

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 June 30, 2019

OR

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

For the transition period from _____ to _____

Commission File Number 1-71



(Exact name of registrant as specified in its charter)

New Jersey
(State or other jurisdiction of
incorporation or organization)

180 East Broad St., Columbus, OH 43215
(Address of principal executive offices including zip code)

13-0511250
(I.R.S. Employer
Identification No.)

614-225-4000
(Registrant's telephone number including area code)

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
None		None

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

Explanatory Note: While the registrant is not subject to the filing requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, it has filed all reports required to be filed by such filing requirements during the preceding 12 months.

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See 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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes No

Number of shares of common stock, par value \$0.01 per share, outstanding as of the close of business on August 1, 2019: 82,556,847

HEXION INC.

INDEX

	<u>Page</u>
PART I – FINANCIAL INFORMATION	
Item 1. Hexion Inc. Condensed Consolidated Financial Statements (Unaudited Debtor-In-Possession)	
Condensed Consolidated Balance Sheets at June 30, 2019 and December 31, 2018	3
Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2019 and 2018	4
Condensed Consolidated Statements of Comprehensive Loss for the three and six months ended June 30, 2019 and 2018	5
Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2019 and 2018	6
Condensed Consolidated Statement of Deficit for the three and six months ended June 30, 2019 and 2018	7
Notes to Condensed Consolidated Financial Statements	8
Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations	37
Item 3. Quantitative and Qualitative Disclosures about Market Risk	48
Item 4. Controls and Procedures	48
PART II – OTHER INFORMATION	
Item 1. Legal Proceedings	48
Item 1A. Risk Factors	48
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	60
Item 3. Defaults upon Senior Securities	60
Item 4. Mine Safety Disclosures	60
Item 5. Other Information	60
Item 6. Exhibits	61

PART I - FINANCIAL INFORMATION**Item 1. Financial Statements****HEXION INC.****(DEBTOR-IN-POSSESSION)****CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)**

<u>(In millions, except share data)</u>	June 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents (including restricted cash of \$15)	\$ 96	\$ 128
Accounts receivable (net of allowance for doubtful accounts of \$16)	499	412
Inventories:		
Finished and in-process goods	242	240
Raw materials and supplies	109	94
Other current assets	69	57
Total current assets	<u>1,015</u>	<u>931</u>
Investment in unconsolidated entities	20	19
Other long-term assets	42	34
Property and equipment:		
Land	90	89
Buildings	287	285
Machinery and equipment	2,320	2,293
	<u>2,697</u>	<u>2,667</u>
Less accumulated depreciation	<u>(1,870)</u>	<u>(1,826)</u>
	827	841
Operating lease assets (see Note 10)	95	—
Goodwill	108	109
Other intangible assets, net	24	27
Total assets	<u>\$ 2,131</u>	<u>\$ 1,961</u>
Liabilities and Deficit		
Current liabilities:		
Accounts payable	\$ 293	\$ 384
Debt payable within one year	438	3,716
Interest payable	7	82
Income taxes payable	6	5
Accrued payroll and incentive compensation	38	52
Current portion of operating lease liabilities (see Note 10)	21	—
Financing fees payable	104	—
Other current liabilities	106	106
Total current liabilities	<u>1,013</u>	<u>4,345</u>
Long-term liabilities:		
Liabilities subject to compromise	3,672	—
Long-term debt	90	99
Long-term pension and post employment benefit obligations	184	221
Deferred income taxes	15	15
Operating lease liabilities (see Note 10)	74	—
Other long-term liabilities	164	195
Total liabilities	<u>5,212</u>	<u>4,875</u>
Commitments and contingencies (see Note 11)		
Deficit		
Common stock—\$0.01 par value; 300,000,000 shares authorized, 170,605,906 issued and 82,556,847 outstanding at June 30, 2019 and December 31, 2018	1	1
Paid-in capital	526	526
Treasury stock, at cost—88,049,059 shares	(296)	(296)
Accumulated other comprehensive loss	(26)	(18)
Accumulated deficit	<u>(3,285)</u>	<u>(3,125)</u>
Total Hexion Inc. shareholder's deficit	<u>(3,080)</u>	<u>(2,912)</u>
Noncontrolling interest	(1)	(2)
Total deficit	<u>(3,081)</u>	<u>(2,914)</u>
Total liabilities and deficit	<u>\$ 2,131</u>	<u>\$ 1,961</u>

HEXION INC.
(DEBTOR-IN-POSSESSION)
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

(In millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net sales	\$ 892	\$ 995	\$ 1,778	\$ 1,941
Cost of sales	757	829	1,507	1,618
Gross profit	135	166	271	323
Selling, general and administrative expense	61	77	152	159
Gain on disposition	—	—	—	(44)
Asset impairments	—	—	—	25
Business realignment costs	11	5	15	14
Other operating expense, net	8	11	16	20
Operating income	55	73	88	149
Interest expense, net (contractual interest expense of \$83 and \$163 for the three and six months ended June 30, 2019, respectively)	9	84	89	167
Other non-operating (income) expense, net	(10)	8	(11)	7
Reorganization items, net	156	—	156	—
Loss before income tax and earnings from unconsolidated entities	(100)	(19)	(146)	(25)
Income tax expense	8	3	15	11
Loss before earnings from unconsolidated entities	(108)	(22)	(161)	(36)
Earnings from unconsolidated entities, net of taxes	1	1	2	2
Net loss	(107)	(21)	(159)	(34)
Net income attributable to noncontrolling interest	(1)	(1)	(1)	(1)
Net loss attributable to Hexion Inc.	\$ (108)	\$ (22)	\$ (160)	\$ (35)

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
(DEBTOR-IN-POSSESSION)
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (Unaudited)

<u>(In millions)</u>	<u>Three Months Ended June 30,</u>		<u>Six Months Ended June 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Net loss	\$ (107)	\$ (21)	\$ (159)	\$ (34)
Other comprehensive loss, net of tax:				
Foreign currency translation adjustments	(8)	(16)	(8)	(2)
Other comprehensive loss	(8)	(16)	(8)	(2)
Comprehensive loss	(115)	(37)	(167)	(36)
Comprehensive income attributable to noncontrolling interest	(1)	(1)	(1)	(1)
Comprehensive loss attributable to Hexion Inc.	<u>\$ (116)</u>	<u>\$ (38)</u>	<u>\$ (168)</u>	<u>\$ (37)</u>

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
(DEBTOR-IN-POSSESSION)
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

(In millions)	Six Months Ended June 30,	
	2019	2018
Cash flows used in operating activities		
Net loss	\$ (159)	\$ (34)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	52	58
Non-cash asset impairments	—	25
Non-cash reorganization items, net	139	—
Loss on sale of assets	3	2
Gain on disposition	—	(44)
Amortization of deferred financing fees	—	8
Unrealized foreign currency (gains) losses	(7)	12
DIP Facility financing fees included in net loss	13	—
Other non-cash adjustments	(2)	(2)
Net change in assets and liabilities:		
Accounts receivable	(88)	(27)
Inventories	(19)	(40)
Accounts payable	(28)	12
Income taxes payable	8	1
Other assets, current and non-current	(8)	(18)
Other liabilities, current and long-term	(17)	5
Net cash used in operating activities	(113)	(42)
Cash flows (used in) provided by investing activities		
Capital expenditures	(43)	(43)
Proceeds from disposition, net	—	49
Proceeds from sale of assets, net	1	1
Net cash (used in) provided by investing activities	(42)	7
Cash flows provided by financing activities		
Net short-term debt borrowings	(4)	3
Borrowings of long-term debt	667	294
Repayments of long-term debt	(527)	(243)
DIP facility financing fees	(13)	—
Long-term debt and credit facility financing fees paid	—	(1)
Net cash provided by financing activities	123	53
Effect of exchange rates on cash and cash equivalents, including restricted cash	—	(3)
Change in cash and cash equivalents, including restricted cash	(32)	15
Cash, cash equivalents and restricted cash at beginning of period	128	115
Cash, cash equivalents and restricted cash at end of period	\$ 96	\$ 130
Supplemental disclosures of cash flow information		
Cash paid for:		
Interest, net	\$ 66	\$ 159
Income taxes, net	10	10
Reorganization items, net	17	—

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
(DEBTOR-IN-POSSESSION)
CONDENSED CONSOLIDATED STATEMENT OF DEFICIT (Unaudited)

(In millions)	Common Stock	Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Hexion Inc. Deficit	Noncontrolling Interest	Total
Balance at March 31, 2018	\$ 1	\$ 526	\$ (296)	\$ 6	\$ (2,976)	\$ (2,739)	\$ (1)	\$ (2,740)
Net (loss) income	—	—	—	—	(22)	(22)	1	(21)
Other comprehensive loss	—	—	—	(16)	—	(16)	—	(16)
Balance at June 30, 2018	<u>\$ 1</u>	<u>\$ 526</u>	<u>\$ (296)</u>	<u>\$ (10)</u>	<u>\$ (2,998)</u>	<u>\$ (2,777)</u>	<u>\$ —</u>	<u>\$ (2,777)</u>
Balance at December 31, 2017	\$ 1	\$ 526	\$ (296)	\$ (8)	\$ (2,964)	\$ (2,741)	\$ (1)	\$ (2,742)
Net (loss) income	—	—	—	—	(35)	(35)	1	(34)
Other comprehensive loss	—	—	—	(2)	—	(2)	—	(2)
Impact of change in accounting policy	—	—	—	—	1	1	—	1
Balance at June 30, 2018	<u>\$ 1</u>	<u>\$ 526</u>	<u>\$ (296)</u>	<u>\$ (10)</u>	<u>\$ (2,998)</u>	<u>\$ (2,777)</u>	<u>\$ —</u>	<u>\$ (2,777)</u>
Balance at March 31, 2019	\$ 1	\$ 526	\$ (296)	\$ (18)	\$ (3,177)	\$ (2,964)	\$ (2)	\$ (2,966)
Net (loss) income	—	—	—	—	(108)	(108)	1	(107)
Other comprehensive loss	—	—	—	(8)	—	(8)	—	(8)
Balance at June 30, 2019	<u>\$ 1</u>	<u>\$ 526</u>	<u>\$ (296)</u>	<u>\$ (26)</u>	<u>\$ (3,285)</u>	<u>\$ (3,080)</u>	<u>\$ (1)</u>	<u>\$ (3,081)</u>
Balance at December 31, 2018	\$ 1	\$ 526	\$ (296)	\$ (18)	\$ (3,125)	\$ (2,912)	\$ (2)	\$ (2,914)
Net (loss) income	—	—	—	—	(160)	(160)	1	(159)
Other comprehensive loss	—	—	—	(8)	—	(8)	—	(8)
Balance at June 30, 2019	<u>\$ 1</u>	<u>\$ 526</u>	<u>\$ (296)</u>	<u>\$ (26)</u>	<u>\$ (3,285)</u>	<u>\$ (3,080)</u>	<u>\$ (1)</u>	<u>\$ (3,081)</u>

See Notes to Condensed Consolidated Financial Statements

(DEBTOR-IN-POSSESSION)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)
(In millions, except share data)

1. Background and Basis of Presentation

Based in Columbus, Ohio, Hexion Inc. (“Hexion” or the “Company”) serves global adhesive, coatings, composites and industrial markets through a broad range of thermoset technologies, specialty products and technical support for customers in a diverse range of applications and industries. The Company’s business is organized based on the products offered and the markets served. At June 30, 2019, the Company had three reportable segments: Epoxy, Phenolic and Coating Resins; Forest Products Resins; and Corporate and Other.

As a result of the Company’s reorganization and emergence from Chapter 11 (as defined below) on July 1, 2019, the Company’s direct parent is Hexion Intermediate Holding 2, Inc., a holding company and wholly owned subsidiary of Hexion Intermediate Holding 1, Inc., a holding company and wholly owned subsidiary of Hexion Holdings Corporation, the ultimate parent of Hexion (“Hexion Holdings”). Prior to its reorganization, the Company’s parent was Hexion LLC, a holding company and wholly owned subsidiary of Hexion Holdings LLC (now known as Hexion TopCo, LLC), the ultimate parent entity of Hexion, which was controlled by investment funds managed by affiliates of Apollo Management Holdings, L.P. (together with Apollo Global Management, LLC and its subsidiaries, “Apollo”). See Note 2 for more information.

The unaudited Condensed Consolidated Financial Statements include the accounts of the Company and its majority-owned subsidiaries in which minority shareholders hold no substantive participating rights. Intercompany accounts and transactions are eliminated in consolidation. In the opinion of management, all adjustments consisting of normal, recurring adjustments considered necessary for a fair statement have been included. Results for the interim periods are not necessarily indicative of results for the entire year.

Year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America (“U.S. GAAP”).

Pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”), certain information and disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These unaudited Condensed Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements and the accompanying notes included in the Company’s most recent Annual Report on Form 10-K.

Going Concern

The Company previously disclosed, based on its financial condition and its projected operating results, the defaults under its debt agreements, and the risks and uncertainties surrounding its Chapter 11 proceedings (see Note 2), that there was substantial doubt as to the Company’s ability to continue as a going concern as of the issuance of the Company’s 2018 Annual Report on Form 10-K. The Company’s ability to continue as a going concern at June 30, 2019 was contingent upon its ability to comply with the financial and other covenants contained in the DIP Term Loan Facility, the DIP ABL Facility and its ability to successfully implement the Plan (defined in Note 2), among other factors. After the Company’s emergence from Chapter 11 on July 1, 2019, based on its new capital structure, liquidity position and projected operating results, the Company expects to continue as a going concern for the next twelve months. See Note 2 for more information.

Financial Reporting in Reorganization

Effective on April 1, 2019, the Company applied Accounting Standard Codification, No. 852, “Reorganizations,” (“ASC No. 852”) which is applicable to companies under Chapter 11 bankruptcy protection. It requires the financial statements for periods subsequent to the Chapter 11 filing to distinguish transactions and events that are directly associated with the reorganization from the ongoing operations of the business. Expenses, realized gains and losses, and provisions for losses that are directly associated with reorganization proceedings must be reported separately as “Reorganization items, net” in the Condensed Consolidated Statements of Operations. In addition, the balance sheet must distinguish debtor pre-petition liabilities subject to compromise (“LSTC”) from liabilities of non-filing entities, pre-petition liabilities that are not subject to compromise and post-petition liabilities in the accompanying Condensed Consolidated Balance Sheet. LSTC are pre-petition obligations that are not fully secured and have at least a possibility of not being repaid at the full claim amount. See Note 3 for more information.

The accompanying Condensed Consolidated Balance Sheet as of December 31, 2018 included in this Quarterly Report on Form 10-Q has been prepared under the basis of accounting assuming that the Company will continue as a going concern, which contemplates continuity of operations, realization of assets and satisfaction of liabilities and commitments in the normal course of business. The Company has made certain adjustments to the Condensed Consolidated Balance Sheet as of December 31, 2018 including the reclassification of certain outstanding debt to current liabilities and the write-off of unamortized deferred financing costs related to such debt.

2. Chapter 11 Bankruptcy Filing

Bankruptcy Petitions and Emergence from Chapter 11

On April 1, 2019 (the “Petition Date”), the Company, Hexion Holdings LLC, Hexion LLC and certain of the Company’s subsidiaries (collectively, the “Debtors”) filed voluntary petitions (the “Bankruptcy Petitions”) for reorganization under Chapter 11 (“Chapter 11”) of the U.S. Bankruptcy Code (the “Bankruptcy Code”) in the United States Bankruptcy Court for the District of Delaware, (the “Bankruptcy Court”). The Chapter 11 proceedings were jointly administered under the caption *In re Hexion TopCo, LLC, No. 19-10684* (the “Chapter 11 Cases”). The Debtors continued to operate their businesses as “debtors-in-possession” under the jurisdiction of the Bankruptcy Court and in accordance with the applicable provisions of the Bankruptcy Code and orders of the Bankruptcy Court.

On June 25, 2019, the Court entered an order (the “Confirmation Order”) confirming the Second Amended Joint Chapter 11 Plan of Reorganization of Hexion Holdings LLC and its Debtor Affiliates under Chapter 11 (the “Plan”). On July 1, 2019 (the “Effective Date”), in accordance with the terms of the Plan and the Confirmation Order, the Plan became effective and the Debtors emerged from bankruptcy (the “Emergence”).

Debtor-in-Possession Financing

DIP Term Loan Facility

In connection with the filing of the Bankruptcy Petitions, on April 3, 2019, the Company entered into a New York law-governed senior secured term loan agreement (the “DIP Term Loan Facility”), among Hexion LLC (“Holdings”), the Company, Hexion International Holdings B.V. (the “Dutch Borrower”), which was amended on April 17, 2019, the lenders party thereto and JPMorgan Chase Bank, N.A. (“JPMorgan”), as administrative agent and collateral agent (the “Term Loan Agent”). The proceeds of the DIP Term Loan Facility were loaned by the Dutch Borrower to the Company pursuant to an intercompany loan agreement (the “Intercompany Loan Agreement”) and were used in part to repay in full the outstanding obligations under the Company’s existing asset-based revolving credit agreement ABL Facility (“ABL Facility”). As of June 30, 2019, the Company had \$350 borrowings outstanding under DIP Term Loan Facility. The Company’s remaining obligations under the DIP Term Loan Facility were repaid in full and the DIP Term Loan Facility was terminated upon consummation of the Plan by the Company on July 1, 2019.

DIP ABL Facility

In connection with the filing of the Bankruptcy Petitions, on April 3, 2019, Holdings, the Company and certain of its subsidiaries (collectively, the “Borrowers”), the lenders party thereto, JPMorgan, as administrative agent, and JPMorgan, as collateral agent (the “DIP ABL Collateral Agent” and together with the DIP Term Loan Facility, the “Credit Facilities”), entered into an amended and restated senior secured debtor-in-possession asset-based revolving credit agreement, which was further amended on May 10, 2019 (the “DIP ABL Facility”), which amended and restated the Company’s ABL Facility among Holdings, the Company, the Borrowers, the lenders party thereto, JPMorgan, as administrative agent, and JPMorgan, as collateral agent. As of June 30, 2019, the Company had no outstanding borrowings under the DIP ABL Facility and the DIP ABL Facility was terminated upon consummation of the Plan by the Company on July 1, 2019.

Restructuring Support Agreement

On April 1, 2019, the Debtors entered into a Restructuring Support Agreement (the “Support Agreement”) with equityholders that beneficially owned more than a majority of the Company’s outstanding equity (the “Consenting Sponsors”) and creditors that held more than a majority of the aggregate outstanding principal amount of each of the Company’s 6.625% Notes and 10.00% Notes, (the “1L Notes”), 13.750% 1.5 lien notes due 2022 (the “1.5L Notes”), 9.00% second lien notes due 2020 (the “2L Notes”), 9.20% Debentures due 2021 and/or 7.875% Debentures due 2023 issued by Borden, Inc. (the “Unsecured Notes”) (the “Consenting Creditors” and, together with the Consenting Sponsors, the “Consenting Parties”). The Support Agreement incorporated the economic terms regarding a restructuring of the Debtors agreed to by the parties reflected in the Support Agreement. The restructuring transactions were effectuated through the Plan.

Equity Backstop Agreement

On April 25, 2019, the Debtors entered into the Equity Backstop Commitment Agreement, as subsequently amended (the “Equity BCA”), among the Debtors and the equity backstop parties party thereto (the “Equity Backstop Parties”). The Equity BCA provides that upon the satisfaction of certain terms and conditions, including the confirmation of the Plan, the Company will have the option to require the Equity Backstop Parties to backstop the common stock of the reorganized Company (the “New Common Stock”) that is not otherwise purchased in connection with the \$300 rights offerings for New Common Stock to be made in connection with the Plan (the “Unsubscribed Shares”) on a several, and not joint and several, basis. In consideration for their commitment to purchase the Unsubscribed Shares, the Equity Backstop Parties will be paid a Premium of 8% of the Rights Offering Amount (the “Equity BCA Premium”), which premium was earned in full upon entry of the Equity BCA Approval Order and which is payable either in Cash or in New Common Equity at the option of each Equity Backstop Party. Pursuant to the terms of the Equity BCA, the Equity BCA Premium was deemed earned, nonrefundable and non-avoidable upon entry of the approval order by the Court. The Company recognized a \$24 liability for the Equity BCA Premium as of June 30, 2019, under the guidance for accounting for liability instruments. This amount is included in “Reorganization items, net” in the unaudited Condensed Consolidated Statements of Operations and “Financing fees payable” in the unaudited Condensed Consolidated Balance Sheets.

Debt Backstop Agreement

On April 25, 2019, the Debtors entered into the Debt Backstop Commitment Agreement, as subsequently amended (the “Debt BCA”), among the Debtors and the debt backstop parties party thereto (the “Debt Backstop Parties”). The Debt BCA provides that upon satisfaction of certain terms and conditions, including the confirmation of the Plan, the Debt Backstop Parties will backstop the New Long-Term Debt on a several, and not joint and several, basis of an amount equal to such Debt Backstop Party’s commitment percentage, in exchange for (a) the Debt Backstop Premium of 3.375% of the backstop commitments thereunder payable either in Cash or in New Common Equity at the option of each Debt Backstop Party and (b) for certain Debt Backstop Parties, the Additional Debt Backstop Premium of 1.5% of the backstop commitments thereunder payable in Cash, both of which premiums (described in (a) and (b)) were earned in full upon entry of the Debt BCA Approval Order. Pursuant to the terms of the Debt BCA, the BCA Commitment Premium was deemed earned, nonrefundable and non-avoidable upon entry of the approval order by the Court. The Company recognized a \$80 liability for the BCA Commitment Premium as of June 30, 2019, under the guidance for accounting for liability instruments. This amount is included in “Reorganization items, net” in the unaudited Condensed Consolidated Statements of Operations and “Financing fees payable” in the unaudited Condensed Consolidated Balance Sheets.

Pre-Petition Claims

On June 7, 2019, the Debtors filed schedules of assets and liabilities and statements of financial affairs with the Court, which were amended on June 14, 2019. Pre-petition claims will be disposed of in accordance with the Plan. As the Company had not emerged from Chapter 11 bankruptcy as of June 30, 2019, all such amounts are classified as “Liabilities subject to compromise” in the unaudited Condensed Consolidated Balance Sheets. See Note 3 for more information.

The Debt Instruments provide that as a result of the Bankruptcy Petitions the principal and interest due thereunder shall be immediately due and payable. Any efforts to enforce such payment obligations under the Debt Instruments are automatically stayed as a result of the Bankruptcy Petitions and the creditors’ rights of enforcement in respect of the Debt Instruments are subject to the applicable provisions of the Bankruptcy Code. Upon Emergence on July 1, 2019, these automatic stay provisions are no longer in effect.

Subsequent Events

Emergence from Chapter 11 Bankruptcy

On July 1, 2019 (“the Effective Date”), the Plan became effective and the Debtors emerged from the Chapter 11 proceedings.

On or following the Effective Date, and pursuant to the terms of the Plan, the following occurred or is in the process of occurring:

- The restructuring of the Debtors’ pre-petition funded debt obligations with the proceeds of \$1,658 in new long-term debt (“New Long-term Debt”) (see Note 9) and a \$300 rights offering for new common equity of Hexion Holdings (the “Rights Offering”);
- A percentage of the Rights Offering was issued in the form of warrants (“New Warrants”), these warrants represented 15% of the Rights Offering which are exercisable for shares of Common Stock, issued by Hexion Holdings under the Plan, and referred to as New Warrants under the Plan (together with New Common Stock, “Registrable Securities”);
- Certain of the Debtors entering into the \$350 ABL Facility (see Note 9) ;
- General unsecured claims being paid in full or otherwise continuing unimpaired;
- Holders of claims with respect to the 1L Notes receiving their pro rata share of (a) cash in the amount of \$1,450 (less the sum of adequate protection payments paid on account of the 1L Notes during the Chapter 11 cases), (b) 72.5% of new common equity of Hexion Holdings (“New Common Equity”) (subject to the Agreed Dilution), and (c) 72.5% of the rights to purchase additional New Common Equity pursuant to the Rights Offering. The dilution of the New Common Equity (the “Agreed Dilution”) resulted from the Rights Offering, the Management Incentive Plan (as defined in the Plan, 10% of the fully-diluted equity of the Company is to be reserved for grant to key members of management and independent, non-employee members of the Board of Directors, the details and allocation of which shall be determined by the new board of directors; and the Management Incentive Plan has not been finalized as of filing date of this Quarterly Report on Form 10-Q);
- Holders of claims with respect to the 1.5L Notes, 2L Notes, and Unsecured Notes receiving their pro rata share of (a) 27.5% of the New Common Equity (subject to the Agreed Dilution) and (b) 27.5% of the rights to purchase additional New Common Equity pursuant to the Rights Offering;
- Holders of equity interests (i.e., any class of equity securities) in Hexion Holdings LLC receiving no distributions and all such Equity Interests being cancelled;
- Reorganized Hexion issuing a \$2.5 settlement note to the Consenting Sponsors; and
- Appointment of a new board of directors.

Issuance of New Common Stock

On the Effective Date, all previously issued and outstanding equity interests in Hexion Holdings LLC were cancelled. Upon effectiveness of the Plan, Hexion Holdings issued 58,410,731 shares of a new class of common stock, par value \$0.01 per share (“New Common Stock”), pursuant to the Rights Offering. The shares of New Common Stock were exempt from registration under the Securities Act of 1933, as amended (the “Securities Act”), pursuant to Section 1145 of the Bankruptcy Code, which generally exempts from such registration requirements the issuance of securities under a plan of reorganization.

New Warrant Agreement

In addition, Hexion Holdings entered into a warrant agreement (the “Warrant Agreement”) and upon effectiveness of the Plan, Hexion Holdings issued 10,307,778 New Warrants as a part of the Rights Offering on the Effective Date. The New Warrants represented 15% of the Rights Offering which are exercisable to purchase shares of New Common Stock. These New Warrants may be exercised, at any time on or after the initial exercise date for exercise price per share of the New Common Stock of \$0.01. The Warrant Agreement contains customary anti-dilution adjustments in the event of any stock split, reverse stock split, reclassification, stock dividend or other distributions.

The holder or group of holders (the “Attribution Parties”) of New Warrants shall be permitted to exercise these New Warrants, at any time, in part or in whole, in amounts sufficient for the holder and Attribution Parties to maintain in the aggregate no less than the beneficial ownership limitation of 9.9% of the fully diluted shares outstanding. Fully diluted shares outstanding is calculated as (x) the aggregate number of shares of New Common Stock issued and outstanding plus (y) the aggregate number of shares of common stock issuable upon the conversion of any other issued and outstanding securities or rights convertible into, or exchangeable for (in each case, directly or indirectly), common stock (excluding, for the avoidance of doubt, any unexercised warrants or options to purchase common stock).

The New Warrants do not entitle the holder or group of holders of the New Warrants to any voting rights, dividends or other rights as a stockholder of the Company prior to exercise of the held New Warrants. If any shares of common stock are listed on a trading market, Hexion Holdings shall use its reasonable best efforts to cause the New Warrants shares issued upon exercise of these New Warrants to also be listed on such trading market, in accordance with the Warrant Agreement.

Registration Rights Agreement

On the Effective Date, Hexion Holdings entered into a registration rights agreement with certain of its stockholders (the “Registration Rights Agreement”).

Under the Registration Rights Agreement, upon delivery of a written notice by one or more stockholders holding, individually or in the aggregate, at least a majority of the outstanding Registrable Securities and New Warrants, voting together (as if such New Warrants had been exercised), Hexion Holdings is required to file a registration statement and effect an initial public offering and listing of its common stock, so long as the total offering size is at least \$100 million (a “Qualified IPO”).

Hexion Holdings is also required to file a registration statement at any time following 180 days after the closing of a Qualified IPO upon the delivery of a written notice by one or more stockholders proposing to sell, individually or in the aggregate, at least \$50 million of Registrable Securities. In addition, under the Registration Rights Agreement, Hexion Holdings is required to file a shelf registration statement as soon as practicable following the closing of a Qualified IPO to register the resale, on a delayed or continuous basis, of all Registrable Securities that have been timely designated for inclusion by the holders (specified in the Registration Rights Agreement). Any individual holder or holders of our outstanding common stock party thereto can demand up to four “shelf takedowns” in any 12-month period which may be conducted in underwritten offerings so long as the total offering size is at least \$50 million. Furthermore, each stockholder party to the Registration Rights Agreement has unlimited piggyback registration rights with respect to underwritten offerings, subject to certain exceptions and limitations.

The foregoing registration rights are subject to certain cutback provisions and customary suspension/blackout provisions. Hexion Holdings has agreed to pay all registration expenses under the Registration Rights Agreement.

Generally, “Registrable Securities” under the Registration Rights Agreement includes New Common Stock issued under the Plan, except that “Registrable Securities” does not include securities that have been sold under an effective registration statement or Rule 144 under the Securities Act.

Fresh Start Accounting

Upon emergence from bankruptcy, the Company will be required to apply fresh start accounting to its financial statements because (i) the holders of existing voting shares of the Company prior to its emergence received less than 50% of the voting shares of the Company outstanding following its emergence from bankruptcy and (ii) the reorganization value of the Company's assets immediately prior to confirmation of the plan of reorganization was less than the post-petition liabilities and allowed claims. Fresh start accounting will be applied to the Company's consolidated financial statements as of July 1, 2019, the date it emerged from bankruptcy. Under the principles of fresh start accounting, a new reporting entity was considered to have been created, and, as a result, the Company will allocate the reorganization value of the Company to its individual assets, including property, plant and equipment, based on their estimated fair values. The process of estimating the fair value of the Company's assets, liabilities and equity upon emergence is currently ongoing and, therefore, such amounts have not yet been finalized. In support of the Plan, the enterprise value of the Successor Company was estimated at \$3,100 , and for financial reporting purposes is estimated to be in the range of approximately \$2,900 - \$3,300 as of the Effective Date. The face value of the Company's long-term debt issued at emergence was a stated amount of \$1,658.

As a result of the application of fresh start accounting and the effects of the implementation of the Plan, the financial statements on or after July 1, 2019 will not be comparable with the financial statements prior to that date. Upon the application of fresh start accounting, the Company will allocate the reorganization value to its individual assets based on their estimated fair values. Reorganization value represents the fair value of the Successor Company's assets before considering liabilities. The excess reorganization value over the the fair value of identified tangible and intangible assets will be reported as goodwill.

3. Liabilities Subject to Compromise

Liabilities subject to compromise represent unsecured liabilities that have been accounted for under the Plan. As a result of the Bankruptcy Petitions, actions to enforce or otherwise effect payment of pre-petition liabilities are generally stayed. These liabilities represent the amounts which have been allowed on known claims which were resolved through the Chapter 11 process, and have been approved by the Court as a result of the Confirmation Order.

Subsequent to the Petition Date, the Company received approval from the Court to pay or otherwise honor certain pre-petition unsecured obligations generally designed to stabilize the Company's operations, such as certain employee wages, salaries and benefits, certain taxes and fees, customer obligations, obligations to logistics providers, operating lease obligations and pre-petition amounts owed to certain critical vendors. As a result of the Court approvals, these obligations are excluded from LSTC in the unaudited Condensed Consolidated Balance Sheets. In addition, the Company has honored payments to vendors and other providers in the ordinary course of business for goods and services received after the Petition Date.

The following table summarizes pre-petition liabilities that are classified as "Liabilities subject to compromise" in the unaudited Condensed Consolidated Balance Sheets:

	As of June 30, 2019	
Debt	\$	3,420
Interest payable		99
Accounts payable		56
Environmental reserve		43
Pension and other post employment benefit obligations		33
Dividends payable to parent		13
Other		8
Total	\$	3,672

The Bankruptcy Petitions constituted an event of default under the ABL Facility and the indentures that govern the Company's notes (see Note 9). Interest payable reflects pre-petition accrued interest related to the debt classified as LSTC. Other liabilities subject to compromise primarily include accrued liabilities for utilities and legal items.

Liabilities subject to compromise related to debt and its related interest payable were disposed of in accordance with the Plan, as applicable, on or shortly after the Company emerged from Chapter 11 bankruptcy on July 1, 2019. As of July 1, 2019, all remaining liabilities subject to compromise were not impaired and remain on the Company's Condensed Consolidated Balance Sheets, and these obligations are treated consistently with the Company's policies under its ordinary course of business.

4. Reorganization Items, Net

Incremental costs incurred directly as a result of the Bankruptcy Petitions and adjustments to the expected amount of allowed claims for liabilities subject to compromise are classified as “Reorganization items, net” in the unaudited Condensed Consolidated Statements of Operations. The following table summarizes reorganization items, net for the three and six months ended June 30, 2019:

	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Financing fees payable	\$ 104	\$ 104
Professional fees	39	39
DIP ABL Facility fees	13	13
Total	\$ 156	\$ 156

5. Summary of Significant Accounting Policies

Revenue Recognition—The Company follows the principles-based five step model to recognize revenue upon the transfer of promised goods or services to customers and in an amount that reflects the consideration for which the entity expects to be entitled in exchange for those goods or services. Revenue, net of estimated allowances and returns, is recognized when the Company has completed its performance obligations under a contract and control of the product is transferred to the customer. Substantially all revenue is recognized at the time shipment is made or upon delivery as risk and title to the product transfer to the customer. Sales, value add, and other taxes that are collected concurrently with revenue-producing activities are excluded from revenue. Contract terms for certain transactions, including sales made on a consignment basis, result in the transfer of control of the finished product to the customer prior to the point at which the Company has the right to invoice for the product. In these cases, timing of revenue recognition will differ from the timing of invoicing to customers and will result in the Company recording a contract asset. A contract asset balance of \$11 is recorded within “Other current assets” at both June 30, 2019 and December 31, 2018 in the unaudited Condensed Consolidated Balance Sheet. Refer to Note 14 for additional discussion of the Company’s net sales by reportable segment disaggregated by geographic region.

Use of Estimates—The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and also requires the disclosure of contingent assets and liabilities at the date of the financial statements. In addition, it requires management to make estimates and assumptions that affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Subsequent Events—The Company has evaluated events and transactions subsequent to June 30, 2019 through the date of issuance of its unaudited Condensed Consolidated Financial Statements.

Cash and Cash Equivalents— The Company considers all highly liquid investments that are purchased with an original maturity of three months or less to be cash equivalents. The Company’s restricted cash balance of \$15 as of both June 30, 2019 and December 31, 2018 represent deposits to secure certain bank guarantees issued to third parties to guarantee potential obligations of the Company primarily related to the completion of tax audits and environmental liabilities. These balances will remain restricted as long as the underlying exposures exist and are included in the Consolidated Balance Sheets as a component of “Cash and cash equivalents.”

Recently Issued Accounting Standards

Newly Adopted Accounting Standards

In February 2016, the FASB issued Accounting Standards Board Update No. 2016-02: *Leases (Topic 842)* (“ASU 2016-02”). ASU 2016-02 supersedes the existing lease guidance in Topic 840. According to the new guidance, all leases, with limited scope exceptions, will be recorded on the balance sheet in the form of a liability to make lease payments (lease liability) and a right-of-use asset representing the right to use the underlying asset for the lease term. The guidance was effective for annual and interim periods beginning on or after December 15, 2018.

The Company adopted ASU 2016-02 using a modified retrospective adoption method at January 1, 2019. Under this method of adoption, there is no impact to the comparative Condensed Consolidated Statement of Operations and the Condensed Consolidated Balance Sheets. The Company also determined that there was no cumulative-effect adjustment to beginning retained earnings on the Condensed Consolidated Balance Sheet. The Company will continue to report periods prior to January 1, 2019 in its financial statements under prior guidance as outlined in Accounting Standards Codification Topic 840, “Leases”. In addition, the Company elected the package of practical expedients permitted under the transition guidance within the new standard, which allowed the Company to carry forward its historical lease classification. The Company also elected the hindsight practical expedient to determine the lease term for existing leases. Adoption of the new standard resulted in the recording of right of use assets and offsetting lease liabilities of \$105 as of January 1, 2019.

In February 2018, the FASB issued Accounting Standards Board Update No. 2018-02: *Income Statement-Reporting Comprehensive Income (Topic 220)* (“ASU 2018-02”). ASU 2018-02 was issued in response to the United States tax reform legislation, the Tax Cuts and Jobs Act (“Tax Reform”), enacted in December 2017. The amendments in ASU 2018-02 allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the new tax legislation. The guidance is effective for annual and interim periods beginning on or after December 15, 2018, and early adoption is permitted. The Company adopted ASU 2018-02 as of January 1, 2019 and it did not have a material impact on the financial statements.

Newly Issued Accounting Standards

In June 2016, the FASB issued ASU 2016-13: *Financial Instruments - Credit Losses (Topic 820): "Measurement of Credit Losses on Financial Instruments,"* ("ASU 2016-13"). The amendments in this update replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. New disclosures are also required with this standard. The standard is effective for annual and interim periods beginning after December 15, 2019. The Company is currently assessing the potential impact of adopting this standard.

In August 2018, the FASB issued ASU 2018-15: *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract* ("ASU 2018-15"). ASU 2018-15 align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard is effective for annual and interim periods beginning after December 15, 2019. Early adoption is permitted and an entity can elect to apply the new guidance on a prospective or retrospective basis. The Company is currently assessing the potential impact of adopting this standard.

6. Restructuring & Business Realignment**Restructuring Activities**

In November 2017, the Company initiated new restructuring actions with the intent to optimize its cost structure. The total one-time cash costs expected to be incurred for these restructuring activities are estimated at \$27, consisting primarily of workforce reduction costs.

The following table summarizes restructuring information by reporting segment:

	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Corporate and Other	Total
Total restructuring costs expected to be incurred	\$ 14	\$ 9	\$ 4	\$ 27
Total restructuring costs incurred through June 30, 2019	\$ 14	\$ 8	\$ 4	\$ 26
Accrued liability at December 31, 2018	\$ 2	\$ 2	\$ 2	\$ 6
Restructuring charges	1	—	—	1
Payments	(2)	(1)	(1)	(4)
Accrued liability at June 30, 2019	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 3</u>

Oilfield

During the first quarter of 2018, the Company indefinitely idled an oilfield manufacturing facility within its Epoxy, Phenolic and Coating Resins segment, and production was shifted to another facility within the oilfield manufacturing group. This represented a triggering event resulting in an impairment evaluation of the fixed and intangible assets within the U.S. oilfield asset group. As a result, an asset impairment of \$20 was recorded in the first quarter of 2018 related to the fixed assets at the idled manufacturing facility. In addition, the remaining U.S. oilfield asset group was evaluated for impairment utilizing a discounted cash flow approach, resulting in an additional impairment of \$5 that was recorded during the first quarter of 2018 related to an existing customer relationship intangible asset. Overall, the Company incurred \$25 of total impairment related to these assets, which is included in "Asset impairments" in the unaudited Condensed Consolidated Statements of Operations for the six months ended June 30, 2018.

7. Related Party Transactions**Transactions with Apollo****Management Consulting Agreement**

The Company was party to a Management Consulting Agreement with Apollo (the "Management Consulting Agreement") pursuant to which the Company received certain structuring and advisory services from Apollo and its affiliates. Apollo was entitled to an annual fee equal to the greater of \$3 or 2% of the Company's Adjusted EBITDA. Apollo elected to waive charges of any portion of the annual management fee due in excess of \$3 for the calendar year 2018.

During the three and six months ended June 30, 2018, the Company recognized expense under the Management Consulting Agreement of \$1 and \$2, respectively. This amount is included in "Other operating expense, net" in the unaudited Condensed Consolidated Statements of Operations. In conjunction with the Company's Chapter 11 proceedings and the Support Agreement filed on April 1, 2019, Apollo agreed to waive its annual management fee for 2019. In connection with the Company's emergence from Chapter 11, the Management Consulting Agreement was terminated pursuant to the Confirmation Order, as of the Effective Date.

Support Agreement

Pursuant to the Support Agreement, Apollo will receive a \$2.5 senior unsecured note maturing on March 31, 2020, payable upon an initial public offering or listing on NYSE or NASDAQ.

Transactions with MPM

As of May 15, 2019, MPM is no longer under the common control of Apollo and no longer a related party to the Company.

Shared Services Agreement

On October 1, 2010, the Company entered into a shared services agreement with Momentive Performance Materials Inc. (“MPM”) (which, from October 1, 2010 through October 24, 2014, was a subsidiary of Hexion Holdings LLC), as amended in October 2014 (the “Shared Services Agreement”). Under this agreement, the Company provided to MPM, and MPM provided to the Company, certain services, including, but not limited to, executive and senior management, administrative support, human resources, information technology support, accounting, finance, legal and procurement services. The Shared Services Agreement established certain criteria upon which the costs of such services are allocated between the Company and MPM.

On February 11, 2019, MPM provided notice of its intention to terminate the Shared Services Agreement, effective March 14, 2019. The termination triggers a period of up to 14 months during which time the parties will work together to facilitate an orderly transition of services provided under the Shared Services Agreement.

Pursuant to the Shared Services Agreement, the Company had accounts receivable from MPM of \$2 at December 31, 2018. The below table summarizes the transactions between the Company and MPM:

	Six Months Ended June 30,	
	2019	2018
Total cost pool - Hexion ⁽¹⁾	\$ 15	\$ 19
Total cost pool - MPM ⁽¹⁾	14	14

(1) Included in the net costs incurred during the six months ended June 30, 2019 and 2018, were net billings from Hexion to MPM of \$11 and \$9, respectively, to bring the percentage of total net incurred costs for shared services under the Shared Services Agreement to the applicable agreed upon allocation percentage.

Sales and Purchases of Products with MPM

The Company also sells products to, and purchases products from, MPM. There were no products sold during the three and six months ended June 30, 2019 and during the three months ended June 30, 2018, the Company sold \$1 of products to MPM. During the six months ended June 30, 2019 and 2018, the Company earned less than \$1 from MPM as compensation for acting as distributor of products. The Company had \$3 of accounts payable to MPM as of December 31, 2018. Refer to the below table for the summary of the purchases of products with MPM:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Purchases from MPM ⁽¹⁾	\$ 3	\$ 9	\$ 10	\$ 16

(1) Purchases from MPM are through May 15, 2019 and only reflect the time period when MPM was a related party.

Purchases and Sales of Products and Services with Apollo Affiliates

The Company sells products to various Apollo affiliates. These sales were \$1 for the three and six months ended June 30, 2019 and \$1 six months ended June 30, 2018. There were no sales for the three months ended June 30, 2018. Accounts receivable from these affiliates were less than \$1 at both June 30, 2019 and December 31, 2018.

Other Transactions and Arrangements

The Company sells products and provides services to, and purchases products from, its joint ventures which are recorded under the equity method of accounting. Refer to the below table for a summary of the sales and purchases with the Company and its joint ventures which are recorded under the equity method of accounting:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Sales to joint ventures	\$ 1	\$ 3	\$ 2	\$ 6
Purchases from joint ventures	1	3	2	5
			June 30, 2019	December 31, 2018
Accounts receivable from joint ventures			\$ 3	\$ 2
Accounts payable to joint ventures			1	<1

In addition to the accounts receivable from joint ventures disclosed above, the Company had a loan receivable of \$7 as of both June 30, 2019 and December 31, 2018, respectively, from its unconsolidated forest products joint venture in Russia.

8. Fair Value

Fair value is the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurement provisions establish a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. This guidance describes three levels of inputs that may be used to measure fair value:

- **Level 1:** Inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- **Level 2:** Pricing inputs are other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reported date.
- **Level 3:** Unobservable inputs that are supported by little or no market activity and are developed based on the best information available in the circumstances. For example, inputs derived through extrapolation or interpolation that cannot be corroborated by observable market data.

Recurring Fair Value Measurements

As of June 30, 2019, the Company had derivative liabilities related to foreign exchange, electricity and natural gas contracts of less than \$1, which were measured using Level 2 inputs, and consisted of derivative instruments transacted primarily in over-the-counter markets. There were no transfers between Level 1, Level 2 or Level 3 measurements during the six months ended June 30, 2019 or 2018.

The Company calculates the fair value of its Level 2 derivative liabilities using standard pricing models with market-based inputs, adjusted for nonperformance risk. When its financial instruments are in a liability position, the Company evaluates its credit risk as a component of fair value. At both June 30, 2019 and December 31, 2018, no adjustment was made by the Company to reduce its derivative position for nonperformance risk.

When its financial instruments are in an asset position, the Company is exposed to credit loss in the event of nonperformance by other parties to these contracts and evaluates their credit risk as a component of fair value.

Forward Contract

On June 26, 2019, the Company entered into a foreign exchange forward contract (the "FX Contract") to manage the foreign currency risk associated with the euro denominated tranche of the new Term Loan Facility in an aggregate notional amount of €425M, in connection with the completion of the Plan on July 1, 2019 (see Note 9). The FX Contract commits the counterparty to exchange euro denominated currency for U.S. dollar currency on July 1, 2019, the funding date of the Term Loan Facility. At June 30, 2019, the FX Contract had an unrealized mark-to-market loss of \$1, which was measured using Level 2 inputs.

Non-derivative Financial Instruments

The following table summarizes the carrying amount and fair value of the Company's non-derivative financial instruments:

	Carrying Amount ⁽¹⁾	Fair Value			
		Level 1	Level 2	Level 3	Total
June 30, 2019					
Debt	\$ 3,948	\$ —	\$ 2,499	\$ 63	\$ 2,562
December 31, 2018					
Debt	\$ 3,815	\$ —	\$ 2,679	\$ 66	\$ 2,745

(1) As of June 30, 2019, \$3,420 is included in liabilities subject to compromise (see Note 9).

Fair values of debt classified as Level 2 are determined based on other similar financial instruments, or based upon interest rates that are currently available to the Company for the issuance of debt with similar terms and maturities. Level 3 amounts represent finance leases and sale leaseback financing arrangements whose fair value is determined through the use of present value and specific contract terms. The carrying amount and fair value of the Company's debt is exclusive of unamortized deferred financing fees. The carrying amounts of cash and cash equivalents, short term investments, accounts receivable, accounts payable and other accrued liabilities are considered reasonable estimates of their fair values due to the short-term maturity of these financial instruments.

9. Debt Obligations

Debt outstanding at June 30, 2019 and December 31, 2018 is as follows:

	June 30, 2019			December 31, 2018	
	Liabilities Subject to Compromise ⁽¹⁾	Long-Term	Due Within One Year	Long-Term	Due Within One Year
ABL Facility	\$ —	\$ —	\$ —	\$ —	\$ 137
DIP Facilities:					
DIP ABL Facility	—	—	—	—	—
DIP Term Loan Facility	—	—	350	—	—
Senior Secured Notes:					
6.625% First-Priority Senior Secured Notes due 2020 ⁽²⁾	1,507	—	—	—	1,550
10.00% First-Priority Senior Secured Notes due 2020 ⁽²⁾	306	—	—	—	315
10.375% First-Priority Senior Secured Notes due 2022 ⁽²⁾	545	—	—	—	560
13.75% Senior Secured Notes due 2022	225	—	—	—	225
9.00% Second-Priority Senior Secured Notes due 2020	574	—	—	—	574
Debentures:					
9.2% debentures due 2021	74	—	—	—	74
7.875% debentures due 2023	189	—	—	—	189
Other Borrowings:					
Australia Facility due 2021	—	29	3	30	4
Brazilian bank loans	—	10	41	12	41
Lease obligations ⁽³⁾	—	51	12	56	10
Other	—	—	32	1	37
Total	\$ 3,420	\$ 90	\$ 438	\$ 99	\$ 3,716

(1) Liabilities subject to compromise include the 1L Notes, the 1.5L Notes, the 2L Notes, and the Unsecured Notes as a result of the Company's Bankruptcy Petitions. See Note 2 for more information. These amounts are classified as "Liabilities subject to compromise" in the unaudited Condensed Consolidated Balance Sheets as of June 30, 2019.

(2) In April 2019, in connection with the Plan, the Company made an adequate protection payment of \$67 to the First-Priority Senior Secured Notes. This payment reduced the outstanding principal on the First-Priority Senior Secured Notes.

(3) Lease obligations include finance leases and sale leaseback financing arrangements. Amounts reflected for December 31, 2018 represent capital lease obligations and sale leaseback financing arrangements as recorded under ASC 840.

As discussed in Note 1, there was substantial doubt as to the Company's ability to continue as a going concern as of the issuance of the Company's 2018 Annual Report on Form 10-K. The Bankruptcy Petitions constituted an event of default that accelerated the Company's obligations under its ABL Facility and 1L Notes, the 1.5L Notes, the 2L Notes, and the Unsecured Notes. As such, all outstanding debt as of December 31, 2018 related to these debt instruments were classified as "Debt payable within one year" in the audited Consolidated Balance Sheets and related footnote disclosures.

As of June 30, 2019, all outstanding debt related to the DIP Term Loan Facility has been classified as "Debt payable within one year" in the unaudited Consolidated Balance sheets. As of June 30, 2019, all amounts related to the 1L Notes, the 1.5L Notes, the 2L Notes, and the Unsecured Notes are classified in the "Liabilities subject to compromise" in the unaudited Consolidated Balance Sheets. These debt instruments provided that as a result of the Bankruptcy Petitions, the principal and interest due thereunder were immediately due and payable; however, any efforts to enforce such payment obligations under these instruments are automatically stayed as a result of the Bankruptcy Petitions and the creditors' rights of enforcement in respect of these instruments are subject to the applicable provisions of the Bankruptcy Code. Additionally, as a result of the Bankruptcy Filing, the Company ceased accruing interest on the Debtor's unsecured debt in April 2019.

Debtor-in-Possession Financing

DIP ABL Facility and DIP Term Loan Facility

In connection with the Bankruptcy Petitions, in April 2019, the Company, Hexion LLC and certain of its subsidiaries entered into the DIP ABL Facility and the DIP Term Loan Facility, as further described in Note 2. The proceeds of the DIP Term Loan Facility were used in part to repay in full the outstanding obligations under the Company's existing ABL Facility. As of June 30, 2019, the Company had no outstanding borrowings and no outstanding letters of credit under the DIP ABL Facility. The DIP Term Loan Facility was terminated upon completion of the Plan by the Company on July 1, 2019. All amounts outstanding under the DIP Term Loan Facility as of such date were repaid in full.

Subsequent Events

New Credit Facilities and Senior Notes

ABL Facility

On July 1, 2019, in connection with the Emergence, the Company, Hexion Canada Inc., a Canadian corporation (the "Canadian ABL Borrower"), Hexion B.V., a company organized under the laws of The Netherlands (the "Dutch ABL Borrower"), Hexion GmbH, a company organized under the laws of Germany (the "German ABL Borrower"), Hexion UK Limited, a corporation organized under the laws of England and Wales (the "U.K. ABL Borrower" and, together with the Company, the Canadian ABL Borrower, the Dutch ABL Borrower and the German ABL Borrower, the "ABL Borrowers") entered into a senior secured ABL Facility with the lenders and other parties thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, in an aggregate principal amount of \$350, under which the ABL Borrowers may borrow funds from time to time and up to \$150 amount of which is available through a subfacility in the form of letters of credit, in each case subject to a borrowing base, as further described below. In addition, the Company may request one or more incremental facilities in an aggregate amount equal to the greater of (i) \$100 and (ii) the excess of the borrowing base over \$350.

The ABL Facility will mature and the commitments thereunder will terminate on July 1, 2024 and bears interest based on an adjusted LIBOR rate, EURIBOR or an alternate base rate (depending on the currency of the borrowing), in each case plus an applicable initial margin of 1.50% or, in the case of the alternate base rate, 0.50%, which margin may increase or decrease depending on the average availability under the ABL Facility.

The borrowing base is, at any time of determination, an amount (net of reserves) equal to the sum of:

- in the case of the borrowing base for the Company's U.S., U.K., Dutch and Canadian subsidiaries, 85% of the amount of eligible receivables (or 90% of the amount of "investment grade" eligible receivables) (including trade receivables), plus
- in the case of the borrowing base for the Company's U.S., U.K., Dutch and Canadian subsidiaries, the lesser of (i) 70% of the amount of eligible inventory and (ii) 85% of the net orderly liquidation value of eligible inventory, plus
- in the case of the borrowing base for the Company's U.K., Dutch, Canadian and German subsidiaries, the lesser of (i) the sum of (a) 80% of the amount of eligible machinery and equipment appraised on a net orderly liquidation basis and (b) 75% of the appraised fair market value of eligible real property of the loan parties in Canada, England and Wales, the Netherlands and Germany and (ii) the lesser of (x) 20% of the total commitments and (y) 20% of the borrowing base of the borrowers without giving effect to the additional borrowing base from the eligible machinery and equipment and eligible real property, plus
- in the case of the borrowing base for the Company's U.S. and Canadian subsidiaries, 100% of unrestricted cash, in each case held in an account subject to the springing control of the agent; provided, that the cash component of the borrowing base shall not constitute more than the lesser of (x) 15.0% of the total commitments and (y) 15.0% of the borrowing base of the borrowers (calculated prior to giving effect to such limitation).

The borrowing base of the U.K., Dutch and German subsidiaries may not exceed the greater of 50% of the total commitments and 50% of the borrowing base of the ABL Borrowers. On the closing date of the ABL Facility, as adjusted for the consummation of the Plan and related transactions, the borrowing base reflecting various required reserves was determined to be approximately \$350.

In addition to paying interest on outstanding principal under the ABL Facility, the Company is required to pay a commitment fee to the lenders in respect of the unused commitments thereunder at a rate equal to 0.50% or 0.375% per annum depending on the average utilization of the commitments. The Company also pays a customary letter of credit fee, including a fronting fee of 0.125% per annum of the daily average stated amount of each outstanding letter of credit, and customary agency fees.

Outstanding loans under the ABL Facility may be voluntarily repaid at any time without premium or penalty, other than customary “breakage” costs with respect to eurocurrency loans.

The obligations of the Company under the ABL Facility are unconditionally guaranteed by the Company’s direct parent, Hexion Intermediate Holding 2, Inc. (“Hexion Intermediate”), and each of the Company’s existing and future wholly-owned material U.S. subsidiaries, which the Company refers to as the “U.S. ABL Guarantors.” In addition, all obligations of the foreign subsidiary borrowers under the ABL Facility are guaranteed by the U.S. ABL Guarantors and certain other direct and indirect wholly-owned foreign subsidiaries, which the Company refers to collectively as the “Foreign ABL Guarantors” and, together with the U.S. ABL Guarantors, the “ABL Guarantors.”

New Senior Secured Term Loan Facility

Additionally, in connection with the completion of the Plan, on July 1, 2019, the Company and Hexion International Cooperatief U.A., a company organized under the laws of the Netherlands (the “Dutch Term Loan Borrower” and, together with the Company, the “Term Loan Borrowers”), entered into a senior secured term loan facility with the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent (the “Term Loan Facility”), which consists of (i) a USD denominated tranche in an aggregate principal amount of \$725 (“Senior Secured Term Loan - USD”) borrowed by the Company and (ii) a EUR denominated tranche in an aggregate principal amount of €425 (“Senior Secured Term Loan - EUR”) borrowed by the Dutch Term Loan Borrower. In addition, the Company may request one or more incremental facilities in an aggregate amount up to the sum of \$425 and amounts that may be incurred pursuant to certain leverage and coverage ratios.

The Term Loan Facility will mature on July 1, 2026 and bears interest based on (i) in the case of the USD tranche, at the Company’s option, an adjusted LIBOR rate or an alternate base rate, in each case plus an applicable margin equal to 3.50% or, in the case of the alternate base rate, 2.50% and (ii) in the case of the EUR tranche, EURIBOR plus an applicable margin equal to 4.00%.

The obligations of the Company under the Term Loan Facility are unconditionally guaranteed by Hexion Intermediate and each of the Company’s existing and future wholly owned material U.S. subsidiaries, which subsidiaries the Company refers to collectively as “U.S. Term Guarantors.” In addition, all obligations of the Dutch Term Loan Borrower under the Term Loan Facility are guaranteed by Hexion Intermediate, the Company, the U.S. Term Guarantors and certain other direct and indirect wholly-owned foreign subsidiaries, which foreign subsidiaries the Company collectively refers to as the “Foreign Term Guarantors” (together with the U.S. Term Guarantors, the “Subsidiary Term Guarantors” and, together with Hexion Intermediate, the “Term Guarantors”).

The Credit Facilities contain among other provisions, restrictive covenants regarding indebtedness, payments and distributions, mergers and acquisitions, asset sales, affiliate transactions, capital expenditures and the maintenance of certain financial ratios. Events of default include the failure to pay principal and interest when due, a material breach of representation or warranty, covenant defaults, events of bankruptcy and a change of control.

In addition, the ABL Facility requires the Company to maintain a minimum fixed charge coverage ratio at any time when the excess availability is less than the greater of (x) \$30 and (y) 10.0% of the lesser of (i) the borrowing base at such time and (ii) the aggregate amount of ABL Facility commitments at such time. In that event, the Company must satisfy a minimum fixed charge coverage ratio of 1.0 to 1.0. The Credit Facilities also contain certain other customary affirmative covenants and events of default. If the Company fails to perform its obligations under these and other covenants, the Credit Facilities could be terminated and any outstanding borrowings, together with accrued interest, under the Credit Facilities could be declared immediately due and payable.

7.875% Senior Notes due 2027

The Company entered into an indenture, dated as of July 1, 2019 (the “Indenture”), among the Company, the subsidiary guarantors party thereto and Wilmington Trust, National Association, as trustee, and issued \$450 aggregate principal amount of 7.875% Senior Notes due 2027 (the “Senior Notes”) thereunder. The Senior Notes are unsecured and are guaranteed on a senior basis by the Company’s existing domestic subsidiaries that guarantee its obligations under its Credit Facilities (as defined below) (the “Guarantors”) on a full and unconditional basis. The following is a brief description of the material provisions of the Indenture and the Senior Notes.

The Senior Notes will mature on July 15, 2027. Interest on the Senior Notes will accrue at the rate of 7.875% per annum and will be payable semiannually in arrears on January 15 and July 15, commencing on January 15, 2020.

Optional Redemption. At any time prior to July 15, 2022, the Company may redeem the Senior Notes, in whole or in part, at a price equal to 100% of the principal amount of the Senior Notes redeemed, plus an applicable “make-whole” premium and accrued and unpaid interest, if any, to the redemption date.

In addition, at any time prior to July 15, 2022, the Company may redeem up to 40% of the aggregate principal amount of the Senior Notes at a redemption price of 107.875% of the principal amount thereof, plus accrued and unpaid interest, if any, to the redemption date, with the net cash proceeds of certain equity offerings; provided that at least 50% of the aggregate principal amount of the Senior Notes originally issued under the Indenture remains outstanding immediately after the occurrence of such redemption (excluding Notes held by the Company and its subsidiaries); and provided, further, that such redemption occurs within 90 days of the date of the closing of such equity offering.

On and after July 15, 2022, the Company may redeem all or a part of the Senior Notes at the redemption prices (expressed as percentages of principal amount) set forth below plus accrued and unpaid interest, if any, thereon, to the applicable redemption date, if redeemed during the twelve-month period beginning on July 15 of the years indicated below:

<u>Year</u>	<u>Percentage</u>
2022	103.94%
2023	101.97%
2024 and thereafter	100.00%

Change of Control. If a change of control (as defined in the Indenture) occurs, holders of the Senior Notes will have the right to require the Company to repurchase all or any part of their Senior Notes at a purchase price equal to 101% of the aggregate principal amount of the Senior Notes repurchased, plus accrued and unpaid interest, if any, to the repurchase date.

Certain Covenants. The Indenture governing the Senior Notes contains, among other provisions, restrictive covenants regarding indebtedness, payments and distributions, mergers and acquisitions, asset sales, affiliate transactions, capital expenditures and the maintenance of certain financial ratios. At such time as (1) the Senior Notes have an investment grade rating from both of Moody’s Investors Service, Inc. and Standard and Poor’s Ratings Services and (2) no default has occurred and is continuing under the Indenture, certain of these and other covenants will be suspended and cease to be in effect.

Events of Default. The Indenture also provides for certain customary events of default, including, among others, nonpayment of principal or interest, failure to pay final judgments in excess of a specified threshold, failure of a guarantee to remain in effect, bankruptcy and insolvency events, and cross acceleration, which would permit the principal, premium, if any, interest and other monetary obligations on all the then outstanding Senior Notes to be declared due and payable immediately.

The above description of the Indenture and the Senior Notes is qualified in its entirety by the full text of those documents, which are attached as Exhibits 4.1 and 4.2 to Form 8-K filed on July 2, 2019, and are incorporated herein by reference.

Intercreditor Agreement

On July 1, 2019, in connection with the Emergence, JPMorgan Chase Bank, N.A., as collateral agent under each of the Credit Facilities, and the Company and certain of its subsidiaries entered into an ABL Intercreditor Agreement that, among other things, sets forth the relative lien priorities of the secured parties under the Credit Facilities on the collateral shared by the ABL Facility and the Term Loan Facility.

Pro Forma Debt Obligations

The following table presents long-term debt at June 30, 2019 adjusted for pro-forma effects of the completion of the Plan on July 1, 2019:

	Pro Forma as of June 30, 2019	
	Long-Term	Due Within One Year
Senior Secured Credit Facilities:		
ABL Facility	\$ —	\$ —
Senior Secured Term Loan - USD due 2026 (includes \$7 of unamortized debt discount)	718	—
Senior Secured Term Loan - EUR due 2026 (includes \$5 of unamortized debt discount)	478	—
Senior Notes:		
7.875% Senior Notes due 2027	450	—
Other Borrowings:		
Australia Facility due 2021	29	3
Brazilian bank loans	10	41
Lease obligations	51	12
Other	—	32
Unamortized debt issuance costs	(18)	—
Total Debt	\$ 1,718	\$ 88

10. Leases

The Company leases certain buildings, warehouses, rail cars, land and operating equipment under both operating and finance leases expiring on various dates through 2044. Leases with an initial term of 12 months or less are not recorded on the balance sheet and the Company recognizes lease expense for these leases on a straight-line basis over the lease term. For lease agreements entered into or reassessed after the adoption of Topic 842, the Company combines lease and non-lease components.

The Company determines if a contract is a lease at the inception of the arrangement. The Company reviews all options to extend, terminate, or purchase its right of use assets at the inception of the lease and accounts for these options when they are reasonably certain of being exercised. Nearly all of the Company's lease contracts do not provide a readily determinable implicit rate. For these contracts, the Company estimates the incremental borrowing rate to discount the lease payments based on information available at lease commencement.

Lease Costs

For the three and six months ended June 30, 2019, the Company recorded operating lease expense of \$9 and \$18, respectively, and short-term lease expense of \$2 and \$5, respectively. The Company had amortization expense of less than \$1 and \$1 for the three and six months ended June 30, 2019, respectively, and interest expense from finance leases of less than \$1 for the three and six months ended June 30, 2019. Variable lease expense was \$1 and \$2 for the three and six months ended June 30, 2019, respectively. These expense items are included as components of "Operating income" and "Interest expense, net" within the Condensed Consolidated Statements of Operations.

Balance Sheet Classification

The table below presents the lease-related assets and liabilities recorded on the Condensed Consolidated Balance Sheet:

	Classification	June 30, 2019 ⁽¹⁾
Assets:		
Operating	Operating lease assets	\$ 95
Finance ⁽¹⁾	Machinery and Equipment	11
Total leased assets		\$ 106
Liabilities:		
<i>Current</i>		
Operating	Current portion of operating lease liabilities	\$ 21
Finance	Debt payable within one year	3
<i>Noncurrent</i>		
Operating	Operating lease liabilities	74
Finance	Long-term debt	8
Total leased liabilities		\$ 106

(1) Finance lease assets are recorded net of accumulated amortization of \$9 as of June 30, 2019.

Other Lease Information

Cash paid for finance leases was \$2 and cash paid for operating leases approximated operating lease expense and non-cash right-of-use asset amortization for the three and six months ended June 30, 2019. Right-of-use assets obtained in exchange for operating lease obligations were less than \$1 and \$1 during the three and six months ended June 30, 2019, respectively. There were \$3 right-of-use assets obtained in exchange for finance lease obligations during the three and six months ended June 30, 2019.

The tables below present supplemental information related to leases as of June 30, 2019:

	June 30, 2019
Weighted-average remaining lease term (years)	
Operating leases	8.8
Finance leases	2.0
Weighted-average discount rate	
Operating leases	12.18%
Finance leases	7.42%

The table below reconciles the undiscounted cash flows for each of the first five years and the total of the remaining years to the finance lease liabilities and operating lease liabilities recorded on the balance sheet as of June 30, 2019:

Year	Minimum Rentals Under Operating Leases	Minimum Payments Under Finance Leases ⁽¹⁾
Remaining six months of 2019	\$ 16	\$ 2
2020	25	8
2021	20	1
2022	14	—
2023	11	—
2024 and thereafter	78	1
Total lease payments	\$ 164	\$ 12
Less: Amount representing interest	69	1
Present value of lease liabilities	\$ 95	\$ 11

(1) Amounts exclude sale leaseback financing arrangements which are not considered leases under Topic 842.

Disclosures related to periods prior to adoption of ASU 2016-02

The Company adopted ASU 2016-02 using a retrospective adoption method at January 1, 2019. See Note 5 for more information. The following is the minimum lease commitments under the previous lease guidance (ASC 840) as of December 31, 2018, as disclosed in the Company's most recent Annual Report on Form 10-K.

Year	Minimum Rentals Under Operating Leases	Minimum Payments Under Capital Leases
2019	\$ 33	\$ 15
2020	24	20
2021	20	13
2022	13	26
2023	10	9
2024 and thereafter	61	1
Total minimum payments	<u>\$ 161</u>	<u>84</u>
Less: Amount representing interest		(18)
Present value of minimum payments		<u>\$ 66</u>

11. Commitments and Contingencies
Environmental Matters

The Company's operations involve the use, handling, processing, storage, transportation and disposal of hazardous materials. The Company is subject to extensive environmental regulation at the federal, state and local levels as well as foreign laws and regulations, and is therefore exposed to the risk of claims for environmental remediation or restoration. In addition, violations of environmental laws or permits may result in restrictions being imposed on operating activities, substantial fines, penalties, damages or other costs, any of which could have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

The following table summarizes all probable environmental remediation, indemnification and restoration liabilities, including related legal expenses, at June 30, 2019 and December 31, 2018:

Site Description	Liability ⁽¹⁾		Range of Reasonably Possible Costs at June 30, 2019	
	June 30, 2019	December 31, 2018	Low	High
Geismar, LA	\$ 13	\$ 13	\$ 9	\$ 22
Superfund and offsite landfills – allocated share:				
Less than 1%	3	3	2	6
Equal to or greater than 1%	6	5	5	14
Currently-owned	5	6	4	11
Formerly-owned:				
Remediation	21	22	19	39
Monitoring only	1	1	1	4
Total	<u>\$ 49</u>	<u>\$ 50</u>	<u>\$ 40</u>	<u>\$ 96</u>

(1) At June 30, 2019, \$43 is included in "Liabilities subject to compromise" in the unaudited Condensed Consolidated Balance Sheets.

These amounts include estimates for unasserted claims that the Company believes are probable of loss and reasonably estimable. The estimate of the range of reasonably possible costs is less certain than the estimates upon which the liabilities are based. To establish the upper end of a range, assumptions less favorable to the Company among the range of reasonably possible outcomes were used. As with any estimate, if facts or circumstances change, the final outcome could differ materially from these estimates. At June 30, 2019, \$43 has been included in "Liabilities subject to compromise" in the unaudited Condensed Consolidated Balance Sheets, \$5 has been included in "Other current liabilities" with the remaining amount included in "Other long-term liabilities." At December 31, 2018, \$11 has been included in "Other current liabilities" in the unaudited Condensed Consolidated Balance Sheets, with the remaining amount included in "Other long-term liabilities."

Following is a discussion of the Company's environmental liabilities and the related assumptions at June 30, 2019:

Geismar, LA Site—The Company formerly owned a basic chemicals and polyvinyl chloride business that was taken public as Borden Chemicals and Plastics Operating Limited Partnership ("BCPOLP") in 1987. The Company retained a 1% interest, the general partner interest and the liability for certain environmental matters after BCPOLP's formation. Under a Settlement Agreement approved by the United States Bankruptcy Court for the District of Delaware among the Company, BCPOLP, the United States Environmental Protection Agency and the Louisiana Department of Environmental Quality, the Company agreed to perform certain tasks related to BCPOLP's obligations for soil and groundwater contamination at BCPOLP's Geismar, Louisiana site. The Company bears the sole responsibility for these obligations because there are no other potentially responsible parties ("PRP") or third parties from whom the Company could seek reimbursement.

A groundwater pump and treat system to remove contaminants is operational, and natural attenuation studies are proceeding. If closure procedures and remediation systems prove to be inadequate, or if additional contamination is discovered, costs that would approach the higher end of the range of possible outcomes could result.

Due to the long-term nature of the project, the reliability of timing and the ability to estimate remediation payments, a portion of this liability was recorded at its net present value, assuming a 3% discount rate and a time period of 20 years. The range of possible outcomes is discounted in a similar manner. The undiscounted liability, which is expected to be paid over the next 20 years, is approximately \$16. Over the next five years, the Company expects to make ratable payments totaling \$5.

Superfund Sites and Offsite Landfills—The Company is currently involved in environmental remediation activities at a number of sites for which it has been notified that it is, or may be, a PRP under the United States Comprehensive Environmental Response, Compensation and Liability Act or similar state “superfund” laws. The Company anticipates approximately 50% of the estimated liability for these sites will be paid within the next five years, with the remainder over the next twenty-five years. The Company generally does not bear a significant level of responsibility for these sites, and as a result, has little control over the costs and timing of cash flows.

The Company’s ultimate liability will depend on many factors including its share of waste volume, the financial viability of other PRPs, the remediation methods and technology used, the amount of time necessary to accomplish remediation and the availability of insurance coverage. The range of possible outcomes takes into account the maturity of each project, resulting in a more narrow range as the project progresses. To estimate both its current reserves for environmental remediation at these sites and the possible range of additional costs, the Company has not assumed that it will bear the entire cost of remediation of every site to the exclusion of other known PRPs who may be jointly and severally liable. The Company has limited information to assess the viability of other PRPs and their probable contribution on a per site basis. The Company’s insurance provides very limited, if any, coverage for these environmental matters.

Sites Under Current Ownership—The Company is conducting environmental remediation at a number of locations that it currently owns, of which ten sites are no longer in operation. As the Company is performing a portion of the remediation on a voluntary basis, it has some control over the costs to be incurred and the timing of cash flows. The factors influencing the ultimate outcome include the methods of remediation elected, the conclusions and assessment of site studies remaining to be completed, and the time period required to complete the work. No other parties are responsible for remediation at these sites.

Formerly-Owned Sites—The Company is conducting, or has been identified as a PRP in connection with, environmental remediation at a number of locations that it formerly owned and/or operated. Remediation costs at these former sites, such as those associated with the Company’s former phosphate mining and processing operations, could be material. The Company has accrued those costs for formerly-owned sites which are currently probable and reasonably estimable. One such site is the Coronet Industries, Inc. Superfund Alternative Site in Plant City, Florida. The current owner of the site alleged that it incurred environmental costs at the site for which it has a contribution claim against the Company, and that additional future costs are likely to be incurred. The Company signed a settlement agreement in 2016 with the current site owner and a past site owner, pursuant to which the Company paid \$10 for past remediation costs and accepted a 40% allocable share of specified future remediation costs at this site. The Company estimates its allocable share of future remediation costs to be approximately \$13. The final costs to the Company will depend on natural variations in remediation costs, including unforeseen circumstances, agency requests, new contaminants of concern and the ongoing financial viability of the other PRPs.

Monitoring Only Sites—The Company is responsible for a number of sites that require monitoring where no additional remediation is expected. The Company has established reserves for costs related to these sites. Payment of these liabilities is anticipated to occur over the next ten or more years. The ultimate cost to the Company will be influenced by fluctuations in projected monitoring periods or by findings that are different than anticipated.

Indemnifications—In connection with the acquisition of certain of the Company’s operating businesses, the Company has been indemnified by the sellers against certain liabilities of the acquired businesses, including liabilities relating to both known and unknown environmental contamination arising prior to the date of the purchase. The indemnifications may be subject to certain exceptions and limitations, deductibles and indemnity caps. While it is reasonably possible that some costs could be incurred, except for those sites identified above, the Company has inadequate information to allow it to estimate a potential range of liability, if any.

Non-Environmental Legal Matters

The Company is involved in various legal proceedings in the ordinary course of business and had reserves of \$2 at June 30, 2019 and December 31, 2018 for all non-environmental legal defense costs incurred and settlement costs that it believes are probable and estimable. At June 30, 2019 and December 31, 2018, \$1 and \$2, respectively, have been included in “Other current liabilities” in the unaudited Condensed Consolidated Balance Sheets, with the remaining amount included in “Other long-term liabilities.”

Other Legal Matters—The Company is also involved in various product liability, commercial and employment litigation, personal injury, property damage and other legal proceedings, including actions that allege harm caused by products the Company has allegedly made or used, containing silica, vinyl chloride monomer and asbestos. The Company believes it has adequate reserves and that it is not reasonably possible that a loss exceeding amounts already reserved would be material. Furthermore, the Company has insurance to cover claims of these types.

12. Pension and Postretirement Benefit Plans

The Company's service cost component of net benefit cost is included in "Operating income" and all other components of net benefit cost are included in "Other non-operating (income) expense, net" within the Company's unaudited Condensed Consolidated Statements of Operations. Following are the components of net benefit cost recognized by the Company for the three and six months ended June 30, 2019 and 2018:

	Pension Benefits				Non-Pension Postretirement Benefits			
	Three Months Ended June 30,				Three Months Ended June 30,			
	2019		2018		2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	\$ 1	\$ 3	\$ —	\$ 5	\$ —	\$ —	\$ —	\$ —
Interest cost on projected benefit obligation	2	2	2	2	—	—	—	—
Expected return on assets	(3)	(3)	(3)	(3)	—	—	—	—
Net expense (benefit)	\$ —	\$ 2	\$ (1)	\$ 4	\$ —	\$ —	\$ —	\$ —

	Pension Benefits				Non-Pension Postretirement Benefits			
	Six Months Ended June 30,				Six Months Ended June 30,			
	2019		2018		2019		2018	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	\$ 2	\$ 7	\$ 1	\$ 9	\$ —	\$ —	\$ —	\$ —
Interest cost on projected benefit obligation	4	4	4	5	—	—	—	—
Expected return on assets	(6)	(6)	(7)	(6)	—	—	—	—
Net expense (benefit)	\$ —	\$ 5	\$ (2)	\$ 8	\$ —	\$ —	\$ —	\$ —

13. Dispositions

ATG

On January 8, 2018, the Company completed the sale of its Additives Technology Group business ("ATG"). ATG was previously included within the Company's Forest Products Resins segment and included manufacturing sites located in Somersby, Australia and Sungai Petani, Malaysia. The ATG business produced a range of specialty chemical materials for the engineered wood, paper impregnation and laminating industries, including catalysts, release agents and wetting agents.

The Company received gross cash consideration for the ATG business in the amount of \$49, which was used for general corporate purposes. The Company recorded a gain on this disposition of \$44 which is included in "Gain on disposition" in the unaudited Condensed Consolidated Statements of Operations for the six months ended June 30, 2018.

14. Segment Information

The Company's business segments are based on the products that the Company offers and the markets that it serves. At June 30, 2019, the Company had three reportable segments: Epoxy, Phenolic and Coating Resins; Forest Products Resins; and Corporate and Other. A summary of the major products of the Company's reportable segments follows:

- **Epoxy, Phenolic and Coating Resins:** epoxy specialty resins, phenolic encapsulated substrates, versatic acids and derivatives, basic epoxy resins and intermediates and phenolic specialty resins and molding compounds
- **Forest Products Resins:** forest products resins and formaldehyde applications
- **Corporate and Other:** primarily corporate general and administrative expenses that are not allocated to the other segments, such as shared service and administrative functions, foreign exchange gains and losses and legacy company costs.

Reportable Segments

Following are net sales and Segment EBITDA (earnings before interest, income taxes, depreciation and amortization) by reportable segment. Segment EBITDA is defined as EBITDA adjusted for certain non-cash items and other income and expenses. Segment EBITDA is the primary performance measure used by the Company's senior management, the chief operating decision-maker and the board of directors to evaluate operating results and allocate capital resources among segments. Segment EBITDA is also the profitability measure used to set management and executive incentive compensation goals. Corporate and Other is primarily corporate general and administrative expenses that are not allocated to the other segments, such as shared service and administrative functions, foreign exchange gains and losses and legacy company costs not allocated to continuing segments.

Net Sales ⁽¹⁾:

Following is revenue by reportable segment. Product sales within each reportable segment share economically similar risks. These risks include general economic and industrial conditions, competitive pricing pressures and the Company's ability to pass on fluctuations in raw material prices to its customers. A substantial number of the Company's raw material inputs are petroleum-based and their prices fluctuate with the price of oil. Due to differing regional industrial and economic conditions, the geographic distribution of revenue may impact the amount, timing and uncertainty of revenue and cash flows from contracts with customers.

Following is net sales by reportable segment disaggregated by geographic region:

	Three Months Ended June 30, 2019			Three Months Ended June 30, 2018		
	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total
North America	\$ 216	\$ 259	\$ 475	\$ 237	\$ 294	\$ 531
Europe	212	43	255	249	52	301
Asia Pacific	84	30	114	77	35	112
Latin America	—	48	48	1	50	51
Total	\$ 512	\$ 380	\$ 892	\$ 564	\$ 431	\$ 995

	Six Months Ended June 30, 2019			Six Months Ended June 30, 2018		
	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total
North America	\$ 425	\$ 519	\$ 944	\$ 470	\$ 562	\$ 1,032
Europe	431	90	521	494	106	600
Asia Pacific	147	63	210	138	66	204
Latin America	—	103	103	2	103	105
Total	\$ 1,003	\$ 775	\$ 1,778	\$ 1,104	\$ 837	\$ 1,941

(1) Intersegment sales are not significant and, as such, are eliminated within the selling segment.

Reconciliation of Net Loss to Segment EBITDA:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Reconciliation:				
Net loss attributable to Hexion Inc.	\$ (108)	\$ (22)	\$ (160)	\$ (35)
Net income attributable to noncontrolling interest	(1)	(1)	(1)	(1)
Net loss	(107)	(21)	(159)	(34)
Income tax expense	8	3	15	11
Interest expense, net	9	84	89	167
Depreciation and amortization	26	28	52	58
EBITDA	\$ (64)	\$ 94	\$ (3)	\$ 202
Items not included in Segment EBITDA:				
Asset impairments	\$ —	\$ —	\$ —	\$ 25
Business realignment costs	11	5	15	14
Gain on disposition	—	—	—	(44)
Transaction costs	3	3	26	6
Realized and unrealized foreign currency (gains) losses	(7)	15	(6)	22
Reorganization costs	156	—	156	—
Other	13	11	27	21
Total adjustments	176	34	218	44
Segment EBITDA	\$ 112	\$ 128	\$ 215	\$ 246
Segment EBITDA:				
Epoxy, Phenolic and Coating Resins	\$ 59	\$ 72	\$ 111	\$ 142
Forest Products Resins	66	76	134	143
Corporate and Other	(13)	(20)	(30)	(39)
Total	\$ 112	\$ 128	\$ 215	\$ 246

Items Not Included in Segment EBITDA

Not included in Segment EBITDA are certain non-cash items and other unusual or non-recurring income and expenses. Reorganization costs for the three and six months ended June 30, 2019 represent incremental costs incurred directly as a result of the Company's Chapter 11 proceedings after the date of filing. See Note 4 for more information. For the six months ended June 30, 2019, transaction costs primarily included certain professional fees and other expenses related to the Company's Chapter 11 proceedings incurred prior to the date of filing. For the three months ended June 30, 2019, transaction costs primarily included other expenses related to the Company's Chapter 11 proceedings that do not meet the criteria for reorganization costs. For the three and six months ended June 30, 2018, transaction costs included certain professional fees related to strategic projects. Business realignment costs for the three and six months ended June 30, 2019 and 2018 primarily included costs related to certain in-process facility rationalizations and cost reduction programs. For the three and six months ended June 30, 2019 and 2018, items classified as "Other" primarily included expenses from retention programs, management fees and expenses related to legacy liabilities

15. Changes in Accumulated Other Comprehensive Loss

Following is a summary of changes in "Accumulated other comprehensive loss" for the three and six months ended June 30, 2019 and 2018:

	Three Months Ended June 30, 2019			Three Months Ended June 30, 2018		
	Defined Benefit Pension and Postretirement Plans	Foreign Currency Translation Adjustments	Total	Defined Benefit Pension and Postretirement Plans	Foreign Currency Translation Adjustments	Total
Beginning balance	\$ (1)	\$ (17)	\$ (18)	\$ 1	\$ 5	\$ 6
Other comprehensive loss before reclassifications, net of tax	—	(8)	(8)	—	(16)	(16)
Ending balance	\$ (1)	\$ (25)	\$ (26)	\$ 1	\$ (11)	\$ (10)

	Six Months Ended June 30, 2019			Six Months Ended June 30, 2018		
	Defined Benefit Pension and Postretirement Plans	Foreign Currency Translation Adjustments	Total	Defined Benefit Pension and Postretirement Plans	Foreign Currency Translation Adjustments	Total
Beginning balance	\$ (1)	\$ (17)	\$ (18)	\$ 1	\$ (9)	\$ (8)
Other comprehensive loss before reclassifications, net of tax	—	(8)	(8)	—	(2)	(2)
Ending balance	\$ (1)	\$ (25)	\$ (26)	\$ 1	\$ (11)	\$ (10)

16. Income Taxes

On December 22, 2017, the United States enacted tax reform legislation ("Tax Reform") that included a broad range of business tax provisions, including but not limited to a reduction in the U.S. federal tax rate from 35% to 21% as well as provisions that limit or eliminate various deductions or credits. The legislation also causes U.S. expenses, such as interest and general administrative expenses, to be taxed and imposes a new tax on U.S. cross-border payments.

During 2018, the Company recognized income tax expense of \$40, primarily as a result of income from certain foreign operations. In the United States, as a result of Tax Reform, disallowed interest expense resulted in current year taxable income which utilized a net operating loss carryforward. The disallowed interest expense carryforward of \$283 generated a deferred tax asset. The decrease in the valuation allowance due to the net operating loss utilization was offset by an increase in the valuation allowance recorded on the interest expense carryforward deferred tax asset. Tax Reform also resulted in the inclusion of Global Intangible Low Tax Income ("GILTI") of \$21, which was fully offset by our net operating loss. This further reduced our valuation allowance.

Additionally, certain provisions of Tax Reform were not effective until 2018. During 2018, the Company evaluated and recorded the impact of these provisions in the financial statements and the Company has made its accounting policy elections with respect to these items. The Company elected to account for GILTI as a current period expense in the reporting period in which the tax is incurred.

The effective tax rate was (8)% and (16)% for the three months ended June 30, 2019 and 2018, respectively. The effective tax rate was (10)% and (44)% for the six months ended June 30, 2019 and 2018, respectively. For both periods, the change in the effective tax rate was primarily attributable to the amount and distribution of income and losses among the various jurisdictions in which we operate. The effective tax rates were also impacted by operating gains and losses generated in jurisdictions where no tax expense or benefit was recognized due to the maintenance of a full valuation allowance.

For the three and six months ended June 30, 2019 and 2018, income tax expense relates primarily to income from certain foreign operations. In 2019 and 2018, losses in the United States and certain foreign jurisdictions had no impact on income tax expense as no tax benefit was recognized due to the maintenance of a full valuation allowance.

17. Guarantor/Non-Guarantor Subsidiary Financial Information

The Company's 6.625% First-Priority Senior Secured Notes due 2020, 10.00% First-Priority Senior Secured Notes due 2020, 10.375% First Priority Senior Secured Notes due 2022, 13.75% Senior Secured Notes due 2022 and 9.00% Second-Priority Senior Secured Notes due 2020 are guaranteed by certain of its U.S. and foreign subsidiaries.

The following information contains the condensed consolidating financial information for Hexion Inc. (the parent), the combined subsidiary guarantors (Hexion Investments Inc.; Lawter International, Inc.; Hexion Deer Park LLC (became a subsidiary guarantor in June 2018); Hexion International Inc.; Hexion CI Holding Company (China) LLC and NL COOP Holdings LLC) and the combined non-guarantor subsidiaries, which includes a majority of the Company's foreign subsidiaries.

All of the subsidiary guarantors are 100% owned by Hexion Inc. All guarantees are full and unconditional, and are joint and several. There are no significant restrictions on the ability of the Company to obtain funds from its domestic subsidiaries by dividend or loan. While the Company's Australian, New Zealand and Brazilian subsidiaries are restricted in the payment of dividends and intercompany loans due to the terms of their credit facilities, there are no material restrictions on the Company's ability to obtain cash from the remaining non-guarantor subsidiaries.

These financial statements are prepared on the same basis as the consolidated financial statements of the Company except that investments in subsidiaries are accounted for using the equity method for purposes of the consolidating presentation. The principal elimination entries relate to investments in subsidiaries and intercompany balances and transactions.

This information includes allocations of corporate overhead to the combined non-guarantor subsidiaries based on net sales. Income tax expense has been provided on the combined non-guarantor subsidiaries based on actual effective tax rates.

Condensed Combined Debtor Financial Information

The combination of the "Hexion Inc. (Debtors)" and "Combined Subsidiary Guarantors (Debtors)" columns of the condensed consolidating financial statements presented represent the Debtors' Balance Sheet as of June 30, 2019, the Debtors' Statement of Operations for the three and six months ended June 30, 2019 and the Debtors' Statement of Cash Flows for the six months ended June 30, 2019. Effective April 1, 2019, the Company's Non-Filing Entities are accounted for as non-guarantor subsidiaries in these financial statements and, as such, their net loss is included in the "Combined Non-guarantor Subsidiaries" column as "Net (loss) income attributable to Hexion Inc." in the Condensed Consolidating Statement of Operations and their net assets are included in the "Combined Non-guarantor Subsidiaries" column as "Total Deficit" in the Condensed Consolidating Balance Sheet.

HEXION INC.
(DEBTORS-IN-POSSESSION)
JUNE 30, 2019
CONDENSED CONSOLIDATING BALANCE SHEET (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Cash and cash equivalents (including restricted cash of \$0 and \$15, respectively)	\$ 13	\$ —	\$ 83	\$ —	\$ 96
Accounts receivable, net	143	—	356	—	499
Intercompany accounts receivable	56	1	81	(138)	—
Intercompany loans receivable—current portion	248	—	—	(248)	—
Inventories:					
Finished and in-process goods	99	—	143	—	242
Raw materials and supplies	44	—	65	—	109
Other current assets	32	—	37	—	69
Total current assets	635	1	765	(386)	1,015
Investment in unconsolidated entities	134	14	20	(148)	20
Other assets, net	10	7	25	—	42
Intercompany loans receivable	725	—	369	(1,094)	—
Property and equipment, net	353	—	474	—	827
Operating lease assets (see Note 10)	42	—	53	—	95
Goodwill	52	—	56	—	108
Other intangible assets, net	17	—	7	—	24
Total assets	\$ 1,968	\$ 22	\$ 1,769	\$ (1,628)	\$ 2,131
Liabilities and Deficit					
Current liabilities:					
Accounts payable	\$ 79	\$ —	\$ 214	\$ —	\$ 293
Intercompany accounts payable	82	—	56	(138)	—
Debt payable within one year	9	—	429	—	438
Intercompany loans payable within one year	—	—	248	(248)	—
Interest payable	1	—	6	—	7
Income taxes payable	2	—	4	—	6
Accrued payroll and incentive compensation	10	—	28	—	38
Current portion of operating lease liabilities (see Note 10)	11	—	10	—	21
Financing fees payable	104	—	—	—	104
Other current liabilities	63	—	43	—	106
Total current liabilities	361	—	1,038	(386)	1,013
Long-term liabilities:					
Liabilities subject to compromise	3,671	1	—	—	3,672
Long-term debt	47	—	43	—	90
Intercompany loans payable	369	—	725	(1,094)	—
Accumulated losses of unconsolidated subsidiaries in excess of investment	476	148	—	(624)	—
Long-term pension and post employment benefit obligations	—	—	184	—	184
Deferred income taxes	11	—	4	—	15
Operating lease liabilities (see Note 10)	31	—	43	—	74
Other long-term liabilities	82	—	82	—	164
Total liabilities	5,048	149	2,119	(2,104)	5,212
Total Hexion Inc. shareholder's deficit	(3,080)	(127)	(349)	476	(3,080)
Noncontrolling interest	—	—	(1)	—	(1)
Total deficit	(3,080)	(127)	(350)	476	(3,081)
Total liabilities and deficit	\$ 1,968	\$ 22	\$ 1,769	\$ (1,628)	\$ 2,131

HEXION INC.
(DEBTORS-IN-POSSESSION)
DECEMBER 31, 2018
CONDENSED CONSOLIDATING BALANCE SHEET

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Cash and cash equivalents (including restricted cash of \$0 and \$15, respectively)	\$ 20	\$ —	\$ 108	\$ —	\$ 128
Accounts receivable, net	98	—	314	—	412
Intercompany accounts receivable	40	—	66	(106)	—
Intercompany loans receivable—current portion	82	—	101	(183)	—
Inventories:					
Finished and in-process goods	100	—	140	—	240
Raw materials and supplies	36	—	58	—	94
Other current assets	28	—	29	—	57
Total current assets	404	—	816	(289)	931
Investment in unconsolidated entities	134	12	19	(146)	19
Deferred income taxes	—	—	—	—	—
Other long-term assets	10	7	17	—	34
Intercompany loans receivable	1,114	—	—	(1,114)	—
Property and equipment, net	363	—	478	—	841
Goodwill	53	—	56	—	109
Other intangible assets, net	19	—	8	—	27
Total assets	<u>\$ 2,097</u>	<u>\$ 19</u>	<u>\$ 1,394</u>	<u>\$ (1,549)</u>	<u>\$ 1,961</u>
Liabilities and Deficit					
Current liabilities:					
Accounts payable	\$ 126	\$ —	\$ 258	\$ —	\$ 384
Intercompany accounts payable	66	—	40	(106)	—
Debt payable within one year	3,563	—	153	—	3,716
Intercompany loans payable within one year	101	—	82	(183)	—
Interest payable	81	—	1	—	82
Income taxes payable	3	—	2	—	5
Accrued payroll and incentive compensation	22	—	30	—	52
Other current liabilities	61	—	45	—	106
Total current liabilities	4,023	—	611	(289)	4,345
Long term liabilities:					
Long-term debt	52	—	47	—	99
Intercompany loans payable	—	—	1,114	(1,114)	—
Accumulated losses of unconsolidated subsidiaries in excess of investment	781	146	—	(927)	—
Long-term pension and post employment benefit obligations	34	—	187	—	221
Deferred income taxes	2	—	13	—	15
Other long-term liabilities	117	—	78	—	195
Total liabilities	5,009	146	2,050	(2,330)	4,875
Total Hexion Inc. shareholder's deficit	(2,912)	(127)	(654)	781	(2,912)
Noncontrolling interest	—	—	(2)	—	(2)
Total deficit	(2,912)	(127)	(656)	781	(2,914)
Total liabilities and deficit	<u>\$ 2,097</u>	<u>\$ 19</u>	<u>\$ 1,394</u>	<u>\$ (1,549)</u>	<u>\$ 1,961</u>

HEXION INC.
(DEBTORS-IN-POSSESSION)
THREE MONTHS ENDED JUNE 30, 2019
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	\$ 413	\$ —	\$ 526	\$ (47)	\$ 892
Cost of sales	339	—	465	(47)	757
Gross profit	74	—	61	—	135
Selling, general and administrative expense	25	—	36	—	61
Business realignment costs	3	—	8	—	11
Other operating expense, net	6	—	2	—	8
Operating income	40	—	15	—	55
Interest expense, net (contractual interest of \$76 and \$7, respectively)	2	—	7	—	9
Intercompany interest (income) expense, net	(19)	—	19	—	—
Other non-operating income, net	(10)	—	—	—	(10)
Reorganization items, net	156	—	—	—	156
Loss before tax and (losses) earnings from unconsolidated entities	(89)	—	(11)	—	(100)
Income tax expense	1	—	7	—	8
Loss before (losses) earnings from unconsolidated entities	(90)	—	(18)	—	(108)
(Losses) earnings from unconsolidated entities, net of taxes	(18)	(13)	1	31	1
Net loss	(108)	(13)	(17)	31	(107)
Net income attributable to noncontrolling interest	—	—	(1)	—	(1)
Net loss attributable to Hexion Inc.	\$ (108)	\$ (13)	\$ (18)	\$ 31	\$ (108)
Comprehensive loss attributable to Hexion Inc.	\$ (116)	\$ (13)	\$ (25)	\$ 38	\$ (116)

HEXION INC.
(DEBTORS-IN-POSSESSION)
THREE MONTHS ENDED JUNE 30, 2018
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	\$ 460	\$ —	\$ 583	\$ (48)	\$ 995
Cost of sales	370	—	507	(48)	829
Gross profit	90	—	76	—	166
Selling, general and administrative expense	44	—	33	—	77
Business realignment costs	3	—	2	—	5
Other operating expense, net	3	—	8	—	11
Operating income	40	—	33	—	73
Interest expense, net	80	—	4	—	84
Intercompany interest (income) expense, net	(21)	—	21	—	—
Other non-operating expense (income), net	36	—	(28)	—	8
(Loss) income before tax and earnings from unconsolidated entities	(55)	—	36	—	(19)
Income tax expense	1	—	2	—	3
(Loss) income before earnings from unconsolidated entities	(56)	—	34	—	(22)
Earnings from unconsolidated entities, net of taxes	34	17	1	(51)	1
Net (loss) income	(22)	17	35	(51)	(21)
Net income attributable to noncontrolling interest	—	—	(1)	—	(1)
Net (loss) income attributable to Hexion Inc.	\$ (22)	\$ 17	\$ 34	\$ (51)	\$ (22)
Comprehensive (loss) income attributable to Hexion Inc.	\$ (38)	\$ 16	\$ 35	\$ (51)	\$ (38)

HEXION INC.
(DEBTORS-IN-POSSESSION)
SIX MONTHS ENDED JUNE 30, 2019
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	\$ 817	\$ —	\$ 1,057	\$ (96)	\$ 1,778
Cost of sales	680	—	923	(96)	1,507
Gross profit	137	—	134	—	271
Selling, general and administrative expense	76	—	76	—	152
Business realignment costs	5	—	10	—	15
Other operating expense, net	13	—	3	—	16
Operating income	43	—	45	—	88
Interest expense, net (contractual interest of \$152 and \$11, respectively)	78	—	11	—	89
Intercompany interest (income) expense, net	(39)	—	39	—	—
Other non-operating expense (income), net	8	—	(19)	—	(11)
Reorganization items, net	156	—	—	—	156
(Loss) income before tax and earnings from unconsolidated entities	(160)	—	14	—	(146)
Income tax expense	1	—	14	—	15
Loss before earnings earnings from unconsolidated entities	(161)	—	—	—	(161)
Earnings from unconsolidated entities, net of taxes	1	(1)	2	—	2
Net (loss) income	(160)	(1)	2	—	(159)
Net income attributable to noncontrolling interest	—	—	(1)	—	(1)
Net (loss) income attributable to Hexion Inc.	\$ (160)	\$ (1)	\$ 1	\$ —	\$ (160)
Comprehensive loss attributable to Hexion Inc.	\$ (168)	\$ (1)	\$ (6)	\$ 7	\$ (168)

HEXION INC.
(DEBTORS-IN-POSSESSION)
SIX MONTHS ENDED JUNE 30, 2018
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	\$ 891	\$ —	\$ 1,153	\$ (103)	\$ 1,941
Cost of sales	727	—	994	(103)	1,618
Gross profit	164	—	159	—	323
Selling, general and administrative expense	80	—	79	—	159
Gain on disposition	(24)	—	(20)	—	(44)
Asset impairments	25	—	—	—	25
Business realignment costs	9	—	5	—	14
Other operating expense, net	3	—	17	—	20
Operating income	71	—	78	—	149
Interest expense, net	159	—	8	—	167
Intercompany interest (income) expense, net	(41)	—	41	—	—
Other non-operating expense (income), net	17	—	(10)	—	7
(Loss) income before tax and earnings from unconsolidated entities	(64)	—	39	—	(25)
Income tax (benefit) expense	(6)	—	17	—	11
(Loss) income before earnings from unconsolidated entities	(58)	—	22	—	(36)
Earnings from unconsolidated entities, net of taxes	23	14	2	(37)	2
Net (loss) income	(35)	14	24	(37)	(34)
Net income attributable to noncontrolling interest	—	—	(1)	—	(1)
Net (loss) income attributable to Hexion Inc.	\$ (35)	\$ 14	\$ 23	\$ (37)	\$ (35)
Comprehensive (loss) income attributable to Hexion Inc.	\$ (37)	\$ 14	\$ 37	\$ (51)	\$ (37)

HEXION INC.
(DEBTORS-IN-POSSESSION)
SIX MONTHS ENDED JUNE 30, 2019
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows (used in) provided by operating activities	\$ (154)	\$ —	\$ 41	\$ —	\$ (113)
Cash flows provided by (used in) investing activities					
Capital expenditures	(18)	—	(25)	—	(43)
Proceeds from sale of assets, net	—	—	1	—	1
Return of capital from subsidiary from sales of accounts receivable	135 (a)	—	—	(135)	—
	<u>117</u>	<u>—</u>	<u>(24)</u>	<u>(135)</u>	<u>(42)</u>
Cash flows provided by (used in) financing activities					
Net short-term debt borrowings	(4)	—	—	—	(4)
Borrowings of long-term debt	89	—	578	—	667
Repayments of long-term debt	(225)	—	(302)	—	(527)
DIP Facility financing fees	(13)	—	—	—	(13)
Net intercompany loan borrowings (repayments)	183	—	(183)	—	—
Return of capital to parent from sales of accounts receivable	—	—	(135) (a)	135	—
	<u>30</u>	<u>—</u>	<u>(42)</u>	<u>135</u>	<u>123</u>
Change in cash and cash equivalents	(7)	—	(25)	—	(32)
Cash, cash equivalents and restricted cash at beginning of period	20	—	108	—	128
Cash, cash equivalents and restricted cash at end of period	<u>\$ 13</u>	<u>\$ —</u>	<u>\$ 83</u>	<u>\$ —</u>	<u>\$ 96</u>

(a) During the six months ended June 30, 2019, Hexion Inc. contributed receivables of \$135 to a non-guarantor subsidiary as capital contributions, resulting in a non-cash transaction. During the six months ended June 30, 2019, the non-guarantor subsidiary sold the contributed receivables to certain banks under various supplier financing agreements. The cash proceeds were returned to Hexion Inc. by the non-guarantor subsidiary as a return of capital. The sale of receivables has been included within cash flows from operating activities on the Combined non-guarantor subsidiaries. The return of the cash proceeds from the sale of receivables has been included as a financing outflow and an investing inflow on the Combined Non-Guarantor Subsidiaries and Hexion Inc., respectively.

HEXION INC.
(DEBTORS-IN-POSSESSION)
SIX MONTHS ENDED JUNE 30, 2018
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

	Hexion Inc. (Debtors)	Combined Subsidiary Guarantors (Debtors)	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows (used in) provided by operating activities	\$ (185)	\$ —	\$ 143	\$ —	\$ (42)
Cash flows provided by (used in) investing activities					
Capital expenditures	(13)	—	(30)	—	(43)
Proceeds from dispositions, net	24	—	25	—	49
Proceeds from sale of assets, net	—	—	1	—	1
Return of capital from subsidiary from sales of accounts receivable	172 (a)	—	—	(172)	—
	<u>183</u>	<u>—</u>	<u>(4)</u>	<u>(172)</u>	<u>7</u>
Cash flows provided by (used in) financing activities					
Net short-term debt borrowings	(5)	—	8	—	3
Borrowings of long-term debt	150	—	144	—	294
Repayments of long-term debt	(140)	—	(103)	—	(243)
Net intercompany loan borrowings (repayments)	26	—	(26)	—	—
Long-term debt and credit facility financing fees	—	—	(1)	—	(1)
Return of capital to parent from sales of accounts receivable	—	—	(172) (a)	172	—
	<u>31</u>	<u>—</u>	<u>(150)</u>	<u>172</u>	<u>53</u>
Effect of exchange rates on cash and cash equivalents	—	—	(3)	—	(3)
Change in cash and cash equivalents	29	—	(14)	—	15
Cash, cash equivalents and restricted cash at beginning of period	13	—	102	—	115
Cash, cash equivalents and restricted cash at end of period	<u>\$ 42</u>	<u>\$ —</u>	<u>\$ 88</u>	<u>\$ —</u>	<u>\$ 130</u>

(a) During the six months ended June 30, 2018, Hexion Inc. contributed receivables of \$172 to a non-guarantor subsidiary as capital contributions, resulting in a non-cash transaction. During the six months ended June 30, 2018, the non-guarantor subsidiary sold the contributed receivables to certain banks under various supplier financing agreements. The cash proceeds were returned to Hexion Inc. by the non-guarantor subsidiary as a return of capital. The sale of receivables has been included within cash flows from operating activities on the Combined non-guarantor subsidiaries. The return of the cash proceeds from the sale of receivables has been included as a financing outflow and an investing inflow on the Combined Non-Guarantor Subsidiaries and Hexion Inc., respectively.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations (dollar amounts in millions)

The following commentary should be read in conjunction with the audited Consolidated Financial Statements and the accompanying notes and Management’s Discussion and Analysis of Financial Condition and Results of Operations included in the Company’s most recent Annual Report on Form 10-K.

Within the following discussion, unless otherwise stated, “the second quarter of 2019” refers to the three months ended June 30, 2019 and “the second quarter of 2018” refers to the three months ended June 30, 2018.

Forward-Looking and Cautionary Statements

Certain statements in this report, including without limitation, certain statements made under the caption “Overview and Outlook,” are forward-looking statements within the meaning of and made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. In addition, our management may from time to time make oral forward-looking statements. All statements, other than statements of historical facts, are forward-looking statements. Forward-looking statements may be identified by the words “believe,” “expect,” “anticipate,” “project,” “might,” “plan,” “estimate,” “may,” “will,” “could,” “should,” “seek” or “intend” and similar expressions. Forward-looking statements reflect our current expectations and assumptions regarding our business, the economy and other future events and conditions and are based on currently available financial, economic and competitive data and our current business plans. Actual results could vary materially depending on risks and uncertainties that may affect our operations, markets, services, prices and other factors as discussed in the Risk Factors section of this report and our other filings with the Securities and Exchange Commission (the “SEC”). While we believe our assumptions are reasonable, we caution you against relying on any forward-looking statements as it is very difficult to predict the impact of known factors, and it is impossible for us to anticipate all factors that could affect our actual results. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, the effectiveness of the overall restructuring activities pursuant to the Chapter 11 filings and any additional strategies that we may employ to address our liquidity and capital resources, our ability to continue as a going concern, effects of disruption from the Chapter 11 cases and any restructuring transactions, the timing for resolving and any impact of the network security incident, a weakening of global economic and financial conditions, interruptions in the supply of or increased cost of raw materials, the loss of, or difficulties with the further realization of, cost savings in connection with our strategic initiatives, the impact of our substantial indebtedness, our failure to comply with financial covenants under our credit facilities or other debt, pricing actions by our competitors that could affect our operating margins, changes in governmental regulations and related compliance and litigation costs and the other factors listed in the Risk Factors section of this report and in our other SEC filings. For a more detailed discussion of these and other risk factors, see the Risk Factors section of this report and our most recent filings made with the SEC. All forward-looking statements are expressly qualified in their entirety by this cautionary notice. The forward-looking statements made by us speak only as of the date on which they are made. Factors or events that could cause our actual results to differ may emerge from time to time. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.

Overview and Outlook

Bankruptcy Filing and Going Concern

We previously disclosed, based on our financial condition and our projected operating results, the defaults under our debt agreements, and the risks and uncertainties surrounding our Chapter 11 proceedings, that there was substantial doubt as to our ability to continue as a going concern as of the issuance of our 2018 Annual Report on Form 10-K. Our ability to continue as a going concern at June 30, 2019 was contingent upon our ability to comply with the financial and other covenants contained in the DIP Term Loan Facility, the DIP ABL Facility and our ability to successfully implement the Plan, among other factors. After our emergence from Chapter 11 on July 1, 2019, based on our new capital structure, liquidity position upon emergence and projected operating results, we expect to continue as a going concern for the next twelve months. Refer to Note 2 to the Condensed Consolidated Financial Statements in Part I of this Quarterly Report on Form 10-Q for more information.

Financial Reporting in Reorganization

Effective on April 1, 2019, we applied ASC, No. 852, “Reorganizations,” which is applicable to companies under Chapter 11 bankruptcy protection. It requires the financial statements for periods subsequent to the Chapter 11 filing to distinguish transactions and events that are directly associated with the reorganization from the ongoing operations of the business. Expenses, realized gains and losses, and provisions for losses that are directly associated with reorganization proceedings must be reported separately as “Reorganization items, net” in the Condensed Consolidated Statements of Operations. In addition, the balance sheet must distinguish debtor pre-petition LSTC from liabilities of non-filing entities, pre-petition liabilities that are not subject to compromise and post-petition liabilities in the accompanying Condensed Consolidated Balance Sheet. LSTC are pre-petition obligations that are not fully secured and have at least a possibility of not being repaid at the full claim amount. Refer to Note 3 to the Condensed Consolidated Financial Statements in Part I of this Quarterly Report on Form 10-Q for more information.

The accompanying Condensed Consolidated Balance Sheet as of December 31, 2018 included in this Quarterly Report on Form 10-Q has been prepared under the basis of accounting assuming that we will continue as a going concern, which contemplates continuity of operations, realization of assets and satisfaction of liabilities and commitments in the normal course of business. We have made certain adjustments to the Condensed Consolidated Balance Sheet as of December 31, 2018 including the reclassification of certain outstanding debt to current liabilities and the write-off of unamortized deferred financing costs related to such debt.

Business Overview

We are a large participant in the specialty chemicals industry, and a leading producer of adhesive and structural resins and coatings. Thermosets are a critical ingredient for virtually all paints, coatings, glues and other adhesives produced for consumer or industrial uses. We provide a broad array of thermosets and associated technologies and have significant market positions in all of the key markets that we serve.

Our products are used in thousands of applications and are sold into diverse markets, such as forest products, architectural and industrial paints, packaging, consumer products and automotive coatings, as well as higher growth markets, such as wind energy and electrical composites. Major industry sectors that we serve include industrial/marine, construction, consumer/durable goods, automotive, wind energy, aviation, electronics, architectural, civil engineering, repair/remodeling and oil and gas drilling. Key drivers for our business include general economic and industrial conditions, including housing starts, auto build rates and active oil and gas drilling rigs. In addition, due to the nature of our products and the markets we serve, competitor capacity constraints and the availability of similar products in the market may impact our results. As is true for many industries, our financial results are impacted by the effect on our customers of economic upturns or downturns, as well as by the impact on our own costs to produce, sell and deliver our products. Our customers use most of our products in their production processes. As a result, factors that impact their industries can and have significantly affected our results.

Through our worldwide network of strategically located production facilities we serve more than 3,100 customers in approximately 85 countries. Our global customers include large companies in their respective industries, such as 3M, Akzo Nobel, BASF, Bayer, Dow, Louisiana Pacific, Owens Corning, PPG Industries, Valspar and Weyerhaeuser.

Reportable Segments

Our business segments are based on the products that we offer and the markets that we serve. At June 30, 2019, we had three reportable segments: Epoxy, Phenolic and Coating Resins; Forest Products Resins; and Corporate and Other. A summary of the major products of our reportable segments follows:

- **Epoxy, Phenolic and Coating Resins:** epoxy specialty resins, phenolic encapsulated substrates, versatic acids and derivatives, basic epoxy resins and intermediates, phenolic specialty resins and molding compounds
- **Forest Products Resins:** forest products resins and formaldehyde applications
- **Corporate and Other:** primarily corporate general and administrative expenses that are not allocated to the other segments, such as shared service and administrative functions, foreign exchange gains and losses and legacy company costs.

2019 Overview

Following are highlights from our results of operations for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,			
	2019	2018	\$ Change	% Change
Statements of Operations:				
Net sales	\$ 1,778	\$ 1,941	\$ (163)	(8)%
Gross profit	271	323	(52)	(16)%
Operating income	88	149	(61)	(41)%
Loss before income tax	(146)	(25)	(121)	(484)%
Net loss	(159)	(34)	(125)	(368)%
Segment EBITDA:				
Epoxy, Phenolic and Coating Resins	\$ 111	\$ 142	\$ (31)	(22)%
Forest Products Resins	134	143	(9)	(6)%
Corporate and Other	(30)	(39)	9	23 %
Total	\$ 215	\$ 246	\$ (31)	(13)%

- **Net Sales**—In the first half of 2019, net sales decreased by \$163, or 8%, compared to the first half of 2018. Foreign currency translation negatively impacted net sales by \$73 due to the weakening of various foreign currencies against the U.S. dollar in the first half 2019 compared to the first half of 2018. Volume decreases negatively impacted net sales by \$60 primarily related to volume decreases in our North American resins business due to weaker demand driven by timing of new housing starts, high customer inventory levels and competitive pricing pressures, and in our phenolic resins business due to an overall weakness in the market, primarily in the automotive and construction industries. These decreases were partially offset by increased volumes in our epoxy specialty business due to strong demand in China wind energy. Pricing negatively impacted sales by \$30 due primarily to softer market conditions in our base epoxy resins business.

- **Net Loss**—In the first half of 2019, net loss increased by \$125 as compared to the first half of 2018. This increase in net loss was primarily driven by \$156 of reorganization costs associated with our Chapter 11 proceedings, a decrease in gross profit due primarily to the margin reductions in our base epoxy resins business discussed above and a gain on the sale of our ATG business of \$44 that occurred in the first quarter of 2018. These decreases were partially offset by a decrease in interest expense of \$78 as a result of the restructuring of our debt through our Chapter 11 proceedings and asset impairments of \$25 largely attributed to our oilfield business that occurred in the first quarter of 2018.
- **Segment EBITDA**—For the first half of 2019, Segment EBITDA was \$215, a decrease of 13% compared with \$246 in the first half of 2018. This decrease was primarily due to margin reductions in our base epoxy resins business driven by softer market conditions.
- **Restructuring and Cost Reduction Programs**— During the first half of 2019, we have achieved \$7 in cost savings related to our cost reduction programs. We now have a total of \$23 of additional in-process cost savings, which include new cost reduction activities initiated in the second quarter of 2019, that we expect to realize over the next 18 months.
- **Network Security Incident**— In March 2019, we experienced a network security incident that temporarily prevented access to certain information technology systems and data within our network, primarily impacting our corporate functions. We took immediate steps to isolate the issue and implemented our technical recovery plan. Our manufacturing sites, which rely on different networks, continued to operate safely and with limited interruption. For the three and six months ended June 30, 2019, we incurred approximately \$5 and \$9, respectively, in costs related to the incident, and we expect to incur additional costs through the third quarter of 2019. We will seek reimbursement through insurance proceeds for costs incurred related to the incident, where applicable.

Short-term Outlook

Overall, we expect improvement in our epoxy specialty business in the remainder of 2019 due to the introduction of new products and government supported investment in the China wind energy market. While we expect softer market conditions in our base epoxy business, we expect our results to remain favorable compared to historical performance.

In the remainder of 2019, we expect relatively flat results compared to 2018 in our North American forest products resins business based on the latest expectations in U.S. housing starts and remodeling. Additionally, we anticipate modest overall improvement in our Latin American business due to ongoing recovery in the Brazilian economy. We continue to expect stable volumes in our North American formaldehyde solutions business for the remainder of 2019, but we anticipate volume decreases in certain formaldehyde derivatives due to softness in the oil and gas markets.

We also anticipate that all of our businesses will continue to benefit from the savings associated with our restructuring and cost reduction initiatives. Finally, we expect raw material price volatility to continue throughout the remainder of 2019.

Matters Impacting Comparability of Results

Chapter 11 Bankruptcy Filing Costs

During the first half of 2019, we incurred \$179 directly related to our Chapter 11 proceedings. These costs included certain professional fees, financing fees payable, DIP ABL Facility fees, and other legal fees and expenses. Of these costs, \$156 are classified within “Reorganization items, net” and \$23 are classified within “Selling, general and administrative expense” in the unaudited Condensed Consolidated Statements of Operations.

Raw Material Prices

Raw materials comprise approximately 75% of our cost of sales. The three largest raw materials used in our production processes are phenol, methanol and urea. These materials represent about half of our total raw material costs. Fluctuations in energy costs, such as volatility in the price of crude oil and related petrochemical products, as well as the cost of natural gas have historically caused volatility in our raw material and utility costs. In the first six months of 2019 compared to the first six months of 2018, the average price of methanol and phenol decreased by approximately 13% and 2%, respectively, and the average price of urea increased by approximately 7%. The impact of passing through raw material price changes to customers can result in significant variances in sales comparisons from year to year.

Other Comprehensive Income

Our other comprehensive income is significantly impacted by foreign currency translation, and to a lesser degree by defined benefit pension and postretirement benefit adjustments. The impact of foreign currency translation is driven by the translation of assets and liabilities of our foreign subsidiaries which are denominated in functional currencies other than the U.S. dollar. Our non-U.S. operations accounted for approximately 60% of our sales in the first half of 2019. The primary assets and liabilities driving the adjustments are cash and cash equivalents; accounts receivable; inventory; property, plant and equipment; accounts payable; pension and other postretirement benefit obligations and certain intercompany loans payable and receivable. The primary currencies in which these assets and liabilities are denominated are the euro, Brazilian real, Chinese yuan, Canadian dollar and Australian dollar. The impact of defined benefit pension and postretirement benefit adjustments is primarily driven by unrecognized prior service cost related to our defined benefit and other non-pension postretirement benefit plans (“OPEB”), as well as the subsequent amortization of these amounts from accumulated other comprehensive income in periods following the initial recording of such amounts.

Results of Operations
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	Three Months Ended June 30,			
	2019		2018	
	\$	% of Net Sales	\$	% of Net Sales
Net sales	\$ 892	100 %	\$ 995	100 %
Cost of sales	757	85 %	829	83 %
Gross profit	135	15 %	166	17 %
Selling, general and administrative expense	61	7 %	77	8 %
Business realignment costs	11	1 %	5	1 %
Other operating expense, net	8	1 %	11	1 %
Operating income	55	6 %	73	7 %
Interest expense, net	9	1 %	84	8 %
Other non-operating (income) expense, net	(10)	(1)%	8	1 %
Reorganization items, net	156	17 %	—	— %
Total non-operating expense	155	17 %	92	9 %
Loss before income tax and earnings from unconsolidated entities	(100)	(11)%	(19)	(2)%
Income tax expense	8	1 %	3	— %
Loss before earnings from unconsolidated entities	(108)	(12)%	(22)	(2)%
Earnings from unconsolidated entities, net of taxes	1	— %	1	— %
Net loss	(107)	(12)%	(21)	(2)%
Net income attributable to noncontrolling interest	(1)	— %	(1)	— %
Net loss attributable to Hexion Inc.	\$ (108)	(12)%	\$ (22)	(2)%
Other comprehensive loss	\$ (8)		\$ (16)	

Three Months Ended June 30, 2019 vs. Three Months Ended June 30, 2018
Net Sales

In the second quarter of 2019, net sales decreased by \$103, or 10%, compared to the second quarter of 2018. Pricing negatively impacted sales by \$36 due primarily to softer market conditions in our base epoxy resins business and methanol price decreases contractually passed through to customers across many of our businesses. Foreign currency translation negatively impacted net sales by \$34 due to the strengthening of the U.S. dollar against the euro, Chinese yuan and the Brazilian real in the second quarter of 2019 compared to the second quarter of 2018. Volume decreases negatively impacted net sales by \$33, which was primarily related to volume decreases in our North American resins business due to weaker demand driven by high customer inventory levels and competitive pricing pressures, and in our phenolic resins business due to overall weakness in the market, primarily in the automotive and construction industries. These decreases were partially offset by increased volumes in our epoxy specialty business due to strong demand in China wind energy.

Gross Profit

In the second quarter of 2019, gross profit decreased by \$31 compared to the second quarter of 2018. Gross profit as a percentage of net sales decreased by 2% due primarily to margin reductions driven by the market conditions in our base epoxy resins business discussed above.

Operating Income

In the second quarter of 2019, operating income decreased by \$18 compared to the second quarter of 2018, driven primarily by the decrease in gross profit of \$31 discussed above and an increase in business realignment costs of \$6, partially offset by a decrease in selling, general and administrative expense of \$16 and a decrease in other operating expense of \$3. The increase in business realignment costs is driven by higher severance expenses related to current cost reduction actions. The decrease in selling, general and administrative expense was due primarily to our ongoing cost savings and productivity actions, as well as timing of variable compensation costs. The decreases in other operating expense is due to lower realized and unrealized foreign currency losses.

Non-Operating Expense

In the second quarter of 2019, total non-operating expense increased by \$63 compared to the second quarter of 2018. This was due to \$156 of reorganization costs related to our Chapter 11 proceedings, partially offset by a decrease in interest expense of \$75 as a result of the restructuring of our debt through our Chapter 11 proceedings and a increase of \$18 in other non-operating income driven by higher realized and unrealized foreign currency gains.

Income Tax Expense

The effective tax rate was (8)% and (16)% for the second quarter of 2019 and 2018, respectively. The change in the effective tax rate was primarily attributable to the amount and distribution of income and losses among the various jurisdictions in which we operate. The effective tax rates were also impacted by operating gains and losses generated in jurisdictions where no tax expense or benefit was recognized due to the maintenance of a full valuation allowance.

For the second quarter of 2019 and 2018, income tax expense relates primarily to income from certain foreign operations. In 2019 and 2018, losses in the United States and certain foreign jurisdictions had no impact on income tax expense as no tax benefit was recognized due to the maintenance of a full valuation allowance.

Other Comprehensive Income

For the second quarter of 2019, foreign currency translation negatively impacted other comprehensive loss by \$8, primarily due to an overall weakening of various foreign currencies against the U.S. dollar in the second quarter of 2019.

For the second quarter of 2018, foreign currency translation positively impacted other comprehensive loss by \$16, primarily due to the weakening of various foreign currencies against the U.S. dollar in the second quarter of 2018.

	Six Months Ended June 30,			
	2019		2018	
	\$	% of Net Sales	\$	% of Net Sales
Net sales	\$ 1,778	100 %	\$ 1,941	100 %
Cost of sales	1,507	85 %	1,618	83 %
Gross profit	271	15 %	323	17 %
Selling, general and administrative expense	152	9 %	159	8 %
Gain on disposition	—	— %	(44)	(2)%
Asset impairments	—	— %	25	1 %
Business realignment costs	15	1 %	14	1 %
Other operating expense, net	16	1 %	20	1 %
Operating income	88	5 %	149	8 %
Interest expense, net	89	5 %	167	9 %
Other non-operating (income) expense, net	(11)	(1)%	7	— %
Reorganization items, net	156	9 %	—	— %
Total non-operating expense	234	13 %	174	9 %
Loss before income tax and earnings from unconsolidated entities	(146)	(8)%	(25)	(1)%
Income tax expense	15	1 %	11	1 %
Loss before earnings from unconsolidated entities	(161)	(9)%	(36)	(2)%
Earnings from unconsolidated entities, net of taxes	2	— %	2	— %
Net loss	(159)	(9)%	(34)	(2)%
Net income attributable to noncontrolling interest	(1)	— %	(1)	— %
Net loss attributable to Hexion Inc.	\$ (160)	(9)%	\$ (35)	(2)%
Other comprehensive loss	\$ (8)		\$ (2)	

Six Months Ended June 30, 2019 vs. Six Months Ended June 30, 2018

Net Sales

In the first half of 2019, net sales decreased by \$163, or 8%, compared to the first half of 2018. Foreign currency translation negatively impacted net sales by \$73 due to the weakening of various foreign currencies against the U.S. dollar in the first half 2019 compared to the first half of 2018. Volume decreases negatively impacted net sales by \$60 primarily related to volume decreases in our North American resins business due to weaker demand driven by timing of new housing starts, high customer inventory levels and competitive pricing pressures, and in our phenolic resins business due to overall weakness in the market, primarily in the automotive and construction industries. These decreases were partially offset by increased volumes in our epoxy specialty business due to strong demand in China wind energy. Lastly, pricing negatively impacted sales by \$30 due primarily to softer market conditions in our base epoxy resins business.

Gross Profit

In the first half of 2019, gross profit decreased by \$52 compared to the first half of 2018. Gross profit as a percentage of net sales decreased by 2% due primarily to margin reductions driven by the market conditions in our base epoxy resins business discussed above.

Operating Income

In the first half of 2019, operating income decreased by \$61 compared to the first half of 2018, driven primarily by the decrease in gross profit of \$52 discussed above and the gain on the disposition of our ATG business of \$44 that occurred in the first quarter 2018, partially offset by a decrease in selling, general and administrative expense of \$7 and a decrease in our other operating expense of \$4. The decrease in selling, general and administrative expense was due primarily to our ongoing cost savings and productivity actions, as well as timing of variable compensation costs, partially offset by \$23 of certain professional fees and other expenses incurred related to our Chapter 11 proceedings. The decreases in other operating expense is due to lower realized and unrealized foreign currency losses.

Non-Operating Expense

In the first half of 2019, total non-operating expense increased by \$60 compared to the first half of 2018. This was due to a \$156 of reorganization costs related to our Chapter 11 proceedings, partially offset by a decrease in interest expense of \$78 as a result of our the restructuring of our debt through our Chapter 11 proceedings and a increase of \$18 in other non-operating income driven by higher realized and unrealized foreign currency gains.

Income Tax Expense

The effective tax rate was (10)% and (44)% for the first half of 2019 and 2018, respectively. The change in the effective tax rate was primarily attributable to the amount and distribution of income and losses among the various jurisdictions in which we operate. The effective tax rates were also impacted by operating gains and losses generated in jurisdictions where no tax expense or benefit was recognized due to the maintenance of a full valuation allowance.

For the first half of 2019 and 2018, income tax expense relates primarily to income from certain foreign operations. In 2019 and 2018, losses in the United States and certain foreign jurisdictions had no impact on income tax expense as no tax benefit was recognized due to the maintenance of a full valuation allowance.

Other Comprehensive Income

For the first half of 2019, foreign currency translation negatively impacted other comprehensive loss by \$8, primarily due to an overall weakening of various foreign currencies against the U.S. dollar in the first half of 2019.

For the first half of 2018, foreign currency positively impacted other comprehensive income by \$2, primarily due to an overall weakening of various foreign currencies against the U.S. dollar in the first half of 2018.

Results of Operations by Segment

Following are net sales and Segment EBITDA (earnings before interest, income taxes, depreciation and amortization) by reportable segment. Segment EBITDA is defined as EBITDA adjusted for certain non-cash items and other income and expenses. Segment EBITDA is the primary performance measure used by our senior management, the chief operating decision-maker and the board of directors to evaluate operating results and allocate capital resources among segments. Segment EBITDA is also the profitability measure used to set management and executive incentive compensation goals. Segment EBITDA should not be considered a substitute for net loss or other results reported in accordance with U.S. GAAP. Segment EBITDA may not be comparable to similarly titled measures reported by other companies.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net Sales ⁽¹⁾:				
Epoxy, Phenolic and Coating Resins	\$ 512	\$ 564	\$ 1,003	\$ 1,104
Forest Products Resins	380	431	775	837
Total	\$ 892	\$ 995	\$ 1,778	\$ 1,941
Segment EBITDA:				
Epoxy, Phenolic and Coating Resins	\$ 59	\$ 72	\$ 111	\$ 142
Forest Products Resins	66	76	134	143
Corporate and Other	(13)	(20)	(30)	(39)
Total	\$ 112	\$ 128	\$ 215	\$ 246

(1) Intersegment sales are not significant and, as such, are eliminated within the selling segment.

Three Months Ended June 30, 2019 vs. Three Months Ended June 30, 2018 Segment Results

Following is an analysis of the percentage change in net sales by segment from the three months ended June 30, 2018 to the three months ended June 30, 2019:

	Volume	Price/Mix	Currency Translation	Impact of Dispositions	Total
Epoxy, Phenolic and Coating Resins	(1)%	(4)%	(4)%	—%	(9)%
Forest Products Resins	(6)%	(3)%	(3)%	—%	(12)%

Epoxy, Phenolic and Coating Resins

Net sales in the second quarter of 2019 decreased by \$52, or 9%, when compared to the second quarter of 2018. Pricing negatively impacted net sales by \$24, primarily due to softer market conditions in our base epoxy resins business as compared to the second quarter of 2018. Foreign currency translation negatively impacted net sales by \$21, due primarily to the strengthening of the U.S. dollar against the euro and Chinese yuan in the second quarter of 2019 compared to the second quarter of 2018. Lastly, volumes negatively impacted net sales by \$7, which was primarily related to volume decreases in our phenolic specialty resins and versatic acids businesses driven by overall weakness in the market, primarily in the automotive and construction industries. These decreases were partially offset by increased volumes in our epoxy specialty business due to strong demand in China wind energy.

Segment EBITDA in the second quarter of 2019 decreased by \$13 to \$59 compared to the second quarter of 2018. The decrease was primarily driven by the margin reductions in our base epoxy resins business due to softer market conditions discussed above.

Forest Products Resins

Net sales in the second quarter of 2019 decreased by \$51, or 12%, when compared to the second quarter of 2018. Volumes negatively impacted net sales by \$26, due to volume decreases in our North American resins businesses due to weaker demand driven by high customer inventory levels, competitive pricing pressures and customer mill closures, and decreases in our North American formaldehyde business driven by softness in the oil and gas markets in Western Canada. Foreign currency translation negatively impacted net sales by \$13 mainly due to the strengthening of the U.S. dollar against various foreign currencies in the second quarter of 2019 compared to the second quarter of 2018. Pricing negatively impacted net sales by \$12, which was primarily due to methanol price decreases contractually passed through to customers across many of our businesses.

Segment EBITDA in the second quarter of 2019 decreased by \$10, to \$66, compared to the second quarter of 2018. This decrease was primarily driven by the volume decreases in our North American resins and formaldehyde businesses discussed above.

Corporate and Other

Corporate and Other is primarily corporate, general and administrative expenses that are not allocated to the other segments, such as shared service and administrative functions, unallocated foreign exchange gains and losses and legacy company costs not allocated to the other segments. Corporate and Other charges in the second quarter of 2019 decreased by \$7 compared to the second quarter of 2018 due primarily to our ongoing cost reduction efforts, as well as timing of variable compensation costs.

Six Months Ended June 30, 2019 vs. Six Months Ended June 30, 2018 Segment Results

Following is an analysis of the percentage change in net sales by segment from the six months ended June 30, 2018 to the six months ended June 30, 2019:

	Volume	Price/Mix	Currency Translation	Total
Epoxy, Phenolic and Coating Resins	(3)%	(2)%	(4)%	(9)%
Forest Products Resins	(3)%	—%	(4)%	(7)%

Epoxy, Phenolic and Coating Resins

Net sales in the first half of 2019 decreased by \$101, or 9%, when compared to the first half of 2018. Foreign currency translation negatively impacted net sales by \$41, due primarily to the strengthening of the U.S. dollar against various foreign currencies in the first half of 2019 compared to the first half of 2018. Volumes negatively impacted net sales by \$33, which was primarily related to volume decreases in our phenolic specialty resins and versatic acids businesses driven by overall weakness in the market, primarily in the automotive and construction industries. These decreases were partially offset by increased volumes in our epoxy specialty business due to strong demand in China wind energy. Lastly, pricing negatively impacted net sales by \$27, primarily due to softer market conditions in our base epoxy resins business as compared to the first half of 2018.

Segment EBITDA in the first half of 2019 decreased by \$31 to \$111 compared to the first half of 2018. The decrease was primarily driven by the margin reductions in our base epoxy resins business due to softer market conditions discussed above.

Forest Products Resins

Net sales in the first half of 2019 decreased by \$62, or 7%, when compared to the first half of 2018. Foreign currency translation negatively impacted net sales by \$32, due largely to the strengthening of the U.S. dollar against various foreign currencies in the first half of 2019 compared to the first half of 2018. Volumes negatively impacted net sales by \$27, primarily related to volume decreases in our North American resins businesses due to weaker demand driven by timing of new housing starts, high customer inventory levels, competitive pricing pressures and customer mill closures. Lastly, pricing negatively impacted net sales by \$3, primarily due to methanol price decreases contractually passed through to customers across many of our businesses.

Segment EBITDA in the first half of 2019 decreased by \$9 to \$134, when compared to the first half of 2018. This decrease was primarily driven by the volume decreases in our North American resins business discussed above.

Corporate and Other

Corporate and Other is primarily corporate, general and administrative expenses that are not allocated to the other segments, such as shared service and administrative functions, unallocated foreign exchange gains and losses and legacy company costs not allocated to continuing segments. Corporate and Other charges in the first half of 2019 decreased by \$9 compared to the first half of 2018 due primarily to our ongoing cost reduction efforts, as well as timing of variable compensation costs.

Reconciliation of Net Loss to Segment EBITDA:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Reconciliation:				
Net loss attributable to Hexion Inc.	\$ (108)	\$ (22)	\$ (160)	\$ (35)
Net income attributable to noncontrolling interest	(1)	(1)	(1)	(1)
Net loss	(107)	(21)	(159)	(34)
Income tax expense	8	3	15	11
Interest expense, net	9	84	89	167
Depreciation and amortization	26	28	52	58
EBITDA	\$ (64)	\$ 94	\$ (3)	\$ 202
Items not included in Segment EBITDA:				
Asset impairments	\$ —	\$ —	\$ —	\$ 25
Business realignment costs	11	5	15	14
Gain on disposition	—	—	—	(44)
Transaction costs	3	3	26	6
Realized and unrealized foreign currency (gains) losses	(7)	15	(6)	22
Reorganization costs	156	—	156	—
Other	13	11	27	21
Total adjustments	176	34	218	44
Segment EBITDA	\$ 112	\$ 128	\$ 215	\$ 246
Segment EBITDA:				
Epoxy, Phenolic and Coating Resins	\$ 59	\$ 72	\$ 111	\$ 142
Forest Products Resins	66	76	134	143
Corporate and Other	(13)	(20)	(30)	(39)
Total	\$ 112	\$ 128	\$ 215	\$ 246

Items Not Included in Segment EBITDA

Not included in Segment EBITDA are certain non-cash items and other unusual or non-recurring income and expenses. Reorganization costs for the three and six months ended June 30, 2019 represent incremental costs incurred directly as a result of our Chapter 11 proceedings after the date of filing. See Note 4 for more information. For the six months ended June 30, 2019, transaction costs primarily included certain professional fees and other expenses related to our Chapter 11 proceedings incurred prior to the date of filing. For the three months ended June 30, 2019, transaction costs primarily included other expenses related to our Chapter 11 proceedings that do not meet the criteria for reorganization costs. For the three and six months ended June 30, 2018, transaction costs included certain professional fees related to strategic projects. Business realignment costs for the three and six months ended June 30, 2019 and 2018 primarily included costs related to certain in-process facility rationalizations and cost reduction programs. For the three and six months ended June 30, 2019 and 2018, items classified as "Other" primarily included expenses from retention programs, management fees and expenses related to legacy liabilities.

Liquidity and Capital Resources

2019 Outlook

Following our emergence from our Chapter 11 proceedings, we believe we are favorably positioned to fund our ongoing liquidity requirements for the foreseeable future through cash generated from operations, as well as available borrowings under our ABL Facility. The additional liquidity provided by the Rights Offerings and the impact of the Plan on our capital structure, resulting in reduced annual debt service obligations of approximately \$205, will increase our future operational and financial flexibility and leave us well positioned to make strategic capital investments, leverage our leadership positions with both our customers and suppliers, optimize our portfolio and drive new growth programs.

At June 30, 2019, we had \$3,948 of outstanding debt and \$418 in liquidity consisting of the following:

- \$81 of unrestricted cash and cash equivalents (of which \$68 is maintained in foreign jurisdictions);
- \$301 of borrowings available under our DIP ABL Facility (\$350 borrowing base less \$49 of outstanding letters of credit); and
- \$36 of time drafts and borrowings available under credit facilities at certain international subsidiaries

Upon our emergence from our Chapter 11 proceedings on July 1, 2019, the impact of the consummation of the Plan added an additional \$28 of liquidity, and thus our liquidity would have been \$446 at June 30, 2019.

Our net working capital (defined as accounts receivable and inventories less accounts payable) at June 30, 2019 and December 31, 2018 was \$501 and \$362, respectively. A summary of the components of our net working capital as of June 30, 2019 and December 31, 2018 is as follows:

	June 30, 2019	% of LTM Net Sales	December 31, 2018	% of LTM Net Sales
Accounts receivable	\$ 499	14 %	\$ 412	11 %
Inventories	351	10 %	334	9 %
Accounts payable ⁽¹⁾	(349)	(10)%	(384)	(10)%
Net working capital ⁽²⁾	<u>\$ 501</u>	<u>14 %</u>	<u>\$ 362</u>	<u>10 %</u>

(1) As of June 30, 2019, accounts payable includes \$56 of pre-petition liabilities that are included in "Liabilities subject to compromise" in the unaudited Condensed Consolidated Balance Sheets:

(2) Management believes that this non-GAAP measure is useful supplemental information. This non-GAAP measure should be considered by the reader in addition to but not instead of, the financial statements prepared in accordance with GAAP.

The increase in net working capital of \$139 from December 31, 2018 was driven by an increase in accounts receivable of \$87 and an increase in inventory of \$17, as well as a decrease in accounts payable of \$35. The increases in accounts receivable and inventory were primarily the result of increased volumes in the second quarter of 2019 compared to the fourth quarter of 2018 due to seasonality of our businesses. The decrease in accounts payable was largely related to timing of vendor payments, primarily as a result of our Chapter 11 proceedings. Based on our new capital structure, we expect structural improvement in our vendor terms going forward.

Sources and Uses of Cash

Following are highlights from our unaudited Condensed Consolidated Statements of Cash Flows:

	Six Months Ended June 30,	
	2019	2018
(Uses) sources of cash:		
Operating activities	\$ (113)	\$ (42)
Investing activities	(42)	7
Financing activities	123	53
Effect of exchange rates on cash flow	—	(3)
Net change in cash and cash equivalents	<u>\$ (32)</u>	<u>\$ 15</u>

Operating Activities

In the first half of 2019, operations used \$113 of cash. Net loss of \$159 included \$198 of net non-cash expense items related to our Chapter 11 proceedings of \$139 and DIP Facility financing fees of \$13, depreciation and amortization of \$52, partially offset by unrealized foreign currency gains of \$7. Net working capital used \$135, which was largely driven by increases in accounts receivable due primarily to seasonality of our businesses, and decreases in accounts payable related to timing of vendor payments, primarily as a result of our Chapter 11 proceedings. Changes in other assets and liabilities and income taxes payable used \$17 due to the timing of when items were expensed versus paid, which primarily included operating lease expense, interest expense, employee retention programs, incentive compensation, pension plan contributions and taxes.

In the first half of 2018, operations used \$42 of cash. Net loss of \$34 included \$59 of net non-cash expense items consisting of depreciation and amortization of \$58, non-cash impairments of \$25, amortization of deferred financing fees of \$8, unrealized foreign currency losses of \$12 and loss on sale of assets of \$2, partially offset by a gain on disposition of \$44. Net working capital used \$55, which was largely driven by increases in accounts receivable and inventories due primarily to raw material price increases and seasonality. Changes in other assets and liabilities and income taxes payable used \$12 due to the timing of when items were expensed versus paid, which primarily included interest expense, employee retention programs, incentive compensation, pension plan contributions and taxes.

Investing Activities

In the first half of 2019, investing activities used \$42 of cash primarily related to capital expenditures of \$43 and partially offset by proceeds from sale of assets of \$1.

In the first half of 2018, investing activities provided \$7 of cash, primarily related to net proceeds from ATG disposition of \$49 and proceeds from sale of assets of \$1, partially offset by capital expenditures of \$43 (including capitalized interest).

Financing Activities

In the first half of 2019, financing activities provided \$123 of cash. Net short-term debt repayments were \$4 and net long-term debt borrowings were \$140. Our long-term debt borrowings primarily consisted of the proceeds from our DIP Term Loan Facility entered into as part of our Chapter 11 proceedings, offset by adequate protection payments made as part of our Chapter 11 proceedings and the repayment of our DIP ABL Facility.

In the first half of 2018, financing activities provided \$53 of cash. Net short-term debt borrowings were \$3 and net long-term debt borrowings were \$51. Our long-term debt borrowings primarily consisted of \$39 of additional ABL borrowings in the first half of 2018.

There are certain restrictions on the ability of certain of our subsidiaries to transfer funds to Hexion Inc. in the form of cash dividends, loans or otherwise, which primarily arise as a result of certain foreign government regulations or as a result of restrictions within certain subsidiaries' financing agreements limiting such transfers to the amounts of available earnings and profits or otherwise limit the amount of dividends that can be distributed. In either case, we have alternative methods to obtain cash from these subsidiaries in the form of intercompany loans and/or returns of capital in such instances where payment of dividends is limited to the extent of earnings and profits.

Covenant Compliance

DIP ABL Facility and DIP Term Loan Facility

At June 30, 2019, the Company was in compliance with all covenants under the credit agreements governing the DIP ABL Facility and the DIP Term Loan Facility.

New Credit Facilities and Senior Notes

The instruments that govern our indebtedness contain, among other provisions, restrictive covenants (and incurrence tests in certain cases) regarding indebtedness, dividends and distributions, mergers and acquisitions, asset sales, affiliate transactions, capital expenditures and, in the case of our ABL Facility, the maintenance of a financial ratio (depending on certain conditions). Payment of borrowings under the ABL Facility and our notes may be accelerated if there is an event of default as determined under the governing debt instrument. Events of default under the credit agreement governing our ABL Facility includes the failure to pay principal and interest when due, a material breach of representations or warranties, events of bankruptcy, a change of control, and most covenant defaults. Events of default under the indentures governing our notes include the failure to pay principal and interest, a failure to comply with covenants, subject to a 30-day grace period in certain instances, and certain events of bankruptcy.

The indenture that governs our 7.875% Senior Notes due 2027 (the "Indenture") contains a Pro Forma EBITDA to Fixed Charges ratio incurrence test which may restrict our ability to take certain actions such as incurring additional debt or making acquisitions if we are unable to meet this ratio (measured on a last twelve months, or LTM, basis) of at least 2.0:1. The Pro Forma EBITDA to Fixed Charges Ratio under the Indenture is generally defined as the ratio of (a) Pro Forma EBITDA to (b) net interest expense excluding the amortization or write-off of deferred financing costs, each measured on an LTM basis. See below for our Pro Forma EBITDA to Fixed Charges Ratio calculation.

Our ABL Facility, which is subject to a borrowing base, does not have any financial maintenance covenant other than a minimum fixed charge coverage ratio of 1.0 to 1.0 that would only apply if our availability under the ABL Facility at any time is less than the greater of (a) \$30 and (b) 10.0% of the lesser of the borrowing base and the total ABL Facility commitments at such time. The fixed charge coverage ratio under the credit agreement governing the ABL Facility is generally defined as the ratio of (a) Pro Forma EBITDA minus non-financed capital expenditures and cash taxes to (b) debt service plus cash interest expense plus certain restricted payments, each measured for the four most recent quarters for which financial statements have been delivered.

Reconciliation of Last Twelve Months Net Loss to Pro Forma EBITDA

Pro Forma EBITDA is defined as EBITDA adjusted for certain non-cash and certain non-recurring items and other adjustments calculated on a pro-forma basis, including the expected future cost savings from business optimization programs or other programs and the expected future impact of acquisitions, in each case as determined under the governing debt instrument. We believe that including the supplemental adjustments that are made to calculate Pro Forma EBITDA provides additional information to investors about our ability to comply with our financial covenants and to obtain additional debt in the future. Pro Forma EBITDA and Fixed Charges are not defined terms under U.S. GAAP. Pro Forma EBITDA is not a measure of financial condition, liquidity or profitability, and should not be considered as an alternative to net income (loss) determined in accordance with U.S. GAAP or operating cash flows determined in accordance with U.S. GAAP. Additionally, EBITDA is not intended to be a measure of free cash flow for management's discretionary use, as it does not take into account certain items such as interest and principal payments on our indebtedness, depreciation and amortization expense (because we use capital assets, depreciation and amortization expense is a necessary element of our costs and ability to generate revenue), working capital needs, tax payments (because the payment of taxes is part of our operations, it is a necessary element of our costs and ability to operate), non-recurring expenses and capital expenditures. Fixed Charges under the Indenture should not be considered an alternative to interest expense.

The following table reconciles net loss to EBITDA and Pro Forma EBITDA, and calculates the ratio of Pro Forma EBITDA to Fixed Charges as calculated under our Indenture for the period presented:

	June 30, 2019
	LTM Period
Net loss	\$ (287)
Income tax expense	44
Interest expense, net	288
Depreciation and amortization	107
Accelerated depreciation	4
EBITDA	156
Adjustments to EBITDA:	
Asset impairments and write-downs	7
Business realignment costs ⁽¹⁾	30
Realized and unrealized foreign currency gains	(1)
Unrealized gains on pension and postretirement benefits ⁽²⁾	(13)
Transaction costs ⁽³⁾	33
Reorganization costs ⁽⁴⁾	156
Other ⁽⁵⁾	47
Cost reduction programs savings ⁽⁶⁾	23
Pro Forma EBITDA	\$ 438
Pro forma fixed charges ⁽⁷⁾	\$ 112
Ratio of Pro Forma EBITDA to Fixed Charges	3.91

(1) Primarily represents cost related to headcount reduction expenses and plant rationalization costs related to in-process and recently completed cost reduction programs, termination costs and other costs associated with business realignments.

(2) Represents non-cash gains resulting from pension and postretirement benefit plan liability remeasurements.

(3) Represents certain professional fees related to strategic projects, including \$23 of certain professional fees and other expenses related to our Chapter 11 proceedings prior to filing.

(4) Represents incremental costs incurred directly as a result of our Chapter 11 proceedings after the date of filing.

(5) Primarily includes retention program costs, business optimization expenses, and expenses related to legacy liabilities.

(6) Represents pro forma impact of in-process cost reduction programs savings. Cost reduction program savings represent the unrealized headcount reduction savings and plant rationalization savings related to cost reduction programs and other unrealized savings associated with the Company's business realignments activities, and represent our estimate of the unrealized savings from such initiatives that would have been realized had the related actions been completed at the beginning of the period presented. The savings are calculated based on actual costs of exiting headcount and elimination or reduction of site costs.

(7) Reflects pro forma interest expense based on the New Credit Facilities and Senior Notes as of July 1, 2019 when the Plan became effective and the Company emerged from the Chapter 11 proceedings.

Recently Issued Accounting Standards

See Note 5 in Item 1 of Part I of this Quarterly Report on Form 10-Q for a detailed description of recently issued accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

There have been no material developments during the first six months of 2019 on the matters we have previously disclosed about quantitative and qualitative market risk in our Annual Report on Form 10-K for the year ended December 31, 2018.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, including the President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer, performed an evaluation of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of June 30, 2019. Based upon that evaluation, the President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer concluded that our disclosure controls and procedures were effective at June 30, 2019.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II - OTHER INFORMATION (dollar amounts in millions)

Item 1. Legal Proceedings

The United States Environmental Protection Agency ("U.S. EPA") issued the Company a Notice of Intent to File Administrative Complaint related to alleged violations of the Emergency Right-to-Know Act identified in a 2017 voluntary self-disclosure made by the Company. The Notice was issued on October 24, 2018 and seeks a penalty of \$0.2 million. The Company does not agree with the penalty and continues to work cooperatively with U.S. EPA to resolve this matter.

Item 1A. Risk Factors

Following are our principal risks. These factors may or may not occur, and we cannot express a view on the likelihood that any of these may occur. Other factors may exist that we do not consider significant based on information that is currently available or that we are not currently able to anticipate. Any of the following risks could materially adversely affect our business, financial condition or results of operations and prospects.

Risks Related to Our Chapter 11 Proceedings and Emergence

Our actual financial results may vary significantly from the projections that were filed with the Bankruptcy Court.

In connection with our disclosure statement relating to the Plan (the "Disclosure Statement"), and the hearing to consider confirmation of the Plan, we prepared projected financial information to demonstrate to the Bankruptcy Court the feasibility of the Plan and our ability to continue operations upon Emergence. This projected financial information was prepared by, and is the responsibility of, our management. PricewaterhouseCoopers LLP neither examined, compiled nor performed any procedures with respect to the projected financial information and, accordingly, PricewaterhouseCoopers LLP does not express an opinion or any other form of assurance with respect thereto. Those projections were prepared solely for the purpose of the Bankruptcy Petitions and have not been, and will not be, updated on an ongoing basis. At the time they were prepared, the projections reflected numerous assumptions concerning our anticipated future performance and with respect to prevailing and anticipated market and economic conditions that were and remain beyond our control and that may not materialize. Projections are inherently subject to substantial and numerous uncertainties and to a wide variety of significant business, economic and competitive risks and the assumptions underlying the projections and/or valuation estimates may prove to be wrong in material respects. Actual results may vary significantly from those contemplated by the projections that were prepared in connection with the Disclosure Statement and the hearing to consider confirmation of the Plan.

Our financial condition or results of operations will not be comparable to the financial condition or results of operations reflected in our historical financial statements.

Following our emergence from bankruptcy, we have been operating our existing business under a new capital structure. In addition, we have been subject to the "fresh-start" accounting rules. As required by "fresh-start" accounting, assets and liabilities will be recorded at fair value, based on values determined in connection with the implementation of the Plan. Certain reported assets do not yet give effect to the adjustments that may result from the adoption of "fresh-start" accounting and, as a result, would change materially. Accordingly, our financial condition and results of operations from and after the Emergence Date will not be comparable to the financial condition or results of operations reflected in our historical financial statements included in this Quarterly Report on Form 10-Q.

The Chapter 11 proceedings may disrupt our business and may materially and adversely affect our operations.

We have attempted to minimize the adverse effect of our Chapter 11 reorganization on our relationships with our customers, suppliers, employees and other parties. Nonetheless, our relationships with our customers, suppliers and employees may be adversely impacted and our operations could be materially and adversely affected. In addition, the continuation of our reorganization could negatively affect our ability to attract new employees and retain existing high performing employees.

Risks Related to Our Business

If global economic conditions are weak or deteriorate, it will negatively impact our business operations, results of operations and financial condition.

Changes in global economic and financial market conditions could impact our business operations in a number of ways including, but not limited to, the following:

- reduced demand in key customer segments, such as building, construction, wind energy, oil and gas, automotive and electronics, compared to prior years;
- weak economic conditions in our primary regions of operations: U.S., Europe, and Asia;
- payment delays by customers and reduced demand for our products caused by customer insolvencies and/or the inability of customers to obtain adequate financing to maintain operations
- insolvency of suppliers or the failure of suppliers to meet their commitments resulting in product delays;
- more onerous credit and commercial terms from our suppliers such as shortening the required payment period for outstanding accounts receivable or reducing or eliminating the amount of trade credit available to us; and
- potential delays in accessing our ABL Facility or obtaining new credit facilities on terms we deem commercially reasonable or at all, and the potential inability of one or more of the financial institutions included in our syndicated ABL Facility to fulfill their funding obligations. Should a bank in our syndicated ABL Facility be unable to fund a future draw request, we could find it difficult to replace that bank in the facility.

Due to worldwide economic volatility and uncertainty, the short-term outlook for our business is difficult to predict.

Fluctuations in direct or indirect raw material costs could have an adverse impact on our business.

Raw materials costs made up approximately 75% of our cost of sales in 2019. The prices of our direct and indirect raw materials have been, and we expect them to continue to be, volatile. If the cost of direct or indirect raw materials increases significantly and we are unable to offset the increased costs with higher selling prices, our profitability will decline. Increases in prices for our products could also hurt our ability to remain both competitive and profitable in the markets in which we compete.

Although some of our materials contracts include competitive price clauses that allow us to buy outside the contract if market pricing falls below contract pricing, and certain contracts have minimum-maximum monthly volume commitments that allow us to take advantage of spot pricing, we may be unable to purchase raw materials at market prices. In addition, some of our customer contracts have fixed prices for a certain term, and as a result, we may not be able to pass on raw material price increases to our customers immediately, if at all. Due to differences in timing of the pricing trigger points between our sales and purchase contracts, there is often a “lead-lag” impact. In many cases this “lead-lag” impact can negatively impact our margins in the short term in periods of rising raw material prices and positively impact them in the short term in periods of falling raw material prices. Future raw material prices may be impacted by new laws or regulations, suppliers’ allocations to other purchasers, changes in our supplier manufacturing processes as some of our products are byproducts of these processes, interruptions in production by suppliers, natural disasters, volatility in the price of crude oil and related petrochemical products and changes in exchange rates.

An inadequate supply of direct or indirect raw materials and intermediate products could have a material adverse effect on our business.

Our manufacturing operations require adequate supplies of raw materials and intermediate products on a timely basis. The loss of a key source or a delay in shipments could have a material adverse effect on our business. Raw material availability may be subject to curtailment or change due to, among other things:

- new or existing laws or regulations;
- suppliers’ allocations to other purchasers;
- interruptions in production by suppliers; and
- natural disasters.

Many of our raw materials and intermediate products are available in the quantities we require from a limited number of suppliers. Should any of our key suppliers fail to deliver these raw materials or intermediate products to us or no longer supply us, we may be unable to purchase these materials in necessary quantities, which could adversely affect our volumes, or may not be able to purchase them at prices that would allow us to remain competitive. During the past several years, certain of our suppliers have experienced force majeure events rendering them unable to deliver all, or a portion of, the contracted-for raw materials. On these occasions, we have been forced to limit production or were forced to purchase replacement raw materials in the open market at significantly higher costs or place our customers on an allocation of our products. In the past, some of our customers have chosen to discontinue or decrease the use of our products as a result of these measures. We have experienced force majeure events by certain of our suppliers which have had significant negative impacts on our business. For example, in 2014, Shell notified us of a supply interruption event at its Moerdijk, Netherlands facility, which provides key raw materials to us, and this event resulted in us allocating certain products to our customers through mid-2015, at which point the disruption was resolved. Additionally, we cannot predict whether new regulations or restrictions may be imposed in the future which may result in reduced supply or further increases in prices. We cannot assure investors that we will be able to renew our current materials contracts or enter into replacement contracts on commercially acceptable terms, or at all. Fluctuations in the price of these or other raw materials or intermediate products, the loss of a key source of supply or any delay in the supply could result in a material adverse effect on our business.

Our production facilities are subject to significant operating hazards which could cause environmental contamination, personal injury and loss of life, and severe damage to, or destruction of, property and equipment.

Our production facilities are subject to hazards associated with the manufacturing, handling, storage and transportation of chemical materials and products, including human exposure to hazardous substances, pipeline and equipment leaks and ruptures, explosions, fires, inclement weather and natural disasters, mechanical failures, unscheduled downtime, transportation interruptions, remedial complications, chemical spills, discharges or releases of toxic or hazardous substances or gases, storage tank leaks and other environmental risks. Additionally, a number of our operations are adjacent to operations of independent entities that engage in hazardous and potentially dangerous activities. Our operations or adjacent operations could result in personal injury or loss of life, severe damage to or destruction of property or equipment, environmental damage, or a loss of the use of all or a portion of one of our key manufacturing facilities. Such events at our facilities, or adjacent third-party facilities, could have a material adverse effect on us.

We may incur losses beyond the limits or coverage of our insurance policies for liabilities that are associated with these hazards. In addition, various kinds of insurance for companies in the chemical industry have not been available on commercially acceptable terms, or, in some cases, have been unavailable altogether. In the future, we may not be able to obtain coverage at current levels, and our premiums may increase significantly on coverage that we maintain.

Environmental obligations and liabilities could have a substantial negative impact on our financial condition, cash flows and profitability.

Our operations involve the use, handling, processing, storage, transportation and disposal of hazardous materials and are subject to extensive and complex U.S. federal, state, local and non-U.S. supranational, national, provincial, and local environmental, health and safety laws and regulations. These environmental laws and regulations include those that govern the discharge of pollutants into the air and water, the generation, use, storage, transportation, treatment and disposal of hazardous materials and wastes, the cleanup of contaminated sites, occupational health and safety and those requiring permits, licenses, or other government approvals for specified operations or activities. Our products are also subject to a variety of international, national, regional, state, and provincial requirements and restrictions applicable to the manufacture, import, export or subsequent use of such products. In addition, we are required to maintain, and may be required to obtain in the future, environmental, health and safety permits, licenses, or government approvals to continue current operations at most of our manufacturing and research facilities throughout the world.

Compliance with environmental, health and safety laws and regulations, and maintenance of permits, can be costly and complex, and we have incurred and will continue to incur costs, including capital expenditures and costs associated with the issuance and maintenance of letters of credit, to comply with these requirements. In 2018, we incurred capital expenditures of \$19 to comply with environmental, health and safety laws and regulations and to make other environmental and safety improvements. If we are unable to comply with environmental, health and safety laws and regulations, or maintain our permits, we could incur substantial costs, including fines and civil or criminal sanctions, third party property damage or personal injury claims or costs associated with upgrades to our facilities or changes in our manufacturing processes in order to achieve and maintain compliance, and may also be required to halt permitted activities or operations until any necessary permits can be obtained or complied with, or decide to close the impacted facility. In addition, future developments or increasingly stringent regulations could require us to make additional unforeseen environmental expenditures, which could have a material adverse effect on our business.

Environmental, health and safety requirements change frequently and have tended to become more stringent over time. We cannot predict what environmental, health and safety laws and regulations or permit requirements will be enacted or amended in the future, how existing or future laws or regulations will be interpreted or enforced or the impact of such laws, regulations or permits on future production expenditures, supply chain or sales. Our costs of compliance with current and future environmental, health and safety requirements could be material. Such future requirements include legislation designed to reduce emissions of carbon dioxide and other substances associated with climate change ("greenhouse gases"). The European Union has enacted greenhouse gas emissions legislation and continues to expand the scope of such legislation. The U.S. Environmental Protection Agency (the "USEPA") has promulgated regulations applicable to projects involving greenhouse gas emissions above a certain threshold, and the United States and certain states within the United States have enacted, or are considering, limitations on greenhouse gas emissions. These requirements to limit greenhouse gas emissions could significantly increase our energy costs, and may also require us to incur material capital costs to modify our manufacturing facilities.

In addition, we are subject to liability associated with hazardous substances in soil, groundwater and elsewhere at a number of sites. These include sites that we formerly owned or operated and sites where hazardous wastes and other substances from our current and former facilities and operations have been sent, treated, stored, or recycled or disposed of, as well as sites that we currently own or operate. Depending upon the circumstances, our liability may be strict, joint and several, meaning that we may be held responsible for more than our proportionate share, or even all, of the liability involved regardless of our fault or whether we are aware of the conditions giving rise to the liability. Even where liability has been allocated among parties, we may be subject to material changes in such allocation in the future for a number of reasons, including the discovery of new contamination, the insolvency of a responsible party, or a heightened nexus to the remediation site. Environmental conditions at these sites can lead to environmental cleanup liability and claims against us for personal injury or wrongful death, property damages and natural resource damages, as well as to claims and obligations for the investigation and cleanup of environmental conditions. The extent of any of these liabilities is difficult to predict, but in the aggregate such liabilities could be material.

We have been notified that we are or may be responsible for environmental remediation at a number of sites in North America, Europe and South America. We are also performing a number of voluntary cleanups. The most significant sites at which we are performing or participating in environmental remediation are sites formerly owned by us in Geismar, Louisiana and Plant City, Florida. As the result of former, current or future operations, there may be additional environmental remediation or restoration liabilities or claims of personal injury by employees or members of the public due to exposure or alleged exposure to hazardous materials in connection with our operations, properties or products. Sites sold by us in past years may have significant site closure or remediation costs and our share, if any, may be unknown to us at this time. These environmental liabilities or obligations, or any that may arise or become known to us in the future, could have a material adverse effect on our financial condition, cash flows and profitability.

Future chemical regulatory actions may decrease our profitability.

Several governmental agencies have enacted, are considering or may consider in the future, regulations that may impact our ability to sell certain chemical products in certain geographic areas. The European Registration, Evaluation and Authorization of Chemicals (“REACH”) regulation requires manufacturers, importers and consumers of certain chemicals manufactured in, or imported into, the European Union to register such chemicals and evaluate their potential impacts on human health and the environment. REACH may result in certain chemicals being further regulated, restricted or banned from use in the European Union. In addition, the Frank R. Lautenberg Chemical Safety for the 21st Century Act (“LCSA”) was signed into law on June 22, 2016, and updates and revises the Toxic Substances Control Act. LCSA requires the implementing agency to conduct risk evaluations on high priority chemicals, which could include chemical products we manufacture. Other countries have implemented, or are considering implementation of, similar chemical regulatory programs. When fully implemented, REACH, LCSA and other similar regulatory programs may result in significant adverse market impacts on the affected chemical products. If we fail to comply with REACH, LCSA or other similar laws and regulations, we may be subject to penalties or other enforcement actions, including fines, injunctions, recalls or seizures, which would have a material adverse effect on our financial condition, cash flows and profitability. Additionally, studies conducted in association with these regulatory programs, or otherwise conducted through trade associations, may result in new information regarding the health effects and environmental impact of our products and raw materials. Such studies could result in future regulations restricting the manufacture or use of our products, liability for adverse environmental or health effects linked to our products, and/or de-selection of our products for specific applications. These restrictions, liability, and product de-selection could have a material adverse effect on our business, our financial condition and/or liquidity.

Because of certain government public health agencies’ concerns regarding the potential for adverse human health effects, formaldehyde is a regulated chemical and public health agencies continue to evaluate its safety. A division of the World Health Organization, the International Agency for Research on Cancer, or IARC, and the National Toxicology Program, or NTP, within the U.S. Department of Health and Human Services, have classified formaldehyde as being carcinogenic to humans. The USEPA, under its Integrated Risk Information System, or IRIS, released a draft of its toxicological review of formaldehyde in 2010, stating that formaldehyde meets the criteria to be described as “carcinogenic to humans.” The National Academy of Sciences peer reviewed the draft IRIS toxicological review and issued a report in April 2011 that criticized the draft IRIS toxicological review and stated that the methodologies and the underlying science used in the draft IRIS review did not clearly support a conclusion of a causal link between formaldehyde exposure and leukemia. USEPA may or may not issue a revised draft IRIS toxicological review to reflect the NAS findings, including the conclusions regarding a causal link between formaldehyde exposure and leukemia. On March 20, 2019, EPA announced the next set of candidate chemical substances that will undergo review by its LCSA/TSCA risk evaluation program. This announcement formally begins the prioritization process and starts a 9- to 12-month statutory time frame during which the Agency must designate 20 chemical substances as high priority. Formaldehyde was identified as a high-priority candidate chemical for TSCA risk evaluation. Designation of formaldehyde as a high-priority chemical “does not constitute a finding of risk.” A high-priority designation means the EPA has nominated formaldehyde for further risk evaluation. Effective January 1, 2016, ECHA classified formaldehyde as a Category 2 Mutagen, but rejected reclassification as a Category 1A Carcinogen. It is possible that new regulatory requirements could be promulgated to limit human exposure to formaldehyde, that we could incur substantial additional costs to meet any such regulatory requirements, and that there could be a reduction in demand for our formaldehyde-based products. These additional costs and reduced demand could have a material adverse effect on our operations and profitability.

BPA, which is manufactured and used as an intermediate at our Deer Park, Texas and Pernis, Netherlands manufacturing facilities, and is also sold directly to third parties, is currently considered under certain state and international regulatory programs as a reproductive toxicant and an “endocrine disrupter,” meaning BPA could disrupt normal biological processes. BPA continues to be subject to scientific, regulatory and legislative review and negative media attention. In Europe, the EU Committee for Risk Assessment adopted an opinion to change the existing harmonized classification and labeling of BPA from a category 2 reproductive Toxicant to a category 1B reproductive Toxicant. This classification change was effective beginning March 1, 2018. The EU Member State Committee agreed to add BPA to the Substance of Very High Concern (“SVHC”) candidate list based upon its classification as a reproductive toxicant, as well as for its endocrine disrupting properties to both human health and the environment. The REACH Risk Management Option Analysis (RMOA) was released July 6, 2017, in which BPA is identified as an endocrine disruptor for the environment with no safe threshold, and REACH restrictions are identified as the preferred risk management measure. The California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment (“OEHHA”) listed BPA under Proposition 65 as a developmental and reproductive toxicant, requiring warning labels unless BPA exposures are shown to be less than a risk-based level (the maximum allowable dose level (“MADL”)). As of May 11, 2016, products containing BPA sold into California must comply with Proposition 65’s requirements. Despite these hazard designations and listings, the US Food and Drug Administration (“FDA”) is also actively engaged in the scientific and regulatory review of BPA and, in a letter submitted to OEHHA dated April 6, 2015, reaffirmed that BPA is safe as currently permitted in FDA-regulated food contact uses and concluded that FDA’s National Center for Toxicological Research study did not support the listing of BPA as a reproductive toxicant. In 2018, NTP released the results of the CLARITY Core Study. Senior scientists at FDA’s National Center for Toxicological Research (NCTR) conducted the study with funding from NTP. The study involved exposure of laboratory animals to BPA beginning during pregnancy and continuing in the offspring throughout their entire lifetime. A wide range of dose levels were examined, from low doses close to actual consumer exposure to doses about 250,000 times higher. As stated in the conclusion of the study report, “BPA produced minimal effects that were distinguishable from background.” NTP selected a panel of six independent expert scientists to conduct a formal peer review of the study. In general, the peer review panel supported the design and conduct of the study and agreed with the overall conclusion that the study found minimal effects for the range of doses studied. In December 2012, France enacted a law that bans direct contact of packaging containing BPA with food and consumer products. In January 2015, the European Food Safety Authority (“EFSA”) concluded that BPA poses no health risk to consumers of any age group (including unborn children, infants and adolescents) at currently permitted exposure levels. EFSA confirmed this conclusion in October 2016. Regulatory and legislative initiatives such as these, or product de-selection resulting from such regulatory actions, may result in a reduction in demand for BPA and our products containing BPA and could also result in additional liabilities as well as an increase in operating costs to meet more stringent regulations. Such increases in operating costs and/or reduction in demand could have a material adverse effect on our operations and profitability.

Scientists periodically conduct studies on the potential human health and environmental impacts of chemicals, including products we manufacture and sell. Also, nongovernmental advocacy organizations and individuals periodically issue public statements alleging human health and environmental impacts of chemicals, including products we manufacture and sell. Based upon such studies or public statements, our customers may elect to discontinue the purchase and use of our products, even in the absence of any government regulation. Such actions could significantly decrease the demand for our products and, accordingly, have a material adverse effect on our business, financial condition, cash flows and profitability.

We are subject to certain risks related to litigation filed by or against us, and adverse results may harm our business.

We cannot predict with certainty the cost of defense, of prosecution or of the ultimate outcome of litigation and other proceedings filed by or against us, including penalties or other civil or criminal sanctions, or remedies or damage awards, and adverse results in any litigation and other proceedings may materially harm our business. Litigation and other proceedings may include, but are not limited to, actions relating to intellectual property, international trade, commercial arrangements, product liability, environmental, health and safety, joint venture agreements, labor and employment or other harms resulting from the actions of individuals or entities outside of our control. In the case of intellectual property litigation and proceedings, adverse outcomes could include the cancellation, invalidation or other loss of material intellectual property rights used in our business and injunctions prohibiting our use of business processes or technology that are subject to third-party patents or other third-party intellectual property rights. Litigation based on environmental matters or exposure to hazardous substances in the workplace or based upon the use of our products could result in significant liability for us, which could have a material adverse effect on our business, financial condition and/or profitability.

Because we manufacture and use materials that are known to be hazardous, we are subject to, or affected by, certain product and manufacturing regulations, for which compliance can be costly and time consuming. In addition, we may be subject to personal injury or product liability claims as a result of human exposure to such hazardous materials.

We produce hazardous chemicals that require care in handling and use that are subject to regulation by many U.S. and non-U.S. national, supra-national, state and local governmental authorities. In some circumstances, these authorities must review and, in some cases approve, our products and/or manufacturing processes and facilities before we may manufacture and sell some of these chemicals. To be able to manufacture and sell certain new chemical products, we may be required, among other things, to demonstrate to the relevant authority that the product does not pose an unreasonable risk during its intended uses and/or that we are capable of manufacturing the product in compliance with current regulations. The process of seeking any necessary approvals can be costly, time consuming and subject to unanticipated and significant delays. Approvals may not be granted to us on a timely basis, or at all. Any delay in obtaining, or any failure to obtain or maintain, these approvals would adversely affect our ability to introduce new products and to generate revenue from those products. New laws and regulations may be introduced in the future that could result in additional compliance costs, bans on product sales or use, seizures, confiscation, recall or monetary fines, any of which could prevent or inhibit the development, distribution or sale of our products and could increase our customers’ efforts to find less hazardous substitutes for our products. We are subject to ongoing reviews of our products and manufacturing processes.

As discussed above, we manufacture and sell products containing formaldehyde, and certain governmental bodies have stated that there is a causal link between formaldehyde exposure and certain types of cancer, including myeloid leukemia and NPC. These conclusions could adversely impact our business and also become the basis of product liability litigation.

Other products we have made or used have been and could be the focus of legal claims based upon allegations of harm to human health. While we cannot predict the outcome of pending suits and claims, we believe that we maintain adequate reserves, in accordance with our policy, to address currently pending litigation and are adequately insured to cover currently pending and foreseeable future claims. However, an unfavorable outcome in these litigation matters could have a material adverse effect on our business, financial condition and/or profitability and cause our reputation to decline.

We are subject to claims from our customers and their employees, environmental action groups and neighbors living near our production facilities.

We produce and use hazardous chemicals that require appropriate procedures and care to be used in handling them or in using them to manufacture other products. As a result of the hazardous nature of some of the products we produce and use, we may face claims relating to incidents that involve our customers' improper handling, storage and use of our products. We have historically faced lawsuits, including class action lawsuits that claim liability for death, injury or property damage caused by products that we manufacture or that contain our components. Additionally, we may face lawsuits alleging personal injury or property damage by neighbors living near our production facilities. These lawsuits, and any future lawsuits, could result in substantial damage awards against us, which in turn could encourage additional lawsuits and could cause us to incur significant legal fees to defend such lawsuits, either of which could have a material adverse effect on our business, financial condition and/or profitability. In addition, the activities of environmental action groups could result in litigation or damage to our reputation.

Our manufacturing facilities are subject to disruption due to operating hazards

The storage, handling, manufacturing and transportation of chemicals at our facilities and adjacent facilities could result in leaks, spills, fires or explosions, which could result in production downtime, production delays, raw material supply delays, interruptions and environmental hazards. We have experienced incidents at our own facilities and a raw material supplier located adjacent to our facility that have resulted mostly in short term, but some long term, production delays. Production interruption may also result from severe weather, particularly with respect to our southern U.S. operations near the Gulf Coast. Production lapses caused by any such delays can often be absorbed by our other manufacturing facilities, and we maintain insurance to cover such potential events. However, such events could negatively affect our operations.

As a global business, we are subject to numerous risks associated with our international operations that could have a material adverse effect on our business.

We have significant manufacturing and other operations outside the United States. Some of these operations are in jurisdictions with unstable political or economic conditions. There are numerous inherent risks in international operations, including, but not limited to:

- exchange controls and currency restrictions;
- currency fluctuations and devaluations;
- tariffs and trade barriers imposed by the current U.S. administration or foreign governments;
- renegotiation of trade agreements by the current U.S. administration;
- export duties and quotas;
- changes in local economic conditions;
- changes in laws and regulations;
- exposure to possible expropriation or other government actions;
- acts by national or regional banks, including the European Central Bank, to increase or restrict the availability of credit;
- hostility from local populations;
- diminished ability to legally enforce our contractual rights in non-U.S. countries;
- restrictions on our ability to repatriate dividends from our subsidiaries; and
- unsettled political conditions and possible terrorist attacks against U.S. interests.

Our international operations expose us to different local political and business risks and challenges. For example, we may face potential difficulties in staffing and managing local operations, and we may have to design local solutions to manage credit risks of local customers and distributors. In addition, some of our operations are located in regions that may be politically unstable, having particular exposure to riots, civil commotion or civil unrests, acts of war (declared or undeclared) or armed hostilities or other national or international calamity. In some of these regions, our status as a U.S. company also exposes us to increased risk of sabotage, terrorist attacks, interference by civil or military authorities or to greater impact from the national and global military, diplomatic and financial response to any future attacks or other threats.

In addition, intellectual property rights may be more difficult to enforce in non-U.S. or non-Western European countries.

If global economic and market conditions, or economic conditions in Europe, China, Brazil, Australia, the United States or other key markets remain uncertain or deteriorate further, the value of associated foreign currencies and the global credit markets may weaken. Additionally, general financial instability in countries where we do not transact a significant amount of business could have a contagion effect and contribute to the general instability and uncertainty within a particular region or globally. If this were to occur, it could adversely affect our customers and suppliers and in turn have a materially adverse effect on our international business and results of operations.

Our overall success as a global business depends, in part, upon our ability to succeed under different economic, social and political conditions. We may fail to develop and implement policies and strategies that are effective in each location where we do business, and failure to do so could have a material adverse effect on our business, financial condition and results of operations.

Our business is subject to foreign currency risk.

In 2019, 56% of our net sales originated outside the United States. In our consolidated financial statements, we translate our local currency financial results into U.S. dollars based on average exchange rates prevailing during a reporting period or the exchange rate at the end of that period. During times of a strengthening U.S. dollar, at a constant level of business, our reported international revenues and earnings would be reduced because the local currency would translate into fewer U.S. dollars.

In addition to currency translation risks, we incur a currency transaction risk whenever we enter into a purchase or a sales transaction or indebtedness transaction using a different currency from the currency in which we record revenues. Given the volatility of exchange rates, we may not manage our currency transaction and/or translation risks effectively, and volatility in currency exchange rates may materially adversely affect our financial condition or results of operations, including our tax obligations. Since the vast majority of our indebtedness is denominated in U.S. dollars, a strengthening of the U.S. dollar could make it more difficult for us to repay our indebtedness.

We have entered and expect to continue to enter into various hedging and other programs in an effort to protect against adverse changes in the non-U.S. exchange markets and attempt to minimize potential material adverse effects. These hedging and other programs may be unsuccessful in protecting against these risks. Our results of operations could be materially adversely affected if the U.S. dollar strengthens against non-U.S. currencies and our protective strategies are not successful. Likewise, a strengthening U.S. dollar provides opportunities to source raw materials more cheaply from foreign countries.

Fluctuations in energy costs could have an adverse impact on our profitability and negatively affect our financial condition.

Oil and natural gas prices have fluctuated greatly over the past several years and we anticipate that they will continue to do so. Natural gas and electricity are essential to our manufacturing processes, which are energy-intensive. Our energy costs represented approximately 4% of our total cost of sales for the six months ended June 30, 2019.

Our operating expenses will increase if our energy prices increase. Increased energy prices may also result in greater raw materials costs. If we cannot pass these costs through to our customers, our profitability may decline. Increased energy costs may also negatively affect our customers and the demand for our products. In addition, as oil and natural gas prices fall, while having a positive effect on our overall costs, such falling prices can have a negative impact on our oilfield business, as the number of oil and natural gas wells drilled declines in response to market condition.

If energy prices decrease, we expect benefits in the short-run with decreased operating expenses and increased operating income, but may face increased pricing pressure from competitors that are similarly impacted by energy prices. As a result, profitability may decrease over an extended period of time of lower energy prices. Moreover, any future increases in energy prices after a period of lower energy prices may have an adverse impact on our profitability for the reasons described above.

We face increased competition from other companies and from substitute products, which could force us to lower our prices, which would adversely affect our profitability and financial condition.

Several of the markets that we operate in are highly competitive, and this competition could harm our results of operations, cash flows and financial condition. Our competitors include major international producers as well as smaller regional competitors. We believe that the most significant competitive factor that impacts demand for certain of our products is selling price. We may be forced to lower our selling price based on our competitors' pricing decisions, which would reduce our profitability. Certain markets that we serve have become commoditized in recent years and have given rise to several industry participants, resulting in fierce price competition in these markets. In addition, we face competition from a number of products that are potential substitutes for our products. Growth in substitute products could adversely affect our market share, net sales and profit margins.

Additional trends include current and anticipated consolidation among our competitors and customers which may cause us to lose market share as well as put downward pressure on pricing. There is also a trend in our industries toward relocating manufacturing facilities to lower cost regions, such as Asia, which may permit some of our competitors to lower their costs and improve their competitive position. Furthermore, there has been an increase in new competitors based in these regions.

Some of our competitors are larger, have greater financial resources, have a lower cost structure, and/or have less debt than we do. As a result, those competitors may be better able to withstand a change in conditions within our industry and in the economy as a whole. If we do not compete successfully, our operating margins, financial condition, cash flows and profitability could be adversely affected. Furthermore, if we do not have adequate capital to invest in technology, including expenditures for research and development, our technology could be rendered uneconomical or obsolete, negatively affecting our ability to remain competitive.

We expect substantial cost savings from our ongoing strategic initiatives, and if we are unable to achieve these cost savings, or sustain our current cost structure, it could have a material adverse effect on our business operations, results of operations and financial condition.

We have not yet realized all of the cost savings and synergies we expect to achieve from our ongoing strategic initiatives. A variety of risks could cause us not to realize the expected cost savings and synergies, including but not limited to, higher than expected severance costs related to staff reductions; higher than expected retention costs for employees that will be retained; higher than expected stand-alone overhead expenses; delays in the anticipated timing of activities related to our cost-savings plans; and other unexpected costs associated with operating our business. During the first half of 2019, we achieved \$7 in cost savings related to our cost reduction programs and as of June 30, 2019, we have approximately \$23 of additional in-process cost savings.

If we are unable to achieve these cost savings or synergies it could adversely affect our profitability and financial condition. In addition, while we have been successful in reducing costs and generating savings, factors may arise that may not allow us to sustain our current cost structure. As market and economic conditions change, we may also make changes to our operating cost structure.

Our success depends in part on our ability to protect our intellectual property rights, and our inability to enforce these rights could have a material adverse effect on our competitive position.

We rely on the patent, trademark, copyright and trade-secret laws of the United States and the countries where we do business to protect our intellectual property rights. We may be unable to prevent third parties from using our intellectual property without our authorization. The unauthorized use of our intellectual property could reduce any competitive advantage we have developed, reduce our market share or otherwise harm our business. In the event of unauthorized use of our intellectual property, litigation to protect or enforce our rights could be costly, and we may not prevail.

Many of our technologies are not covered by any patent or patent application, and our issued and pending U.S. and non-U.S. patents may not provide us with any competitive advantage and could be challenged by third parties. Our inability to secure issuance of our pending patent applications may limit our ability to protect the intellectual property rights these pending patent applications were intended to cover. Our competitors may attempt to design around our patents to avoid liability for infringement and, if successful, our competitors could adversely affect our market share. Furthermore, the expiration of our patents may lead to increased competition.

Our pending trademark applications may not be approved by the responsible governmental authorities and, even if these trademark applications are granted, third parties may seek to oppose or otherwise challenge these trademark applications. A failure to obtain trademark registrations in the United States and in other countries could limit our ability to protect our products and their associated trademarks and impede our marketing efforts in those jurisdictions.

In addition, effective patent, trademark, copyright and trade secret protection may be unavailable or limited in some foreign countries. In some countries we do not apply for patent, trademark or copyright protection. We also rely on unpatented proprietary manufacturing expertise, continuing technological innovation and other trade secrets to develop and maintain our competitive position. While we generally enter into confidentiality agreements with our employees and third parties to protect our intellectual property, these confidentiality agreements are limited in duration and could be breached, and may not provide meaningful protection of our trade secrets or proprietary manufacturing expertise. Adequate remedies may not be available if there is an unauthorized use or disclosure of our trade secrets and manufacturing expertise. In addition, others may obtain knowledge about our trade secrets through independent development or by legal means. The failure to protect our processes, apparatuses, technology, trade secrets and proprietary manufacturing expertise, methods and compounds could have a material adverse effect on our business by jeopardizing critical intellectual property.

Where a product formulation or process is kept as a trade secret, third parties may independently develop or invent and patent products or processes identical to our trade-secret products or processes. This could have an adverse impact on our ability to make and sell products or use such processes and could potentially result in costly litigation in which we might not prevail.

We could face intellectual property infringement claims that could result in significant legal costs and damages and impede our ability to produce key products, which could have a material adverse effect on our business, financial condition and results of operations.

Our production processes and products are specialized; however, we could face intellectual property infringement claims from our competitors or others alleging that our processes or products infringe on their proprietary technology. If we were subject to an infringement suit, we may be required to change our processes or products, or stop using certain technologies or producing the infringing product entirely. Even if we ultimately prevail in an infringement suit, the existence of the suit could cause our customers to seek other products that are not subject to infringement suits. Any infringement suit could result in significant legal costs and damages and impede our ability to produce key products, which could have a material adverse effect on our business, financial condition and results of operations.

We depend on certain of our key executives and our ability to attract and retain qualified employees.

Our ability to operate our business and implement our strategies depends, in part, on the skills, experience and efforts of key members of our leadership team. We do not maintain any key-man insurance on any of these individuals. In addition, our success will depend on, among other factors, our ability to attract and retain other managerial, scientific and technical qualified personnel, particularly research scientists, technical sales professionals, and engineers who have specialized skills required by our business and focused on the industries in which we compete. Competition for qualified employees in the chemicals industry is intense and the loss of the services of any of our key employees or the failure to attract or retain other qualified personnel could have a material adverse effect on our business or business prospects. Further, if any of these executives or employees joins a competitor, we could lose customers and suppliers and incur additional expenses to recruit and train personnel, who require time to become productive and to learn our business.

If we fail to extend or renegotiate our collective bargaining agreements with our works councils and labor unions as they expire from time to time, if disputes with our works councils or unions arise, or if our unionized or represented employees were to engage in a strike or other work stoppage, our business and operating results could be materially adversely affected.

As of December 31, 2018, approximately 40% of our employees were unionized or represented by works councils that were covered by collective bargaining agreements. In addition, some of our employees reside in countries in which employment laws provide greater bargaining or other employee rights than the laws of the United States. These rights may require us to expend more time and money altering or amending employees' terms of employment or making staff reductions. For example, most of our employees in Europe are represented by works councils, which generally must approve changes in conditions of employment, including restructuring initiatives and changes in salaries and benefits. A significant dispute could divert our management's attention and otherwise hinder our ability to conduct our business or to achieve planned cost savings.

We may be unable to timely extend or renegotiate our collective bargaining agreements as they expire. We have collective bargaining agreements which will expire during the next two years. We also may be subject to strikes or work stoppages by, or disputes with, our labor unions. If we fail to extend or renegotiate our collective bargaining agreements, if disputes with our works councils or unions arise or if our unionized or represented workers engage in a strike or other work stoppage, we could incur higher labor costs or experience a significant disruption of operations, which could have a material adverse effect on our business, financial position and results of operations.

Our pension plans are unfunded or under-funded and our required cash contributions could be higher than we expect, each of which could have a material adverse effect on our financial condition and liquidity.

We sponsor various pension and similar benefit plans worldwide.

Our U.S. and non-U.S. defined benefit pension plans were under-funded in the aggregate by \$31 and \$179, respectively, as of December 31, 2018. We are legally required to make contributions to our pension plans in the future, and those contributions could be material.

In 2019, we do not expect to make any contributions to our U.S. defined benefit pension plan and we expect to contribute approximately \$24 to our non-U.S. defined benefit pension plans, which we believe is sufficient to meet the minimum funding requirements as set forth in employee benefit and tax laws.

Our future funding obligations for our employee benefit plans depend upon the levels of benefits provided for by the plans, the future performance of assets set aside for these plans, the rates of interest used to determine funding levels, the impact of potential business dispositions, actuarial data and experience, and any changes in government laws and regulations. In addition, certain of our funded employee benefit plans hold a significant amount of equity securities. If the market values of these securities decline, our pension expense and funding requirements would increase and, as a result, could have a material adverse effect on our business.

Any decrease in interest rates and asset returns, if and to the extent not offset by contributions, could increase our obligations under these plans. If the performance of assets in the funded plans does not meet our expectations, our cash contributions for these plans could be higher than we expect, which could have a material adverse effect on our financial condition and liquidity.

Natural or other disasters have, and could in the future, disrupt our business and result in loss of revenue or higher expenses.

Any serious disruption at any of our facilities or our suppliers' facilities due to hurricane, fire, earthquake, flood, terrorist attack or any other natural or man-made disaster could impair our ability to use our facilities and have a material adverse impact on our revenues and increase our costs and expenses. If there is a natural disaster or other serious disruption at any of our facilities or our suppliers' facilities, it could impair our ability to adequately supply our customers and negatively impact our operating results. For example, our manufacturing facilities in the U.S. Gulf Coast region were impacted by Hurricane Harvey in 2017. In addition, many of our current and potential customers are concentrated in specific geographic areas. A disaster in one of these regions could have a material adverse impact on our operations, operating results and financial condition. Our business interruption insurance may not be sufficient to cover all of our losses from a disaster, in which case our unreimbursed losses could be substantial. Some of our operations are located in regions with particular exposure to natural disasters such as storms, floods, fires and earthquakes. It would be difficult or impossible for us to relocate these operations and, as a result, any of the aforementioned occurrences could materially adversely affect our business.

Cyber security attacks and other disruptions to our information systems could interfere with our operations, and could compromise our information and the information of our customers and suppliers, which would adversely affect our relationships with business partners and harm our brands, reputation and financial results.

In the ordinary course of business, we rely upon information systems, some of which are managed by third parties, to process, transmit and store digital information, and to manage or support a variety of business processes and activities, including supply chain, manufacturing, distribution, invoicing, and collection of payments from customers. We use information systems to record, process and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting, legal and tax requirements. Additionally, we collect and store sensitive data, including intellectual property, proprietary business information, the proprietary business information of our customers, suppliers and Momentive Performance Materials Inc. (“MPM”) under the Shared Services Agreement, as well as personally identifiable information of our customers, suppliers and employees and MPM. The secure operation of our systems, and the processing and maintenance of this information is critical to our business operations and strategy. Despite actions to mitigate or eliminate risk, our information systems may be vulnerable to damage, disruptions or shutdowns due to the activity of hackers, employee error or malfeasance, or other disruptions including, power outages, telecommunication or utility failures, natural disasters or other catastrophic events. The occurrence of any of these events could compromise our systems and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, disrupt operations, and damage our reputation which could adversely affect our business, financial condition and results of operations.

In March 2019, we experienced a network security incident that temporarily prevented access to certain information technology systems and data within our network, primarily impacting our corporate functions. We took immediate steps to isolate the issue and implemented our technical recovery plan. Our manufacturing sites, which rely on different networks, continued to operate safely and with limited interruption. We are currently evaluating the impact of this incident, including assessing any available insurance coverage. Any impacts from this incident may result in an adverse effect on our business, financial condition and results of operations.

Divestitures that we pursue may present unforeseen obstacles and costs and alter the synergies we expect to continue to achieve from our ongoing cost reduction programs. Acquisitions and joint ventures that we pursue may present unforeseen integration obstacles and costs, increase our leverage and negatively impact our performance.

We have selectively made, and may in the future, pursue divestitures of certain of our businesses as one element of our portfolio optimization strategy. Divestitures may require us to separate integrated assets and personnel from our retained businesses and devote our resources to transitioning assets and services to purchasers, resulting in disruptions to our ongoing business and distraction of management. Divestitures may alter synergies we expect to continue to achieve from our ongoing cost reduction programs. In the event of a large divestiture, we could use a significant amount of net operating losses which could result in our U.S. Company incurring future cash taxes. In addition, divestitures may result in the retention of certain current and future liabilities as well as obligations to indemnify or reimburse a buyer for certain liabilities of a divested business. These potential obligations could have an adverse effect on our results of operations and financial condition if triggered.

In addition, we have made acquisitions of related businesses, and entered into joint ventures in the past and could selectively pursue acquisitions of, and joint ventures with, related businesses as one element of our growth strategy. If such acquisitions are consummated, the risk factors we describe above and below, and for our business generally, may be intensified.

We could face additional income tax obligations based on tax reform.

On December 22, 2017, the United States enacted tax reform legislation (“Tax Reform”) that included a broad range of business tax provisions, including but not limited to a reduction in the U.S. federal tax rate from 35% to 21% as well as provisions that limit or eliminate various deductions or credits. The legislation also causes U.S. expenses, such as interest and general administrative expenses, to be taxed and imposes a new tax on U.S. cross-border payments. Furthermore, the legislation includes a one-time transition tax on accumulated foreign earnings and profits.

Some aspects of the Tax Reform remain unclear, and although further clarifying guidance was issued and more is expected to be issued in the future (by the Internal Revenue Service (“IRS”), the U.S. Treasury Department or via a technical correction law change), it may not be clarified for some time. In addition, some U.S. states have not updated their laws to take into account the new federal legislation. Aspects of U.S. tax reform may lead foreign jurisdictions to respond by enacting additional tax legislation that is unfavorable to us. As a result, we have not yet been able to determine the full impact of the new laws on our results of operations and financial condition. It is possible that U.S. tax reform, or interpretations under it, could change and could have an adverse effect on us, and such effect could be material.

If we fail to establish and maintain an effective internal control environment, our ability to both timely and accurately report our financial results could be adversely affected.

Section 404 of the Sarbanes-Oxley Act of 2002 requires companies to conduct a comprehensive evaluation of their internal control over financial reporting. To comply with this statute, each year we are required to document and test our internal control over financial reporting, our management is required to assess and issue a report concerning our internal control over financial reporting.

The existence of one or more material weaknesses has resulted in, and could continue to result in, errors in our financial statements, and substantial costs and resources may be required to rectify these errors or other internal control deficiencies and may cause us to incur other costs, including potential legal expenses. If we cannot produce reliable financial reports, investors could lose confidence in our reported financial information, and we may be unable to obtain additional financing to operate and expand our business and our business and financial condition could be harmed.

We have an established process to remediate identified control deficiencies timely and we continue to take appropriate actions to strengthen our internal control over financial reporting, but we cannot assure you that the measures we have taken to date, or any measures we may take in the future, will be sufficient to avoid potential future material weaknesses.

Risks Related to Our Indebtedness

We may be unable to generate sufficient cash flows from operations to meet our consolidated debt service payments.

Our ability to generate sufficient cash flows from operations to make scheduled debt service payments depends on a range of economic, competitive and business factors, many of which are outside of our control. Our business may generate insufficient cash flows from operations to meet our debt service and other obligations, and currently anticipated cost savings, working capital reductions and operating improvements may not be realized on schedule, or at all. If we are unable to meet our expenses and debt service obligations, we may need to refinance all or a portion of our indebtedness on or before maturity, sell assets or issue additional equity securities. We may be unable to refinance any of our indebtedness, sell assets or issue equity securities on commercially reasonable terms, or at all, which could cause us to default on our obligations and result in the acceleration of our debt obligations. Our inability to generate sufficient cash flows to satisfy our outstanding debt obligations, or to refinance our obligations on commercially reasonable terms, would have a material adverse effect on our business, financial condition and results of operations.

Availability under the ABL Facility is subject to a borrowing base based on a specified percentage of eligible accounts receivable and inventory and, with respect to the foreign loan parties, a specified percentage of eligible machinery, equipment and real property, subject to certain limitations. To the extent the borrowing base is lower than we expect, that could significantly impair our liquidity. In addition, if our fixed charge coverage ratio falls to less than 1.0 to 1.0, we will need to ensure that our availability under the ABL Facility is at least the greater of \$30 (or \$1.0 after giving effect to the Transactions) and 10% of the lesser of the borrowing base and the total ABL commitments.

Our substantial indebtedness could adversely affect our ability to raise additional capital to fund our operations and limit our ability to react to changes in the economy or our industry.

Upon emergence and as of July 1, 2019, we had approximately \$1.8 billion of consolidated outstanding indebtedness, including payments due within the next twelve months and short-term borrowings.

Our substantial consolidated indebtedness could have other important consequences, including but not limited to the following:

- it may limit our flexibility in planning for, or reacting to, changes in our operations or business;
- we are more highly leveraged than many of our competitors, which may place us at a competitive disadvantage;
- it may make us more vulnerable to downturns in our business or in the economy;
- a substantial portion of our cash flows from operations will be dedicated to the repayment of our indebtedness and will not be available for other purposes;
- it may restrict us from making strategic acquisitions, introducing new technologies or exploiting business opportunities;
- it may make it more difficult for us to satisfy our obligations with respect to our existing indebtedness;
- it may adversely affect terms under which suppliers provide material and services to us; and
- it may limit our ability to borrow additional funds or dispose of assets.

There would be a material adverse effect on our business and financial condition if we were unable to service our indebtedness or obtain additional financing, as needed.

Despite our substantial indebtedness, we may still be able to incur significant additional indebtedness. This could intensify the risks described above and below.

We may be able to incur substantial additional indebtedness in the future. Although the terms governing our indebtedness contain restrictions on our ability to incur additional indebtedness, these restrictions are subject to numerous qualifications and exceptions, and the indebtedness we may incur in compliance with these restrictions could be substantial. Increasing our indebtedness could intensify the risks described above and below.

The terms governing our outstanding debt, including restrictive covenants, may adversely affect our operations.

The terms governing our outstanding debt contain, and any future indebtedness we incur would likely contain, numerous restrictive covenants that impose significant operating and financial restrictions on our ability to, among other things:

- incur or guarantee additional debt;
- pay dividends and make other distributions to our shareholders;
- create or incur certain liens;

- make certain loans, acquisitions, capital expenditures or investments;
- engage in sales of assets and subsidiary stock;
- enter into sale/leaseback transactions;
- enter into transactions with affiliates;
- enter into agreements that restrict dividends from subsidiaries; and
- transfer all or substantially all of our assets or enter into merger or consolidation transactions.

In addition, the credit agreement governing our ABL Facility requires us to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0 at any time when excess availability is less than the greater of (x) \$30 and (y) 10% of the lesser of the (i) borrowing base at such time and (ii) the total ABL Facility commitments at such time. The fixed charge coverage ratio under the credit agreement governing the ABL Facility is generally defined as the ratio of (a) Pro Forma EBITDA minus non-financed capital expenditures and cash taxes during such period to (b) debt service plus cash interest expense plus certain restricted payments, each measured for the four most recent quarters for which financial statements have been delivered. We may not be able to satisfy such ratio in future periods. If we anticipate we will be unable to meet such ratio, we expect not to allow our availability under the ABL Facility to fall below such levels.

A breach of our fixed charge coverage ratio covenant, if in effect, would result in an event of default under our ABL Facility. Pursuant to the terms of our ABL Facility, our direct parent company will have the right, but not the obligation, to cure such default through the purchase of additional equity in up to two of any four consecutive quarters and seven total during the term of the ABL Facility. If a breach of a fixed charge coverage ratio covenant is not cured or waived, or if any other event of default under the ABL Facility occurs, the lenders under such credit facility:

- would not be required to lend any additional amounts to us;
- could elect to declare all borrowings outstanding under the Credit Facilities, together with accrued and unpaid interest and fees, due and payable and could demand cash collateral for all letters of credit issued thereunder;
- could apply all of our available cash that is subject to the cash sweep mechanism of the Credit Facilities to repay these borrowings; and/or
- could prevent us from making payments on our notes;

any or all of which could result in an event of default under our notes.

The ABL Facility provides for “springing control” over the cash in our deposit accounts constituting collateral for the ABL Facility, and such cash management arrangements includes a cash sweep at any time that availability under the ABL Facility is less than the greater of (x) \$30 and (y) 10.0% of the lesser of the (i) borrowing base at such time and (ii) the total ABL Facility commitments at such time. Such cash sweep, if in effect, will cause substantially all our available cash to be applied to outstanding borrowings under our ABL Facility. If we satisfy the conditions to borrowings under the ABL Facility while any such cash sweep is in effect, we may be able to make additional borrowings under the ABL Facility to satisfy our working capital and other operational needs. If we do not satisfy the conditions to borrowing, we will not be permitted to make additional borrowings under our ABL Facility, and we may not have sufficient cash to satisfy our working capital and other operational needs.

Repayment of our debt, including required principal and interest payments, depends on cash flows generated by our subsidiaries, which may be subject to limitations beyond our control.

Our subsidiaries own a significant portion of our consolidated assets and conduct a significant portion of our consolidated operations. Repayment of our indebtedness depends, to a significant extent, on the generation of cash flows and the ability of our subsidiaries to make cash available to us by dividend, debt repayment or otherwise. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments on our indebtedness. Each subsidiary is a distinct legal entity and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from subsidiaries. While there are limitations on the ability of our subsidiaries to incur consensual restrictions on their ability to pay dividends or make intercompany payments, these limitations are subject to certain qualifications and exceptions. In the event that we are unable to receive distributions from our subsidiaries, we may be unable to make required principal and interest payments on our indebtedness.

A downgrade in our debt ratings could restrict our access to, and negatively impact the terms of, current or future financings or trade credit.

Standard & Poor’s Ratings Services (“S&P”) and Moody’s Investors Service (“Moody’s”) maintain credit ratings on us and certain of our debt. Each of these ratings is currently below investment grade. Any decision by these or other ratings agencies to downgrade such ratings in the future could restrict our access to, and negatively impact the terms of, current or future financings and trade credit extended by our suppliers of raw materials or other vendors.

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

None.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

This item is not applicable to the registrant.

Item 5. Other Information

None.

Item 6. Exhibits

31.1	Rule 13a-14 Certifications: (a) Certificate of the Chief Executive Officer (b) Certificate of the Chief Financial Officer
32.1	Section 1350 Certifications
101.INS*	XBRL Instance Document
101.SCH*	XBRL Schema Document
101.CAL*	XBRL Calculation Linkbase Document
101.DEF*	XBRL Definition Linkbase Document
101.LAB*	XBRL Label Linkbase Document
101.PRE*	XBRL Presentation Linkbase Document

* Attached as Exhibit 101 to this report are documents formatted in XBRL (Extensible Business Reporting Language). The financial information in the XBRL-related documents is “unaudited” or “unreviewed.”

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.

HEXION INC.

Date: August 12, 2019

/s/ George F. Knight

George F. Knight

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

Certification of Financial Statements and Internal Controls

I, Craig A. Rogerson, certify that:

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

Date: August 12, 2019

/s/ Craig A. Rogerson

Craig A. Rogerson

Chief Executive Officer

Certification of Financial Statements and Internal Controls

I, George F. Knight, certify that:

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

Date: August 12, 2019

/s/ George F. Knight

George F. Knight

Chief Financial Officer

**Certification Pursuant To
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 Of The Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of Hexion Inc. (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Craig A. Rogerson

Craig A. Rogerson
Chief Executive Officer

/s/ George F. Knight

George F. Knight
Chief Financial Officer

August 12, 2019

August 12, 2019

A signed original of this statement required by Section 906 has been provided to Hexion Inc. and will be retained by Hexion Inc. and furnished to the Securities and Exchange Commission or its staff upon request.