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

FORM 10-Q

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

For the quarterly period ended March 31, 2019

OR

o **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

HEXION INC.

(Exact name of registrant as specified in its charter)

New Jersey	**13-0511250**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
180 East Broad St., Columbus, OH 43215	**614-225-4000**
(Address of principal executive offices including zip code)	**(Registrant’s telephone number including area code)**

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

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

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 x No o

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	o	Accelerated filer	o
Non-accelerated filer	x	Smaller reporting company	o
		Emerging growth company	o

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. o

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

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

Securities registered pursuant to Section 12(b) of the Act: None

HEXION INC.

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PART I - FINANCIAL INFORMATION
Item 1. Financial Statements

HEXION INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

(In millions, except share data)	March 31, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents (including restricted cash of $15)	$ 111	$ 128
Accounts receivable (net of allowance for doubtful accounts of $15 and $16, respectively)	496	412
Inventories:		
Finished and in-process goods	258	240
Raw materials and supplies	94	94
Other current assets	67	57
Total current assets	1,026	931
Investment in unconsolidated entities	20	19
Other long-term assets	40	34
Property and equipment:		
Land	90	89
Buildings	285	285
Machinery and equipment	2,289	2,293
	2,664	2,667
Less accumulated depreciation	(1,840)	(1,826)
	824	841
Operating lease assets (see Note 8)	99	—
Goodwill	108	109
Other intangible assets, net	25	27
Total assets	$ 2,142	$ 1,961
Liabilities and Deficit		
Current liabilities:		
Accounts payable	$ 354	$ 384
Debt payable within one year	3,875	3,716
Interest payable	100	82
Income taxes payable	8	5
Accrued payroll and incentive compensation	47	52
Current portion of operating lease liabilities (see Note 8)	23	—
Other current liabilities	105	106
Total current liabilities	4,512	4,345
Long-term liabilities:		
Long-term debt	94	99
Long-term pension and post employment benefit obligations	215	221
Deferred income taxes	15	15
Operating lease liabilities (see Note 8)	76	—
Other long-term liabilities	196	195
Total liabilities	5,108	4,875
Commitments and contingencies (see Note 9)		
Deficit		
Common stock—$0.01 par value; 300,000,000 shares authorized, 170,605,906 issued and 82,556,847 outstanding at March 31, 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	(18)	(18)
Accumulated deficit	(3,177)	(3,125)
Total Hexion Inc. shareholder’s deficit	(2,964)	(2,912)
Noncontrolling interest	(2)	(2)
Total deficit	(2,966)	(2,914)
Total liabilities and deficit	$ 2,142	$ 1,961

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended March 31,	
(In millions)	2019	2018
Net sales	$ 886	$ 946
Cost of sales	750	789
Gross profit	136	157
Selling, general and administrative expense	91	82
Gain on disposition	—	(44)
Asset impairments	—	25
Business realignment costs	4	9
Other operating expense, net	8	9
Operating income	33	76
Interest expense, net	80	83
Other non-operating income, net	(1)	(1)
Loss before income tax and earnings from unconsolidated entities	(46)	(6)
Income tax expense	7	8
Loss before earnings from unconsolidated entities	(53)	(14)
Earnings from unconsolidated entities, net of taxes	1	1
Net loss	$ (52)	$ (13)

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME (Unaudited)

	Three Months Ended March 31,	
(In millions)	2019	2018
Net loss	$ (52)	$ (13)
Other comprehensive income, net of tax:		
Foreign currency translation adjustments	—	14
Other comprehensive income	—	14
Comprehensive (loss) income	$ (52)	$ 1

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

(In millions)	Three Months Ended March 31, 2019	2018
Cash flows used in operating activities		
Net loss	$ (52)	$ (13)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	26	30
Non-cash asset impairments	—	25
Deferred tax expense	—	1
Gain on disposition	—	(44)
Amortization of deferred financing fees	—	4
Unrealized foreign currency losses	—	3
Other non-cash adjustments	—	(1)
Net change in assets and liabilities:		
Accounts receivable	(84)	(36)
Inventories	(20)	(30)
Accounts payable	(21)	(28)
Income taxes payable	4	2
Other assets, current and non-current	(9)	(10)
Other liabilities, current and long-term	2	14
Net cash used in operating activities	(154)	(83)
Cash flows (used in) provided by investing activities		
Capital expenditures	(19)	(25)
Proceeds from disposition, net	—	49
Proceeds from sale of assets, net	—	1
Net cash (used in) provided by investing activities	(19)	25
Cash flows provided by financing activities		
Net short-term debt borrowings	—	(15)
Borrowings of long-term debt	196	166
Repayments of long-term debt	(40)	(96)
Long-term debt and credit facility financing fees paid	—	(1)
Net cash provided by financing activities	156	54
Effect of exchange rates on cash and cash equivalents	—	2
Change in cash and cash equivalents	(17)	(2)
Cash, cash equivalents and restricted cash at beginning of period	128	115
Cash, cash equivalents and restricted cash at end of period	$ 111	$ 113
Supplemental disclosures of cash flow information		
Cash paid for:		
Interest, net	$ 62	$ 61
Income taxes, net	5	5

See Notes to Condensed Consolidated Financial Statements

HEXION INC.
CONDENSED CONSOLIDATED STATEMENT OF DEFICIT (Unaudited)

(In millions)	Common Stock	Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Hexion Inc. Deficit	Noncontrolling Interest	Total
Balance at December 31, 2017	$ 1	$ 526	$ (296)	$ (8)	$ (2,964)	$ (2,741)	$ (1)	$ (2,742)
Net loss	—	—	—	—	(13)	(13)	—	(13)
Other comprehensive income	—	—	—	14	—	14	—	14
Impact of change in accounting policy	—	—	—	—	1	1	—	1
Balance at March 31, 2018	$ 1	$ 526	$ (296)	$ 6	$ (2,976)	$ (2,739)	$ (1)	$ (2,740)
Balance at December 31, 2018	$ 1	$ 526	$ (296)	$ (18)	$ (3,125)	$ (2,912)	$ (2)	$ (2,914)
Net loss	—	—	—	—	(52)	(52)	—	(52)
Balance at March 31, 2019	$ 1	$ 526	$ (296)	$ (18)	$ (3,177)	$ (2,964)	$ (2)	$ (2,966)

See Notes to Condensed Consolidated Financial Statements

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 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 March 31, 2019, the Company had three reportable segments: Epoxy, Phenolic and Coating Resins; Forest Products Resins; and Corporate and Other.

The Company's direct parent is Hexion LLC, a holding company and wholly owned subsidiary of Hexion Holdings LLC ("Hexion Holdings"), the ultimate parent entity of Hexion. Hexion Holdings is controlled by investment funds managed by affiliates of Apollo Management Holdings, L.P. (together with Apollo Global Management, LLC and its subsidiaries, "Apollo").

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 December 31, 2018. At March 31, 2019, the Company continues to believe that substantial doubt exists as to the Company's ability to continue as a going concern for the next twelve months.

The accompanying Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q have 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 Financial Statements including the reclassification of certain outstanding debt to current liabilities and the write-off of unamortized deferred financing costs related to such debt. To address the risk of not being able to continue as a going concern, the Company has undertaken steps to restructure its balance sheet (see Note 2).

2. Chapter 11 Bankruptcy Filing (Subsequent Event)

Bankruptcy Petitions

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 are being jointly administered under the caption *In re Hexion Holdings LLC, No. 19-10684* (the "Chapter 11 Cases"). The Debtors will continue 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.

Operation and Implications of the Bankruptcy Filing

The filing of the Bankruptcy Petitions constitutes an event of default that accelerated the Company's obligations under the following debt instruments (the "Debt Instruments"):

- Amended and Restated Asset-Based Revolving Credit Agreement, dated as of December 21, 2016, by and among Hexion LLC, the Company, certain subsidiaries of the Company, the lenders party thereto and the other parties thereto with respect to approximately $296 of borrowings outstanding as of March 31, 2019, plus accrued and unpaid interest thereon;

- Indenture, dated as of December 15, 1987, by and between the Company and The Bank of New York, as trustee, with respect to an aggregate principal amount of approximately $74 of 9.20% Debentures due 2021 and approximately $189 of 7.875% Debentures due 2023, in each case, plus accrued and unpaid interest thereon;

- Indenture, dated as of November 5, 2010, by and among the Company, as successor issuer, Hexion Nova Scotia Finance, ULC, a Nova Scotia unlimited liability company, as the Nova Scotia issuer, certain subsidiaries of the Company and Wilmington Trust Company, as trustee, with respect to an aggregate principal amount of approximately $574 of 9.00% Second-Priority Senior Secured Notes due 2020 plus accrued and unpaid interest thereon;

- Indenture, dated as of March 14, 2012, by and among the Company, as successor issuer, certain subsidiaries of the Company and Wilmington Trust, National Association, as trustee, with respect to an aggregate principal amount of approximately $1,550 of 6.625% First-Priority Senior Secured Notes due 2020 plus accrued and unpaid interest thereon;

- Indenture, dated as of April 15, 2015, by and among the Company, certain subsidiaries of the Company and Wilmington Trust, National Association, as trustee, with respect to an aggregate principal amount of approximately $315 of 10.00% First-Priority Senior Secured Notes due 2020 plus accrued and unpaid interest thereon;

- Indenture, dated as of February 8, 2017, by and among the Company, as successor issuer, certain subsidiaries of the Company and Wilmington Trust, National Association, as trustee, with respect to an aggregate principal amount of approximately $560 of 10.375% First-Priority Senior Secured Notes due 2022 plus accrued and unpaid interest thereon; and

- The 1.5 Lien Indenture, with respect to an aggregate principal amount of approximately $225 of 13.75% Senior Secured Notes due 2022 plus accrued and unpaid interest thereon.

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.

The accompanying Condensed Consolidated Financial Statements contemplate the realization of assets and the satisfaction of liabilities in the normal course of business. The Company's ability to continue as a going concern is contingent upon the Debtors ability to comply with the financial and other covenants contained in the DIP ABL Facility described below, the development of, and the Bankruptcy Court's approval of, a Chapter 11 plan and the Debtors ability to successfully implement a restructuring plan and obtain new financing, among other factors. Such conditions raise substantial doubt as to the Company's ability to continue as a going concern.

Subsequent to the Petition Date, the Company received approval from the Bankruptcy Court to pay or otherwise honor certain pre-petition 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 and pre-petition amounts owed to certain critical vendors. The Company also expects to honor payments to vendors and other providers in the ordinary course of business for goods and services received after the Petition Date. The Company has received Bankruptcy Court approval to retain legal and financial professionals to advise the Company in connection with the Chapter 11 Cases and certain other professionals to provide services and advice in the ordinary course of business. From time to time, the Company may seek Court approval to retain additional professionals as deemed necessary.

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").

The DIP Term Loan Facility has an 18-month term unless, prior to the end of such 18 month period, a plan of reorganization filed in the Chapter 11 Cases is confirmed pursuant to an order entered by the Bankruptcy Court, in which case, the DIP Term Loan Facility will terminate on the effective date of such plan. The amount committed and made available under the DIP Term Loan Facility is $350. The DIP Term Loan Facility bears interest based on, at the Company's option, an adjusted LIBOR plus 2.75%.

The DIP Term Loan Facility has a minimum liquidity covenant of $35 tested at the close of each business day. Liquidity is defined as global unrestricted cash plus DIP ABL Facility excess availability.

The security arrangements for the DIP Term Loan Facility include a Dutch-law governed pledge over the equity of the Dutch Borrower's direct subsidiary Hexion Holding B.V., a Dutch-law governed pledge over the Dutch Borrower's rights and interest under the Intercompany Loan Agreement and first-priority liens on the unencumbered equity interests directly owned by, and all other unencumbered tangible and intangible property that is neither Notes Priority Collateral nor ABL Priority Collateral (as such terms are defined in the Company's existing ABL Intercreditor Agreement, dated as of March 28, 2013, by and among JPMorgan, as the ABL facility collateral agent, Wilmington Trust, National Association, as applicable first-lien agent and first-lien collateral agent, the Company and its subsidiaries party thereto) of, the Debtors, in each case subject to certain exceptions and permitted liens.

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.

The DIP ABL Facility has an 18-month term unless, prior to the end of such 18 month period, a plan of reorganization filed in the Chapter 11 Cases is confirmed pursuant to an order entered by the Bankruptcy Court, in which case, the DIP ABL Facility will terminate on the effective date of such plan. Availability under the ABL Facility is $350. The DIP ABL Facility is also subject to a borrowing base that is based on a specified percentage of eligible accounts receivable and inventory and, in certain foreign jurisdictions, machinery and equipment.

The DIP ABL Facility bears interest based on, at the Company's option, an adjusted LIBOR rate plus an applicable margin of 2.00% to 2.50% based on excess availability or an alternate base rate plus an applicable margin of 1.00% to 1.50% based on excess availability. In addition to paying interest on outstanding principal under the DIP ABL Facility, the Company will be required to pay a commitment fee to the lenders in respect of the unutilized commitments at an initial rate equal to 0.50% per annum, subject to adjustment depending on the usage.

The DIP ABL Facility also has a minimum liquidity covenant of $35 tested at the close of each business day.

The DIP ABL Facility is secured by, among other things, first-priority liens on most of the inventory and accounts receivable and related assets of the Company, its domestic subsidiaries and certain of its foreign subsidiaries, and, in the case of certain foreign subsidiaries, machinery and equipment (the "DIP ABL Priority Collateral"), and second-priority liens on certain collateral that generally includes most of the Company's, its domestic subsidiaries' and certain of its foreign subsidiaries' assets other than DIP ABL Priority Collateral (the "DIP Term Loan Priority Collateral"), in each case subject to certain exceptions and permitted liens.

Restructuring Support Agreement

On April 1, 2019, the Debtors entered into a Restructuring Support Agreement (the "Support Agreement") with equityholders that beneficially own more than a majority of the Company's outstanding equity (the "Consenting Sponsors") and creditors holding 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 issued by Hexion Inc. (the "1.5L Notes"), 9.00% second lien notes due 2020 issued by Hexion Inc. (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 incorporates the economic terms regarding a restructuring of the Debtors agreed to by the parties reflected in a term sheet attached as Exhibit A to the Support Agreement. The restructuring transactions will be effectuated through a plan of reorganization (the "Plan") to be proposed by the Debtors.

Pursuant to the Support Agreement, each of the Debtors and the Consenting Parties has made certain customary commitments to each other. The Debtors have agreed to, among other things, use commercially reasonable efforts to make all requisite filings with the Bankruptcy Court and continue to involve and update the Consenting Creditors' representatives in the bankruptcy process; respond to diligence requests from certain of the Consenting Creditors' representatives; and satisfy certain other covenants set forth in the Support Agreement. The Consenting Parties have committed to support and vote for the Plan and have agreed to use commercially reasonable efforts to take, or refrain from taking, certain actions in furtherance of such support.

The Support Agreement contains milestones for the progress of the Chapter 11 Cases (the "Milestones"), which include the dates by which the Debtors are required to, among other things, obtain certain orders of the Bankruptcy Court and consummate the Debtors' emergence from bankruptcy. Among other dates set forth in the Support Agreement, the agreement contemplates that the Bankruptcy Court shall have entered the Disclosure Statement Order (as defined therein) no later than 90 days after April 1, 2019 and that the Company shall have emerged from bankruptcy no later than 150 days after April 1, 2019, both of which are subject to an extension of up to the number of days (not to exceed 35 days) by which the Company's deadline to file its schedules of assets and liabilities and statements of financial affairs is extended beyond 45 days, in the event the Company receives such an extension from the Bankruptcy Court.

Each of the parties to the Support Agreement may terminate the agreement (and thereby their support for the Plan) under certain limited circumstances. Any Debtor may terminate the Support Agreement upon, among other circumstances:

- Its board of directors, after consultation with legal counsel, determining in good faith that performance under the Support Agreement would be inconsistent with its fiduciary duties;
- The failure of Consenting Creditors to hold, in the aggregate, at least 66 2/3% of the aggregate principal amount outstanding of each of the (a) 1L Notes, (b) 1.5L Notes, and (c) 2L Notes and the Unsecured Notes, in each case, at any time after April 5, 2019; and
- Certain actions by the Bankruptcy Court, including dismissing the Chapter 11 Cases or converting the Chapter 11 Cases into cases under chapter 7 of the Bankruptcy Code.

The Consenting Parties also have specified termination rights, including certain termination rights similar to the Debtors. The Consenting Creditors' termination rights may be exercised by the Required Consenting First Lien Noteholders, the Required Consenting 1.5L Noteholders or the Required Consenting Crossholder Noteholders (each as defined in the Support Agreement). Additionally, such parties may terminate the Support Agreement upon any acceleration or termination of the Credit Facilities or if any of the Milestones have not been achieved, extended, or waived within three business days after such Milestone.

The Support Agreement is subject to approval by the Bankruptcy Court, among other conditions. Accordingly, no assurance can be given that the transactions described therein will be consummated.

Significant Bankruptcy Court Actions

Following the Commencement Date, the Bankruptcy Court entered certain interim and final orders facilitating the Debtors' operational transition into Chapter 11. These orders authorized the Debtors to, among other things, pay certain pre-petition employee expenses and benefits, use their existing cash management system, maintain and administer customer programs, pay certain critical and foreign vendors, honor insurance-related obligations, and pay certain pre-petition taxes and related fees on a final basis, and approved the Credit Facilities on an interim basis. The Bankruptcy Court approved the Credit Facilities on a final basis on May 1, 2019.

3. 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 March 31, 2019 and December 31, 2018 in the unaudited Condensed Consolidated Balance Sheet. Refer to Note 12 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 March 31, 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 March 31, 2019 and December 31, 2018, respectively, 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.

4. 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 March 31, 2019	$ 14	$ 8	$ 4	$ 26
Accrued liability at December 31, 2018	$ 2	$ 2	$ 2	$ 6
Restructuring charges	1	—	—	1
Payments	(1)	—	(1)	(2)
Accrued liability at March 31, 2019	$ 2	$ 2	$ 1	$ 5

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 three months ended March 31, 2018.

5. Related Party Transactions

Administrative Service, Management and Consulting Arrangement

The Company is subject to a Management Consulting Agreement with Apollo (the “Management Consulting Agreement”) that renews on an annual basis, unless notice to the contrary is given by either party. Under the Management Consulting Agreement, the Company receives certain structuring and advisory services from Apollo and its affiliates. The Management Consulting Agreement provides indemnification to Apollo, its affiliates and their directors, officers and representatives for potential losses arising from these services. Apollo is 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 months ended March 31, 2019 and 2018, the Company recognized expense under the Management Consulting Agreement of $1. 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 has agreed to waive its annual management fee for 2019. In addition, as part of 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

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), 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 below table summarizes the transactions between the Company and MPM:

	Three Months Ended March 31,	
	2019	2018
Total cost pool - Hexion [(1)]	$ 6	$ 8
Total cost pool - MPM [(1)]	5	7

(1) Included in the net costs incurred during the three months ended March 31, 2019 and 2018, were net billings from Hexion to MPM of $3 to bring the percentage of total net incurred costs for shared services under the Shared Services Agreement to the applicable agreed upon allocation percentage.

	March 31, 2019	December 31, 2018
Accounts receivable from MPM	$ 2	$ 2

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 months ended March 31, 2019 and during the three months ended March 31, 2018, the Company sold less than $1 of products to MPM. During the three months ended March 31, 2019 and 2018, the Company earned less than $1 from MPM as compensation for acting as distributor of products. Refer to the below table for the summary of the purchases of products with MPM:

	Three Months Ended March 31,	
	2019	2018
Purchases from MPM	$ 7	$ 7

	March 31, 2019	December 31, 2018
Accounts payable to MPM	$ 3	$ 3

Purchases and Sales of Products and Services with Apollo Affiliates Other than MPM

The Company sells products to various Apollo affiliates other than MPM. These sales were $1 for both the three months ended March 31, 2019 and March 31, 2018. Accounts receivable from these affiliates were $1 and less than $1 at March 31, 2019 and December 31, 2018, respectively.

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 March 31,	
	2019	**2018**
Sales to joint ventures	$ 1	$ 3
Purchases from joint ventures	1	2

	March 31, 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 $8 and $7 as of March 31, 2019 and December 31, 2018, respectively, from its unconsolidated forest products joint venture in Russia.

6. 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 March 31, 2019, the Company had derivative assets related to foreign exchange, electricity and natural gas contracts of $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 three months ended March 31, 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 March 31, 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.

Non-derivative Financial Instruments

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

		Fair Value			
	Carrying Amount	**Level 1**	**Level 2**	**Level 3**	**Total**
March 31, 2019					
Debt	$ 3,969	$ —	$ 2,716	$ 62	$ 2,778
December 31, 2018					
Debt	$ 3,815	$ —	$ 2,679	$ 66	$ 2,745

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.

7. Debt Obligations

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

	March 31, 2019		December 31, 2018	
	Long-Term	Due Within One Year	Long-Term	Due Within One Year
ABL Facility	$ —	$ 296	$ —	$ 137
Senior Secured Notes:				
6.625% First-Priority Senior Secured Notes due 2020	—	1,550		1,550
10.00% First-Priority Senior Secured Notes due 2020	—	315	—	315
10.375% First-Priority Senior Secured Notes due 2022	—	560	—	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	30	4	30	4
Brazilian bank loans	11	42	12	41
Lease obligations(1)	52	9	56	10
Other	1	37	1	37
Total	$ 94	$ 3,875	$ 99	$ 3,716

(1) 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, the Company believes there is substantial doubt about its ability to continue as a going concern for the next twelve months, including its ability to fund its debt service obligations. The inability of the Company to fund such debt service obligations is an event of default under the ABL Facility (described below) and under the indentures that govern the Company's notes. As such, all outstanding debt as of March 31, 2019 and December 31, 2018 related to the ABL Facility, the Senior Secured Notes and Debentures has been classified as "Debt payable within one year" in the Condensed Consolidated Balance Sheets and related footnote disclosures.

The Bankruptcy Petitions constitute an event of default that accelerated the Company's obligations under its ABL Facility and 6.625% First-Priority Senior Secured Notes, 10.00% First-Priority Senior Secured Notes, 10.375% First-Priority Senior Secured Notes, 13.75% Senior Secured Notes, 9.00% Second-Priority Senior Secured Notes, 9.2% debentures and 7.875% debentures. These debt instruments provide that as a result of the Bankruptcy Petitions, the principal and interest due thereunder are 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.

Debtor-in-Possession Financing

In connection with the Bankruptcy Petitions, on April 3, 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.

8. 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 months ended March 31, 2019, the Company recorded $9 of operating lease expense and $3 of short-term lease expense. The Company had less than $1 of amortization expense and less than $1 of interest expense from finance leases for the three months ended March 31, 2019. Variable lease expense was $1 for the three months ended March 31, 2019. 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	**March 31, 2019[1]**
Assets:		
Operating	Operating lease assets	$ 99
Finance[1]	Machinery and Equipment	9
Total leased assets		$ 108
Liabilities:		
Current		
Operating	Current portion of operating lease liabilities	$ 23
Finance	Debt payable within one year	2
Noncurrent		
Operating	Operating lease liabilities	76
Finance	Long-term debt	7
Total leased liabilities		$ 108

(1) Finance lease assets are recorded net of accumulated amortization of $8 as of March 31, 2019.

Other Lease Information

Cash paid for finance leases was $1 and cash paid for operating leases approximated operating lease expense and non-cash right-of-use asset amortization for the three months ended March 31, 2019. Right-of-use assets obtained in exchange for operating lease obligations were less than $1 during the first three months ending March 31, 2019. There were no right-of-use assets obtained in exchange for finance lease obligations during the first three months ending March 31, 2019.

The tables below present supplemental information related to leases for the three months ended March 31, 2019:

	March 31, 2019
Weighted-average remaining lease term (years)	
Operating leases	8.8
Finance leases	2.5
Weighted-average discount rate	
Operating leases	12.19%
Finance leases	9.00%

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 March 31, 2019:

Year	Minimum Rentals Under Operating Leases		Minimum Payments Under Finance Leases(1)	
Remaining nine months of 2019	$	25	$	3
2020		24		7
2021		20		—
2022		14		—
2023		11		—
2024 and thereafter		78		1
Total lease payments	$	172	$	11
Less: Amount representing interest		73		2
Present value of lease liabilities	$	99	$	9

(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 3 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	$	161		84
Less: Amount representing interest				(18)
Present value of minimum payments			$	66

9. 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 March 31, 2019 and December 31, 2018:

	Liability				Range of Reasonably Possible Costs at March 31, 2019			
Site Description	March 31, 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		22		22		20		39
Monitoring only		1		1		1		4
Total	$	50	$	50	$	41	$	96

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 both March 31, 2019 and 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 March 31, 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 cots, 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 March 31, 2019 and December 31, 2018 for all non-environmental legal defense costs incurred and settlement costs that it believes are probable and estimable. At March 31, 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.

10. 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 months ended March 31, 2019 and 2018:

	Pension Benefits				Non-Pension Postretirement Benefits			
	Three Months Ended March 31,				Three Months Ended March 31,			
	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	$ 4	$ 1	$ 4	$ —	$ —	$ —	$ —
Interest cost on projected benefit obligation	2	2	2	3	—	—	—	—
Expected return on assets	(3)	(3)	(4)	(3)	—	—	—	—
Net expense (benefit)	$ —	$ 3	$ (1)	$ 4	$ —	$ —	$ —	$ —

11. 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 includes manufacturing sites located in Somersby, Australia and Sungai Petani, Malaysia. The ATG business produces 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 three months ended March 31, 2018.

12. Segment Information

The Company’s business segments are based on the products that the Company offers and the markets that it serves. At March 31, 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 March 31, 2019			Three Months Ended March 31, 2018		
	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total	Epoxy, Phenolic and Coating Resins	Forest Products Resins	Total
North America	$ 209	$ 260	$ 469	$ 233	$ 268	$ 501
Europe	219	47	266	245	54	299
Asia Pacific	63	33	96	61	31	92
Latin America	—	55	55	1	53	54
Total	$ 491	$ 395	$ 886	$ 540	$ 406	$ 946

(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 March 31,	
	2019	2018
Reconciliation:		
Net loss	(52)	(13)
Income tax expense	7	8
Interest expense, net	80	83
Depreciation and amortization	26	30
EBITDA	$ 61	$ 108
Items not included in Segment EBITDA:		
Asset impairments	$ —	$ 25
Business realignment costs	4	9
Gain on disposition	—	(44)
Transaction costs	23	3
Realized and unrealized foreign currency losses	1	7
Other	14	10
Total adjustments	42	10
Segment EBITDA	$ 103	$ 118
Segment EBITDA:		
Epoxy, Phenolic and Coating Resins	$ 52	$ 70
Forest Products Resins	68	67
Corporate and Other	(17)	(19)
Total	$ 103	$ 118

Items Not Included in Segment EBITDA

Not included in Segment EBITDA are certain non-cash items and other income and expenses. For the three months ended March 31, 2019 and 2018, these items primarily include expenses from retention programs, management fees and expenses related to legacy liabilities. For three months ended March 31, 2019, transaction costs primarily included certain professional fees and other expenses related to the Company's Chapter 11 Proceedings. For the three months ended March 31, 2018, transaction costs included certain professional fees related to strategic projects. Business realignment costs for the three months ended March 31, 2019 and 2018 primarily include costs related to certain in-process facility rationalizations and cost reduction programs.

13. Changes in Accumulated Other Comprehensive (Loss) Income

Following is a summary of changes in "Accumulated other comprehensive (loss) income" for the three months ended March 31, 2019 and 2018:

	Three Months Ended March 31, 2019			Three Months Ended March 31, 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 income before reclassifications, net of tax	—	—	—	—	14	14
Ending balance	$ (1)	$ (17)	$ (18)	$ 1	$ 5	$ 6

14. 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 (15)% and (133)% for the three months ended March 31, 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 months ended March 31, 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.

15. 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.

HEXION INC.
MARCH 31, 2019
CONDENSED CONSOLIDATING BALANCE SHEET (Unaudited)

	Hexion Inc.	Combined Subsidiary Guarantors	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Cash and cash equivalents (including restricted cash of $0 and $15, respectively)	$ 16	$ —	$ 95	$ —	$ 111
Accounts receivable, net	130	—	366	—	496
Intercompany accounts receivable	46	—	56	(102)	—
Intercompany loans receivable—current portion	44	—	133	(177)	—
Inventories:					
Finished and in-process goods	100	—	158	—	258
Raw materials and supplies	38	—	56	—	94
Other current assets	21	—	46	—	67
Total current assets	395	—	910	(279)	1,026
Investment in unconsolidated entities	121	14	20	(135)	20
Other assets, net	11	7	22	—	40
Intercompany loans receivable	1,132	—	52	(1,184)	—
Property and equipment, net	355	—	469	—	824
Operating lease assets (see Note 8)	44	—	55	—	99
Goodwill	52	—	56	—	108
Other intangible assets, net	18	—	7	—	25
Total assets	$ 2,128	$ 21	$ 1,591	$ (1,598)	$ 2,142
Liabilities and Deficit					
Current liabilities:					
Accounts payable	$ 96	$ —	$ 258	$ —	$ 354
Intercompany accounts payable	56	—	46	(102)	—
Debt payable within one year	3,589	—	286	—	3,875
Intercompany loans payable within one year	133	—	44	(177)	—
Interest payable	99	—	1	—	100
Income taxes payable	2	—	6	—	8
Accrued payroll and incentive compensation	12	—	35	—	47
Current portion of operating lease liabilities (see Note 8)	11	—	12	—	23
Other current liabilities	64	—	41	—	105
Total current liabilities	4,062	—	729	(279)	4,512
Long-term liabilities:					
Long-term debt	50	—	44	—	94
Intercompany loans payable	52	—	1,132	(1,184)	—
Accumulated losses of unconsolidated subsidiaries in excess of investment	734	135	—	(869)	—
Long-term pension and post employment benefit obligations	33	—	182	—	215
Deferred income taxes	11	—	4	—	15
Operating lease liabilities (see Note 8)	33	—	43	—	76
Other long-term liabilities	117	—	79	—	196
Total liabilities	5,092	135	2,213	(2,332)	5,108
Total Hexion Inc. shareholder’s deficit	(2,964)	(114)	(620)	734	(2,964)
Noncontrolling interest	—	—	(2)	—	(2)
Total deficit	(2,964)	(114)	(622)	734	(2,966)
Total liabilities and deficit	$ 2,128	$ 21	$ 1,591	$ (1,598)	$ 2,142

HEXION INC.
DECEMBER 31, 2018
CONDENSED CONSOLIDATING BALANCE SHEET

	Hexion Inc.	Combined Subsidiary Guarantors	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	$ 2,097	$ 19	$ 1,394	$ (1,549)	$ 1,961
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	$ 2,097	$ 19	$ 1,394	$ (1,549)	$ 1,961

HEXION INC.
THREE MONTHS ENDED MARCH 31, 2019
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc.	Combined Subsidiary Guarantors	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	$ 404	$ —	$ 531	$ (49)	$ 886
Cost of sales	341	—	458	(49)	750
Gross profit	63	—	73	—	136
Selling, general and administrative expense	51	—	40	—	91
Business realignment costs	2	—	2	—	4
Other operating expense, net	7	—	1	—	8
Operating income	3	—	30	—	33
Interest expense, net	76	—	4	—	80
Intercompany interest (income) expense, net	(20)	—	20	—	—
Other non-operating expense (income), net	18	—	(19)	—	(1)
(Loss) income before tax and earnings from unconsolidated entities	(71)	—	25	—	(46)
Income tax expense	—	—	7	—	7
(Loss) income before earnings earnings from unconsolidated entities	(71)	—	18	—	(53)
Earnings from unconsolidated entities, net of taxes	19	12	1	(31)	1
Net (loss) income	(52)	12	19	(31)	(52)
Comprehensive (loss) income	$ (52)	$ 12	$ 19	$ (31)	$ (52)

HEXION INC.
THREE MONTHS ENDED MARCH 31, 2018
CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS (Unaudited)

	Hexion Inc.	Combined Subsidiary Guarantors	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net sales	$ 431	$ —	$ 570	$ (55)	$ 946
Cost of sales	357	—	487	(55)	789
Gross profit	74	—	83	—	157
Selling, general and administrative expense	36	—	46	—	82
Gain on disposition	(24)	—	(20)	—	(44)
Asset impairments	25	—	—	—	25
Business realignment costs	6	—	3	—	9
Other operating expense, net	—	—	9	—	9
Operating income	31	—	45	—	76
Interest expense, net	79	—	4	—	83
Intercompany interest (income) expense, net	(20)	—	20	—	—
Other non-operating (income) expense, net	(19)	—	18	—	(1)
(Loss) income before income tax and (losses) earnings from unconsolidated entities	(9)	—	3	—	(6)
Income tax (benefit) expense	(7)	—	15	—	8
Loss before (losses) earnings from unconsolidated entities	(2)	—	(12)	—	(14)
(Losses) earnings from unconsolidated entities, net of taxes	(11)	(3)	1	14	1
Net loss	$ (13)	$ (3)	$ (11)	$ 14	$ (13)
Comprehensive income (loss)	$ 1	$ (2)	$ 2	$ —	$ 1

HEXION INC.
THREE MONTHS ENDED MARCH 31, 2019
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

	Hexion Inc.	Combined Subsidiary Guarantors	Combined Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows (used in) provided by operating activities	$ (186)	$ —	$ 32	$ —	$ (154)
Cash flows provided by (used in) investing activities					
Capital expenditures	(7)	—	(12)	—	(19)
Return of capital from subsidiary from sales of accounts receivable	96 (a)	—	—	(96)	—
	89	—	(12)	(96)	(19)
Cash flows provided by (used in) financing activities					
Net short-term debt borrowings	(2)	—	2	—	—
Borrowings of long-term debt	49	—	147	—	196
Repayments of long-term debt	(24)	—	(16)	—	(40)
Net intercompany loan borrowings (repayments)	70	—	(70)	—	—
Return of capital to parent from sales of accounts receivable	—	—	(96) (a)	96	—
	93	—	(33)	96	156
Change in cash and cash equivalents	(4)	—	(13)	—	(17)
Cash, cash equivalents and restricted cash at beginning of period	20	—	108	—	128
Cash, cash equivalents and restricted cash at end of period	$ 16	$ —	$ 95	$ —	$ 111

(a) During the three months ended March 31, 2019, Hexion Inc. contributed receivables of $96 to a non-guarantor subsidiary as capital contributions, resulting in a non-cash transaction. During the three months ended March 31, 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.

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HEXION INC.
THREE MONTHS ENDED MARCH 31, 2018
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

	Hexion Inc.(b)	Combined Subsidiary Guarantors	Combined Non-Guarantor Subsidiaries(b)	Eliminations	Consolidated
Cash flows (used in) provided by operating activities	$ (91)	$ —	$ 8	$ —	$ (83)
Cash flows provided by (used in) investing activities					
Capital expenditures	(8)	—	(17)	—	(25)
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	73 (a)	—	—	(73)	—
	89	—	9	(73)	25
Cash flows provided by (used in) financing activities					
Net short-term debt borrowings	(3)	—	(12)	—	(15)
Borrowings of long-term debt	50	—	116	—	166
Repayments of long-term debt	(58)	—	(38)	—	(96)
Net intercompany loan borrowings (repayments)	19	—	(19)	—	—
Long-term debt and credit facility financing fees	—	—	(1)	—	(1)
Return of capital to parent from sales of accounts receivable	—	—	(73) (a)	73	—
	8	—	(27)	73	54
Effect of exchange rates on cash and cash equivalents	—	—	2	—	2
Change in cash and cash equivalents	6	—	(8)	—	(2)
Cash, cash equivalents and restricted cash at beginning of period	13	—	102	—	115
Cash, cash equivalents and restricted cash at end of period	$ 19	$ —	$ 94	$ —	$ 113

(a) During the three months ended March 31, 2018, Hexion Inc. contributed receivables of $73 to a non-guarantor subsidiary as capital contributions, resulting in a non-cash transaction. During the three months ended March 31, 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.

(b) Reflected in the “Hexion Inc.” and the “Combined Non-Guarantor Subsidiaries” columns is a correction of an error previously presented in the three months ended March 31, 2018 Condensed Consolidating Statement of Cash Flows. The impact of this correction is a decrease of $42 to “Cash flows (used in) provided by operating activities” and “Net intercompany loan borrowings (repayments)” for the “Hexion Inc.” and “Combined Non-guarantor Subsidiaries” columns, respectively, and an increase of $42 to “Net intercompany loan borrowings (repayments)” and “Cash flows (used in) provided by operating activities” for the “Hexion Inc.” and “Combined Non-Guarantor Subsidiaries” columns, respectively. Management does not believe that this error correction is material to the unaudited Condensed Consolidated Financial Statements for the three months ended March 31, 2018.

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 first quarter of 2019" refers to the three months ended March 31, 2019 and "the first quarter of 2018" refers to the three months ended March 31, 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, our ability to obtain the approval of the Bankruptcy Court (defined below) with respect to motions filed in the Chapter 11 cases and the outcomes of Bankruptcy Court rulings and the Chapter 11 cases in general, 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, the actions and decisions of creditors, regulators and other third parties that have an interest in the Chapter 11 cases, restrictions on us due to the terms of the credit facilities that we entered into in connection with the Chapter 11 cases and restrictions imposed by the Bankruptcy Court, our ability to effectuate the Chapter 11 plan of reorganization described in the restructuring support agreement with certain of our equityholders and creditors, 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 December 31, 2018. At March 31, 2019, we continue to believe that substantial doubt exists as to our ability 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.

The accompanying Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q have 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 Financial Statements including the reclassification of certain outstanding debt to current liabilities and the write-off of unamortized deferred financing costs related to such debt. To address the risk of not being able to continue as a going concern, we have undertaken steps to restructure our balance sheet (see Note 2 to the Condensed Consolidated Financial Statements in Part I of this Quarterly Report on Form 10-Q).

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 March 31, 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 three months ended March 31, 2019 and 2018:

	2019	2018	$ Change	% Change
Statements of Operations:				
Net sales	$ 886	$ 946	$ (60)	(6)%
Gross profit	136	157	(21)	(13)%
Operating income	33	76	(43)	(57)%
Loss before income tax	(46)	(6)	(40)	(667)%
Net loss	(52)	(13)	(39)	(300)%
Segment EBITDA:				
Epoxy, Phenolic and Coating Resins	$ 52	$ 70	$ (18)	(26)%
Forest Products Resins	68	67	1	1 %
Corporate and Other	(17)	(19)	2	11 %
Total	$ 103	$ 118	$ (15)	(13)%

- ***Net Sales***—In the first quarter of 2019, net sales decreased by $60, or 6%, compared to the first quarter of 2018. Volume decreases negatively impacted net sales by $27 primarily related to volume decreases in our North American resins business driven by the timing of new housing starts and in our oilfield business due to highly competitive market conditions. These decreases were partially offset by increased volumes in our North American formaldehyde business due to continued higher demand. Foreign currency translation negatively impacted net sales by $39 due to the weakening of various foreign currencies against the U.S. dollar in the first quarter 2019 compared to the first quarter of 2018. Pricing positively impacted sales by $6 due primarily to raw material productivity across many of our businesses, partially offset by margin reductions in our base epoxy resins business driven by softer market conditions.
- ***Net Loss***—In the first quarter of 2019, net loss increased by $39 as compared to the first quarter of 2018. This increase in net loss was primarily driven by a gain on the sale of our ATG business of $44 that occurred in the first quarter of 2018, a decrease in gross profit due primarily to margin reductions in our base epoxy resins business and approximately $20 of costs associated with our Chapter 11 Proceedings. These decreases were partially offset by asset impairments of $25 largely attributed to our oilfield business that occurred in the first quarter of 2018.

- ***Segment EBITDA***—For the first quarter of 2019, Segment EBITDA was $103, a decrease of 13% compared with $118 in the first quarter of 2018. This decrease was primarily driven by margin reductions in our base epoxy resins business driven by softer market conditions.

- ***Restructuring and Cost Reduction Programs***— During the first quarter of 2019, we have achieved $4 in cost savings related to our cost reduction programs and have a total of $7 of additional in-process cost savings, which we expect to realize during 2019.

- ***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 months ended March 31, 2019, we incurred approximately $4 in costs related to the incident, and we expect to incur additional costs in future periods. 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 2019 due to the introduction of new products and government supported investment in the China wind energy market. We also expect our epoxy specialty business to benefit from improvements in demand for low solvent coatings over the next few years, primarily in China. While we expect softer market conditions in our base epoxy business, we expect our results to remain favorable compared to historical performance. Lastly, we expect our phenolic resins business to continue to benefit from cost reductions associated with our recently completed grid optimization efforts in Europe.

In 2019, we expect demand to continue to drive volume increases in our North American formaldehyde business. Additionally, 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. Lastly, we anticipate modest overall improvement in our Latin American business due to ongoing recovery in the Brazilian economy.

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

Matters Impacting Comparability of Results

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 three months of 2019 compared to the first three months of 2018 the average price of methanol and phenol decreased by approximately 10% and 9%, respectively, and the average price of urea increased by approximately 2%. 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 quarter 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 March 31,			
	2019		2018	
	$	% of Net Sales	$	% of Net Sales
Net sales	$ 886	100 %	$ 946	100 %
Cost of sales	750	85 %	789	83 %
Gross profit	136	15 %	157	17 %
Selling, general and administrative expense	91	10 %	82	9 %
Gain on disposition	—	— %	(44)	(6)%
Asset impairments	—	— %	25	3 %
Business realignment costs	4	— %	9	1 %
Other operating expense, net	8	1 %	9	1 %
Operating income	33	4 %	76	9 %
Interest expense, net	80	9 %	83	9 %
Other non-operating income, net	(1)	— %	(1)	— %
Total non-operating expense	79	9 %	82	9 %
Loss before income tax and earnings from unconsolidated entities	(46)	(5)%	(6)	— %
Income tax expense	7	1 %	8	1 %
Loss before earnings from unconsolidated entities	(53)	(6)%	(14)	(1)%
Earnings from unconsolidated entities, net of taxes	1	— %	1	— %
Net loss	(52)	(6)%	(13)	(1)%
Other comprehensive income	$ —		$ 14	

Three Months Ended March 31, 2019 vs. Three Months Ended March 31, 2018

Net Sales

In the first quarter of 2019, net sales decreased by $60, or 6%, compared to the first quarter of 2018. Volume decreases negatively impacted net sales by $27 primarily related to volume decreases in our North American resins business driven by the timing of new housing starts and in our oilfield business due to highly competitive market conditions. These decreases were partially offset by increased volumes in our North American formaldehyde business due to continued higher demand. Foreign currency translation negatively impacted net sales by $39 due to the weakening of various foreign currencies against the U.S. dollar in the first quarter 2019 compared to the first quarter of 2018. Pricing positively impacted sales by $6 due primarily to raw material productivity across many of our businesses, partially offset by margin reductions in our base epoxy resins business driven by softer market conditions.

Gross Profit

In the first quarter of 2019, gross profit decreased by $21 compared to the first quarter of 2018. Gross profit as a percentage of net sales decreased by 2% due largely to the volume decreases and the unfavorable foreign currency impacts discussed above.

Operating Income

In the first quarter of 2019, operating income decreased by $43 compared to the first quarter of 2018, driven primarily by the gain on the disposition of our ATG business of $44 that occurred in the first quarter 2018, the decrease in gross profit of $21 discussed above, an increase in selling, general and administrative expense of $9 and an increase in our other operating expense of $1 due to an increase in realized and unrealized foreign currency losses. The increase in selling, general and administrative expense is primarily related to certain professional fees and other expenses related to our Chapter 11 Proceedings of approximately $20. These decreases to operating income were partially offset by decreases in business realignment costs of $5 and decreases in asset impairments of $25 primarily related to our oilfield business. The decrease in business realignment costs is largely attributable to lower severance and facility closure related expenses in the first quarter of 2019.

Non-Operating Expense

In the first quarter of 2019, total non-operating expense decreased by $3 compared to the first quarter of 2018. This was due to a decrease in interest expense of $3 driven by our write-off of our unamortized deferred financing costs at December 31, 2018.

Income Tax Expense

The effective tax rate was (15)% and (133)% for the first quarter of 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 first 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 first quarter of 2019, foreign currency translation had no impact on other comprehensive income, due to various foreign currencies remaining relatively flat against the U.S. dollar in the first quarter of 2019.

For the first quarter of 2018, foreign currency positively impacted other comprehensive income by $14, primarily due to an overall strengthening of various foreign currencies against the U.S. dollar in the first quarter 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 March 31,	
	2019	**2018**
Net Sales [1]:		
Epoxy, Phenolic and Coating Resins	$ 491	$ 540
Forest Products Resins	395	406
Total	$ 886	$ 946
Segment EBITDA:		
Epoxy, Phenolic and Coating Resins	$ 52	$ 70
Forest Products Resins	68	67
Corporate and Other	(17)	(19)
Total	$ 103	$ 118

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

Three Months Ended March 31, 2019 vs. Three Months Ended March 31, 2018 Segment Results

Following is an analysis of the percentage change in net sales by segment from the three months ended March 31, 2019 to the three months ended March 31, 2018:

	Volume	Price/Mix	Currency Translation	Total
Epoxy, Phenolic and Coating Resins	(5)%	(1)%	(3)%	(9)%
Forest Products Resins	— %	2 %	(5)%	(3)%

Epoxy, Phenolic and Coating Resins

Net sales in the first quarter of 2019 decreased by $49, or 9%, when compared to the first quarter of 2018. Volumes negatively impacted net sales by $26, primarily related to volume decreases in our oilfield business due to highly competitive market conditions. Foreign currency translation negatively impacted net sales by $20, due primarily to the weakening of various foreign currencies against the U.S. dollar in the first quarter of 2019 compared to the first quarter of 2018. Lastly, pricing negatively impacted net sales by $3 due primarily to margin reductions in our base epoxy resins business due to softer market conditions as compared to the first quarter 2018.

Segment EBITDA in the first quarter of 2019 decreased by $18 to $52 compared to the first quarter of 2018. The decrease was primarily driven by the margin reductions in our base epoxy resins business discussed above.

Forest Products Resins

Net sales in the first quarter of 2019 decreased by $11, or 3%, when compared to the first quarter of 2018. Foreign currency translation negatively impacted net sales by $19, due largely to the weakening of various foreign currencies against the U.S. dollar in the first quarter of 2019 compared to the first quarter of 2018. Volumes negatively impacted net sales by $1, and were primarily driven by decreases in our North American resins business due to the timing of new housing starts, partially offset by increased demand in our North American formaldehyde business. Pricing positively impacted net sales by $9, which was primarily due to raw material productivity across many of our businesses.

Segment EBITDA in the first quarter of 2019 increased by $1 to $68, when compared to the first quarter of 2018, as improved performance in our North American formaldehyde business was slightly offset by the decreases in our North American resins business.

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 quarter of 2019 decreased by $2 compared to the first quarter of 2018 due primarily to our ongoing cost savings efforts and foreign currency impacts.

Reconciliation of Net Loss to Segment EBITDA:

	Three Months Ended March 31,	
	2019	**2018**
Reconciliation:		
Net loss	$ (52)	$ (13)
Income tax expense	7	8
Interest expense, net	80	83
Depreciation and amortization	26	30
EBITDA	$ 61	$ 108
Items not included in Segment EBITDA:		
Asset impairments	$ —	$ 25
Business realignment costs	4	9
Gain on disposition	—	(44)
Transaction costs	23	3
Realized and unrealized foreign currency losses	1	7
Other	14	10
Total adjustments	42	10
Segment EBITDA	$ 103	$ 118
Segment EBITDA:		
Epoxy, Phenolic and Coating Resins	$ 52	$ 70
Forest Products Resins	68	67
Corporate and Other	(17)	(19)
Total	$ 103	$ 118

Items Not Included in Segment EBITDA

Not included in Segment EBITDA are certain non-cash items and other income and expenses. For the three months ended March 31, 2019 and 2018, these items primarily include expenses from retention programs, management fees and expenses related to legacy liabilities. For three months ended March 31, 2019, transaction costs primarily included certain professional fees and other expenses related to our Chapter 11 Proceedings. For the three months ended March 31, 2018, transaction costs included certain professional fees related to strategic projects. Business realignment costs for the three months ended March 31, 2019 and 2018 primarily include costs related to certain in-process facility rationalizations and cost reduction programs.

Liquidity and Capital Resources

2019 Outlook

As a result of the commencement of the Chapter 11 Cases on April 1, 2019, we are operating as a debtor-in-possession pursuant to the authority granted under Chapter 11 of the Bankruptcy Code. Pursuant to the Chapter 11 Cases, we intend to significantly de-leverage our balance sheet and reduce overall indebtedness upon completion of that process. Additionally, as a debtor-in-possession, certain of our activities are subject to review and approval by the Bankruptcy Court, including, among other things, the incurrence of secured indebtedness, material asset dispositions, and other transactions outside the ordinary course of business. There can be no guarantee that the Chapter 11 Cases will be completed successfully or in the time frame contemplated by the Support Agreement. Refer to Note 2 to the Condensed Consolidated Financial Statements in Item 1 of Part I of this Quarterly Report on Form 10-Q for more information.

As a result of the substantial doubt about our ability to continue as a going concern for the next twelve months, and the associated steps that have been undertaken to restructure our balance sheet, our expected cash outflows related to debt service in 2019 are difficult to predict at this time. We made an adequate protection payment in April 2019 under the Credit Facilities and our first lien notes during 2019 in accordance with the Bankruptcy Court order approving the Credit Facilities but do not expect to make interest payments on our other notes. We plan to fund our ongoing operations through available borrowings under our Credit Facilities as well as cash generated from operations.

We currently expect to emerge from Chapter 11 in the third quarter of 2019 in accordance with our Support Agreement; however, this will be contingent upon numerous factors including many of which are out of our control. Major factors include obtaining the Bankruptcy Court's approval of a Chapter 11 plan of reorganization to be proposed by the Debtors, which will enable us to transition from Chapter 11 into ordinary course operations outside of bankruptcy. We also may need to obtain a new credit facility, or exit financing. Our ability to obtain such approval and financing will depend on, among other things, the timing and outcome of various ongoing matters related to the Chapter 11 Cases. The plan of reorganization will determine the rights and satisfaction of claims of various creditors and security holders, and is subject to the ultimate outcome of negotiations and Bankruptcy Court decisions ongoing through the date on which such plan is confirmed. See "Risk Factors - Risks Related to Our Chapter 11 Proceedings."

We are a highly leveraged company. Our primary sources of liquidity are cash flows generated from operations and availability under our Credit Facilities. Subsequent to and during pendency of filing the Chapter 11 petitions, we expect that our primary liquidity requirements will be to fund operations and make required payments under our Credit Facilities. Our ability to meet the requirements of our Credit Facilities will be dependent on our ability to generate sufficient cash flows from operations.

Based on current financial projections, we expect to be able to continue to generate cash flows from operations in amounts sufficient to fund our operations, satisfy our interest and principal payment obligations on our Credit Facilities and pay administrative expenses including professional fees while under Chapter 11.

At March 31, 2019, we had $3,969 of outstanding debt and $132 in liquidity consisting of the following:

- $96 of unrestricted cash and cash equivalents (of which $80 is maintained in foreign jurisdictions);
- $2 of borrowings available under our ABL Facility ($348 borrowing base less $296 of outstanding borrowings and $50 of outstanding letters of credit); and
- $34 of time drafts and borrowings available under credit facilities at certain international subsidiaries

In connection with our Chapter 11 Proceedings, we received access to a $350 DIP Term Loan Facility and a DIP ABL Facility with an additional $350 of availability. Proceeds from the DIP Term Loan Facility, which were received in April 2019, were used to repay the outstanding borrowings under our ABL Facility of $296, fees of $13 and cash of $41 to our balance sheet. As adjusted for these Credit Facilities, which were approved by the Bankruptcy Court on a final basis on May 1, 2019, our liquidity would have been $469 at March 31, 2019.

Our net working capital (defined as accounts receivable and inventories less accounts payable) at March 31, 2019 and December 31, 2018 was $494 and $362, respectively. A summary of the components of our net working capital as of March 31, 2019 and December 31, 2018 is as follows:

	March 31, 2019	% of LTM Net Sales	December 31, 2018	% of LTM Net Sales
Accounts receivable	$ 496	14 %	$ 412	11 %
Inventories	352	9 %	334	9 %
Accounts payable	(354)	(9)%	(384)	(10)%
Net working capital [(1)]	$ 494	14 %	$ 362	10 %

(1) 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 $132 from December 31, 2018 was driven by an increase in accounts receivable of $84 and an increase in inventory of $18, as well as a decrease in accounts payable of $30. The increases in accounts receivable and inventory were primarily the result of increased volumes in the first 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. To minimize the impact of seasonal changes in net working capital on cash flows, we continue to review inventory safety stock levels, focus on accelerating receivable collections by offering incentives to customers to encourage early payment or through the sale of receivables at a discount and negotiate with vendors or enter into inventory financing arrangements to extend payment terms.

We periodically borrow from the ABL Facility to support our short-term liquidity requirements, particularly when net working capital requirements increase in response to the seasonality of our volumes. As of March 31, 2019, there were $296 of outstanding borrowings under the ABL Facility.

Sources and Uses of Cash

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

	Three Months Ended March 31,	
	2019	**2018**
(Uses) sources of cash:		
Operating activities	$ (154)	$ (83)
Investing activities	(19)	25
Financing activities	156	54
Effect of exchange rates on cash flow	—	2
Net change in cash and cash equivalents	$ (17)	$ (2)

Operating Activities

In the first quarter of 2019, operations used $154 of cash. Net loss of $52 included $26 of net non-cash expense items related to depreciation and amortization. Net working capital used $125, which was largely driven by increases in accounts receivables due primarily to seasonality of our businesses. Changes in other assets and liabilities and income taxes payable used $3 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 quarter of 2018, operations used $83 of cash. Net loss of $13 included $18 of net non-cash expense items, consisting of depreciation and amortization of $30, non-cash impairments of $25, amortization of deferred financing fees of $4, unrealized foreign currency losses of $3 and deferred tax expense of $1, partially offset by a gain on disposition of $44. Net working capital used $94, which was largely driven by increases in accounts receivable and inventories due primarily to raw material price increases. Changes in other assets and liabilities and income taxes payable provided $6 due to the timing of when items were expensed versus paid.

Investing Activities

In the first quarter of 2019, investing activities used $19 of cash related to capital expenditures.

In the first quarter of 2018, investing activities provided $25 of cash, primarily related to net proceeds from ATG disposition of $49 and proceeds from sale of assets of driven by capital expenditures of $1, partially offset by capital expenditures of $25 (including capitalized interest).

Financing Activities

In the first quarter of 2019, financing activities provided $156 of cash. Net long-term debt borrowings were $156. Our long-term debt borrowings primarily consisted of $159 of additional ABL borrowings in the first quarter of 2019.

In the first quarter of 2018, financing activities provided $54 of cash. Net short-term debt borrowings were $15 and net long-term debt borrowings were $70. Our long-term debt borrowings primarily consisted of $160 in ABL borrowings.

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

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.

Accordingly, the Company has concluded its financial condition, the defaults under its debt agreements, and the risks and uncertainties surrounding its Chapter 11 proceedings raise substantial doubt as to the Company’s ability to continue as a going concern. The audit report issued by the Company’s independent registered public accounting firm contains an explanatory paragraph expressing substantial doubt about the Company's ability to continue as a going concern included in Item 8 on its Annual Report on Form 10-K. The Bankruptcy Petitions constitute an event of default that accelerated the Company’s obligations under its ABL Facility and 6.625% First-Priority Senior Secured Notes, 10.00% First-Priority Senior Secured Notes, 10.375% First-Priority Senior Secured Notes, 13.75% Senior Secured Notes, 9.00% Second-Priority Senior Secured Notes, 9.2% debentures and 7.875% debentures (collectively, the “Notes”). The debt instruments provide that as a result of the Bankruptcy Petitions, the principal and interest due thereunder are 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.

The indentures that govern our 6.625% First-Priority Senior Secured Notes, 10.00% First-Priority Senior Secured Notes, 10.375% First-Priority Senior Secured Notes, 13.75% Senior Secured Notes and 9.00% Second-Priority Senior Secured Notes (the “Secured Indentures”) contain an Adjusted 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 Adjusted EBITDA to Fixed Charges Ratio under the Secured Indentures is generally defined as the ratio of (a) Adjusted 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 Adjusted 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) $35 and (b) 12.5% 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) Adjusted 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 Adjusted EBITDA

Adjusted 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. As we are highly leveraged, we believe that including the supplemental adjustments that are made to calculate Adjusted EBITDA provides additional information to investors about our ability to comply with our financial covenants and to obtain additional debt in the future. Adjusted EBITDA and Fixed Charges are not defined terms under U.S. GAAP. Adjusted 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 Secured Indentures should not be considered an alternative to interest expense.

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

	March 31, 2019 LTM Period
Net loss	$ (201)
Income tax expense	39
Interest expense, net	362
Depreciation and amortization	109
Accelerated depreciation	4
EBITDA	313
Adjustments to EBITDA:	
Asset impairments and write-downs	7
Business realignment costs (1)	24
Realized and unrealized foreign currency losses	20
Unrealized gains on pension and postretirement benefits (2)	(13)
Transaction costs(3)	34
Other (4)	45
Cost reduction programs savings (5)	7
Adjusted EBITDA	$ 437
Pro forma fixed charges (6)	$ 318
Ratio of Adjusted EBITDA to Fixed Charges (7)	1.37

(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 and other expenses related to our Chapter 11 Proceedings and professional fees related to strategic projects.
(4) Primarily includes retention program costs, business optimization expenses, and expenses related to legacy liabilities.
(5) 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.
(6) Reflects pro forma interest expense based on interest rates at March 31, 2019 and does not reflect changes to our debt related to our Chapter 11 Proceedings.
(7) The Company’s ability to incur additional indebtedness, among other actions, is restricted under the Secured Indentures, unless the Company has an Adjusted EBITDA to Fixed Charges ratio of at least 2.0 to 1.0. As of March 31, 2019, we did not satisfy this test. As a result, we are subject to restrictions on our ability to incur additional indebtedness and to make investments; however, there are exceptions to these restrictions, including exceptions that permit indebtedness under our ABL Facility (available borrowings of which were $2 at March 31, 2019).

Recently Issued Accounting Standards

See Note 3 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 three 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 March 31, 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 March 31, 2019.

Changes in Internal Control Over Financial Reporting

During the first quarter of 2019, we launched a new lease administration and accounting system to support implementation of ASU 2016-02, Leases.

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 intends 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

Our filing of voluntary petitions for relief under Chapter 11 and our ability to successfully emerge as a stronger, leaner company is subject to a number of risks and uncertainties

We are subject to risks and uncertainties associated with the Chapter 11 Cases. For the duration of the Chapter 11 Cases, our operations and our ability to execute our business strategy will be subject to risks and uncertainties associated with bankruptcy. These risks include:

- our ability to continue as a going concern;
- our ability to obtain Bankruptcy Court approval with respect to motions filed in the Chapter 11 proceedings and the outcomes of Bankruptcy Court rulings of the proceedings in general;
- our ability to obtain Bankruptcy Court approval of the Support Agreement and/or the transactions contemplated thereby;
- our ability to receive Bankruptcy Court approval of the Plan and our ability to consummate the Plan, each on an acceptable timeline;
- our ability to develop, execute, confirm and consummate a plan of reorganization with respect to the Chapter 11 Cases, views and objections of creditors and other parties in interest that may make it difficult to develop and consummate a plan in a timely manner;
- the ability of third parties to seek and obtain Bankruptcy Court approval to terminate or shorten the exclusivity period for us to propose and confirm a plan of reorganization, to appoint a U.S. trustee or to convert the Chapter 11 Cases to cases under Chapter 7 of the Bankruptcy Code (“Chapter 7”);
- risks associated with third party motions in Chapter 11 proceedings and our ability to successfully emerge from bankruptcy;
- our ability to manage contracts, obtain and maintain normal payment and other terms with customers, vendors, and service providers;
- increased costs related to the bankruptcy filing and other litigation;
- our ability to maintain contracts that are critical to our operations;
- our ability to attract, motivate and retain management and other key employees;
- our ability to retain key vendors or secure alternative supply sources;
- whether our foreign subsidiaries continue to operate their business in the normal course;
- our ability to maintain existing customers, vendor relationships and expand sales to new customers;
- our ability to fund and execute our business plan; and
- our ability to obtain acceptable and appropriate financing.

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.

The Chapter 11 proceedings limit the flexibility of our management team in running our business.

While we operate our businesses as debtor-in-possession under supervision by the Bankruptcy Court, we are required to obtain the approval of the Bankruptcy Court, and in some cases certain lenders, prior to engaging in activities or transactions outside the ordinary course of business. Bankruptcy Court approval of non-ordinary course activities entails preparation and filing of appropriate motions with the Bankruptcy Court, negotiation with the various creditors’ committees and other parties-in-interest and one or more hearings. The creditors’ committees and other parties-in-interest may be heard at any Bankruptcy Court hearing and may raise objections with respect to these motions. This process delays major transactions and limits our ability to respond quickly to opportunities and events in the marketplace. Furthermore, in the event the Bankruptcy Court does not approve a proposed activity or transaction, we would be prevented from engaging in activities and transactions that we believe are beneficial to us.

We may not be able to obtain Bankruptcy Court confirmation of the Plan or may have to modify the terms of the Plan.

Pursuant to the Support Agreement, we have agreed, among other things, to file the Plan with the Bankruptcy Court. Even if the Plan is approved by each class of holders of claims and interests entitled to vote (a “Voting Class”), the Bankruptcy Court, which, as a court of equity, may exercise substantial discretion, may choose not to confirm the Plan. Bankruptcy Code Section 1129 requires, among other things, a showing that confirmation of the Plan will not be followed by liquidation or the need for further financial reorganization for us, and that the value of distributions to dissenting holders of claims and interests will not be less than the value such holders would receive if we, the Debtors, liquidated under Chapter 7 of the Bankruptcy Code. Although we believe that the Plan will satisfy such tests, there can be no assurance that the Bankruptcy Court will reach the same conclusion.

Confirmation of the Plan will also be subject to certain conditions. These conditions may not be met and there can be no assurance that the Consenting Creditors will agree to modify or waive such conditions. Further, changed circumstances may necessitate changes to the Plan. Any such modifications could result in less favorable treatment of any non-accepting class, as well as any classes junior to such non-accepting class, than the treatment currently anticipated to be included in the Plan based upon the agreed terms of the Support Agreement. Such less favorable treatment could include a distribution of property (including the new common stock) to the class affected by the modification of a lesser value than currently anticipated to be included in the Plan or no distribution of property whatsoever under the Plan. Changes to the Plan may also delay the confirmation of the Plan and our emergence from bankruptcy, which could result in, among other things, incurred costs and expenses to the estates of the Debtors.

We may be unable to comply with the financial maintenance or other covenants in our Credit Facilities, which could result in an event of default under the credit agreements governing such facilities that, if not cured or waived, would have a material adverse effect on our business, financial condition and results of operations.

In addition to standard financing covenants and events of default, the Credit Facilities also provide for (i) periodic deliveries by us of various financial statements set forth in the credit agreements for each of the Credit Facilities, (ii) specific milestones that we must achieve by specific target dates and (iii) certain baskets and exceptions to the negative covenants, such as debt and investments, not being available before the plan of reorganization is confirmed. We are also required to comply with a minimum liquidity covenant of $35 tested at the close of each business day. If we breach any such covenants and such breach is not cured or waived, the lenders under such Credit Facilities:

- would not be required to lend any additional amounts to us;
- could elect to declare all borrowings outstanding under such 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; and/or
- could apply all of our available cash that is subject to the cash sweep mechanism of such Credit Facilities to repay these borrowings;

any or all of which would have a material adverse effect on our business, financial condition and results of operations.

Termination of our exclusive right to file a Chapter 11 plan and the exclusive right to solicit acceptances could result in competing plans of reorganization, which could have less favorable terms or result in significant litigation and expenses.

We currently have the exclusive right to file a Chapter 11 plan through and including July 30, 2019, and the exclusive right to solicit acceptances of any such plan through September 28, 2019. Such deadlines may be extended from time to time “for cause” (as permitted by section 1121(d) of the Bankruptcy Code) with the approval of the Bankruptcy Court. However, it is also possible that (a) parties in interest could seek to shorten or terminate such exclusive plan filing and solicitation periods “for cause” (as permitted by section 1121(d) of the Bankruptcy Code)) or (b) that such periods could expire without extension.

If our exclusive plan filing and solicitation periods expire or are terminated, other parties in interest will be permitted to file alternative plans of reorganization. There can be no assurances that recoveries under any such alternative plan would be as favorable to creditors as the Plan. In addition, the proposal of competing plans of reorganization may entail significant litigation and significantly increase the expenses of administration of the Debtors’ cases, which could deplete creditor recoveries under any plan.

If the Support Agreement is terminated, our ability to confirm and consummate the Plan could be materially and adversely affected.

The Support Agreement contains a number of termination events, upon the occurrence of which certain parties to the Support Agreement may terminate the agreement. If the Support Agreement is terminated as to all parties thereto, each of the parties thereto will be released from its obligations in accordance with the terms of the Support Agreement. Such termination may result in the loss of support for the Plan by the parties to the Support Agreement, which could adversely affect our ability to confirm and consummate the Plan. If the Plan is not consummated, there can be no assurance that the Chapter 11 Cases would not be converted to Chapter 7 liquidation cases or that any new Plan would be as favorable to holders of claims against the Debtors as contemplated by the Support Agreement.

We may have insufficient liquidity for our business operations during the Chapter 11 proceedings.

Although we believe that we will have sufficient liquidity to operate our business during the pendency of the Chapter 11 proceedings, the Credit Facilities remain subject to the issuance of a final order by the Bankruptcy Court. There can be no assurance that the cash made available to us under the Credit Facilities or otherwise in its restructuring process and revenue generated by our business operations will be sufficient to fund our operations, especially as we expect to incur substantial professional and other fees related to our restructuring. In the event that revenue flows and other available cash are not sufficient to meet our liquidity requirements, we may be required to seek additional financing. There can be no assurance that such additional financing would be available or, if available, offered on terms that are acceptable. If, for one or more reasons, we are unable to obtain such additional financing, we could be required to seek a sale of the company or certain of our material assets or our businesses and assets may be subject to liquidation under Chapter 7 of the Bankruptcy Code, and we may cease to continue as a going concern.

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 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 simply 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 three months ended March 31, 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 quarter of 2019, we achieved $4 in cost savings related to our cost reduction programs and as of March 31, 2019, we have approximately $7 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.

Our majority shareholder's interest may conflict with or differ from our interests.

Apollo controls our ultimate parent company, Hexion Holdings LLC, or Hexion Holdings, which indirectly owns 100% of our common equity. In addition, Apollo has significant representation on Hexion Holdings' Board of Managers. As a result, Apollo can significantly influence our ability to enter into significant corporate transactions such as mergers, tender offers and the sale of all or substantially all of our assets. The interests of Apollo and its affiliates could conflict with or differ from our interests. For example, the concentration of ownership held by Apollo could delay, defer or prevent a change of control of our company or impede a merger, takeover or other business combination which may otherwise be favorable for us.

Additionally, Apollo is in the business of making investments in companies and may, from time to time, acquire and hold interests in businesses that compete, directly or indirectly with us. Apollo may also pursue acquisition opportunities that may be complementary to our business, and as a result, those acquisition opportunities may not be available to us. Additionally, even if Apollo invests in competing businesses through Hexion Holdings, such investments may be made through a newly-formed subsidiary of Hexion Holdings. Any such investment may increase the potential for the conflicts of interest discussed in this risk factor.

So long as Apollo continues to indirectly own a significant amount of the equity of Hexion Holdings, even if such amount is less than 50%, they will continue to be able to substantially influence or effectively control our ability to enter into any corporate transactions.

Because our equity securities are not and will not be registered under the securities laws of the United States or in any other jurisdiction and are not listed on any U.S. securities exchange, we are not subject to certain of the corporate governance requirements of U.S. securities authorities or to any corporate governance requirements of any U.S. securities exchanges.

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 or unable to refinance our debt obligations on commercially reasonable terms.

Our ability to generate sufficient cash flows from operations to make scheduled debt service payments, including payments under the Credit Facilities, depends on a range of economic, competitive and business factors, many of which are outside of our control. We maintain normal commercial terms with our major vendors and customers. If certain of our commercial counterparties request changes to our terms, it could put additional pressure on our liquidity position and 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. 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.

Based on current and expected level of operations, we believe cash flow from operations, available cash and available borrowings under the Credit Facilities will be adequate to meet our liquidity needs during the Chapter 11 process. However, we cannot give assurance that our business will generate sufficient cash flow from operations or that future borrowings will be available to us under the Credit Facilities or otherwise in an amount sufficient to enable us to pay our indebtedness or to fund our other liquidity needs.

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.

Prior to our bankruptcy filing, we were a highly leveraged company. As of March 31, 2019, we had approximately $4.0 billion of consolidated outstanding indebtedness, including payments due within the next twelve months and short-term borrowings. After our expected emergence from bankruptcy we may continue to have a substantial amount of indebtedness.

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.

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; and
- transfer all or substantially all of our assets or enter into merger or consolidation transactions.

If a breach of a covenant is not cured or waived, the lenders under such Credit Facilities:

- 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 have a material adverse effect on our business, financial condition and results of operations.

See "– Risks Related to our Chapter 11 Proceedings – We may be unable to maintain compliance with the financial maintenance or other covenants in our Credit Facilities, which could result in an event of default under the credit agreements governing such facilities that, if not cured or waived, would have a material adverse effect on our business, financial condition and results of operations."

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.

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

10.1†	Hexion Holdings LLC 2019 Long-Term Incentive Plan
10.2†	Hexion Holdings LLC 2019 Long-Term Incentive Plan Award Letter
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."

† Represents a management contract or compensatory plan or arrangement.

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: May 15, 2019

/s/ George F. Knight

George F. Knight
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 10.1

HEXION HOLDINGS LLC

(the "Company")

2019 LONG-TERM INCENTIVE PROGRAM

(the "2019 LTI Program")

I. **Purpose of the Program**

To reward associates who are critical to the success of the organization for their contributions to maintaining organizational focus in 2019, during a year of distraction while providing retention into the future. The 2019 LTI Program is designed to deliver performance-based value to participants.

II. **Program Years**

This program runs concurrently with the annual Incentive Compensation Plan ("ICP") year for 2019.

III. **Eligibility for Participation**

All associates in executive, leader and professional roles in Hexion Inc. are eligible to participate in the 2019 LTI Program. Participation is based on nomination by the Company's Compensation Committee of the Board of Managers and the company's senior leaders.

IV. **Program Performance Measures**

Performance measures used in determining a payout under the 2019 LTI Program are the same as the Global Hexion performance measures used in the Company's 2019 ICP.

I. **Individual Award Targets**

The target award for each participant (the "2019 LTI Target") will be stated in an award letter.

II. **Program Award Structure**

The 2019 LTI award is based on achievement of the Global Hexion EBITDA, Cash Flow and EH&S targets specified under the Company's 2019 ICP as follows:

Performance Measures	Minimum Achievement	Target Achievement	Maximum Achievement
Segment EBITDA (55.0%) *% payout of 2019 LTI Target allocable to Segment EBITDA*	$440 million *50%*	$470 million *100%*	$510 million *200%*
Cash Flow (35.0%) *% payout of 2019 LTI Target allocable to Cash Flow*	($60) million *50%*	($30) million *100%*	$10 million *200%*
SIF Incidents (5.0%) *% payout of 2019 LTI Target allocable to SIF Incidents*	5 incidents *30%*	4 incidents *100%*	3 incidents *200%*
Occupational Illness & Injury Rate (OIIR) (2.5%) *% payout of 2019 LTI Target allocable to OIIR*	0.60 *30%*	0.49 *100%*	0.37 *200%*
Total Environmental Incidents (ERI) (2.5%) *% payout of 2019 LTI Target allocable to ERI*	23 incidents *30%*	19 incidents *100%*	15 incidents *200%*

1) For EBITDA and Cash Flow:

   (a) Above the Minimum Achievement level, each participant earns a payout calculated on a linear path up to and including the Target Achievement level; and

   (b) Above the Target Achievement level, each participant earns a payout calculated on a linear path up to and including the Maximum Achievement level.

2) Any amount paid will be subject to the employment requirements in Section VII (2) below.

I. **<u>Payment of Awards</u>**

All payments to participants under this program will be subject to the conditions set forth below.

1) Awards earned under the 2019 LTI Program are not vested until paid. Payments of awards earned under the 2019 LTI Program will occur in the third quarter of 2021.

2) Participants must be actively employed by one of the Company's subsidiaries on the award payment date in order to be eligible to receive a payment unless, following the final day of the plan year, one of the following situations arises: (i) the participant is involuntarily terminated without cause, (ii) the participant dies or is terminated due to disability, or (iii) the participant retires having reached age 55 with at least ten years of service.

3) Awards will be paid to participants subject to all statutory tax withholdings.

4) Aggregate payments made under the 2019 LTI Program shall not exceed the amount approved in advance by the Company's Compensation Committee.

5) The Compensation Committee of the Board of Managers of the Company retains the right to amend or adapt the design and rules of the 2019 LTI Program. Local legislation will prevail where necessary.

Exhibit 10.2

CONFIDENTIAL

[DATE]

[NAME]
[LOCATION]

Dear **[FIRST NAME]**:

Congratulations! As a valued associate, you have been selected to participate in the 2019 Long-Term Incentive (LTI) Program (the "2019 LTI Program"). This program was created for a select group of associates who we believe are high performers and/or significant contributors to the future success of the company. The 2019 LTI Program is designed to support delivering on our 2019 commitments and drive long term value creation.

Under the 2019 LTI Program, your target bonus opportunity is [**AMOUNT] [CURRENCY]**.

- One hundred percent (100%) of your target bonus opportunity is performance-based.
- You must be actively employed by the company at the time of payout to receive the payment, subject to the conditions outlined in Section VII of the 2019 LTI Program document.
- Refer to the "2019 LTI Program" document attached for specific program details.

I am pleased you were selected to participate in the 2019 LTI Program and I look forward to your continued contributions to the long-term success of our company.

Sincerely,

Craig Rogerson
Chairman, President & CEO

ACKNOWLEDGEMENT

By signing below, you acknowledge having received a copy of the Hexion Holdings LLC 2019 Long-Term Incentive Program document (the “Plan”), and you further agree to be bound by the terms and conditions of the Plan and this award letter.

Your participation is contingent upon your acknowledgement and agreement to the provisions of this Plan and award letter, as indicated by your signing below and returning the signed award letter by email to equityadmin@hexion.com by the close of business on June 30, 2019.

THE PARTICIPANT:

By: ______________________________

Name: [**PARTICIPANT NAME]**

Title: [**PARTICIPANT TITLE]**

Date: ______________________________

Last address on the records of the Company:

[PARTICIPANT ADDRESS]

Target Award: [AMOUNT] [CURR]

Exhibit 31.1(A)

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: May 15, 2019

/s/ Craig A. Rogerson

Craig A. Rogerson
Chief Executive Officer

Exhibit 31.1(B)

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: May 15, 2019

/s/ George F. Knight

George F. Knight
Chief Financial Officer

Exhibit 32.1

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 March 31, 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	/s/ George F. Knight
Craig A. Rogerson	George F. Knight
Chief Executive Officer	Chief Financial Officer
May 15, 2019	May 15, 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.