MINERALS TECHNOLOGIES INC
Form 10-Q
August 03, 2018

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 July 1, 2018

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 July 23, 2018
Common Stock, $0.10 par value	35,305,141

MINERALS TECHNOLOGIES INC.

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PART 1. FINANCIAL INFORMATION

ITEM 1. Financial Statements

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

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(in millions, except per share data)			
Product sales	$445.0	$396.2	$857.2	$782.5
Service revenue	19.7	17.9	38.8	36.6
Total net sales	464.7	414.1	896.0	819.1
Cost of goods sold	335.3	282.7	640.3	561.7
Cost of service revenue	13.5	11.7	26.3	24.0
Total cost of sales	348.8	294.4	666.6	585.7
Production margin	115.9	119.7	229.4	233.4
Marketing and administrative expenses	45.3	43.6	89.7	87.6
Research and development expenses	6.4	6.1	12.5	11.9
Acquisition-related transaction and integration costs	1.0	0.8	1.4	2.3
Restructuring and other items, net	0.4	0.2	0.4	0.5
Income from operations	62.8	69.0	125.4	131.1
Interest expense, net	(11.5)	(10.2)	(22.2)	(22.0)
Debt modification costs and fees	-	-	-	(3.9)
Other non-operating income (deductions), net	3.1	(1.7)	0.4	(2.6)
Total non-operating deductions, net	(8.4)	(11.9)	(21.8)	(28.5)
Income from continuing operations before provision for taxes and equity in earnings	54.4	57.1	103.6	102.6
Provision for taxes on income	10.3	13.4	19.6	23.5
Equity in earnings of affiliates, net of tax	1.1	0.1	2.3	0.3
Consolidated net income	45.2	43.8	86.3	79.4
Less:				
Net income attributable to non-controlling interests	1.1	0.8	2.3	1.8
Net income attributable to Minerals Technologies Inc. (MTI)	$44.1	$43.0	$84.0	$77.6
Earnings per share:				
Basic:				
Income from continuing operations attributable to MTI	$1.25	$1.23	$2.37	$2.21

Diluted:				
Income from continuing operations attributable to MTI	$1.24	$1.21	$2.36	$2.18
Cash dividends declared per common share	$0.05	$0.05	$0.10	$0.10
Shares used in computation of earnings per share:				
Basic	35.3	35.1	35.4	35.1
Diluted	35.6	35.6	35.6	35.6

See accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Consolidated net income	$45.2	$43.8	$86.3	$79.4
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(54.5)	13.1	(39.1)	26.1
Pension and postretirement plan adjustments	1.9	1.3	3.7	2.5
Unrealized gains (losses) on derivatives	(1.3)	(0.4)	0.3	(0.3)
Total other comprehensive income (loss), net of tax	(53.9)	14.0	(35.1)	28.3
Total comprehensive income (loss) including non-controlling interests	(8.7)	57.8	51.2	107.7
Comprehensive income (loss) attributable to non-controlling interests	0.5	(1.2)	(1.3)	(2.7)
Comprehensive income (loss) attributable to MTI	$(8.2)	$56.6	$49.9	$105.0

See accompanying Notes to Condensed Consolidated Financial Statements.

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MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	July 1, 2018*	December 31, 2017**
	(millions of dollars)	
ASSETS		
Current assets:		
Cash and cash equivalents	$203.0	$ 212.2
Short-term investments, at cost which approximates market	2.9	2.7
Accounts receivable, net	420.3	383.0
Inventories	235.5	219.3
Prepaid expenses and other current assets	37.4	35.0
Total current assets	899.1	852.2
Property, plant and equipment	2,254.2	2,219.6
Less accumulated depreciation and depletion	(1,132.3)	(1,158.3)
Property, plant and equipment, net	1,121.9	1,061.3
Goodwill	810.6	779.3
Intangible assets	212.4	196.5
Deferred income taxes	25.6	25.6
Other assets and deferred charges	58.8	55.5
Total assets	$3,128.4	$ 2,970.4
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt	$118.2	$ 6.3
Current maturities of long-term debt	3.0	3.8
Accounts payable	195.7	179.0
Other current liabilities	115.5	120.9
Total current liabilities	432.4	310.0
Long-term debt, net of unamortized discount and deferred financing costs	966.1	959.8
Deferred income taxes	163.5	159.4
Accrued pension and post-retirement benefits	142.1	155.0
Other non-current liabilities	106.9	107.1
Total liabilities	1,811.0	1,691.3
Shareholders' equity:		
Common stock	4.9	4.9
Additional paid-in capital	426.9	422.7
Retained earnings	1,687.7	1,607.2
Accumulated other comprehensive loss	(220.2)	(186.1)
Less common stock held in treasury	(610.4)	(597.0)
Total MTI shareholders' equity	1,288.9	1,251.7
Non-controlling interests	28.5	27.4
Total shareholders' equity	1,317.4	1,279.1

Total liabilities and shareholders' equity	$3,128.4	$ 2,970.4

*Unaudited
**Condensed from audited financial statements

See accompanying Notes to Condensed Consolidated Financial Statements.

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

	Six Months Ended	
	July 1, 2018	July 2, 2017
	(millions of dollars)	
Operating Activities:		
Consolidated net income	$ 86.3	$ 79.4
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation, depletion and amortization	44.5	43.2
Non-cash debt modification fees	-	1.8
Other non-cash items	(2.0)	4.7
Pension plan funding	(12.3)	(3.1)
Net changes in operating assets and liabilities	(36.3)	(48.4)
Net cash provided by operating activities	80.2	77.6
Investing Activities:		
Purchases of property, plant and equipment, net	(42.1)	(33.1)
Acquisition of business, net of cash acquired	(124.1)	-
Proceeds from sale of short-term investments	1.8	-
Purchases of short-term investments	(2.5)	(2.7)
Net cash used in investing activities	(166.9)	(35.8)
Financing Activities:		
Debt issuance costs	(1.4)	-
Repayment of long-term debt	(6.6)	(54.8)
Issuance of short-term debt	113.0	-
Repayment of short-term debt	(1.1)	-
Purchase of common shares for treasury	(13.3)	-
Proceeds from issuance of stock under option plan	1.9	2.5
Excess tax benefits related to stock incentive programs	(3.2)	(3.5)
Dividends paid to non-controlling interests	(0.2)	(1.7)
Cash dividends paid	(3.5)	(3.5)
Net cash provided by (used in) financing activities	85.6	(61.0)
Effect of exchange rate changes on cash and cash equivalents	(8.1)	8.4
Net decrease in cash and cash equivalents	(9.2)	(10.8)
Cash and cash equivalents at beginning of period	212.2	188.5
Cash and cash equivalents at end of period	$ 203.0	$ 177.7
Supplemental disclosure of cash flow information:		
Interest paid	$ 22.1	$ 22.0
Income taxes paid	$ 20.9	$ 29.3

Non-cash financing activities:		
Treasury stock purchases settled after period end	$ 0.3	$ -

See accompanying Notes to Condensed Consolidated Financial Statements.

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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, 2017. 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 six-month periods ended July 1, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018.

Certain reclassifications were made to prior year amounts to conform to current year presentation as a result of the adoption of ASU 2017-07.

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.

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

- 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 Specialty Minerals segment produces and sells the synthetic mineral product precipitated calcium carbonate ("PCC") and processed mineral product quicklime ("lime"), and mines mineral ores then processes and sells natural mineral products, primarily limestone and talc.

- 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 to the upstream and downstream oil and gas sector 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 long-lived assets, goodwill and other intangible assets, income taxes, including valuation

allowances, and pension plan assumptions. 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.

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MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES
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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. The Company has performed a high level analysis of its current lease portfolio and has established a cross-functional project team to assist in the implementation of this ASU. 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. We are currently evaluating the timing of adoption of this standard.

Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

In February 2018, the FASB issued ASU 2018-02, “Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income”, which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the U.S. Tax Cuts and Jobs Act. The guidance is effective for the interim and annual periods beginning after December 15, 2018, with early adoption permitted. We are currently evaluating the timing of adoption of this standard.

Adoption of New Accounting Standards

On January 1, 2018, the Company adopted the provisions of ASU No. 2014-09, “Revenue from Contracts with Customers”. 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. 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 Company has elected to use the cumulative effect transition method and there has not been a change to our previously reported financial results.

Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration we expect to receive in exchange for those goods or services. We measure revenue based on the consideration specified in the customer arrangement and revenue is recognized when the performance obligations in the customer arrangement are satisfied. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. The transaction price of a contract is allocated to each distinct performance obligation and recognized as revenue when or as, the customer receives the benefit of the performance obligation. Customers typically receive the benefit as goods are delivered and services are performed.

We utilized a comprehensive approach to assess the impact of the guidance on our contract portfolio by reviewing our current accounting policies and practices to identify potential differences that would result from applying the new requirements to our revenue contracts, including evaluation of our performance obligations, principal versus agent considerations and variable consideration. We completed our contract and business process reviews and implemented changes to our controls to support recognition and disclosures under the new guidance. We recognize revenue when our performance obligation is satisfied. See Note 2 to the Condensed Consolidated Financial Statements.

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On January 1, 2018, the Company adopted the provisions of 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 provisions have been applied retrospectively for the income statement presentation requirements. Prior to the adoption of the guidance, the Company classified all net periodic benefit costs within operating costs, primarily within "Marketing and administrative expenses" on the Condensed Consolidated Statement of Income. The line item classification changes required by the guidance did not impact the Company's pre-tax earnings or net income; however, "Income from operations" and "Other non-operating income (deductions), net" changed by immaterial offsetting amounts. As a result of the accounting change, the Company reclassified approximately $0.5 million and $0.9 million from marketing and administrative expenses to other deductions for the three and six month periods ended July 2, 2017 to conform to the current year presentation.

On January 1, 2018, the Company early adopted the provisions of ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities," which improves and simplifies existing guidance to allow companies to better reflect their risk management activities in the financial statements. The guidance expands the ability to hedge nonfinancial and financial risk components, eliminates the requirement to separately measure and recognize hedge ineffectiveness and eases requirements of an entity's assessment of hedge effectiveness. The adoption of this guidance did not have an impact on the Company's financial statements.

On January 1, 2018, the Company adopted the provisions of ASU 2017-01, "Business Combinations," which clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill, and consolidation. The adoption of this new guidance did not have an impact on the Company's financial statements.

Note 2. Revenue from Contracts with Customers

The Company's revenues are primarily derived from the sale of products. Our primary performance obligation (the sale of products) is satisfied upon shipment or delivery to our customers based on written sales terms, which is also when control is transferred. In most of the Company's PCC contracts, the price per ton is based upon the total number of tons sold to the customer during the year. Under these contracts, the price billed to the customer for shipments during the year is based on periodic estimates of the total annual volume that will be sold to such customer. Revenues are adjusted at the end of each year to reflect the actual volume sold. The Company also has consignment arrangements with certain customers in our Refractories segment. Revenues for these transactions are recorded when the consigned products are consumed by the customer and control is transferred to the customer.

Revenue from sales of equipment, primarily in our Refractories segment, is recorded upon completion of installation and control is transferred to the customer. Revenue from services is recorded when the services have been performed.

Revenue from long-term construction, primarily in our Energy Services segment, where our performance obligations are satisfied in phases, is recognized over time using certain output measures based on the measurement of the value transferred to the customer, including milestones achieved.

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

The following table disaggregates our revenue by major source (product line) for the three and six month periods ended July 1, 2018 and July 2, 2017:

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Net Sales				
Metalcasting	$88.8	$75.7	$ 168.0	$ 142.3
Household, Personal Care and Specialty Products	58.6	39.7	107.3	80.8
Environmental Products	25.2	19.6	37.9	30.2
Building Materials	18.0	20.2	36.9	37.6
Basic Minerals	23.9	25.1	51.7	59.3
Performance Materials	214.5	180.3	401.8	350.2
Paper PCC	94.5	92.3	191.5	185.7
Specialty PCC	17.3	17.4	34.3	34.4
Ground Calcium Carbonate	25.2	23.3	47.7	44.8
Talc	13.9	14.0	27.0	28.3
Specialty Minerals	150.9	147.0	300.5	293.2
Refractory Products	66.7	56.1	129.0	112.8
Metallurgical Products	12.9	12.8	25.9	26.3
Refractories	79.6	68.9	154.9	139.1
Energy Services	19.7	17.9	38.8	36.6
Total	$464.7	$414.1	$ 896.0	$ 819.1

Note 3. Business Combination

On April 30, 2018, the Company completed the acquisition of Sivomatic Holding B.V. (“Sivomatic”), a leading European supplier of premium pet litter products. Sivomatic is a vertically integrated manufacturer, with production facilities in the Netherlands, Austria and Turkey. With a leading position in premier clumping products, Sivomatic’s product portfolio spans the range of pet litter derived from bentonite, sourced predominantly from wholly-owned mines in Turkey. The results of Sivomatic are included in our Performance Materials segment. Sivomatic has approximately 115 employees and generated revenue of €73 million in 2017. The acquisition was financed through a combination of cash on hand and borrowings under the Company’s credit facilities. The fair value of the total consideration transferred, net of cash acquired, was $124.1 million.

The acquisition has been accounted for using the acquisition method of accounting, which requires, among other things, that we recognize the assets acquired and liabilities assumed at their respective fair values as of the acquisition date. As of July 1, 2018, the purchase price allocation remains preliminary as the Company completes its assessment of property, mineral rights, certain reserves including environmental, legal and tax matters, obligations, intangible assets and deferred taxes, as well as complete our review of Sivomatic’s existing accounting policies.

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

The following table summarizes the Company's preliminary purchase price allocation for the Sivomatic acquisition:

	Preliminary Allocation (millions of dollars)
Accounts receivable	$ 24.4
Inventories	15.6
Other current assets	0.6
Mineral rights	35.0
Plant, property and equipment	38.0
Goodwill	32.4
Intangible assets	20.0
Total assets acquired	$ 166.0
Current maturity of long term debt	5.7
Accounts payable	9.0
Accrued expenses	5.8
Long term debt	5.1
Non-current deferred tax liability	16.2
Other non-current liabilities	0.1
Total liabilities assumed	$ 41.9
Net assets acquired	$ 124.1

The Company used the income, market, or cost approach (or a combination thereof) for the preliminary valuation, and used valuation inputs and analyses that were based on market participant assumptions. Market participants are considered to be buyers and sellers unrelated to the Company in the principal or most advantageous market for the asset or liability. For certain items, the carrying value was determined to be a reasonable approximation of fair value based on the information available.

Goodwill was calculated as the excess of the consideration transferred over the assets acquired and represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. The goodwill is primarily attributable to fair value of expected synergies from combining the MTI and Sivomatic businesses and will be allocated to the Performance Materials segment. The allocation is expected to be completed during the first quarter of 2019. Goodwill recognized as a result of this acquisition is not deductible for tax purposes.

In connection with the acquisition, the Company recorded an additional deferred tax liability of $15.0 million with a corresponding increase to goodwill. The increase in deferred tax liability represents the tax effect of the difference between the estimated assigned fair value of the tangible and intangible assets and the tax basis of such assets.

Mineral rights were valued using discounted cash flow method, a Level 3 fair value input. Plant, property and equipment were valued using the cost method adjusted for age and deterioration, also a Level 3 fair value input.

Intangible assets acquired mainly include tradenames and customer relationships. Tradenames are a Level 3 fair value input, with an estimated useful life of 25-30 years. Customer relationships are a Level 3 fair value input, with an estimated useful life of 25-30 years.

The Company incurred $1.0 million and $1.4 million of acquisition-related costs during the three month and six month periods ended July 1, 2018, which are reflected within the Acquisition related transaction and integration costs line of the Condensed Consolidated Statements of Income. We did not present pro forma and other financial information for the Sivomatic acquisition, as this is not considered to be a material business combination.

Note 4. 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.

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

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

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(in millions, except per share data)			
Net income attributable to MTI	$ 44.1	$ 43.0	$ 84.0	$ 77.6
Weighted average shares outstanding	35.3	35.1	35.4	35.1
Dilutive effect of stock options and stock units	0.3	0.5	0.2	0.5
Weighted average shares outstanding, adjusted	35.6	35.6	35.6	35.6
Basic earnings per share attributable to MTI	$ 1.25	$ 1.23	$ 2.37	$ 2.21
Diluted earnings per share attributable to MTI	$ 1.24	$ 1.21	$ 2.36	$ 2.18

Options to purchase 357,771 shares and 186,583 shares of common stock for the three-month and six-month periods ended July 1, 2018 and July 2, 2017, 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.

Note 5. Restructuring and Other Items, net

At July 1, 2018, the Company had $6.4 million included within accrued liabilities in the Condensed Consolidated Balance Sheet for cash expenditures needed to satisfy remaining obligations under workforce reduction initiatives. The Company expects to pay these amounts by the end of December 2018.

The following table is a reconciliation of our restructuring liability balance as of July 1, 2018:

	(millions of dollars)
Restructuring liability, December 31, 2017	$ 8.1
Additional provisions	0.4
Cash payments	(2.1)
Restructuring liability, July 1, 2018	$ 6.4

Note 6. Income Taxes

During the fourth quarter of 2017, the U.S. Tax Cuts and Jobs Act (“U.S. Tax Reform”), was enacted in the United States. Amongst its many provisions, U.S. Tax Reform reduced the U.S. corporate income tax rate from 35% to 21%, effective January 1, 2018, and created a territorial tax system with a one-time mandatory tax on previously deferred foreign earnings of U.S. subsidiaries. As a result of the enactment of U.S. Tax Reform, we recognized a provisional net tax benefit of $47.3 million in the fourth quarter of 2017. We are applying the guidance in Staff Account Bulletin No. 118 (“SAB 118”), Income Tax Accounting Implications of the Tax Cuts and Jobs Act, issued by the Securities and Exchange Commission, when accounting for the enactment-date effects of U.S. Tax Reform. As permitted by SAB

No. 118, some elements of the tax expense recorded in the fourth quarter of 2017 due to the enactment of U.S. Tax Reform were based on reasonable estimates and considered provisional. The Company is continuing to collect and analyze detailed information about the earnings and profits of its non-U.S. subsidiaries, the related taxes paid, the amounts which could be repatriated, the foreign taxes which may be incurred on repatriation and the associated impact of these items under U.S. Tax Reform. The Company may record adjustments to refine those estimates during the measurement period, as additional analysis is completed. See Note 5 to our consolidated financial statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 for further information on this provisional net tax benefit. No adjustments to the provisional net tax benefit were recorded during the six months ended July 1, 2018.

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U.S. Tax Reform also created a new requirement that certain income earned by foreign subsidiaries, known as global intangible low-tax income ("GILTI"), must be included in the gross income of their U.S. shareholder. The FASB allows an accounting policy election of either recognizing deferred taxes for temporary differences expected to reverse as GILTI in future years or recognizing such taxes as a current-period expense when incurred. Given the complexity of the GILTI provisions, we are still evaluating the effects of the GILTI provisions and have not yet determined our accounting policy. At July 1, 2018, because we are still evaluating the GILTI provisions and our analysis of future taxable income that is subject to GILTI, we have included GILTI related to current-year operations only in our estimated annual effective tax rate and have not provided additional GILTI on deferred items.

The recorded impact of U.S. Tax Reform is provisional and the final amount may differ, possibly materially, due to, among other things, changes in estimates, interpretations and assumptions we made, changes in IRS interpretations, the issuances of new guidance, legislative actions, or related interpretations in response to U.S. Tax Reform and future actions by states within the United States that have not conformed their tax laws to U.S. Tax Reform.

As of July 1, 2018, the Company had approximately $15.4 million of total unrecognized income tax benefits. Included in this amount were a total of $11.1 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 increase of approximately $0.2 million and $0.5 million during the three and six-months ended July 1, 2018 and had an accrued balance of $2.0 million of interest and penalties as of July 1, 2018.

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 $10.3 million and $19.6 million during the three and six months ended July 1, 2018, respectively. The effective tax rate was 18.9% as compared to 22.9% in the prior year. The lower effective tax rate was primarily due to U.S. Tax Reform.

Note 7. Inventories

The following is a summary of inventories by major category:

	July 1, 2018	December 31, 2017
	(millions of dollars)	
Raw materials	$ 91.4	$ 82.5
Work-in-process	7.4	7.9
Finished goods	95.3	92.3
Packaging and supplies	41.4	36.6
Total inventories	$ 235.5	$ 219.3

Note 8. 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 $810.6 million, and $779.3 million as of July 1, 2018 and December 31, 2017, respectively. The net change in goodwill since December 31, 2017 was primarily attributable to the acquisition of Sivomatic (see Note 3 to the Condensed Consolidated Financial Statements).

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Intangible assets subject to amortization as of July 1, 2018 and December 31, 2017 were as follows:

		July 1, 2018		Dec. 31, 2017	
	Weighted Average Useful Life (Years)	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
		(millions of dollars)			
Tradenames	34	$209.8	$ 23.3	$199.8	$ 20.7
Technology	12	18.8	5.6	18.8	4.8
Patents and trademarks	17	6.4	5.4	6.4	5.3
Customer relationships	30	14.5	2.8	4.5	2.2
	28	$249.5	$ 37.1	$229.5	$ 33.0

The weighted average amortization period for acquired intangible assets subject to amortization is approximately 28 years. Estimated amortization expense is $4.3 million for the remainder of 2018, $34.8 million for 2019–2022 and $173.3 million thereafter.

Note 9. 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.

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.

For derivative instruments that are designated and qualify as net investment 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 utilizes interest rate swaps to limit exposure to market fluctuations on floating-rate debt. In the second quarter of 2018, the Company entered into a floating to fixed interest rate swap for a notional amount of $150 million. The fair value of this swap is a liability of $0.9 million at July 1, 2018 and is recorded in other non-current liabilities on the Condensed Consolidated Balance Sheet. In addition, in the second quarter of 2016, the Company entered into a floating to fixed interest rate swap with an initial aggregate notional amount of $300 million. The notional amount was $171 million at July 1, 2018. The fair value of this swap is an asset of $4.0 million at July 1, 2018 and is recorded in other non-current assets on the Condensed Consolidated Balance Sheet. These interest rate swaps are designated as cash flow hedges. The gains and losses associated with these interest rate swaps are recorded in accumulated other comprehensive income (loss).

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To protect the value of our investments in our foreign operations against adverse changes in foreign currency exchange rates, the Company from time to time hedges a portion of our net investment in one or more of our foreign subsidiaries. During the second quarter of 2018, the Company entered into a cross currency rate swap with a total notional value of $150 million to exchange monthly fixed-rate interest payments in U.S. dollars for monthly fixed-rate interest rate payments in Euros. This contract matures in May 2023 and requires the exchange of Euros and U.S. dollar principal payments upon maturity. The fair value of this swap is a liability of $0.8 million at July 1, 2018 and is recorded in other non-current liabilities on the Condensed Consolidated Balance Sheet. Changes in the fair value of this instrument are recognized in accumulated other comprehensive income (loss) to offset the change in the carrying amount of the net investment being hedged. Amounts are reclassified out of accumulated other comprehensive income (loss) into earnings when the hedged net investment is either sold or substantially liquidated.

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 contracts are 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 10. Long-Term Debt and Commitments

The following is a summary of long-term debt:

	July 1, 2018	December 31, 2017
	(millions of dollars)	
Term Loan Facility-Variable Tranche due February 14, 2024, net of unamortized discount and deferred financing costs of $21.1 million and $22.7 million	$ 656.9	$ 655.3
Term Loan Facility- Fixed Tranche due May 9, 2021, net of unamortized discount of $0.4 million and $0.5 million	299.6	299.5
Netherlands Term Loan due 2020	4.7	-
Netherlands Term Loan due 2022	1.5	-
Japan Loan Facilities	5.4	5.6
China Loan Facilities	1.0	3.2
Total	$ 969.1	$ 963.6
Less: Current maturities	3.0	3.8
Long-term debt	$ 966.1	$ 959.8

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 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”).

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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. On April 18, 2018, the Company entered into an amendment (the "Third Amendment") to the credit agreement to refinance the Revolving Facility. As amended, the Revolving Facility has been increased to $300 million in aggregate commitments. Following the amendments, 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 April 18, 2023. 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%. After the Third Amendment, loans under the Revolving Facility will bear interest at a rate equal to an adjusted LIBOR rate plus an applicable margin equal to 1.625% 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 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 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.

As of July 1, 2018, there were $113 million in outstanding loans and $5.9 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 committed loan facilities for the funding of new manufacturing facilities in China. In addition, the Company has a committed loan facility in Japan. As of July 1, 2018, on a combined basis, $6.4 million was outstanding under these loan facilities. Principal will be repaid in accordance with the payment schedules ending in 2021. The Company repaid $2.5 million on these loans during the first half of 2018.

As part of the Sivomatic acquisition, the Company assumed $10.7 million in long-term debt, consisting of two term loans, one of which matures in 2020 and the other of which matures in 2022. These loans carry an interest rate of Euribor plus 2.0% and have quarterly repayments. During the second quarter of 2018, the Company repaid $4.1 million on these loans.

As of July 1, 2018, the Company had $36.8 million in uncommitted short-term bank credit lines, of which approximately $5.2 million was in use.

Note 11. 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.

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Components of Net Periodic Benefit Cost

	Pension Benefits			
	Three Months Ended July		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Service cost	$2.0	$ 2.1	$ 3.9	$ 4.1
Interest cost	3.0	3.1	6.1	6.2
Expected return on plan assets	(4.8)	(4.6)	(9.6)	(9.1)
Amortization:				
Prior service cost	0.1	0.6	0.2	1.2
Recognized net actuarial loss	2.7	2.1	5.5	4.2
Net periodic benefit cost	$3.0	$ 3.3	$ 6.1	$ 6.6

	Other Benefits			
	Three Months Ended July		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Service cost	$0.1	$ 0.1	$ 0.1	$ 0.2
Interest cost	-	0.1	0.1	0.1
Amortization:				
Prior service cost	(0.2)	(0.8)	(0.4)	(1.5)
Recognized net actuarial (gain) loss	(0.2)	(0.1)	(0.4)	(0.2)
Net periodic benefit cost	$(0.3)	$ (0.7)	$ (0.6)	$ (1.4)

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

The Company expects to contribute approximately $20.0 million to its pension plans and $0.5 million to its other postretirement benefit plans in 2018. As of July 1, 2018, $12.2 million has been contributed to the pension plans and approximately $0.1 million has been contributed to the other postretirement benefit plans.

On January 1, 2018, the Company retrospectively adopted the provisions of ASU 2017-07, “Compensation – Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”. Under the new guidance, the Company classifies all net periodic benefit costs within the “Other non-operating income (deductions), net” line item on the consolidated statement of income. The line item classification changes required by the guidance did not impact the Company’s pre-tax earnings or net income; however, “Income from operations” and “Other non-operating income (deductions), net” changed by immaterial offsetting amounts.

Note 12. Comprehensive Income

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

Amounts Reclassified Out of Accumulated Other Comprehensive Loss	Three Months Ended July		Six Months Ended	
	1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Amortization of pension items:				
Pre-tax amount	$2.4	$ 1.8	$ 4.9	$ 3.7
Tax	(0.5)	(0.5)	(1.2)	(1.2)
Net of tax	$1.9	$ 1.3	$ 3.7	$ 2.5

The pre-tax amounts in the table above are included within the components of net periodic pension benefit cost (see Note 11 to the Condensed Consolidated Financial Statements) and the tax amounts are included within the provision for taxes on income line within the Condensed Consolidated Statements of Income.

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

	Foreign Currency Translation Adjustment	Unrecognized Pension Costs	Net Gain (Loss) on Derivatives	Total
	(millions of dollars)			
Balance as of December 31, 2017	$(104.1)	$ (86.5)	$ 4.5	$(186.1)
Other comprehensive loss before reclassifications	(38.2)	-	-	(38.2)
Amounts reclassified from AOCI	-	3.7	0.4	4.1
Net current period other comprehensive income (loss)	(38.2)	3.7	0.4	(34.1)
Balance as of July 1, 2018	$(142.3)	$ (82.8)	$ 4.9	$(220.2)

Note 13. 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 July 1, 2018:

	(millions of dollars)
Asset retirement liability, December 31, 2017	$ 22.1
Accretion expense	0.6
Other	(1.6)
Payments	(0.7)
Foreign currency translation	(0.3)
Asset retirement liability, July 1, 2018	$ 20.1

The asset retirement costs are capitalized as part of the carrying amount of the associated asset. The current portion of the liability of approximately $0.2 million is included in other current liabilities and the long-term portion of the liability of approximately $19.9 million is included in other non-current liabilities in the Condensed Consolidated Balance Sheet as of July 1, 2018.

Note 14. Contingencies

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

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 25 pending asbestos cases. To date, 1,493 silica cases and 54 asbestos cases have been dismissed, not including any lawsuits against AMCOL or American Colloid Company dismissed prior to our acquisition of AMCOL. Three new asbestos cases were filed during the second quarter of 2018. No asbestos case were dismissed during the second quarter. No silica cases were dismissed during the period. 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.

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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, 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 25 pending asbestos cases, 19 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 three of the four remaining non-AMCOL cases, the plaintiffs have not alleged dates of exposure, and in the fourth remaining non-AMCOL case, exposure is alleged to have been after the Company's initial public offering in 1992. The remaining cases involve AMCOL only, so no Pfizer indemnity is available. 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 July 1, 2018.

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 July 1, 2018.

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

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Note 15. 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, 2017	$4.9	$ 422.7	$1,607.2	$ (186.1)	$(597.0)	$ $ 27.4	$1,279.1
Net income	-	-	84.0	-	-	2.3	86.3
Other comprehensive income (loss)	-	-	-	(34.1)	-	(1.0)	(35.1)
Dividends declared	-	-	(3.5)	-	-	-	(3.5)
Dividends to non-controlling interests	-	-	-	-	-	(0.2)	(0.2)
Issuance of shares pursuant to employee stock compensation plans	-	1.9	-	-	-	-	1.9
Stock based compensation	-	2.3	-	-	-	-	2.3
Purchase of common stock	-		-	-	(13.3)	-	(13.3)
Balance as of July 1, 2018	$4.9	$ 426.9	$1,687.7	$ (220.2)	$(610.4)	$ 28.5	$1,317.4

The income attributable to non-controlling interests for the six-month periods ended July 1, 2018 and July 2, 2017 was from continuing operations. The remainder of income was attributable to MTI.

Note 16. 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. The Company has four reportable segments: Performance Materials, Specialty Minerals, Refractories and Energy Services. See Note 1 to the Condensed Consolidated Financial Statements. Segment information for the three and six-month periods ended July 1, 2018 and July 2, 2017 is as follows:

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Net Sales				
Performance Materials	$214.5	$180.3	$401.8	$350.2
Specialty Minerals	150.9	147.0	300.5	293.2
Refractories	79.6	68.9	154.9	139.1
Energy Services	19.7	17.9	38.8	36.6
Total	$464.7	$414.1	$896.0	$819.1

Income from Operations				
Performance Materials	$29.6	$32.2	$ 55.8	$ 61.0
Specialty Minerals	25.1	26.9	49.2	51.3
Refractories	10.3	10.5	23.1	19.7
Energy Services	0.7	0.8	2.2	2.5
Total	$65.7	$70.4	$ 130.3	$ 134.5

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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		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Income from operations for reportable segments	$ 65.7	$ 70.4	$ 130.3	$ 134.5
Acquisition-related transaction and integration costs	(1.0)	(0.8)	(1.4)	(2.3)
Unallocated corporate expenses	(1.9)	(0.6)	(3.5)	(1.1)
Consolidated income from operations	62.8	69.0	125.4	131.1
Non-operating deductions, net	(8.4)	(11.9)	(21.8)	(28.5)
Income from continuing operations before provision for taxes on income	$ 54.4	$ 57.1	$ 103.6	$ 102.6

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

	Three Months Ended		Six Months Ended	
	July 1, 2018	July 2, 2017	July 1, 2018	July 2, 2017
	(millions of dollars)			
Metalcasting	$88.8	75.7	168.0	142.3
Household, Personal Care & Specialty Products	58.6	39.7	107.3	80.8
Environmental Products	25.2	19.6	37.9	30.2
Building Materials	18.0	20.2	36.9	37.6
Basic Minerals	23.9	25.1	51.7	59.3
Paper PCC	94.5	92.3	191.5	185.7
Specialty PCC	17.3	17.4	34.3	34.4
Ground Calcium Carbonate	25.2	23.3	47.7	44.8
Talc	13.9	14.0	27.0	28.3
Refractory Products	66.7	56.1	129.0	112.8
Metallurgical Products	12.9	12.8	25.9	26.3
Energy Services	19.7	17.9	38.8	36.6
Total	$464.7	$414.1	$ 896.0	$ 819.1

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors
Minerals Technologies Inc.:

Results of Review of Interim Financial Information

We have reviewed the condensed consolidated balance sheet of Minerals Technologies Inc. and subsidiaries (the Company) as of July 1, 2018, the related condensed consolidated statements of income and comprehensive income for the three-month and six-month periods ended July 1, 2018 and July 2, 2017, the related condensed consolidated statements of cash flows for the six-month periods ended July 1, 2018 and July 2, 2017, and the related notes (collectively, the consolidated interim financial information). Based on our reviews, we are not aware of any material modifications that should be made to the consolidated interim financial information for it 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) (PCAOB), the consolidated balance sheet of the Company as of December 31, 2017, and the related consolidated statements of income and comprehensive income, shareholders' equity, and cash flows for the year then ended (not presented herein); and in our report dated February 16, 2018, 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, 2017, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

This consolidated interim financial information is the responsibility of the Company's management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our reviews in accordance with the standards of the PCAOB. A review of consolidated 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 PCAOB, 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.

/s/ KPMG LLP

New York, New York
August 3, 2018

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

Executive Summary

Consolidated sales for the second quarter of 2018 were $464.7 million as compared with $414.1 million in the prior year. Income from operations was $62.8 million and represented 13.5% of sales as compared with $69.0 million and 16.7% of sales in the prior year. Net income was $44.1 million as compared to $43.0 million in the second quarter of 2017.

Diluted earnings in the second quarter ended July 1, 2018 were $1.24 per share compared with $1.21 per share in 2017. Included in pre-tax income and earnings per share were $1.0 million of acquisition-related transaction and integration costs, $0.4 million of restructuring charges and $0.5 million of non-cash inventory step-up charges.

The Company continued to advance the execution of its growth strategies of geographic expansion and new product innovation and development with a focus on operational excellence and productivity improvements. As a result, our sales in China and Asia continue to grow, driven by increased penetration in China from our Metalcasting business.

On April 30, 2018, the Company completed the acquisition of Sivomatic Holding B.V. (“Sivomatic”), a leading European supplier of premium pet litter products. Sivomatic is a vertically integrated manufacturer, with production facilities in the Netherlands, Austria and Turkey. With a leading position in premier clumping products, their product portfolio spans the range of pet litter derived from bentonite, sourced predominantly from wholly-owned mines in Turkey.

Our balance sheet continues to be strong. Cash, cash equivalents and short-term investments were $205.9 million as of July 1, 2018. Our intention is to maintain a balanced approach to capital deployment, by using excess cash flow for investments in growth, 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 2018 from its existing businesses, as follows:

- Develop multiple high-filler technologies under the FulFill® platform of products, to increase the PCC 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.

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- 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 offshore produced water and offshore filtration and well testing within the Energy Services segment.
- 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.

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Results of Operations

Three months ended July 1, 2018 as compared with three months ended July 2, 2017

Consolidated Income Statement Review

	Three Months Ended		Growth	
	July 1, 2018	July 2, 2017	%	
	(Dollars in millions)			
Net sales	$464.7	$414.1	12	%
Cost of sales	348.8	294.4	18	%
Production margin	115.9	119.7	-3	%
Production margin %	24.9 %	28.9 %		
Marketing and administrative expenses	45.3	43.6	4	%
Research and development expenses	6.4	6.1	5	%
Acquisition-related integration costs	1.0	0.8	25	%
Restructuring and other items, net	0.4	0.2	*	
Income from operations	62.8	69.0	-9	%
Operating margin %	13.5 %	16.7 %		
Interest expense, net	(11.5)	(10.2)	13	%
Other non-operating income (deductions), net	3.1	(1.7)	*	
Total non-operating deductions, net	(8.4)	(11.9)	-29	%
Income from continuing operations before provision for taxes and equity in earnings	54.4	57.1	-5	%
Provision for taxes on income	10.3	13.4	-23	%
Effective tax rate	18.9 %	23.5 %		
Equity in earnings of affiliates, net of tax	1.1	0.1	*	
Net income	45.2	43.8	3	%
Net income attributable to non-controlling interests	1.1	0.8	38	%
Net income attributable to Minerals Technologies Inc. (MTI)	$44.1	$43.0	3	%

*Not meaningful

Net Sales

	Three Months End July 1, 2018		%	Three Months Ended July 2, 2017	
	Net Sales	% of Total Sales	Growth	Net Sales	% of Total Sales
	(Dollars in millions)				
U.S.	$249.0	53.6 %	5 %	$ 237.2	57.3 %
International	215.7	46.4 %	22 %	176.9	42.7 %

Total sales	$464.7	100.0	%	12	%	$ 414.1	100.0	%
Performance Materials Segment	$214.5	46.2	%	19	%	$ 180.3	43.5	%
Specialty Minerals Segment	150.9	32.5	%	3	%	147.0	35.6	%
Refractories	79.6	17.1	%	16	%	68.9	16.6	%
Energy Services Segment	19.7	4.2	%	10	%	17.9	4.3	%
Total sales	$464.7	100.0	%	12	%	$ 414.1	100.0	%

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Worldwide net sales increased 12% to $464.7 million in the second quarter from $414.1 million in the prior year. Included in net sales in the quarter are $14.1 million of net sales of Sivomatic. Foreign exchange had a favorable impact on sales of approximately $9 million, or 2%.

Net sales in the United States increased 5% to $249.0 million from $237.2 million in the prior year. International sales increased 22% to $215.7 million from $176.9 million in the prior year.

Operating Costs and Expenses

Cost of sales was $348.8 million and 75.1% of sales as compared with $294.4 million and 71.1% of sales in the prior year. This increase was due primarily to higher raw material, logistics and energy costs in all segments. Additionally, there was a $0.5 million inventory step-up charge for the three months ended July 1, 2018.

Marketing and administrative costs were $45.3 million and 9.7% of sales compared to $43.6 million and 10.5% of sales in prior year.

Research and development expenses were $6.4 million, as compared with $6.1 million in the prior year, and represented 1.4% of sales compared with 1.5% of sales.

The Company incurred charges of $1.0 million and $0.8 million for acquisition-related transaction and integration costs and $0.4 million and $0.2 million of restructuring charges during the three months ended July 1, 2018 and July 2, 2017, respectively.

Income from Operations

The Company recorded income from operations of $62.8 million as compared to $69.0 million in the prior year. Operating income during the three months ended July 1, 2018, includes acquisition-related transaction and integration costs of $1.0 million, restructuring charges of approximately $0.4 million, and a $0.5 million inventory step-up charge. Operating income during the three months ended July 2, 2017, includes acquisition-related integration costs of $0.8 million and restructuring charges of $0.2 million.

Other Non-Operating Income (Deductions)

In the second quarter of 2018, non-operating deductions were $8.4 million as compared with $11.9 million in the prior year. This decrease was primarily related to foreign exchange gains in the current year due to the stronger US dollar.

Provision for Taxes on Income

Provision for taxes on income was $10.3 million as compared to $13.4 million in the prior year. The effective tax rate was 18.9% as compared to 23.5% in prior year. The reduction in the effective tax rate during 2018 was primarily due to the U.S. Tax Cuts and Jobs Act (“U.S. Tax Reform”) which was enacted in December 2017.

Consolidated Net Income

Consolidated net income was $44.1 million for the three months ended July 1, 2018 as compared with $43.0 million in the prior year.

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Segment Review

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

Performance Materials Segment	Three Months Ended July 1, 2018	July 2, 2017	Growth	
	(millions of dollars)			
Net Sales				
Metalcasting	$ 88.8	$ 75.7	17	%
Household, Personal Care & Specialty Products	58.6	39.7	48	%
Environmental Products	25.2	19.6	29	%
Building Materials	18.0	20.2	-11	%
Basic Minerals	23.9	25.1	-5	%
Total net sales	$ 214.5	$ 180.3	19	%
Income from operations	$ 29.6	$ 32.2		
% of net sales	13.8 %	17.9 %		

Net sales in the Performance Materials segment increased 19% to $214.5 million from $180.3 million in the prior year. Metalcasting sales rose 17% on higher demand in all regions. Household, Personal Care & Specialty Products sales increased 48%, primarily driven by higher pet care revenue, including the acquisition of Sivomatic, and increased European fabric care sales. Environmental Products sales rose 29% due to several large projects. These sales increases were partially offset by 11% lower sales in Building Materials, primarily due to the difference in magnitude of waterproofing projects compared to the prior year, and a 5% reduction in Basic Minerals sales.

Income from operations was $29.6 million and 13.8% of sales as compared to $32.2 million and 17.9% of sales in the prior year. The decrease in operating income and margins were primarily due to higher raw material, logistics and energy costs. In addition, we incurred higher mining costs due to weather-related challenges at our mines in the western United States. These impacts were partially offset by increased selling prices and higher volume.

Specialty Minerals Segment	Three Months Ended July 1, 2018	July 2, 2017	Growth	
	(millions of dollars)			
Net Sales				
Paper PCC	$ 94.5	$ 92.3	2	%
Specialty PCC	17.3	17.4	-1	%
PCC Products	$ 111.8	$ 109.7	2	%
Ground Calcium Carbonate	25.2	23.3	8	%
Talc	$ 13.9	$ 14.0	-1	%
Processed Minerals Products	$ 39.1	$ 37.3	5	%
Total net sales	$ 150.9	$ 147.0	3	%
Income from operations	$ 25.1	$ 26.9	-7	%
% of net sales	16.6 %	18.3 %		

Worldwide sales in the Specialty Minerals segment were $150.9 million as compared with $147.0 million in the prior year, an increase of $3.9 million, or 3%.

Worldwide net sales of PCC, which is primarily used in the manufacturing process of the paper industry, increased 2% to $111.8 million from $109.7 million in the prior year. Paper PCC sales increased 2% to $94.5 million from $92.3 million. Higher sales in Asia and Europe were partially offset by reduced sales in the Americas. Sales of Specialty PCC decreased slightly by 1% to $17.3 million from $17.4 million in the prior year.

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Net sales of Processed Minerals products increased 5% to $39.1 million as Ground Calcium Carbonate sales increased 8%, driven by higher volumes in the construction market. Talc sales decreased 1% over the prior year.

Income from operations for Specialty Minerals was $25.1 million compared with $26.9 million in the prior year. The decrease was primarily due to higher raw material, logistics and energy costs, and due to the timing of our contractual selling price increases in PCC and other implemented price increases that will take effect in the second half of 2018.

Refractories Segment	Three Months Ended July 1, 2018	July 2, 2017	Growth
	(millions of dollars)		
Net Sales			
Refractory Products	$ 66.7	$ 56.1	19 %
Metallurgical Products	12.9	12.8	1 %
Total net sales	$ 79.6	$ 68.9	16 %
Income from operations	$ 10.3	$ 10.5	-2 %
% of net sales	12.9 %	15.2 %	

Net sales in the Refractories segment increased 16% to $79.6 million from $68.9 million in the prior year driven by higher sales of refractory products. Sales of refractory products and systems to steel and other industrial applications increased 19% to $66.7 million. Sales of metallurgical products increased 1% to $12.9 million.

Income from operations decreased 2% to $10.3 million and was 12.9% of sales compared with 15.2% of sales in the prior year primarily due to increased raw material prices which were partially offset by higher prices and volume.

Energy Services Segment	Three Months Ended July 1, 2018	July 2, 2017	Growth
	(millions of dollars)		
Net Sales	$ 19.7	$ 17.9	10 %
Income from operations	$ 0.7	$ 0.8	-13 %
% of net sales	3.6 %	4.5 %	

Net sales in the Energy Services segment increased 10% to $19.7 million from $17.9 million in the prior year, primarily driven by higher filtration activity in the North Sea and higher well test activity in the Gulf of Mexico.

Operating income was $0.7 million as compared with $0.8 million in the prior year.

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Six months ended July 1, 2018 as compared with six months ended July 2, 2017

Consolidated Income Statement Review

	Six Months Ended		Growth
	July 1, 2018	July 2, 2017	%
	(Dollars in millions)		
Net sales	$896.0	$819.1	9 %
Cost of sales	666.6	585.7	14 %
Production margin	229.4	233.4	-2 %
Production margin %	25.6 %	28.5 %	
Marketing and administrative expenses	89.7	87.6	2 %
Research and development expenses	12.5	11.9	5 %
Acquisition-related transaction and integration costs	1.4	2.3	-39 %
Restructuring and other items, net	0.4	0.5	-20 %
Income from operations	125.4	131.1	-4 %
Operating margin %	14.0 %	16.0 %	
Interest expense, net	(22.2)	(22.0)	1 %
Debt modification costs ad fees	-	(3.9)	*
Other non-operating (deductions) income, net	0.4	(2.6)	*
Total non-operating deductions, net	(21.8)	(28.5)	-24 %
Income from continuing operations before provision for taxes and equity in earnings	103.6	102.6	1 %
Provision for taxes on income	19.6	23.5	-17 %
Effective tax rate	18.9 %	22.9 %	
Equity in earnings of affiliates, net of tax	2.3	0.3	667 %
Net income	86.3	79.4	9 %
Net income attributable to non-controlling interests	2.3	1.8	28 %
Net income attributable to Minerals Technologies Inc. (MTI)	$84.0	$77.6	8 %

*Not meaningful

Net Sales

	Six Months Ended July 1, 2018			Six Months Ended July 2, 2017		
	Net Sales	% of Total Sales	% Growth	Net Sales	% of Total Sales	
	(Dollars in millions)					
U.S.	$481.3	53.7 %	4 %	$ 461.5	56.3 %	
International	414.7	46.3 %	16 %	357.6	43.7 %	
Total sales	$896.0	100.0 %	9 %	$ 819.1	100.0 %	

Performance Materials Segment	$401.8	44.9	%	15	%	$ 350.2	42.7	%
Specialty Minerals Segment	300.5	33.5	%	2	%	293.2	35.8	%
Refractories Segement	154.9	17.3	%	11	%	139.1	17.0	%
Energy Services Segment	38.8	4.3	%	6	%	36.6	4.5	%
Total sales	$896.0	100.0	%	9	%	$ 819.1	100.0	%

Total sales increased $76.9 million or 9% from the previous year to $896.0 million. Foreign exchange had a favorable impact on sales of approximately $25.4 million or 3%.

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Net sales in the United States increased 4% to $481.3 million from $461.5 million in the prior year. International sales increased 16% to $414.7 million from $357.6 million in the prior year.

Operating Costs and Expenses

Cost of sales was $666.6 million, an increase of 14% from the prior year and was 74.4% of sales as compared with 71.5% in the prior year. The decrease in gross margin percentage was primarily attributable to higher raw material, logistics and energy costs as well as a reduction in profitability in the Basic Minerals product line within the Performance Materials segment due to a reduction in pricing and volumes of bulk chromite. The Company plans to exit its bulk chromite operations in South Africa.

Marketing and administrative costs were $89.7 million and 10.1% of sales compared to $87.6 million and 10.7% of sales in the prior year.

Research and development expenses were $12.5 million and represented 1.4% of sales for the six months ended July 1, 2018 as compared with $11.9 million and 1.5% of sales in the prior year.

During the six months ended July 1, 2018, the Company recorded $1.4 million for acquisition-related transaction and integration costs. The Company also recorded restructuring charges of $0.4 million and a $0.5 million inventory step-up charge.

Income from Operations

The Company recorded income from operations of $125.4 million as compared to $131.1 million in the prior year. Operating income was 14.0% of sales in the first half of 2018 as compared with 16.0% in the prior year.

Other Non-Operating Income (Deductions)

The Company recorded non-operating deductions of $21.8 million for the six months ended July 1, 2018 as compared with $28.5 million in the prior year. The $21.8 million in the current year is comprised primarily of $22.2 million of net interest expense and foreign exchange gains. The $28.5 million recorded in the prior year included $22.0 million of net interest expense and $3.9 million in debt modification costs and fees relating to the February 2017 repricing for the variable tranche of the Company’s Term Loan debt.

Provision for Taxes on Income

Provision for taxes was $19.6 million as compared to $23.5 million in the prior year. The effective tax rate was 18.9% as compared to 22.9% in the prior year. The reduction in the effective tax rate during 2018 was primarily due to U.S. Tax Reform.

Consolidated Net Income

Consolidated net income was $84.0 million during the six months ended July 1, 2018 as compared with $77.6 million in the prior year.

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Segment Review

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

Performance Materials Segment	Six Months Ended July 1, 2018	July 2, 2017	Growth
	(millions of dollars)		
Net Sales			
Metalcasting	$ 168.0	$ 142.3	18 %
Household, Personal Care & Specialty Products	107.3	80.8	33 %
Environmental Products	37.9	30.2	25 %
Building Materials	36.9	37.6	-2 %
Basic Minerals	51.7	59.3	-13 %
Total net sales	$ 401.8	$ 350.2	15 %
Income from operations	$ 55.8	$ 61.0	
% of net sales	13.9 %	17.4 %	

Net sales in the Performance Materials segment increased 15% to $401.8 million from $350.2 million in the prior year. Sales in Metalcasting increased 18% to $168.0 million due to higher volumes in all regions. Household, Personal Care & Specialty Products increased 33%, primarily driven by higher pet care revenue, including from the acquisition of Sivomatic, and increased European fabric care sales. Environmental Products sales rose 25% due to several large projects. These sales increases were partially offset by 2% lower sales in Building Materials, primarily due to the difference in magnitude of waterproofing projects compared to