMCOL”), the Company entered into a credit agreement providing for a $1,560 million senior secured term loan facility (the “Term Facility”) and a $200 million senior secured revolving credit facility (the “Revolving Facility” and, together with the Term Facility, the “Facilities”).

On June 23, 2015, the Company entered into an amendment (the “First Amendment”) to the credit agreement to reprice the $1.378 billion then outstanding on the Term Facility. As amended, the Term Facility had a $1.078 billion floating rate tranche and a $300 million fixed rate tranche. On February 14, 2017, the Company entered into an amendment (the “Second Amendment”) to the credit agreement to reprice the $788 million floating rate tranche then outstanding, which extended the maturity and lowered the interest costs by 75 basis points. Following the Second Amendment, the loans outstanding under the floating rate tranche of the Term Facility will mature on February 14, 2024, the loans outstanding under the fixed rate tranche of the Term Facility will mature on May 9, 2021 and the loans outstanding (if any) and commitments under the Revolving Facility will mature and terminate, as the case may be, on May 9, 2019. After the Second Amendment, loans under the floating rate tranche of the Term Facility bear interest at a rate equal to an adjusted LIBOR rate (subject to a floor of 0.75%) plus an applicable margin equal to 2.25% per annum. Loans under the fixed rate tranche of the Term Facility bear interest at a rate of 4.75%. Loans under the Revolving Facility will bear interest at a rate equal to an adjusted LIBOR rate plus an applicable margin equal to 1.75% per annum. Such rates are subject to decrease by up to 25 basis points in the event that, and for so long as, the Company’s net leverage ratio (as defined in the credit agreement) is less than certain thresholds. The floating rate tranche of the Term Facility was issued at par and the fixed rate tranche of the Term Facility was issued at a 0.25% discount in connection with the First Amendment. The variable rate tranche of the Term Facility was issued at a 0.25% discount in connection with the Second Amendment. The variable rate tranche has a 1% required amortization per year. The Company will pay certain fees under the credit agreement, including customary annual administration fees. The loans under the fixed rate tranche of the Term Facility are subject to prepayment premiums in the event of certain prepayments prior to the third anniversary of the effective date of the First Amendment. The obligations of the Company under the Facilities are unconditionally guaranteed jointly and severally by, subject to certain exceptions, all material domestic subsidiaries of the Company (the “Guarantors”) and secured, subject to certain exceptions, by a security interest in substantially all of the assets of the Company and the Guarantors.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The credit agreement contains certain customary affirmative and negative covenants that limit or restrict the ability of the Company and its restricted subsidiaries to enter into certain transactions or take certain actions. In addition, the credit agreement contains a financial covenant that requires the Company, if on the last day of any fiscal quarter loans or letters of credit were outstanding under the Revolving Facility (excluding up to $15 million of letters of credit), to maintain a maximum net leverage ratio (as defined in the credit agreement) of, initially, 5.25 to 1.00 for the four fiscal quarters preceding such day. Such maximum net leverage ratio requirement is subject to decrease during the duration of the facility to a minimum level (when applicable) of 3.50 to 1.00. During the first nine months of 2017, the Company repaid $80 million on its Term Facility. As of October 1, 2017, there were no loans and $12.0 million in letters of credit outstanding under the Revolving Facility. The Company is in compliance with all the covenants associated with the Revolving Facility as of the end of the period covered by this report.

The Company has four committed loan facilities for the funding of new manufacturing facilities in China, comprised of facilities of 94.8 million RMB, or approximately $10.3 million, and a $1.8 million facility. In December 2016, the Company entered into a committed loan facility in Japan in the amount of 680 million Yen (approximately $5.8 million). As of October 1, 2017, on a combined basis, $12.6 million was outstanding under these loan facilities. Principal will be repaid in accordance with the payment schedules ending in 2021. The Company repaid $3.0 million on these loans in the first nine months of 2017.

As of October 1, 2017, the Company had $36.3 million in uncommitted short-term bank credit lines, of which approximately $6.2 million was in use.

Note 9. Benefit Plans

The Company and its subsidiaries have pension plans covering the majority of eligible employees on a contributory or non-contributory basis. The Company also provides postretirement health care and life insurance benefits for the majority of its U.S. retired employees. Disclosures for the U.S. plans have been combined with those outside of the U.S. as the international plans do not have significantly different assumptions, and together represent less than 25% of our total benefit obligation.

Components of Net Periodic Benefit Cost

	Pension Benefits			
	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Service cost	$ 1.4	$ 1.7	$ 5.5	$ 6.3
Interest cost	3.0	3.1	9.2	9.8
Expected return on plan assets	(4.5)	(4.6)	(13.6)	(13.9)
Amortization:				
Prior service cost	0.5	0.2	1.7	0.6
Recognized net actuarial loss	2.1	2.5	6.3	7.6
Net periodic benefit cost	$ 2.5	$ 2.9	$ 9.1	$ 10.4

	Other Benefits			
	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Service cost	$ 0.1	$ 0.1	$ 0.2	$ 0.3
Interest cost	0.1	0.1	0.2	0.3
Amortization:				
Prior service cost	(0.8)	(0.8)	(2.3)	(2.3)
Recognized net actuarial (gain) loss	(0.1)	(0.1)	(0.2)	(0.2)
Net periodic benefit cost	$ (0.7)	$ (0.7)	$ (2.1)	$ (1.9)

Amortization amounts of prior service costs and recognized net actuarial losses are recorded, net of tax, as increases to accumulated other comprehensive income.

Employer Contributions

The Company expects to contribute approximately $10 million to its pension plans and $0.6 million to its other postretirement benefit plans in 2017. As of October 1, 2017, $5.3 million has been contributed to the pension plans and approximately $0.1 million has been contributed to the other postretirement benefit plans.

Note 10. Comprehensive Income

The following table summarizes the amounts reclassified out of accumulated other comprehensive income (loss) attributable to the Company:

Amounts Reclassified Out of Accumulated Other Comprehensive Income (Loss)	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Amortization of pension items:				
Pre-tax amount	$ 1.7	$ 1.8	$ 5.5	$ 5.7
Tax	(0.7)	(0.6)	(1.8)	(1.9)
Net of tax	$ 1.0	$ 1.2	$ 3.7	$ 3.8

The pre-tax amounts in the table above are included within the components of net periodic pension benefit cost (see Note 9 to the Condensed Consolidated Financial Statements) and the tax amounts are included within provision for taxes on income line within Condensed Consolidated Statements of Income.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The major components of accumulated other comprehensive income (loss), net of related tax, attributable to MTI are as follows:

	Foreign Currency Translation Adjustment	Unrecognized Pension Costs	Net Gain (Loss) on Cash Flow Hedges	Total
	(millions of dollars)			
Balance as of December 31, 2016	$ (147.3)	$ (78.0)	$ 4.2	$ (221.1)
Other comprehensive income (loss) before reclassifications	32.8	-	(0.2)	32.6
Amounts reclassified from AOCI	-	3.7	-	3.7
Net current period other comprehensive income (loss)	32.8	3.7	(0.2)	36.3
Balance as of October 1, 2017	$ (114.5)	$ (74.3)	$ 4.0	$ (184.8)

Note 11. Accounting for Asset Retirement Obligations

The Company records asset retirement obligations for situations in which the Company will be required to incur costs to retire tangible long-lived assets. The fair value of the liability for an asset retirement obligation is recognized in the period in which it is incurred if a reasonable estimate of fair value can be made.

The Company also records liabilities related to land reclamation as a part of asset retirement obligations. The Company mines various minerals using a surface mining process that requires the removal of overburden. In certain areas and under various governmental regulations, the Company is obligated to restore the land comprising each mining site to its original condition at the completion of the mining activity. The obligation is adjusted to reflect the passage of time, mining activities, and changes in estimated future cash outflows.

The following is a reconciliation of asset retirement obligations as of October 1, 2017:

	(millions of dollars)
Asset retirement liability, December 31, 2016	$ 21.5
Accretion expense	2.4
Payments	(1.8)
Foreign currency translation	0.4
Asset retirement liability, October 1, 2017	$ 22.5

The asset retirement costs are capitalized as part of the carrying amount of the associated asset. The current portion of the liability of approximately $1.9 million is included in other current liabilities and the long-term portion of the liability of approximately $20.6 million is included in other non-current liabilities in the Condensed Consolidated Balance Sheet as of October 1, 2017.

Note 12. Contingencies

The Company is party to a number of lawsuits arising in the normal course of our business.

On May 8, 2013, Armada (Singapore) PTE Limited, an ocean shipping company now in bankruptcy ("Armada") filed a case in federal court in the Northern District of Illinois against AMCOL and certain of its subsidiaries (*Armada (Singapore) PTE Limited v. AMCOL International Corp., et al., United States District Court for the Northern District of Illinois* , Case No. 13 CV 3455). We acquired AMCOL and its subsidiaries on May 9, 2014. A co-defendant is Ashapura Minechem Limited, a company located in Mumbai, India (“AML”). During the relevant time period, 2008-2010, AMCOL owned slightly over 20% of the outstanding AML stock through December 2009, after which it owned approximately 19%. In 2008, AML entered into two contracts of affreightment (“COA”) with Armada for over 60 ship loads of bauxite from India to China. After one shipment, AML made no further shipments, which led Armada to file arbitrations in London against AML, one for each COA. AML did not appear in the London arbitrations and default awards of approximately $70 million were entered. The litigation filed by Armada against AMCOL and AML relates to these awards, which AML has not paid. The substance of the allegations by Armada is that AML and AMCOL engaged in illegal conduct to thwart Armada’s efforts to collect the arbitration award. AMCOL won a motion for judgement on the pleadings that resulted in the successful dismissal of all but one count in the complaint, including a dismissal of all counts alleging violations of Illinois’ Fraudulent Transfer laws and federal RICO violations. Armada has filed an appeal of the dismissal and the district court proceedings are stayed pending the appeal. We have accrued an estimate of potential damages for the Armada lawsuit, the amount of which was not material to our financial position, results of operations or cash flows.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Certain of the Company's subsidiaries are among numerous defendants in a number of cases seeking damages for exposure to silica or to asbestos containing materials. The Company currently has three pending silica cases and 22 pending asbestos cases. To date, 1,493 silica cases and 50 asbestos cases have been dismissed, not including any lawsuits against AMCOL or American Colloid Company dismissed prior to our acquisition of AMCOL. Two new asbestos cases were filed in the third quarter of 2017 and one additional asbestos case was filed subsequent to the close of the quarter. No asbestos or silica cases were dismissed during the quarter. Most of these claims do not provide adequate information to assess their merits, the likelihood that the Company will be found liable, or the magnitude of such liability, if any. Additional claims of this nature may be made against the Company or its subsidiaries. At this time management anticipates that the amount of the Company's liability, if any, and the cost of defending such claims, will not have a material effect on its financial position or results of operations.

The Company has settled only one silica lawsuit, for a nominal amount, and no asbestos lawsuits to date (not including any that may have been settled by AMCOL prior to completion of the acquisition). We are unable to state an amount or range of amounts claimed in any of the lawsuits because state court pleading practices do not require identifying the amount of the claimed damage. The aggregate cost to the Company for the legal defense of these cases since inception continues to be insignificant. The majority of the costs of defense for these cases, excluding cases against AMCOL or American Colloid, are reimbursed by Pfizer Inc. pursuant to the terms of certain agreements entered into in connection with the Company's initial public offering in 1992. The Company is entitled to indemnification, pursuant to agreement, for sales prior to the initial public offering. Of the 22 pending asbestos cases, 15 of the non-AMCOL cases are subject to indemnification, in whole or in part, because the plaintiffs claim liability based on sales of products that occurred either entirely before the initial public offering, or both before and after the initial public offering. In the six remaining non-AMCOL cases, the plaintiffs have not alleged dates of exposure. The remaining case is an AMCOL case, which makes no allegation with respect to periods of exposure. Our experience has been that the Company is not liable to plaintiffs in any of these lawsuits and the Company does not expect to pay any settlements or jury verdicts in these lawsuits.

Environmental Matters

On April 9, 2003, the Connecticut Department of Environmental Protection issued an administrative consent order relating to our Canaan, Connecticut, plant where both our Refractories segment and Specialty Minerals segment have operations. We agreed to the order, which includes provisions requiring investigation and remediation of contamination associated with historic use of polychlorinated biphenyls ("PCBs") and mercury at a portion of the site. We have completed the required investigations and submitted several reports characterizing the contamination and assessing site-specific risks. We are awaiting regulators' approval of the risk assessment report, which will form the basis for a proposal by the Company concerning eventual remediation.

We believe that the most likely form of overall site remediation will be to leave the existing contamination in place (with some limited soil removal), encapsulate it, and monitor the effectiveness of the encapsulation. We anticipate that a substantial portion of the remediation cost will be borne by the United States based on its involvement at the site from 1942 – 1964, as historic documentation indicates that PCBs and mercury were first used at the facility at a time of U.S. government ownership for production of materials needed by the military. Pursuant to a Consent Decree entered on October 24, 2014, the United States paid the Company $2.3 million in the 4th quarter of 2014 to resolve the Company's claim for response costs for investigation and initial remediation activities at this facility through October 24, 2014. Contribution by the United States to any future costs of investigation or additional remediation has, by agreement, been left unresolved. Though the cost of the likely remediation remains uncertain pending completion of the phased remediation decision process, we have estimated that the Company's share of the cost of the encapsulation and limited soil removal described above would approximate $0.4 million, which has been accrued as of October 1, 2017.

The Company is evaluating options for upgrading the wastewater treatment facilities at its Adams, Massachusetts plant. This work has been undertaken pursuant to an administrative Consent Order originally issued by the Massachusetts Department of Environmental Protection ("DEP") on June 18, 2002. This order was amended on June 1, 2009 and on June 2, 2010. The amended Order includes the investigation by January 1, 2022 of options for ensuring that the facility's wastewater treatment ponds will not result in unpermitted discharge to groundwater. Additional requirements of the amendment include the submittal by July 1, 2022 of a plan for closure of a historic lime solids disposal area. Preliminary engineering reviews completed in 2005 indicate that the estimated cost of wastewater treatment upgrades to operate this facility beyond 2024 may be between $6 million and $8 million. The Company estimates that the remaining remediation costs would approximate $0.4 million, which has been accrued as of October 1, 2017.

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The Company and its subsidiaries are not party to any other material pending legal proceedings, other than routine litigation incidental to their businesses.

Note 13. Non-controlling interests

The following is a reconciliation of beginning and ending total equity, equity attributable to MTI, and equity attributable to non-controlling interests:

	Equity Attributable to MTI						
	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Non-controlling Interests	Total
	(millions of dollars)						
Balance as of December 31, 2016	$ 4.8	$ 400.0	$ 1,419.1	$ (221.1)	$ (596.3)	$ $ 24.4	$ 1,030.9
Net income	-	-	119.3	-	-	3.0	122.3
Other comprehensive income (loss)	-	-	-	36.3	-	1.0	37.3
Dividends declared	-	-	(5.3)	-	-	-	(5.3)
Dividends to non-controlling interests	-	-	-	-	-	(2.4)	(2.4)
Issuance of shares pursuant to employee stock compensation plans	0.1	14.4	-	-	-	-	14.5
Stock based compensation	-	5.6	-	-	-	-	5.6
Purchase of common stock	-		-	-	(0.7)	-	(0.7)
Balance as of October 1, 2017	$ 4.9	$ 420.0	$ 1,533.2	$ (184.8)	$ (597.0)	$ 26.0	$ 1,202.3

The income attributable to non-controlling interests for the nine-month periods ended October 1, 2017 and October 2, 2016 was from continuing operations. The remainder of income was attributable to MTI.

Note 14. Segment and Related Information

On a regular basis, the Company reviews its segments and the approach used by the chief operating decision maker to assess performance and allocate resources. Accordingly, in the first quarter of 2017, the Company reorganized the management structure for its Performance Materials and Construction Technologies business units to better reflect the way performance is evaluated and resources allocated. As a result, all of the product lines within these business segments were combined into one operating segment. Presented below are the restated financial results, by product line, of this operating segment for each quarter of 2016 to conform to the current management structure.

	2016 Quarters				Full Year 2016
	First	Second	Third	Fourth	
	(millions of dollars)				
Net sales					
Metalcasting	$ 60.0	$ 68.0	$ 63.1	$ 66.9	$ 258.0
Household, Personal Care & Specialty Products	45.3	44.0	42.1	39.8	171.2
Environmental Products	13.4	26.5	24.6	14.4	78.9
Building Materials	20.4	19.7	16.9	17.1	74.1
Basic Minerals	20.5	24.3	22.3	36.8	103.9
Performance Materials Segment	$ 159.6	$ 182.5	$ 169.0	$ 175.0	$ 686.1
Income from operations					
Performance Materials Segment	$ 28.2	$ 33.3	$ 30.2	$ 29.4	$ 121.1
% of Sales	*17.7%*	*18.2%*	*17.9%*	*16.8%*	*17.7%*

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The Company now has four reportable segments: Specialty Minerals, Performance Materials, Refractories and Energy Services. See Note 1 to the Condensed Consolidated Financial Statements. Segment information for the three and nine-month periods ended October 1, 2017 and October 2, 2016 is as follows:

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Net Sales				
Specialty Minerals	$ 147.7	$ 147.3	$ 440.9	$ 453.5
Refractories	68.9	63.4	208.0	206.5
Performance Materials	188.8	169.0	539.0	511.1
Energy Services	19.0	19.8	55.6	65.6
Total	$ 424.4	$ 399.5	$ 1,243.5	$ 1,236.7
Income (Loss) from Operations				
Specialty Minerals	$ 26.6	$ 27.8	$ 77.9	$ 81.1
Refractories	9.9	10.1	29.6	27.2
Performance Materials	30.6	30.2	91.6	91.7
Energy Services	2.3	2.6	4.8	(27.0)
Total	$ 69.4	$ 70.7	$ 203.9	$ 173.0

A reconciliation of the totals reported for the operating segments to the applicable line items in the condensed consolidated financial statements is as follows:

	Income From Operations Before Provision For Taxes on Income			
	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Income from operations for reportable segments	$ 69.4	$ 70.7	$ 203.9	$ 173.0
Acquisition related transaction and integration costs	(0.5)	(1.9)	(2.8)	(5.1)
Unallocated corporate expenses	(2.1)	(1.5)	(4.1)	(3.5)
Consolidated income from operations	66.8	67.3	197.0	164.4
Non-operating deductions, net	(12.2)	(14.0)	(39.8)	(39.7)
Income from continuing operations before provision for taxes on income	$ 54.6	$ 53.3	$ 157.2	$ 124.7

The Company's sales by product category are as follows:

	Three Months Ended		Nine Months Ended	
	Oct. 1, 2017	Oct. 2, 2016	Oct. 1, 2017	Oct. 2, 2016
	(millions of dollars)			
Paper PCC	$ 96.3	$ 95.3	$ 282.0	$ 295.5
Specialty PCC	16.4	16.4	50.8	50.2
Talc	12.7	13.9	41.0	42.7
Ground Calcium Carbonate	22.3	21.7	67.1	65.1
Refractory Products	56.6	51.0	169.4	163.3
Metallurgical Products	12.3	12.4	38.6	43.2
Metalcasting	73.6	63.1	215.9	191.1
Household, Personal Care & Specialty Products	42.5	42.1	123.3	131.4
Basic Minerals	31.2	22.3	90.5	67.1
Environmental Products	21.6	24.6	51.8	64.5
Building Materials	19.9	16.9	57.5	57.0
Energy Services	19.0	19.8	55.6	65.6
Total	$ 424.4	$ 399.5	$ 1,243.5	$ 1,236.7

REVIEW REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders
Minerals Technologies Inc.:

We have reviewed the accompanying condensed consolidated balance sheet of Minerals Technologies Inc. and subsidiaries as of October 1, 2017, the related condensed consolidated statements of income and comprehensive income for the three-month and nine-month periods ended October 1, 2017 and October 2, 2016, and the related condensed consolidated statements of cash flows for the nine-month periods ended October 1, 2017 and October 2, 2016. These condensed consolidated financial statements are the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the condensed consolidated financial statements referred to above for them to be in conformity with U.S. generally accepted accounting principles.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Minerals Technologies Inc. and subsidiaries as of December 31, 2016, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for the year then ended (not presented herein); and in our report dated February 17, 2017, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated balance sheet as of December 31, 2016 is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

/s/ KPMG LLP

New York, New York
November 3, 2017

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

Executive Summary

Consolidated sales for the third quarter of 2017 grew 6% to $424.4 million as compared with $399.5 million in the prior year. Income from operations was $66.8 million as compared with $67.3 million in the prior year. Net income was $41.7 million as compared to $41.6 million in the third quarter of 2016. Diluted earnings in the third quarter were $1.17 per share compared with $1.18 per share in the prior year.

Long-term debt as of October 1, 2017 was $996.7 million. During the first nine months of 2017, we repaid $80 million of our Term Loan debt, for total repayments of $560 million since the acquisition of AMCOL International Corporation ("AMCOL") in 2014. Cash, cash equivalents and short-term investments were $215 million as of October 1, 2017. Our intention continues to be to maintain a balanced approach to capital deployment, by using excess cash flow for investments in growth, continued debt reduction and selective share repurchases.

Outlook

Looking forward, we remain cautious about the state of the global economy and the impact it will have on our product lines.

The Company will continue to focus on innovation and new product development and other opportunities for sales growth in 2017 from its existing businesses, as follows:

- Develop multiple high-filler technologies under the FulFill® platform of products, to increase the fill rate in freesheet paper and continue to progress with commercial discussions and full-scale paper machine trials.
- Develop products and processes for waste management and recycling opportunities to reduce the environmental impact of the paper mill, reduce energy consumption and improve the sustainability of the papermaking process, including our NewYield® products.
- Further penetration into the packaging segment of the paper industry.
- Increase our sales of PCC for paper by further penetration of the markets for paper filling at both freesheet and groundwood mills, particularly in emerging markets.
- Expand the Company's PCC coating product line using the satellite model.
- Increase our presence and gain penetration of our bentonite based foundry customers for the Metalcasting industry in emerging markets, such as China and India.
- Increase our presence and market share in global pet care products, particularly in emerging markets.
- Deploy new products in pet care such as lightweight litter.
- Promote the Company's expertise in crystal engineering, especially in helping papermakers customize PCC morphologies for specific paper applications.
- Expand PCC produced for paper filling applications by working with industry partners to develop new methods to increase the ratio of PCC for fiber substitutions.
- Develop unique calcium carbonate and talc products used in the manufacture of novel biopolymers, a new market opportunity.
- Deploy new talc and GCC products in paint, coating and packaging applications.
- Deploy value-added formulations of refractory materials that not only reduce costs but improve performance.
- Expand our solid core wire product line into BRIC, Middle Eastern and other Asian countries.
- Deploy our laser measurement technologies into new applications.
- Expand our refractory maintenance model to other steel makers globally.
- Increase our presence and market share in Asia and in the global powdered detergent market.
- Continue the development of our proprietary Enersol® products for agricultural applications worldwide.
- Pursue opportunities for our products in environmental and building and construction markets in the Middle East, Asia Pacific and South America regions.
- Increase our presence and market share for geosynthetic clay liners within the Environmental Products product line.
- Increase our presence and market penetration in filtration and well testing within the Energy Services segment.
- Increase global market share in services for the offshore produced water and filtration markets.

- Deploy operational excellence principles into all aspects of the organization, including system infrastructure and lean principles.
- Continue to explore selective acquisitions to fit our core competencies in minerals and fine particle technology.

However, there can be no assurance that we will achieve success in implementing any one or more of these opportunities.

Results of Operations

Three months ended October 1, 2017 as compared with three months ended October 2, 2016

Consolidated Income Statement Review

	Three Months Ended		Growth
	Oct. 1, 2017	Oct. 2, 2016	%
	(Dollars in millions)		
Net sales	$ 424.4	$ 399.5	6%
Cost of sales	305.2	284.3	7%
Production margin	119.2	115.2	3%
Production margin %	*28.1%*	*28.8%*	
Marketing and administrative expenses	45.6	42.4	8%
Research and development expenses	5.9	5.9	0%
Acquisition related integration costs	0.5	1.9	-74%
Restructuring and other items, net	0.4	(2.3)	*
Income from operations	66.8	67.3	-1%
Operating margin %	*15.7%*	*16.8%*	
Interest expense, net	(10.5)	(13.4)	-22%
Other non-operating income (deductions), net	(1.7)	(0.6)	*
Total non-operating deductions, net	(12.2)	(14.0)	-13%
Income from continuing operations before provision for taxes and equity in earnings	54.6	53.3	2%
Provision for taxes on income	12.1	11.5	5%
Effective tax rate	*22.2%*	*21.6%*	
Equity in earnings of affiliates, net of tax	0.4	0.7	-43%
Net income	42.9	42.5	1%
Net income attributable to non-controlling interests	1.2	0.9	33%
Net income attributable to Minerals Technologies Inc. (MTI)	$ 41.7	$ 41.6	0%

* Not meaningful

Net Sales

	Three Months Ended Oct. 1, 2017			Three Months Ended Oct. 2, 2016	
	Net Sales	% of Total Sales	% Growth	Net Sales	% of Total Sales
			(Dollars in millions)		
U.S.	$ 243.6	57.4%	6%	$ 229.0	57.3%
International	180.8	42.6%	6%	170.5	42.7%
Total sales	$ 424.4	100.0%	6%	$ 399.5	100.0%
Specialty Minerals Segment	$ 147.7	34.8%	0%	$ 147.3	36.9%
Refractories Segment	68.9	16.2%	9%	63.4	15.9%
Performance Materials Segment	188.8	44.5%	12%	169.0	42.3%
Energy Services Segment	19.0	4.5%	-4%	19.8	5.0%
Total sales	$ 424.4	100.0%	6%	$ 399.5	100.0%

Worldwide net sales increased 6% to $424.4 million in the third quarter from $399.5 million in the previous year.

Net sales in the United States increased 6% to $243.6 million from $229.0 million in the prior year. International sales increased 6% to $180.8 million from $170.5 million in the prior year.

Operating Costs and Expenses

Cost of sales was $305.2 million and 71.9% of sales as compared with $284.3 million and 71.2% of sales in the prior year.

Marketing and administrative costs were $45.6 million and 10.7% of sales compared to $42.4 million and 10.6% of sales in prior year.

Research and development expenses were $5.9 million and represented 1.4% of sales compared with $5.9 million and 1.5% of sales in the prior year.

The Company incurred charges of $0.5 million and $1.9 million for acquisition-related integration costs during the three months ended October 1, 2017 and October 2, 2016, respectively.

The Company recorded restructuring charges of $1.3 million and $0.6 million for the three months ended October 1, 2017 and October 2, 2016, respectively.

The Company recorded income of $0.9 million and $2.9 million relating to net gains on previously impaired assets during the three months ended October 1, 2017 and October 2, 2016, respectively.

Income from Operations

The Company recorded income from operations of $66.8 million as compared to $67.3 million in the prior year. Operating income during the three months ended October 1, 2017 includes a $0.9 million gain on the sale of assets, $1.3 million in restructuring charges and $0.5 million of acquisition-related integration costs. Operating income during the three months ended October 2, 2016 includes a $2.9 million gain on the sale of assets, $0.6 million in restructuring charges and $1.9 million of acquisition-related integration costs.

Non-Operating Income (Deductions)

The Company recorded net operating deductions of $12.2 million for the three month ended October 1, 2017 as compared with $14.0 million in the prior year. The decrease was primarily due to lower interest expense in the current year.

Provision for Taxes on Income

Provision for taxes on income was $12.1 million as compared to $11.5 million in the prior year. The effective tax rate was 22.2% as compared to 21.6% in the prior year. The higher effective tax rate was primarily due to a change in the mix of earnings.

Net income attributable to Minerals Technologies Inc. (MTI)

Net income attributable to MTI was $41.7 million during the three months ended October 1, 2017 compared with $41.6 million in the prior year.

Segment Review

The following discussions highlight the operating results for each of our four segments.

	Three Months Ended		
Specialty Minerals Segment	**Oct. 1, 2017**	**Oct. 2, 2016**	**Growth**
	(millions of dollars)		
Net Sales			
Paper PCC	$ 96.3	$ 95.3	1%
Specialty PCC	16.4	16.4	0%
PCC Products	$ 112.7	$ 111.7	1%
Talc	$ 12.7	$ 13.9	-9%
Ground Calcium Carbonate	22.3	21.7	3%
Processed Minerals Products	$ 35.0	$ 35.6	-2%
Total net sales	$ 147.7	$ 147.3	0%
Income from operations	$ 26.6	$ 27.8	-4%
% of net sales	18.0%	18.9%	

Worldwide sales in the Specialty Minerals segment were $147.7 million as compared with $147.3 million in the prior year.

Worldwide net sales of PCC, which is primarily used in the manufacturing process of the paper industry, increased 1% to $112.7 million from $111.7 million in the prior year. Paper PCC sales increased 1% to $96.3 million from $95.3 million. Higher sales in Europe, Asia and Latin America were partially offset by reduced sales in North America. Sales of Specialty PCC were $16.4 million, the same level as the prior year.

Net sales of Processed Minerals products decreased 2% to $35.0 million from $35.6 million in the prior year. Ground Calcium Carbonate sales increased 3 percent due to higher volumes in construction markets. This was more than offset by a 9% decrease in Talc sales, primarily in certain consumer product markets.

Income from operations for Specialty Minerals was $26.6 million compared with $27.8 million in the prior year and represented 18.0% of sales as compared with 18.9% of sales. Income from operations in the quarter were impacted by decreased sales of higher margin Talc products.

Performance Materials Segment	Three Months Ended Oct. 1, 2017	Three Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales			
Metalcasting	$ 73.6	$ 63.1	17%
Household, Personal Care & Specialty Products	42.5	42.1	1%
Environmental Products	21.6	24.6	-12%
Building Materials	19.9	16.9	18%
Basic Minerals	31.2	22.3	40%
Total net sales	$ 188.8	$ 169.0	12%
Income from operations	$ 30.6	$ 30.2	
% of net sales	16.2%	17.9%	

Net sales in the Performance Materials segment increased 12% to $188.8 million from $169.0 million in the prior year. Sales in the Metalcasting product line increased 17% to $73.6 million primarily due to higher volumes in China and North America. Basic Minerals sales increased 40% due primarily to higher sales of chromite and drilling products. Sales in the Building Materials product line increased 18%. These sales increases were partially offset by lower Environmental Product sales due to several large projects in the U.S. and Brazil in 2016 that did not recur in 2017 and lower Fabric Care sales in Asia which affected the Household, Personal Care & Specialty Products product line.

Income from operations was $30.6 million and 16.2% of sales as compared to $30.2 million and 17.9% of sales in the prior year. The decrease in operating margins was due principally to product mix, primarily in chromite and Environmental Products.

Refractories Segment	Three Months Ended Oct. 1, 2017	Three Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales			
Refractory Products	$ 56.6	$ 51.0	11%
Metallurgical Products	12.3	12.4	-1%
Total net sales	$ 68.9	$ 63.4	9%
Income from operations	$ 9.9	$ 10.1	-2%
% of net sales	14.4%	15.9%	

Net sales in the Refractories segment increased 9% to $68.9 million from $63.4 million in the prior year. Sales of refractory products and systems for steel and other industrial applications increased 11% to $56.6 million due to higher equipment sales. Sales of metallurgical products decreased 1% to $12.3 million due to decreased volumes.

Income from operations decreased 2% to $9.9 million from $10.1 million in the prior year. Included in income from operations for the Refractories segment in the prior year is a $2.1 million gain on the sale of previously impaired assets.

Energy Services Segment	Three Months Ended Oct. 1, 2017	Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales	$ 19.0	$ 19.8	-4%
Income from operations	$ 2.3	$ 2.6	-12%
% of net sales	12.1%	13.1%	

* Percentage not meaningful

Net sales in the Energy Services segment decreased 4% to $19.0 million from $19.8 million in the prior year. The sales decrease was due to continued weak market conditions in the oil and gas sector and the impact of the hurricane in the Gulf of Mexico.

Income from operations was $2.3 million during the three months ended October 1, 2017, a decrease of 12% from the $2.6 million reported in the prior year. Included in income from operations for the Energy Services segment in the current year is a $0.9 million gain on the sale of previously impaired assets.

Nine months ended October 1, 2017 as compared with nine months ended October 2, 2016

Consolidated Income Statement Review

	Nine Months Ended Oct. 1, 2017	Oct. 2, 2016	Growth %
	(Dollars in millions)		
Net sales	$ 1,243.5	$ 1,236.7	1%
Cost of sales	890.9	887.7	0%
Production margin	352.6	349.0	1%
Production margin %	*28.4%*	*28.2%*	
Marketing and administrative expenses	134.1	134.2	0%
Research and development expenses	17.8	17.9	-1%
Acquisition related transaction and integration costs	2.8	5.1	-45%
Restructuring and other items, net	0.9	27.4	-97%
Income from operations	197.0	164.4	20%
Operating margin %	*15.8%*	*13.3%*	
Interest expense, net	(32.5)	(41.4)	-21%
Debt modification cost and fees	(3.9)	-	*
Other non-operating (deductions) income, net	(3.4)	1.7	*
Total non-operating deductions, net	(39.8)	(39.7)	0%
Income from continuing operations before provision for taxes and equity in earnings	157.2	124.7	26%
Provision for taxes on income	35.6	26.7	33%
Effective tax rate	*22.6%*	*21.4%*	
Equity in earnings of affiliates, net of tax	0.7	1.6	-56%
Net income	122.3	99.6	23%
Net income attributable to non-controlling interests	3.0	2.9	3%
Net income attributable to Minerals Technologies Inc. (MTI)	$ 119.3	$ 96.7	23%

* Not meaningful

Net Sales

	Nine Months Ended Oct. 1, 2017			Nine Months Ended Oct. 2, 2016	
	Net Sales	% of Total Sales	% Growth	Net Sales	% of Total Sales
			(Dollars in millions)		
U.S.	$ 705.1	56.7%	-2%	$ 718.7	58.1%
International	538.4	43.3%	4%	518.0	41.9%
Total sales	$ 1,243.5	100.0%	1%	$ 1,236.7	100.0%
Specialty Minerals Segment	$ 440.9	35.5%	-3%	$ 453.5	36.7%
Refractories Segment	208.0	16.7%	1%	206.5	16.7%
Performance Materials Segment	539.0	43.3%	5%	511.1	41.3%
Energy Services Segment	55.6	4.5%	-15%	65.6	5.3%
Total sales	$ 1,243.5	100.0%	1%	$ 1,236.7	100.0%

Total sales increased $6.8 million, or 1%, to $1,243.5 million as compared with $1,236.7 million in the prior year.

Net sales in the United States decreased 2% to $705.1 million from $718.7 million in the prior year. This was offset by a 4% increase in international sales to $538.4 million from $518.0 million in the prior year.

Operating Costs and Expenses

Cost of sales was $890.9 million, slightly higher than the $887.7 million reported in the prior year and represented 71.6% of sales as compared with 71.8% in the prior year. Production margin improved slightly to 28.4% of sales as compared with 28.2% of sales in the prior year.

Marketing and administrative costs were $134.1 million and 10.8% of sales compared to $134.2 million and 10.9% of sales in the prior year.

Research and development expenses were $17.8 million and represented 1.4% of sales and $17.9 million and 1.4% of sales for the nine months ended October 1, 2017 and October 2, 2016, respectively.

During the nine months ended October 1, 2017, the Company recorded restructuring and other charges of $1.8 million relating primarily to our Energy Services segment, a gain on sale of previously impaired assets of $0.9 million and incurred a charge of $2.8 million for acquisition-related integration costs.

During the nine months ended October 2, 2016, the Company recorded restructuring and impairment charges of $27.4 million relating primarily to our Energy Services segment and incurred a charge of $5.1 million for acquisition-related integration costs.

Income from Operations

The Company recorded income from operations of $197.0 million as compared to $164.4 million in the prior year. Operating income in the current year included restructuring and other charges of $0.9 million and acquisition-related integration costs of $2.8 million. Operating income in the prior year includes restructuring and impairment charges of $27.4 million and acquisition-related integration costs of $5.1 million.

Non-Operating Deductions

The Company recorded non-operating deductions of $39.8 million for the nine months ended October 1, 2017, about the same level as in the prior year. The $39.8 million is comprised primarily of $32.5 million of net interest expense and $3.9 million in debt modification costs and fees relating to the February 2017 repricing of the variable tranche of the Company’s Term Loan debt. The $39.7 million recorded in the prior year primarily included $41.4 million in net interest costs and $4.9 million in foreign exchange gains.

Provision for Taxes on Income

Provision for taxes was $35.6 million as compared to $26.7 million in the prior year. The effective tax rate was 22.6% as compared to 21.4% in prior year. The higher effective tax rate was primarily due to a change in the mix of earnings and prior year restructuring costs.

Net income attributable to Minerals Technologies Inc. (MTI)

Net income attributable to MTI was $119.3 million during the nine months ended October 1, 2017 as compared with $96.7 million in the prior year.

Segment Review

The following discussions highlight the operating results for each of our four segments.

Specialty Minerals Segment	Nine Months Ended Oct. 1, 2017	Nine Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales			
Paper PCC	$ 282.0	$ 295.5	-5%
Specialty PCC	50.8	50.2	1%
PCC Products	$ 332.8	$ 345.7	-4%
Talc	$ 41.0	$ 42.7	-4%
Ground Calcium Carbonate	67.1	65.1	3%
Processed Minerals Products	$ 108.1	$ 107.8	0%
Total net sales	$ 440.9	$ 453.5	-3%
Income from operations	$ 77.9	$ 81.1	-4%
% of net sales	17.7%	17.9%	

Worldwide sales in the Specialty Minerals segment were $440.9 million as compared with $453.5 million in the prior year, a decrease of 3%.

Worldwide net sales of PCC products, which are primarily used in the manufacturing process of the paper industry, decreased 4% to $332.8 million from $345.7 million in the prior year. Paper PCC sales decreased 5% to $282.0 million primarily due to several previously announced paper mill closures in the U.S. in the prior year. This was partially offset by an increase in Paper PCC sales in China. Sales of Specialty PCC increased 1% to $50.8 million from $50.2 million in the prior year.

Net sales of Processed Minerals products were $108.1 million as compared with $107.8 million in the prior year. Ground Calcium Carbonate sales increased 3% primarily due to increased volumes. Talc sales decreased 4% from prior year levels.

Income from operations was $77.9 million and 17.7% of net sales compared to $81.1 million and 17.9% of sales in the prior year.

Performance Materials Segment	Nine Months Ended Oct. 1, 2017	Nine Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales			
Metalcasting	$ 215.9	$ 191.1	13%
Household, Personal Care & Specialty Products	123.3	131.4	-6%
Environmental Products	51.8	64.5	-20%
Building Materials	57.5	57.0	1%
Basic Minerals	90.5	67.1	35%
Total net sales	$ 539.0	$ 511.1	5%
Income from operations	$ 91.6	$ 91.7	
% of net sales	17.0%	17.9%	

On a regular basis, the Company reviews its segments and the approach used by the chief operating decision maker to assess performance and allocate resources. Accordingly, in the first quarter of 2017, the Company reorganized the management structure for its Performance Materials and Construction Technologies business units to better reflect the way performance is evaluated and resources allocated. As a result, all of the product lines within these business segments were combined into one operating segment.

Net sales in the Performance Materials segment increased 5% to $539.0 million from $511.1 million in the prior year. Sales in metalcasting increased 13% to $215.9 million, primarily due to higher volumes in China. Basic Minerals sales increased 35% primarily due to higher bulk sales of chromite. Household, Personal Care & Specialty Products sales declined due to lower Fabric Care sales in China. In addition, Environmental Products sales were lower due to several large projects in 2016 which did not recur in 2017 in the US and Brazil.

Income from operations was $91.6 million and 17.0% of sales as compared with $91.7 million and 17.9% of sales in the prior year.

Refractories Segment	Nine Months Ended Oct. 1, 2017	Nine Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales			
Refractory Products	$ 169.4	$ 163.3	4%
Metallurgical Products	38.6	43.2	-11%
Total net sales	$ 208.0	$ 206.5	1%
Income from operations	$ 29.6	$ 27.2	9%
% of net sales	14.2%	13.2%	

Net sales in the Refractories segment increased 1% to $208.0 million from $206.5 million in the prior year. Sales of refractory products and systems to steel and other industrial applications increased 4% to $169.4 million. Sales of metallurgical products decreased 11% to $38.6 million due to decreased volumes.

Income from operations was $29.6 million and 14.2% of sales as compared with $27.2 million and 13.2% of sales in the prior year. The increase in income from operations was due to improved productivity, cost and expense control and higher equipment sales.

Energy Services Segment	Nine Months Ended Oct. 1, 2017	Nine Months Ended Oct. 2, 2016	Growth
	(millions of dollars)		
Net Sales	$ 55.6	$ 65.6	-15%
Income (loss) from operations	$ 4.8	$ (27.0)	*
% of net sales	8.6%	*	

* Percentage not meaningful

Net sales in the Energy Services segment decreased 15% to $55.6 million from $65.6 million in the prior year. The sales decrease was due to continued weak market conditions in the oil and gas sector and the shutdown of U.S. on-shore service lines, including Nitrogen and Pipeline in the second quarter of last year. During the first nine months of 2016, the Company incurred $29.4 million of restructuring charges related to lease termination costs, inventory write-offs and impairment of assets related to its exit from the Nitrogen and Pipeline produce lines and restructuring of other onshore services within the Energy Services segment.

Income from operations during the nine months ended October 1, 2017 was $4.8 million and represented 8.6% of sales. Loss from operations during the nine months ended October 2, 2016 was $27.0 million, which included impairment and restructuring charges of $29.4 million.

Liquidity and Capital Resources

Cash provided from continuing operations during the nine months ended October 1, 2017, was approximately $151 million. Cash flows provided from operations during the first nine months of 2017 were principally used to fund capital expenditures, to repay debt and to pay the Company's dividend to common shareholders. Our intention continues to be to maintain a balanced approach to capital deployment, by using excess cash flow for investments in growth, continued debt reduction and selective share repurchases. During the first nine months of 2017, the Company repaid approximately $85 million in the principal amount of its long-term debt. The aggregate maturities of long-term debt are as follows: remainder of 2017 - $4.0 million; 2018 - $3.8 million; 2019 - $0.6 million; 2020 - $0.6 million; 2021 - $303.6 million; thereafter - $708.0 million.

On May 9, 2014, in connection with the acquisition of AMCOL International Corporation (“AMCOL”), the Company entered into a credit agreement providing for the $1.560 billion senior secured term loan facility (the “Term Facility”) and a $200 million senior secured revolving credit facility (the “Revolving Facility” and, together with the Term Facility, the “Facilities”). The net proceeds of the Term Facility, together with the Company’s cash on hand, were used as cash consideration for the acquisition of AMCOL and to refinance certain existing indebtedness of the Company and AMCOL and to pay fees and expenses in connection with the foregoing. Loans under the Revolving Facility will be used for working capital and other general corporate purposes of the Company and its subsidiaries.

On June 23, 2015, the Company entered into an amendment (the “First Amendment”) to the credit agreement to reprice the $1.378 billion then outstanding on the Term Facility. As amended, the Term Facility had a $1.078 billion floating rate tranche and a $300 million fixed rate tranche. On February 14, 2017, the Company entered into an amendment (the “Second Amendment”) to the credit agreement to reprice the $788 million floating rate tranche then outstanding, which extended the maturity and lowered the interest costs by 75 basis points. Following the Second Amendment, the loans outstanding under the floating rate tranche of the Term Facility will mature on February 14, 2024, the loans outstanding under the fixed rate tranche of the Term Facility will mature on May 9, 2021 and the loans outstanding (if any) and commitments under the Revolving Facility will mature and terminate, as the case may be, on May 9, 2019. After the Second Amendment, loans under the floating rate tranche of the Term Facility bear interest at a rate equal to an adjusted LIBOR rate (subject to a floor of 0.75%) plus an applicable margin equal to 2.25% per annum. Loans under the fixed rate tranche of the Term Facility bear interest at a rate of 4.75%. Loans under the Revolving Facility will bear interest at a rate equal to an adjusted LIBOR rate plus an applicable margin equal to 1.75% per annum. Such rates are subject to decrease by up to 25 basis points in the event that, and for so long as, the Company’s net leverage ratio (as defined in the credit agreement) is less than certain thresholds. The floating rate tranche of the Term Facility was issued at par and the fixed rate tranche of the Term Facility was issued at a 0.25% discount in connection with the First Amendment. The variable rate tranche of the Term Facility was issued at a 0.25% discount in connection with the Second Amendment. The variable rate tranche has a 1% required amortization per year. The Company will pay certain fees under the credit agreement, including customary annual administration fees. The loans under the fixed rate tranche of the Term Facility are subject to prepayment premiums in the event of certain prepayments prior to the third anniversary of the effective date of the First Amendment. The obligations of the Company under the Facilities are unconditionally guaranteed jointly and severally by, subject to certain exceptions, all material domestic subsidiaries of the Company (the “Guarantors”) and secured, subject to certain exceptions, by a security interest in substantially all of the assets of the Company and the Guarantors.

The credit agreement contains certain customary affirmative and negative covenants that limit or restrict the ability of the Company and its restricted subsidiaries to enter into certain transactions or take certain actions. In addition, the credit agreement contains a financial covenant that requires the Company, if on the last day of any fiscal quarter loans or letters of credit were outstanding under the Revolving Facility (excluding up to $15 million of letters of credit), to maintain a maximum net leverage ratio (as defined in the credit agreement) of, initially, 5.25 to 1.00 for the four fiscal quarter period preceding such day. Such maximum net leverage ratio requirement is subject to decrease during the duration of the facility to a minimum level (when applicable) of 3.50 to 1.00. During the first nine months of 2017, the Company repaid $80 million on its Term Facility. As of October 1, 2017, there were no loans and $12.0 million in letters of credit outstanding under the Revolving Facility. The Company is in compliance with all the covenants associated with the Revolving Facility as of the end of the period covered by this report.

The Company has four committed loan facilities for the funding of new manufacturing facilities in China, comprised of facilities of 94.8 million RMB, (approximately $10.3 million) and a $1.8 million facility. In December 2016, the Company entered into a committed loan facility in Japan in the amount of 680 million Yen (approximately $5.8 million). As of October 1, 2017, on a combined basis, $12.6 million was outstanding under these facilities. Principal will be repaid in accordance with the payment schedules ending in 2021. The Company repaid $2.9 million on these loans in the first nine months of 2017.

As of October 1, 2017, the Company had $36.3 million in uncommitted short-term bank credit lines, of which approximately $6.2 million was in use. The credit lines are primarily outside the U.S. and are generally one year in term at competitive market rates at large, well-established institutions. The Company typically uses its available credit lines to fund working capital requirements or local capital spending needs. We anticipate that capital expenditures for 2017 should be between $70.0 million and $75.0 million, principally related to the construction of PCC plants and other opportunities that meet our strategic growth objectives. We expect to meet our other long-term financing requirements from internally generated funds, committed and uncommitted bank credit lines and, where appropriate, project financing of certain satellite plants.

On April 5, 2016, the Company entered into a floating to fixed interest rate swap for an initial aggregate notional amount of $300 million to limit exposure to interest rate increases related to a portion of the Company's floating rate indebtedness. This swap agreement hedges a portion of contractual floating rate interest through its expiration in May 2021. As a result of the agreement, the Company's effective fixed interest rate on the notional amount floating rate indebtedness will be 4.25%. The fair value of this instrument at October 1, 2017 was an asset of $2.1 million.

On September 16, 2015, the Company's Board of Directors authorized the Company's management to repurchase, at its discretion, up to $150 million of the Company's shares over a two-year period commencing October 2015. As of October 1, 2017, 64,650 shares were repurchased under this program for $3.3 million, or, an average price of approximately $51.79 per share. This program has expired.

On September 21, 2017, the Company's Board of Directors authorized the Company's management to repurchase, at its discretion, up to $150 million of the Company's shares over a two-year period commencing October 1, 2017 after the previous program expired.

The Company is required to make future payments under various contracts, including debt agreements and lease agreements. The Company also has commitments to fund its pension plans and provide payments for other postretirement benefit plans. During the nine months ended October 1, 2017, there were no material changes in the Company's contractual obligations. For an in-depth discussion of the Company's contractual obligations, see "Liquidity and Capital Resources" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

Cautionary Statement for "Safe Harbor" Purposes under the Private Securities Litigation Reform Act of 1995

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by or on behalf of the Company. This report contains statements that the Company believes may be "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, particularly statements relating to the Company's objectives, plans or goals, future actions, future performance or results of current and anticipated products, sales efforts, expenditures, and financial results. From time to time, the Company also provides forward-looking statements in other publicly-released materials, both written and oral. Forward-looking statements provide current expectations and forecasts of future events such as new products, revenues and financial performance, and are not limited to describing historical or current facts. They can be identified by the use of words such as "believes," "expects," "plans," "intends," "anticipates," and other words and phrases of similar meaning.

Forward-looking statements are necessarily based on assumptions, estimates and limited information available at the time they are made. A broad variety of risks and uncertainties, both known and unknown, as well as the inaccuracy of assumptions and estimates, can affect the realization of the expectations or forecasts in these statements. Many of these risks and uncertainties are difficult to predict or are beyond the Company's control. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially. Significant factors affecting the expectations and forecasts are set forth under "Item 1A — Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, and in Exhibit 99 to this Quarterly Report on Form 10-Q.

The Company undertakes no obligation to update any forward-looking statements to reflect events or circumstances that arise after the date hereof. Investors should refer to the Company's subsequent filings under the Securities Exchange Act of 1934 for further disclosures.

Recently Issued Accounting Standards

Changes to accounting principles generally accepted in the United States of America (U.S. GAAP) are established by the Financial Accounting Standards Board (FASB) in the form of accounting standards updates (ASUs) to the FASB's Accounting Standards Codification.

The Company considers the applicability and impact of all ASUs. ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on our consolidated financial position and results of operations.

Revenue from Contracts with Customers

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers" which will supersede nearly all existing revenue recognition guidance under U.S. GAAP. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. Other major provisions include capitalization of certain contract costs, consideration of time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The guidance is effective for the interim and annual periods beginning on or after December 15, 2017. The guidance permits the use of either a retrospective or cumulative effect transition method. The Company has elected to use the cumulative effect transition method. The Company has completed a high level accounting diagnostic and is in the process of contract review and continues to evaluate the impact of this ASU on the Company's consolidated financial statements and related disclosures. At this time, the Company does not believe the adoption of this guidance will have a material impact on the Company's consolidated financial statements and are reviewing the additional disclosure requirements upon adoption.

Leases

In February 2016, the FASB issued ASU 2016-02, “Leases”, which requires lessees to recognize most leases on-balance sheet, thereby increasing their reported assets and liabilities, in some cases very significantly. Lessor accounting remains substantially similar to current U.S. GAAP. ASU 2016-02 is effective for public business entities for annual and interim periods in fiscal years beginning after December 15, 2018. ASU 2016-02 mandates a modified retrospective transition method for all entities. The Company is currently evaluating the impact of this ASU on the Company’s consolidated financial statements and related disclosures. Based on the current status of this assessment, the adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Intangibles – Goodwill and Other

In January 2017, the FASB issued ASU 2017-04, “Intangibles-Goodwill and Other: Simplifying the Test for Goodwill Impairment”, which no longer requires an entity to perform a hypothetical purchase price allocation to measure goodwill impairment. Instead, goodwill will be measured using the difference between the carrying amount and the fair value of the reporting unit. The guidance is effective for the interim and annual periods beginning on or after December 15, 2019, with early adoption permitted. The adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Compensation- Retirement Benefits

In March 2017, the FASB issued ASU 2017-07, “Compensation – Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”, which requires companies to present the service cost component of the net benefit cost in the same line items in which they report compensation cost. All other components of net periodic benefit cost will be presented outside operating income. The guidance is effective for the interim and annual periods beginning on or after December 15, 2017. The adoption of this guidance is not expected to have a material impact on the Company’s financial statements.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities.

On an ongoing basis, we evaluate our estimates and assumptions, including those related to revenue recognition, valuation of receivables, valuation of inventories, valuation of long-lived assets, pension plan assumptions, stock-based compensation assumptions, valuation of product liability and asset retirement obligation, income taxes, income tax valuation allowances and litigation and environmental liabilities. We base our estimates on historical experience and on other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that cannot readily be determined from other sources. There can be no assurance that actual results will not differ from those estimates.

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

Market risk represents the risk of loss that may impact our financial position, results of operations or cash flows due to adverse changes in market prices and foreign currency and interest rates. We are exposed to market risk because of changes in foreign currency exchange rates as measured against the U.S. dollar. We do not anticipate that near-term changes in exchange rates will have a material impact on our future earnings or cash flows. However, there can be no assurance that a sudden and significant decline in the value of foreign currencies would not have a material adverse effect on our financial condition and results of operations. A portion of our long-term bank debt bears interest at variable rates; therefore our results of operations would be affected by interest rate changes to the extent of such outstanding bank debt. An immediate 10 percent change in interest rates would have a material effect on our results of operations over the next fiscal year. A one-percent change in interest rates would result in $7.8 million in incremental interest charges on an annual basis.

We do not enter into derivatives or other financial instruments for trading or speculative purposes. When appropriate, we enter into derivative financial instruments, such as forward exchange contracts, hedges and interest rate swaps, to mitigate the impact of foreign exchange rate movements and interest rate movements on our operating results. The counterparties are major financial institutions. Such forward exchange contracts, hedges and interest rate swaps would not subject us to additional risk from exchange rate or interest rate movements because gains and losses on these contracts would offset losses and gains on the assets, liabilities, and transactions being hedged.

On April 5, 2016, the Company entered into a floating to fixed interest rate swap for an initial aggregate notional amount of $300 million to limit exposure to interest rate increases related to a portion of the Company's floating rate indebtedness. This swap agreement hedges a portion of contractual floating rate interest through its expiration in May 2021. As a result, the Company's effective fixed interest rate on the notional amount floating rate indebtedness will be 4.25% through May 2021. The fair value of this instrument at October 1, 2017 was an asset of $2.1 million.

ITEM 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, and under the supervision and with participation of the Company's management, including the Chief Executive Officer and the Chief Financial Officer, the Company carried out an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures, pursuant to Exchange Act Rule 13a-15(b). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that as of the end of the period covered by this report the Company's disclosure controls and procedures were effective.

The Company has implemented a global enterprise resource planning ("ERP") system for the businesses acquired from AMCOL. Primarily all of the domestic, European and Asian locations of the acquired businesses were implemented on the new system. The worldwide implementation is substantially completed and involved changes in systems that include internal controls. Although the transition has proceeded to date without material adverse effects, the possibility exists that our migration to the new ERP system could adversely affect the Company's internal controls over financial reporting and procedures. We are reviewing each system as it is being implemented and the controls affected by the implementation of the new systems, and are making appropriate changes to the affected internal controls as we implement the new systems. We believe that the controls as modified are appropriate and functioning effectively.

Changes in Internal Control Over Financial Reporting

Except as described above, there were no changes in the Company's internal control over financial reporting during the quarter ended October 1, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

The Company and its subsidiaries are the subject of various pending legal actions in the ordinary course of their businesses. Except as described below, none of such legal proceedings are material.

Armada Litigation

On May 8, 2013, Armada (Singapore) PTE Limited, an ocean shipping company now in bankruptcy ("Armada") filed a case in federal court in the Northern District of Illinois against AMCOL and certain of its subsidiaries (*Armada (Singapore) PTE Limited v. AMCOL International Corp., et al., United States District Court for the Northern District of Illinois* , Case No. 13 CV 3455). We acquired AMCOL and its subsidiaries on May 9, 2014. A co-defendant is Ashapura Minechem Limited, a company located in Mumbai, India (“AML”). During the relevant time period, 2008-2010, AMCOL owned slightly over 20% of the outstanding AML stock through December 2009, after which it owned approximately 19%. In 2008, AML entered into two contracts of affreightment (“COA”) with Armada for over 60 ship loads of bauxite from India to China. After one shipment, AML made no further shipments, which led Armada to file arbitrations in London against AML, one for each COA. AML did not appear in the London arbitrations and default awards of approximately $70 million were entered. The litigation filed by Armada against AMCOL and AML relates to these awards, which AML has not paid. The substance of the allegations by Armada is that AML and AMCOL engaged in illegal conduct to thwart Armada’s efforts to collect the arbitration award. AMCOL won a motion for judgement on the pleadings that resulted in the successful dismissal of all but one count in the complaint, including a dismissal of all counts alleging violations of Illinois’ Fraudulent Transfer laws and federal RICO violations. Armada has filed an appeal of the dismissal and the district court proceedings are stayed pending the appeal. We have accrued an estimate of potential damages for the Armada lawsuit, the amount of which was not material to our financial position, results of operations or cash flows.

Silica and Asbestos Litigation

Certain of the Company's subsidiaries are among numerous defendants in a number of cases seeking damages for exposure to silica or to asbestos containing materials. The Company currently has three pending silica cases and 22 pending asbestos cases. To date, 1,493 silica cases and 50 asbestos cases have been dismissed, not including any lawsuits against AMCOL or American Colloid Company dismissed prior to our acquisition of AMCOL. Two new asbestos cases were filed in the third quarter of 2017 and one additional asbestos case was filed subsequent to the close of the quarter. No asbestos or silica cases were dismissed during the quarter. Most of these claims do not provide adequate information to assess their merits, the likelihood that the Company will be found liable, or the magnitude of such liability, if any. Additional claims of this nature may be made against the Company or its subsidiaries. At this time management anticipates that the amount of the Company's liability, if any, and the cost of defending such claims, will not have a material effect on its financial position or results of operations.

The Company has settled only one silica lawsuit, for a nominal amount, and no asbestos lawsuits to date (not including any that may have been settled by AMCOL prior to completion of the acquisition). We are unable to state an amount or range of amounts claimed in any of the lawsuits because state court pleading practices do not require identifying the amount of the claimed damage. The aggregate cost to the Company for the legal defense of these cases since inception continues to be insignificant. The majority of the costs of defense for these cases, excluding cases against AMCOL or American Colloid, are reimbursed by Pfizer Inc. pursuant to the terms of certain agreements entered into in connection with the Company's initial public offering in 1992. The Company is entitled to indemnification, pursuant to agreement, for sales prior to the initial public offering. Of the 22 pending asbestos cases, 15 of the non-AMCOL cases are subject to indemnification, in whole or in part, because the plaintiffs claim liability based on sales of products that occurred either entirely before the initial public offering, or both before and after the initial public offering. In the six remaining non-AMCOL cases, the plaintiffs have not alleged dates of exposure. The remaining case is an AMCOL case, which makes no allegation with respect to periods of exposure. Our experience has been that the Company is not liable to plaintiffs in any of these lawsuits and the Company does not expect to pay any settlements or jury verdicts in these lawsuits.

Environmental Matters

On April 9, 2003, the Connecticut Department of Environmental Protection issued an administrative consent order relating to our Canaan, Connecticut, plant where both our Refractories segment and Specialty Minerals segment have operations. We agreed to the order, which includes provisions requiring investigation and remediation of contamination associated with historic use of polychlorinated biphenyls ("PCBs") and mercury at a portion of the site. We have completed the required investigations and submitted several reports characterizing the contamination and assessing site-specific risks. We are awaiting regulators' approval of the risk assessment report, which will form the basis for a proposal by the Company concerning eventual remediation.

We believe that the most likely form of overall site remediation will be to leave the existing contamination in place (with some limited soil removal), encapsulate it, and monitor the effectiveness of the encapsulation. We anticipate that a substantial portion of the remediation cost will be borne by the United States based on its involvement at the site from 1942 – 1964, as historic documentation indicates that PCBs and mercury were first used at the facility at a time of U.S. government ownership for production of materials needed by the military. Pursuant to a Consent Decree entered on October 24, 2014, the United States paid the Company $2.3 million in the 4th quarter of 2014 to resolve the Company's claim for response costs for investigation and initial remediation activities at this facility through October 24, 2014. Contribution by the United States to any future costs of investigation or additional remediation has, by agreement, been left unresolved. Though the cost of the likely remediation remains uncertain pending completion of the phased remediation decision process, we have estimated that the Company's share of the cost of the encapsulation and limited soil removal described above would approximate $0.4 million, which has been accrued as of October 1, 2017.

The Company is evaluating options for upgrading the wastewater treatment facilities at its Adams, Massachusetts plant. This work has been undertaken pursuant to an administrative Consent Order originally issued by the Massachusetts Department of Environmental Protection ("DEP") on June 18, 2002. This order was amended on June 1, 2009 and on June 2, 2010. The amended Order includes the investigation by January 1, 2022 of options for ensuring that the facility's wastewater treatment ponds will not result in unpermitted discharge to groundwater. Additional requirements of the amendment include the submittal by July 1, 2022 of a plan for closure of a historic lime solids disposal area. Preliminary engineering reviews completed in 2005 indicate that the estimated cost of wastewater treatment upgrades to operate this facility beyond 2024 may be between $6 million and $8 million. The Company estimates that the remaining remediation costs would approximate $0.4 million, which has been accrued as of October 1, 2017.

ITEM 1A. Risk Factors

For a description of Risk Factors, see Exhibit 99 attached to this report. There have been no material changes to our risk factors from those disclosed in our 2016 Annual Report on Form 10-K.

ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of the Publicly Announced Program	Dollar Value of Shares that May Yet be Purchased Under the Program
July 3 - July 30	-	$ -	-	$ 147,354,267
July 31 - August 27	-	$ -	-	$ 147,354,267
August 28 - October 1	10,552	$ 66.63	64,650	$ 146,651,232
Total	10,552	$ 66.63		

On September 16, 2015, the Company's Board of Directors authorized the Company's management to repurchase, at its discretion, up to $150 million of the Company's shares over a two-year period commencing October 2015. As of October 1, 2017, 64,650 shares were repurchased under this program for $3.3 million, or, an average price of approximately $51.79 per share. This program has expired.

On September 21, 2017, the Company's Board of Directors authorized the Company's management to repurchase, at its discretion, up to $150 million of the Company's shares over a two-year period commencing October 1, 2017 when the previous program expired.

ITEM 3. Default Upon Senior Securities

Not applicable.

ITEM 4. Mine Safety Disclosures

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this Quarterly Report on Form 10-Q.

ITEM 5. Other Information

None

ITEM 6. Exhibits

Exhibit No.	Exhibit Title
15	Letter Regarding Unaudited Interim Financial Information.
31.1	Rule 13a-14(a)/15d-14(a) Certification
31.2	Rule 13a-14(a)/15d-14(a) Certification
32	Section 1350 Certifications.
95	Information concerning Mine Safety Violations
99	Risk Factors
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

SIGNATURE

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

Minerals Technologies Inc.

By: **/s/Matthew E. Garth**

Matthew E. Garth
Senior Vice President, Finance and Treasury,
Chief Financial Officer

November 3, 2017

EXHIBIT 15

ACCOUNTANTS' ACKNOWLEDGEMENT

Board of Directors
Minerals Technologies Inc.:

Re: Registration Statement Nos. 333-160002, 33-59080, 333-62739, 333-138245 and 333-206244

With respect to the subject registration statements, we acknowledge our awareness of the use therein of our report dated November 3, 2017, related to our review of interim financial information.

Pursuant to Rule 436 under the Securities Act of 1933, such report is not considered a part of a registration statement prepared or certified by an independent registered public accounting firm, or a report prepared or certified by an independent registered public accounting firm within the meaning of Sections 7 and 11 of the Act.

/s/ KPMG LLP

New York, New York
November 3, 2017

EXHIBIT 31.1

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Douglas T. Dietrich, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Minerals Technologies Inc.;

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(s) 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(s) 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:

   (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: November 3, 2017

By: **/s/Douglas T. Dietrich**
Douglas T. Dietrich
Chief Executive Officer

EXHIBIT 31.2

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Matthew E. Garth, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Minerals Technologies Inc.;

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(s) 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(s) 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:

   (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: November 3, 2017

By: **/s/Matthew E. Garth**

Matthew E. Garth
Senior Vice President, Finance and Treasury,
Chief Financial Officer

EXHIBIT 32

SECTION 1350 CERTIFICATIONS

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18, United States Code), each of the undersigned officers of Minerals Technologies Inc., a Delaware corporation (the "Company"), does hereby certify that:

The Quarterly Report on Form 10-Q for the quarter ended October 1, 2017 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 3, 2017

By: **/s/ Douglas T. Dietrich**
Douglas T. Dietrich
Chief Executive Officer

Date: November 3, 2017

By: **/s/Matthew E. Garth**
Matthew E. Garth
Senior Vice President, Finance and Treasury,
Chief Financial Officer

The foregoing certification is being furnished solely pursuant to Exchange Act Rule 13a-14(b); is not deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section; and is not deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act of 1934.

Exhibit 95

Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K contain certain reporting requirements regarding coal or other mine safety. The Company, through its subsidiaries Specialty Minerals Inc., Barretts Minerals Inc., and American Colloid Company, operates fourteen mines in the United States. The operation of our mines is subject to regulation by the federal Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Act"). MSHA inspects our mines on a regular basis and issues various citations and orders when it believes a violation has occurred under the Mine Act.

The following table sets forth the required information with respect to each mine for which we are the operator for the period July 3, 2017 to October 1, 2017:

Mine	Section 104(a) S&S	Section 104(b)	Section 104(d)	Section 110(b)(2)	Section 107(a)	Proposed Assessments	Fatalities
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Lucerne Valley, CA 04-00219	1	0	0	0	0	$0	0
Canaan, CT 06-00019	2	0	3	0	0	$0	0
Adams, MA 19-00035	1	0	0	0	0	$4,818	0
Barretts Mill, Dillon, MT 24-00157	0	0	0	0	0	$0	0
Regal Mine, Dillon, MT 24-01994	0	0	0	0	0	$0	0
Treasure Mine, Dillon, MT 24-00160	0	0	0	0	0	$0	0
Belle/Colony Mine, WY 48-00888	0	0	0	0	0	$0	0
Belle Fourche Mill, SD 39-00049	0	0	0	0	0	$116	0
Colony East, WY 48-00594	0	0	0	0	0	$748	0
Colony West, WY 48-00245	1	0	0	0	0	$0	0
Gascoyne, ND 32-00459	0	0	0	0	0	$0	0
Lovell, WY 48-00057	0	0	0	0	0	$116	0
Sandy Ridge, AL 01-00093	0	0	0	0	0	$0	0
Yellowtail, WY 48-00607	0	0	0	0	0	$0	0

(A) The total number of violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a mine safety or health hazard under section 104 of the Mine Act for which we received a citation from MSHA.

(B) The total number of orders issued under section 104(b) of the Mine Act.

(C) The total number of citations and orders for unwarrantable failure of the Company to comply with mandatory health or safety standards under section 104(d) of the Mine Act.

(D) The total number of flagrant violations under section 110(b)(2) of the Mine Act.

(E) The total number of imminent danger orders issued under section 107(a) of the Mine Act.

(F) The total dollar value of proposed assessments from MSHA under the Mine Act.

(G) The total number of mining-related fatalities, other than fatalities determined by MSHA to be unrelated to mining activity.

During the period July 3, 2017 to October 1, 2017, we did not receive any written notice from MSHA, with respect to any mine for which we are the operator, of (A) a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of mine health and safety hazards under section 104(e) of the Mine Act or (B) the potential to have such a pattern.

The following table sets forth the required information with respect to legal actions before the Federal Mine Safety and Health Review Commission involving each mine for which we are the operator for the period July 3, 2017 to October 1, 2017:

Mine	Legal Actions Pending As Of Last Day Of Period	Legal Actions Initiated During Period	Legal Actions Resolved During Period
Lucerne Valley, CA	0	0	0
Canaan, CT	13[1]	5	0
Adams, MA	0	0	0
Barretts Mill, Dillon, MT	0	0	0
Regal Mine, Dillon, MT	0	0	0
Treasure Mine, Dillon, MT	0	0	0
Belle/Colony Mine, WY	0	0	0
Belle Fourche Mill, SD	0	0	0
Colony East, WY	0	0	0
Colony West, WY	0	0	0
Gascoyne, ND	0	0	0
Lovell, WY	0	0	0
Sandy Ridge, AL	0	0	0
Yellowtail, WY	0	0	0

[1] Of the thirteen legal actions pending as of the last day of the period, seven actions are contests of proposed penalties, as referenced in Subpart C of 29 CFR Part 2700, and six actions are notices of contest of citations as referenced in Subpart B of 29 CFR Part 2700.

EXHIBIT 99

RISK FACTORS

Our business faces significant risks. Set forth below are all risks that we believe are material at this time. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. These risks should be read in conjunction with the other information in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, and this Quarterly Report on Form 10-Q.

- ***Worldwide general economic, business, and industry conditions have had, and may continue to have, an adverse effect on the Company's results.***

  The global economic instability experienced in recent years had caused, among other things, declining consumer and business confidence, volatile raw material prices, instability in credit markets, high unemployment, fluctuating interest and exchange rates, and other challenges in the countries in which we operate. The Company's business and operating results had been and could once again be adversely affected by these global economic conditions. The Company's customers and potential customers may experience deterioration of their businesses, cash flow shortages, and difficulty obtaining financing. As discussed below, the industries we serve have in the past been adversely affected by the uncertain global economic climate due to the cyclical nature of their businesses. As a result, existing or potential customers may reduce or delay their growth and investments and their plans to purchase products, and may not be able to fulfill their obligations in a timely fashion. Further, suppliers could experience similar conditions, which could affect their ability to fulfill their obligations to the Company. Adversity within capital markets may also impact the Company's results of operations by negatively affecting the amount of expense the Company records for its pension and other postretirement benefit plans. Actuarial valuations used to calculate income or expense for the plans reflect assumptions about financial market and other economic conditions – the most significant of which are the discount rate and the expected long-term rate of return on plan assets. Such actuarial valuations may change based on changes in key economic indicators. Global economic markets remain uncertain, and there can be no assurance that market conditions will improve in the near future. Future weakness in the global economy could materially and adversely affect our business and operating results.

- ***Our customers' businesses are cyclical or have changing regional demands. Our operations are subject to these trends and we may not be able to mitigate these risks.***

  - Our Performance Materials segment's sales are predominantly derived from the metalcasting market. The metalcasting market is dependent upon the demand for castings for automobile components, farm and construction equipment, oil and gas production equipment, power generation turbine castings, and rail car components. Many of these types of equipment are sensitive to fluctuations in demand during periods of recession or difficult economic conditions, which ultimately may affect the demand for our Performance Materials segment's products and services.

  - In the paper industry, which is served by our Paper PCC product line, production levels for uncoated freesheet within North America and Europe, our two largest markets are projected to continue to decrease. The reduced demand for premium writing paper products has also caused recent paper mill closures.

  - Our Refractories segment primarily serves the steel industry. North American and European steel production continues to be affected by global volatility and overcapacity in the market.

  - Demand for our Energy Services segment's products and services is affected by the level of exploration, development, and production activity of, and the corresponding capital spending by, oil and natural gas companies, which are heavily influenced by the benchmark price of these commodities. Oil and natural gas prices decreased significantly in 2014 and 2015, with West Texas Intermediate (WTI) oil spot prices declining from a high of $108 per barrel in June 2014 to a low of $26 per barrel in February 2016. This has caused oil and natural gas companies to reduce their capital expenditures and production and exploration activities. This has the effect of decreasing the demand and increasing competition for the services we provide. In addition, the performance of our Energy Services segment is affected by changes in technologies, locations of customers' targeted reserves, and competition in various geographic markets.

  - Our Environmental Products and Building Materials products sales are predominantly derived from the commercial construction and infrastructure markets. In addition, our Processed Minerals and Specialty PCC product lines are affected by the domestic building and construction markets, as well as the automotive market.

Demand for our products is subject to trends in these markets. During periods of economic slowdown, our customers often reduce their capital expenditures and defer or cancel pending projects. Such developments occur even amongst customers that are not experiencing financial difficulties. In addition, these trends could cause our customers to face liquidity issues or bankruptcy, which could deteriorate the aging of our accounts receivable, increase our bad debt exposure and possibly trigger impairment of assets or realignment of our businesses. The Company has taken steps to reduce its exposure to variations in its customers' businesses, including by diversifying its portfolio of products and services; through geographic expansion, and by structuring most of its long-term satellite PCC contracts to provide a degree of protection against declines in the quantity of product purchased, since the price per ton of PCC generally rises as the number of tons purchased declines. In addition, many of the Company's product lines lower its customers' costs of production or increase their productivity, which should encourage them to use its products. However, there can be no assurance that these efforts will mitigate the risks of our dependence on these industries. Continued weakness in the industries we serve has had, and may in the future have, an adverse effect on sales of our products and our results of operations. A continued or renewed economic downturn in one or more of the industries or geographic regions that the Company serves, or in the worldwide economy, could cause actual results of operations to differ materially from historical and expected results.

· ***The Company’s results could be adversely affected if it is unable to effectively achieve and implement its growth initiatives.***

Sales and income growth of the Company depends upon a number of uncertain events, including the outcome of the Company's strategies of increasing its penetration into geographic markets such as the BRIC (Brazil, Russia, India, China) countries and other Asian and Eastern European countries; increasing its penetration into product markets such as the market for papercoating pigments and the market for groundwood paper pigments; increasing sales to existing PCC customers by increasing the amount of PCC used per ton of paper produced; developing, introducing and selling new products such as the FulFill® family of products for the paper industry. Difficulties, delays or failure of any of these strategies could affect the future growth rate of the Company. Our strategy also anticipates growth through future acquisitions. However, our ability to identify and consummate any future acquisitions on terms that are favorable to us may be limited by the number of attractive acquisition targets, internal demands on our resources and our ability to obtain financing. Our success in integrating newly acquired businesses will depend upon our ability to retain key personnel, avoid diversion of management’s attention from operational matters, and integrate general and administrative services. In addition, future acquisitions could result in the incurrence of additional debt, costs and contingent liabilities. Integration of acquired operations may take longer, or be more costly or disruptive to our business, than originally anticipated, and it is also possible that expected synergies from future acquisitions may not materialize. We also may incur costs and divert management attention with regard to potential acquisitions that are never consummated.

· ***Servicing the Company’s debt will require a significant amount of cash. This could reduce the Company’s flexibility to respond to changing business and economic conditions or fund capital expenditures or working capital needs. Our ability to generate cash depends on many factors beyond our control.***

At October 1, 2017, the Company had outstanding borrowings of $1.0 billion pursuant to our senior secured credit facility, largely incurred to finance the acquisition of AMCOL. This financing will require a significant amount of cash to make interest payments. Further, the interest rate on a significant portion of our borrowings under our senior secured credit facility is based on LIBOR interest rates, which could result in higher interest expense in the event of an increase in interest rates. Our ability to pay interest on our debt and to satisfy our other debt obligations will depend in part upon our future financial and operating performance and upon our ability to renew or refinance borrowings. Prevailing economic conditions and financial, business, competitive, regulatory and other factors, many of which are beyond our control, will affect our ability to make these payments. We cannot guarantee that our business will generate sufficient cash flow from operations or that future borrowings will be available to us in an amount sufficient to enable us to fund our liquidity needs. If we are unable to generate sufficient cash flow to meet our debt service obligations, we will have to pursue one or more alternatives, such as reducing or delaying capital or other expenditures, refinancing debt, selling assets, or raising equity capital. Further, the requirement to make significant interest payments may reduce the Company’s flexibility to respond to changing business and economic conditions or fund capital expenditure or working capital needs and may increase the Company’s vulnerability to adverse economic conditions.

· ***Our senior secured credit facility contains various covenants that limit our ability to take certain actions and our revolving credit facility, if used, also requires us to meet financial maintenance tests, failure to comply with which could have a material adverse effect on us.***

The agreement governing our senior secured credit facility contains a number of significant covenants that, among other things, limit our ability to: incur additional debt or liens, consolidate or merge with any other person, alter the business we conduct, make investments, use the proceeds of asset sales or sale/leaseback transactions, enter into hedging arrangements, pay dividends or make certain other restricted payments, create dividend or other payment restrictions with respect to subsidiaries, and enter into transactions with affiliates. In addition, our revolving credit facility, if used, requires us to comply with specific financial ratios, including a maximum net leverage ratio, under which we are required to achieve specific financial results. Our ability to comply with these provisions may be affected by events beyond our control. A breach of any of these covenants would result in a default under the agreements. In the event of any default, our lenders could elect to declare all amounts borrowed under the agreements, together with accrued interest thereon, to be due and payable. In such an event, we cannot assure you that we would have sufficient assets to pay debt then outstanding under the agreements governing our debt. Any future refinancing of the senior secured credit facility is likely to contain similar restrictive covenants.

- ***The Company’s sales of PCC could be adversely affected by our failure to renew or extend long term sales contracts for our satellite operations.***

The Company's sales of PCC to paper customers are typically pursuant to long-term evergreen agreements, initially ten years in length, with paper mills where the Company operates satellite PCC plants. Sales pursuant to these contracts represent a significant portion of our worldwide Paper PCC sales, which were $387.9 million in 2016, or approximately 24% of the Company’s net sales. The terms of many of these agreements have been extended or renewed in the past, often in connection with an expansion of the satellite plant. However, failure of a number of the Company's customers to renew or extend existing agreements on terms as favorable to the Company as those currently in effect, or at all, could have a substantial adverse effect on the Company's results of operations, and could also result in impairment of the assets associated with the PCC plant.

- ***The Company’s sales could be adversely affected by consolidation in customer industries, principally paper, foundry and steel.***

Several consolidations in the paper industry have taken place in recent years and such consolidation could continue in the future. These consolidations could result in partial or total closure of some paper mills where the Company operates PCC satellites. Such closures would reduce the Company's sales of PCC, except to the extent that they resulted in shifting paper production and associated purchases of PCC to another location served by the Company. Similarly, consolidations have occurred in the foundry and steel industries. Such consolidations in the major industries we serve concentrate purchasing power in the hands of a smaller number of manufacturers, enabling them to increase pressure on suppliers, such as the Company. This increased pressure could have an adverse effect on the Company's results of operations in the future.

- ***The Company is subject to stringent regulation in the areas of environmental, health and safety, and tax, and may incur unanticipated costs or liabilities arising out of claims for various legal, environmental and tax matters or product stewardship issues.***

The Company’s operations are subject to international, federal, state and local governmental environmental, health and safety, tax and other laws and regulations. We have expended, and may be required to expend in the future, substantial funds for compliance with such laws and regulations. In addition, future events, such as changes to or modifications of interpretations of existing laws and regulations, or enforcement polices, or further investigation or evaluation of the potential environmental impacts of operations or health hazards of certain products, may affect our mining rights or give rise to additional compliance and other costs that could have a material adverse effect on the Company. Further, certain of our customers are subject to various federal and international laws and regulations relating to environmental and health and safety matters, especially our Energy Services customers who are subject to drilling permits, waste water disposal and other regulations. To the extent that these laws and regulations affecting our customers change, demand for our products and services could also change and thereby affect our financial results. State, national, and international governments and agencies have been evaluating climate-related legislation and regulation that would restrict emissions of greenhouse gases in areas in which we conduct business, and some such legislation and regulation have already been enacted or adopted. Enactment of climate-related legislation or adoption of regulation that restrict emissions of greenhouse gases in areas in which we conduct business could have an adverse effect on our operations or demand for our products. Our manufacturing processes, particularly the manufacturing process for PCC, use a significant amount of energy and, should energy prices increase as a result of such legislation or regulation, we may not be able to pass these increased costs on to purchasers of our products. We cannot predict if or when currently proposed or additional laws and regulations regarding climate change or other environmental or health and safety concerns will be enacted or adopted. Moreover, changes in tax regulation and international tax treaties could reduce the financial performance of our foreign operations.

The Company is currently a party in various litigation matters and tax and environmental proceedings and faces risks arising from various unasserted litigation matters, including, but not limited to, product liability, patent infringement, antitrust claims, and claims for third party property damage or personal injury stemming from alleged environmental torts. Failure to appropriately manage safety, human health, product liability and environmental risks associated with the Company’s products and production processes could adversely impact the Company’s employees and other stakeholders, the Company’s reputation and its results of operations. Public perception of the risks associated with the Company’s products and production processes could impact product acceptance and influence the regulatory environment in which the Company operates. While the Company has procedures and controls to manage these risks, carries liability insurance, which it believes to be appropriate to its businesses, and has provided reserves for current matters, which it believes to be adequate, an unanticipated liability, arising out of a current matter or proceeding or from the other risks described above, could have a material adverse effect on the Company’s financial condition or results of operations.

- ***Delays or failures in new product development could adversely affect the Company’s operations.***

The Company’s future business success will depend in part upon its ability to maintain and enhance its technological capabilities, to respond to changing customer needs, and to successfully anticipate or respond to technological changes on a cost-effective and timely basis. The Company is engaged in a continuous effort to develop new products and processes in all of its product lines. Difficulties, delays or failures in the development, testing, production, marketing or sale of such new products could cause actual results of operations to differ materially from our expected results.

- ***The Company’s ability to compete is dependent upon its ability to defend its intellectual property against inappropriate disclosure and infringement.***

The Company's ability to compete is based in part upon proprietary knowledge, both patented and unpatented. The Company's ability to achieve anticipated results depends in part on its ability to defend its intellectual property against inappropriate disclosure as well as against infringement. In addition, development by the Company's competitors of new products or technologies that are more effective or less expensive than those the Company offers could have a material adverse effect on the Company's financial condition or results of operations.

- ***The Company’s operations could be impacted by the increased risks of doing business abroad.***

The Company does business in many areas internationally. Approximately 43% of our sales in 2016 were derived from outside the United States and we have significant production facilities which are located outside of the United States. We have in recent years expanded our operations in emerging markets, and we plan to continue to do so in the future, particularly in China, India, Brazil, the Middle East, and Eastern Europe. Some of our operations are located in areas that have experienced political or economic instability, including Indonesia, Malaysia, Nigeria, Egypt, Saudi Arabia, Turkey, Brazil, Thailand, China and South Africa. The June 23, 2016 referendum by British voters to exit the European Union (referred to as Brexit) has caused additional volatility in the markets and currency exchange rates. Market conditions and exchange rates could continue to be volatile in the near term as this situation develops over the next couple of years. As the Company expands its operations overseas, it faces increased risks of doing business abroad, including inflation, fluctuation in interest rates, changes in applicable laws and regulatory requirements, export and import restrictions, tariffs, nationalization, expropriation, limits on repatriation of funds, civil unrest, terrorism, unstable governments and legal systems, and other factors. Many of these risks are beyond our control and can lead to sudden, and potentially prolonged, changes in demand for our products, difficulty in enforcing agreements, and losses in the realizability of our assets. Adverse developments in any of the areas in which we do business could cause actual results to differ materially from historical and expected results. In addition, a significant portion of our raw material purchases and sales outside the United States are denominated in foreign currencies, and liabilities for non-U.S. operating expenses and income taxes are denominated in local currencies. Accordingly, reported sales, net earnings, cash flows and fair values have been and, in the future, will be affected by changes in foreign currency exchange rates. Our overall success as a global business depends, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions. We cannot assure you that we will implement policies and strategies that will be effective in each location where we do business.

- ***The Company's operations are dependent on the availability of raw materials and access to ore reserves at its mining operations. Increases in costs of raw materials, energy, or shipping could adversely affect our financial results.***

The Company depends in part on having an adequate supply of raw materials for its manufacturing operations, particularly lime and carbon dioxide for the PCC product line, and magnesia and alumina for its Refractory operations. Purchase prices and availability of these critical raw materials are subject to volatility. At any given time, we may be unable to obtain an adequate supply of these critical raw materials on a timely basis, on price and other terms, or at all. While most such raw materials are readily available, the Company purchases approximately 45% of its magnesia requirements from sources in China. The majority of magnesia requirements were purchased from other countries. The price and availability of magnesia have fluctuated in the past and they may fluctuate in the future. Price increases for certain other of our raw materials, including petrochemical products, as well as increases in energy prices, have also affected our business. Our production processes consume a significant amount of energy, primarily electricity, diesel fuel, natural gas and coal. We use diesel fuel to operate our mining and processing equipment and our freight costs are heavily dependent upon fuel prices and surcharges. Energy costs also affect the cost of raw materials. On a combined basis, these factors represent a large exposure to petrochemical and energy products which may be subject to significant price fluctuations. The contracts pursuant to which we construct and operate our satellite PCC plants generally adjust pricing to reflect the pass-through of increases in costs resulting from inflation, including energy. However, there is a time lag before such price adjustments can be implemented. The Company and its customers will typically negotiate reasonable price adjustments in order to recover these escalating costs, but there can be no assurance that we will be able to recover increasing costs through such negotiations.

The Company also depends on having adequate access to ore reserves of appropriate quality at its mining operations. There are numerous uncertainties inherent in estimating ore reserves including subjective judgments and determinations that are based on available geological, technical, contract and economic information.

The Company relies on shipping bulk cargos of bentonite from the United States, Turkey and China to customers, as well as our own subsidiaries, and we are sensitive to our ability to recover these shipping costs. In the last few years, bulk cargo shipping rates have been very volatile, and, to a lesser extent, the availability of bulk cargo containers has been suspect. If we cannot secure our container requirements or offset additional shipping costs with price increases to customers, our profitability could be impacted. We are also subject to other shipping risks. In particular, rail service interruptions have affected our ability to ship, and the availability of rail service, and our ability to recover increased rail costs, may be beyond our control.

- ***The Company operates in very competitive industries, which could adversely affect our profitability.***

The Company has many competitors. Some of our principal competitors have greater financial and other resources than we have. Accordingly, these competitors may be better able to withstand economic downturns and changes in conditions within the industries in which we operate and may have significantly greater operating and financial flexibility than we do. We also face competition for some of our products from alternative products, and some of the competition we face comes from competitors in lower-cost production countries like China and India. As a result of the competitive environment in the markets in which we operate, we currently face and will continue to face pressure on the sales prices of our products from competitors, which could reduce profit margins.

- ***Production facilities are subject to operating risks and capacity limitations that may adversely affect the Company's financial condition or results of operations.***

The Company is dependent on the continued operation of its production facilities. Production facilities are subject to hazards associated with the manufacturing, handling, storage, and transportation of chemical materials and products, including pipeline leaks and ruptures, explosions, fires, inclement weather and natural disasters, mechanical failure, unscheduled downtime, labor difficulties, transportation interruptions, and environmental risks. We maintain property, business interruption and casualty insurance but such insurance may not cover all risks associated with the hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies. Further, from time to time, we may experience capacity limitations in our manufacturing operations. In addition, if we are unable to effectively forecast our customers' demand, it could affect our ability to successfully manage operating capacity limitations. These hazards, limitations, disruptions in supply and capacity constraints could adversely affect financial results.

- ***Operating results for some of our segments are seasonal.***

  Our Energy Services Segment and certain product lines within our Performance Materials segment are affected by seasonal weather patterns. A majority of our Energy Services revenues are derived from the Gulf of Mexico and surrounding states, which are susceptible to hurricanes that typically occur June 1st through November 30th. In addition, it is affected by customers' demands for natural gas. Natural gas is affected by weather patterns as colder winters increase the demand for natural gas to heat homes and warmer summers increase the demand for natural gas to fuel generators providing electricity to run air conditioners. Actual or threatened hurricanes or changes in the demand for natural gas can result in volatile demand for services provided by our Energy Services segment. Our Environmental Products and Building Materials product lines within our Performance Materials segment are affected by weather patterns which determine the feasibility of construction activities. Typically, less construction activity occurs in winter months and thus this segment's revenues tend to be greatest in the second and third quarters when weather patterns in our geographic markets are more conducive to construction activities. Our Processed Minerals product line is subject to similar seasonal patterns.

- ***Our operations are subject to cyber-attacks that could have a material adverse impact on our business, consolidated results of operations, and consolidated financial condition.***

  Our operations are becoming increasingly dependent on digital technologies and services. We use these technologies for internal purposes, including data storage, processing, and transmissions, as well as in our interactions with customers and suppliers. Digital technologies are subject to the risk of cyber-attacks. If our systems for protecting against cybersecurity risks prove not to be sufficient, we could be adversely affected by, among other things: loss of or damage to intellectual property, proprietary or confidential information, or customer, supplier, or employee data; interruption of our business operations; and increased costs required to prevent, respond to, or mitigate cybersecurity attacks. These risks could harm our reputation and our relationships with customers, suppliers, employees, and other third parties, and may result in claims against us. In addition, these risks could have a material adverse effect on our business, consolidated results of operations, and consolidated financial condition.