

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

**FORM 10-Q**

(Mark one)

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

**For the quarterly period ended February 28, 2019**

or

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

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

**Commission File Number: 001-11038**

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**41-0857886**

(I.R.S. Employer Identification No.)

**4201 Woodland Road**

**P.O. Box 69**

**Circle Pines, Minnesota 55014**

(Address of principal executive offices) (Zip Code)

**(763) 225-6600**

(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES  NO

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

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

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

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

As of April 8, 2019, there were 4,537,408 shares outstanding of the registrant's common stock.

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
FORM 10-Q  
February 28, 2019

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*This quarterly report on Form 10-Q contains certain forward-looking statements that are within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. For more information, see “Part I. Financial Information – Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Forward-Looking Statements.”*

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As used in this report, references to “NTIC,” the “Company,” “we,” “our,” or “us,” unless the context otherwise requires, refer to Northern Technologies International Corporation and its wholly-owned and majority-owned subsidiaries, all of which are consolidated on NTIC’s consolidated financial statements.

As used in this report, references to: (1) “NTIC China” refer to NTIC’s wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd.; (2) “NTI Europe” refer to NTIC’s wholly-owned subsidiary in Germany, NTIC Europe GmbH; (3) “Zerust Mexico” refer to NTIC’s wholly-owned subsidiary in Mexico, ZERUST-EXCOR MEXICO, S. de R.L. de C.V; (4) “Zerust Brazil” refer to NTIC’s majority-owned Brazilian subsidiary, Zerust Prevenção de Corrosão S.A.; (5) “Natur-Tec India” refer to NTIC’s majority-owned subsidiary in India, Natur-Tec India Private Limited; and (6) “NTI Asean” refer to NTIC’s majority-owned holding company subsidiary, NTI Asean LLC, which is a holding company that holds investments in seven entities that operate in the Association of Southeast Asian Nations (ASEAN) region, including the following countries: Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.

NTIC’s consolidated financial statements do not include the accounts of any of its joint ventures. Except as otherwise indicated, references in this report to NTIC’s joint ventures do not include any of NTIC’s wholly-owned or majority-owned subsidiaries.

As used in this report, references to “EXCOR” refer to NTIC’s joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH.

As used in this report, references to “Tianjin Zerust” refer to NTIC’s former joint venture in China, Tianjin-Zerust Anticorrosion Co., Ltd.

All trademarks, trade names, or service marks referred to in this report are the property of their respective owners.

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES  
 CONSOLIDATED BALANCE SHEETS AS OF FEBRUARY 28, 2019 (UNAUDITED)  
 AND AUGUST 31, 2018 (AUDITED)

	February 28, 2019	August 31, 2018
<b>ASSETS</b>		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 4,936,377	\$ 4,163,023
Available for sale securities	1,227,268	3,300,110
Receivables:		
Trade excluding joint ventures, less allowance for doubtful accounts of \$65,000 at February 28, 2019 and \$50,000 at August 31, 2018	9,329,725	9,920,108
Trade joint ventures	679,349	761,506
Fees for services provided to joint ventures	1,338,493	1,357,255
Income taxes	515,448	273,333
Inventories	11,304,475	9,130,861
Prepaid expenses	1,457,059	1,661,577
Total current assets	<u>30,788,194</u>	<u>30,567,773</u>
PROPERTY AND EQUIPMENT, NET	<u>7,229,398</u>	<u>7,168,826</u>
OTHER ASSETS:		
Investments in joint ventures	24,418,491	22,950,995
Deferred income taxes	1,420,791	1,551,536
Patents and trademarks, net	1,084,313	1,156,257
Other	153,846	153,849
Total other assets	<u>27,077,441</u>	<u>25,812,637</u>
Total assets	<u>\$ 65,095,033</u>	<u>\$ 63,549,236</u>
<b>LIABILITIES AND EQUITY</b>		
CURRENT LIABILITIES:		
Accounts payable	\$ 4,307,450	\$ 3,905,034
Income taxes payable	8,555	70,892
Accrued liabilities:		
Payroll and related benefits	1,137,209	2,747,303
Other	1,154,948	1,006,953
Total current liabilities	<u>6,608,162</u>	<u>7,730,182</u>
COMMITMENTS AND CONTINGENCIES (Note 12)		
EQUITY:		
Preferred stock, no par value; authorized 10,000 shares; none issued and outstanding	—	—
Common stock, \$0.02 par value per share; authorized 15,000,000 shares; issued and outstanding 4,542,177 and 4,541,303, respectively	90,844	90,826
Additional paid-in capital	15,353,400	14,619,777
Retained earnings	43,771,843	41,963,341
Accumulated other comprehensive loss	(3,742,258)	(3,597,199)
Stockholders' equity	<u>55,473,829</u>	<u>53,076,745</u>
Non-controlling interest	3,013,042	2,742,309
Total equity	<u>58,486,871</u>	<u>55,819,054</u>
Total liabilities and equity	<u>\$ 65,095,033</u>	<u>\$ 63,549,236</u>

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)**  
**FOR THE THREE AND SIX MONTHS ENDED FEBRUARY 28, 2019 AND 2018**

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
<b>NET SALES:</b>				
Net sales, excluding joint ventures	\$ 12,606,449	\$ 11,399,853	\$ 26,217,314	\$ 22,435,260
Net sales, to joint ventures	708,955	814,122	1,192,142	1,321,753
Total net sales	13,315,404	12,213,975	27,409,456	23,757,013
Cost of goods sold	9,284,099	8,012,836	18,745,236	15,901,306
Gross profit	4,031,305	4,201,139	8,664,220	7,855,707
<b>JOINT VENTURE OPERATIONS:</b>				
Equity in income from joint ventures	1,715,216	1,805,997	3,719,378	3,547,325
Fees for services provided to joint ventures	1,436,774	1,608,890	2,865,209	3,116,032
Total joint venture operations	3,151,990	3,414,887	6,584,587	6,663,357
<b>OPERATING EXPENSES:</b>				
Selling expenses	2,505,081	2,643,636	5,316,175	5,243,585
General and administrative expenses	1,963,537	1,805,216	4,459,334	4,024,961
Research and development expenses	927,537	922,746	1,799,694	1,721,477
Total operating expenses	5,396,155	5,371,598	11,575,203	10,990,023
OPERATING INCOME	1,787,140	2,244,428	3,673,604	3,529,041
INTEREST INCOME	15,122	24,883	27,909	48,939
INTEREST EXPENSE	(3,835)	(5,779)	(6,192)	(10,868)
INCOME BEFORE INCOME TAX EXPENSE	1,798,427	2,263,532	3,695,321	3,567,112
INCOME TAX EXPENSE	246,371	841,909	502,074	946,900
NET INCOME	1,552,056	1,421,623	3,193,247	2,620,212
NET INCOME ATTRIBUTABLE TO NON- CONTROLLING INTERESTS	150,488	88,776	294,620	203,739
NET INCOME ATTRIBUTABLE TO NTIC	\$ 1,401,568	\$ 1,332,847	\$ 2,898,627	\$ 2,416,473
<b>NET INCOME ATTRIBUTABLE TO NTIC PER COMMON SHARE:</b>				
Basic	\$ 0.31	\$ 0.29	\$ 0.64	\$ 0.53
Diluted	\$ 0.30	\$ 0.29	\$ 0.61	\$ 0.52
<b>WEIGHTED AVERAGE COMMON SHARES ASSUMED OUTSTANDING:</b>				
Basic	4,542,177	4,537,408	4,542,175	4,537,368
Diluted	4,723,930	4,673,338	4,731,608	4,641,042
CASH DIVIDENDS DECLARED PER COMMON SHARE	\$ 0.12	\$ 0.10	\$ 0.24	\$ 0.20

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)**  
**FOR THE THREE AND SIX MONTHS ENDED FEBRUARY 28, 2019 AND 2018**

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
NET INCOME	\$ 1,552,056	\$ 1,421,623	\$ 3,193,247	\$ 2,620,212
OTHER COMPREHENSIVE INCOME – FOREIGN CURRENCY TRANSLATION ADJUSTMENT	194,838	467,762	(102,980)	442,535
COMPREHENSIVE INCOME	1,746,894	1,889,385	3,090,267	3,062,747
COMPREHENSIVE INCOME ATTRIBUTABLE TO NON- CONTROLLING INTERESTS	169,499	109,047	336,699	245,962
COMPREHENSIVE INCOME ATTRIBUTABLE TO NTIC	\$ 1,577,395	\$ 1,780,338	\$ 2,753,568	\$ 2,816,785

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF EQUITY (UNAUDITED)  
FOR THE THREE AND SIX MONTHS ENDED FEBRUARY 28, 2019 AND 2018**

**STOCKHOLDERS' EQUITY – THREE MONTHS ENDED  
FEBRUARY 28**

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non- Controlling Interests	Total Equity
	Shares	Amount					
BALANCE AT NOVEMBER 30, 2018	4,532,177	\$ 90,844	\$ 14,995,420	\$ 42,915,335	\$ (3,918,085)	\$ 3,043,543	\$ 57,127,057
Stock issued for employee stock purchase plan	—	—	—	—	—	—	—
Stock option expense	—	—	357,980	—	—	—	357,980
Investment by non-controlling interest	—	—	—	—	—	—	—
Dividends paid to shareholders	—	—	—	(545,060)	—	—	(545,064)
Dividend received by non-controlling interest	—	—	—	—	—	(200,000)	(200,000)
Net income (loss)	—	—	—	1,401,568	—	150,544	1,552,056
Other comprehensive income (loss)	—	—	—	—	175,827	19,011	194,838
<b>BALANCE AT FEBRUARY 28, 2019</b>	<b>4,542,177</b>	<b>\$ 90,844</b>	<b>\$ 15,353,400</b>	<b>\$ 43,771,843</b>	<b>\$ (3,742,258)</b>	<b>\$ 3,013,042</b>	<b>\$ 58,486,871</b>
BALANCE AT NOVEMBER 30, 2017	4,537,408	\$ 90,748	\$ 14,294,584	\$ 37,706,367	\$ (2,518,243)	\$ 2,794,363	\$ 52,367,819
Stock options exercised	—	—	—	—	—	—	—
Stock issued for employee stock purchase plan	—	—	—	—	—	—	—
Stock option expense	—	—	103,267	—	—	—	103,267
Dividends paid to shareholders	—	—	—	(452,510)	—	—	(452,514)
Dividend received by non-controlling interest	—	—	—	—	—	—	—
Net income (loss)	—	—	—	1,332,847	—	88,776	1,421,623
Other comprehensive income (loss)	—	—	—	—	447,491	20,271	467,762
<b>BALANCE AT FEBRUARY 28, 2018</b>	<b>4,537,408</b>	<b>\$ 90,748</b>	<b>\$ 14,397,851</b>	<b>\$ 38,586,704</b>	<b>\$ (2,070,752)</b>	<b>\$ 2,903,410</b>	<b>\$ 53,907,961</b>

**STOCKHOLDERS' EQUITY – SIX MONTHS ENDED FEBRUARY 28**

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non- Controlling Interests	Total Equity
	Shares	Amount					
BALANCE AT AUGUST 31, 2018	4,541,303	\$ 90,826	\$ 14,619,777	\$ 41,963,341	\$ (3,597,199)	\$ 2,742,309	\$ 55,819,054
Stock issued for employee stock purchase plan	874	18	17,663	—	—	—	17,681
Stock option expense	—	—	715,960	—	—	—	715,960
Investment by non-controlling interest	—	—	—	—	—	134,034	134,034
Dividends paid to shareholders	—	—	—	(1,090,125)	—	—	(1,090,125)
Dividend received by non-controlling interest	—	—	—	—	—	(200,000)	(200,000)
Net income (loss)	—	—	—	2,898,627	—	294,620	3,193,247
Other comprehensive income (loss)	—	—	—	—	(145,059)	42,079	(102,980)
<b>BALANCE AT FEBRUARY 28, 2019</b>	<b>4,542,177</b>	<b>\$ 90,844</b>	<b>\$ 15,353,400</b>	<b>\$ 43,771,843</b>	<b>\$ (3,742,258)</b>	<b>\$ 3,013,042</b>	<b>\$ 58,486,871</b>
BALANCE AT AUGUST 31, 2017	4,535,018	\$ 90,700	\$ 14,163,509	\$ 37,077,483	\$ (2,471,064)	\$ 2,857,448	\$ 51,718,076
Stock options exercised	1,500	30	15,345	—	—	—	15,375
Stock issued for employee stock purchase plan	890	18	12,463	—	—	—	12,481
Stock option expense	—	—	206,534	—	—	—	206,534
Dividends paid to shareholders	—	—	—	(907,252)	—	—	(907,252)
Dividend received by non-controlling interest	—	—	—	—	—	(200,000)	(200,000)
Net income (loss)	—	—	—	2,416,473	—	203,739	3,193,247
Other comprehensive income (loss)	—	—	—	—	400,312	42,223	(102,980)
<b>BALANCE AT FEBRUARY 28, 2018</b>	<b>4,537,408</b>	<b>\$ 90,748</b>	<b>\$ 14,397,851</b>	<b>\$ 38,586,704</b>	<b>\$ (2,070,752)</b>	<b>\$ 2,903,410</b>	<b>\$ 53,907,961</b>

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)**  
**FOR THE SIX MONTHS ENDED FEBRUARY 28, 2019 AND 2018**

	<b>Six Months Ended</b>	
	<b>February 28, 2019</b>	<b>February 28, 2018</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 3,193,247	\$ 2,620,212
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Stock-based compensation	715,960	206,534
Depreciation expense	429,377	418,562
Amortization expense	129,346	125,092
Equity in income from joint ventures	(3,719,378)	(3,547,325)
Deferred income taxes	135,167	700,000
Dividends received from joint ventures	2,027,243	1,770,116
Gain on sale of property and equipment	(36,285)	—
Changes in current assets and liabilities:		
Receivables:		
Trade, excluding joint ventures	730,647	(2,292,004)
Trade, joint ventures	82,157	244,372
Fees for services provided to joint ventures	18,762	(62,381)
Income taxes	(222,609)	(178,998)
Inventories	(2,048,648)	(1,631,734)
Prepaid expenses and other	215,178	(504,848)
Accounts payable	113,849	1,669,859
Income tax payable	15,607	139,991
Accrued liabilities	(1,517,466)	(193,647)
Net cash provided by (used in) operating activities	<u>262,153</u>	<u>(516,199)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Proceeds from the sale of available for sale securities	2,072,842	498,558
Purchases of property and equipment	(439,899)	(207,350)
Investments in patents	(57,401)	(44,621)
Net cash provided by investing activities	<u>1,575,542</u>	<u>246,587</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Dividend received by non-controlling interest	(200,000)	(200,000)
Investment by non-controlling interest	134,035	—
Dividends paid on NTIC common stock	(1,090,125)	(907,252)
Proceeds from option exercises	—	15,375
Proceeds from employee stock purchase plan	17,681	12,481
Net cash used in financing activities	<u>(1,138,409)</u>	<u>(1,079,396)</u>
<b>EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS</b>	<u>74,068</u>	<u>55,894</u>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<u>773,354</u>	<u>(1,293,114)</u>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<u>4,163,023</u>	<u>6,360,201</u>
<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<u>\$ 4,936,377</u>	<u>\$ 5,067,087</u>

See notes to consolidated financial statements.

## **1. INTERIM FINANCIAL INFORMATION**

In the opinion of management, the accompanying unaudited consolidated financial statements contain all necessary adjustments, which are of a normal recurring nature, and present fairly the consolidated financial position of Northern Technologies International Corporation and its subsidiaries (the Company) as of February 28, 2019, and August 31, 2018, the results of their operations for the three and six months ended February 28, 2019 and 2018, the changes in stockholders' equity for the three and six months ended February 28, 2019 and their cash flows for the six months ended February 28, 2019 and 2018, in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP).

These consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes contained in the Company's annual report on Form 10-K for the fiscal year ended August 31, 2018. These consolidated financial statements also should be read in conjunction with the "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" section appearing in this report.

Operating results for the three and six months ended February 28, 2019, are not necessarily indicative of the results that may be expected for the full fiscal year ending August 31, 2019.

The Company evaluates events occurring after the date of the consolidated financial statements requiring recording or disclosure in the consolidated financial statements.

## **2. ACCOUNTING PRONOUNCEMENTS**

### *New Accounting Pronouncements Adopted*

The Company's significant accounting policies are detailed in "Note 1: Nature of Business and Significant Accounting Policies" of the Company's Annual Report on Form 10-K for the year ended August 31, 2018. In May 2014, the Financial Accounting Standards Board (FASB) issued guidance creating Accounting Standards Codification (ASC) Section 606, *Revenue from Contracts with Customers* (ASC 606), which establishes a comprehensive new model for the recognition of revenue from contracts with customers. This model is based on the core principle that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

On September 1, 2018, the Company adopted ASC 606 for all customer contracts using the modified retrospective method. To determine revenue recognition for arrangements within the scope of ASC 606, the Company performs the following five steps: (1) identify the contracts with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognize revenue when or as the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect the consideration it is entitled to in exchange for the goods it transfers to, or services it performs for, the customer.

The adoption of ASC 606 neither impacted the previously reported financial statements in any prior period nor did it result in a cumulative effect adjustment to retained earnings. Therefore, the adoption of the standard did not impact the Company's revenue recognition process. Generally, the Company's performance obligations are satisfied when the customers take possession of the products, which normally occurs at the shipping point or destination depending on the terms of the contracts. The Company's services are generally sold based upon quotes or contracts with customers that include a fixed or determinable price, and sales arrangements do not contain any significant financing component for its customers. The Company does not recognize revenue related to product warranties, nor does the Company incur significant contract costs. Customer arrangements do not generate contract assets or liabilities.

Changes to the Company's significant accounting policies as a result of adopting ASC 606 are discussed below:

*Revenue Recognition* - Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers, and significant financing components. While most of the Company's revenue is contracted with customers through one-time purchase orders and short-term contracts, the Company does have long-term arrangements with certain customers. Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer.

Individually promised goods and services in a contract are considered a distinct performance obligation and accounted for separately if the customer can benefit from the individual good or service on its own or with other resources that are readily available to the customer and the good or service is separately identifiable from other promises in the arrangement. When an arrangement includes multiple performance obligations, the consideration is allocated between the performance obligations in proportion to their estimated standalone selling price. Costs related to products delivered are recognized in the period incurred, unless criteria for capitalization of costs are met. Costs of revenues consist primarily of direct labor, manufacturing overhead, materials, and components. The Company does not incur significant upfront costs to obtain a contract. If costs to obtain a contract were to become material, the costs would be recorded as an asset and amortized to expense in a manner consistent with the related recognition of revenue.

The Company excludes government assessed and imposed taxes on revenue generating transactions that are invoiced to customers from revenue. The Company includes freight billed to customers in revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

The timing of revenue recognition, billings, and cash collections results in accounts receivable on the balance sheet.

*Performance Obligations* - A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation in proportion to its standalone selling price and recognized as revenue when, or as, the performance obligation is satisfied. The Company's various performance obligations and the timing or method of revenue recognition are discussed below.

The Company sells its products to both distributors and end-users. Each unit of product delivered under a customer order represents a distinct and separate performance obligation, as the customer can benefit from each unit on its own or with other resources that are readily available to the customer, and each unit of product is separately identifiable from other products in the arrangement.

The transaction price for the Company's products is the invoiced amount. The Company does not have variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives, or other items impacting transaction price. The purchase order pricing in arrangements with customers is deemed to approximate standalone selling price; therefore, the Company does not need to allocate proceeds on a relative standalone selling price allocation between performance obligations. The Company applies the practical expedient in paragraph 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less. There are no material obligations that extend beyond one year.

Revenue is recognized when transfer of control occurs as defined by the terms in the customer agreement. The Company immediately recognizes incidental items that are immaterial in the context of the contract. The Company has applied the practical expedient in paragraph 606-10-25-16A and does not assess if immaterial items are promised goods or services. The Company has also applied the practical expedient in paragraph 606-10-32-18 regarding the adjustment of the promised amount of consideration for the effects of a significant financing component when the customer pays for that good or service within one year or less, as the Company does not have any significant financing components in its customer arrangements since payment is received at or shortly after the point of sale, generally thirty to ninety days.

The Company estimates returns based on an analysis of historical experience if the right to return products is granted to its customers. The Company does not record a return asset, as non-conforming products are generally not returned. The Company's return policy does not vary by geography. The customer has no rotation or price protection rights, and the Company is not under a warranty obligation.

*Trade Receivables* - Trade receivables include amounts invoiced and currently due from customers. The amounts due are stated at their net estimated realizable value. The Company records an allowance for doubtful accounts to provide for the estimated amount of receivables that will not be collected. The allowance is based on a review of all outstanding amounts on an on-going basis. Management determines the allowance for doubtful accounts by regularly evaluating individual customer receivables and considers a customer's financial condition, credit history, and current economic conditions. Trade receivables are written off when deemed uncollectible and have been historically insignificant. Recoveries of trade receivables previously written off are recorded when received. Accounts are considered past due if payment is not received according to agreed-upon terms.

*Sales Commissions* - Sales commissions paid to sales representatives are eligible for capitalization, as they are incremental costs that would not have been incurred without entering into a specific sales arrangement and are recoverable through the expected margin on the transaction. The Company has elected to apply the practical expedient provided by ASC 340-40-25-4 and recognize the incremental costs of obtaining contracts as an expense when incurred, as the amortization period of the assets that would have otherwise been recognized is one year or less. The Company records these costs as a selling expense.

*Product Warranty* - The Company offers warranties on various products and services. These warranties are assurance type warranties that are not sold on a standalone basis; therefore, they are not considered distinct performance obligations. The Company estimates the costs that may be incurred under its warranties and records a liability in the amount of such costs at the time the revenue is recognized for the product sale.

*International Revenue* - The Company markets its products to numerous countries in North America, Europe, Latin America, Asia, and other parts of the world. See Note 11, Segment and Geographical Information, for information regarding revenue disaggregation by geography.

## Recently Issued Accounting Pronouncements

During February 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-02, *Leases*. ASU No. 2016-02 was issued to increase transparency and comparability among organizations by recognizing all lease transactions (with terms in excess of 12 months) on the balance sheet as a lease liability and a right-of-use asset (as defined). ASU No. 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with earlier application permitted. Upon adoption, the lessee will apply the new standard retrospectively to all periods presented or retrospectively using a cumulative effect adjustment in the year of adoption. The guidance will be effective for the Company's first quarter of fiscal year 2020. The Company is currently assessing the effect that ASU No. 2016-02 will have on its consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, *Income Statement – Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which will allow a reclassification from accumulated other comprehensive income to retained earnings for the tax effects resulting from the Tax Cuts and Jobs Act (Tax Reform Act) that are stranded in accumulated other comprehensive income. This standard also requires certain disclosures about stranded tax effects. ASU No. 2018-02, however, does not change the underlying guidance that requires that the effect of a change in tax laws or rates be included in income from continuing operations. ASU No. 2018-02 will be effective for the Company's fiscal year 2020, with the option for early adoption at any time prior to the effective date. It must be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Reform Act is recognized. The Company is currently assessing the impact this new accounting guidance will have on its consolidated financial statements.

### 3. INVENTORIES

Inventories consisted of the following:

	<b>February 28,</b>	<b>August 31, 2018</b>
	<b>2019</b>	
Production materials	\$ 2,108,173	\$ 1,824,489
Finished goods	9,196,302	7,306,372
	<u>\$ 11,304,475</u>	<u>\$ 9,130,861</u>

### 4. PROPERTY AND EQUIPMENT, NET

Property and equipment, net, consisted of the following:

	<b>February 28,</b>	<b>August 31, 2018</b>
	<b>2019</b>	
Land	\$ 310,365	\$ 310,365
Buildings and improvements	7,334,574	6,927,484
Machinery and equipment	4,742,472	4,680,072
	12,387,411	11,917,921
Less accumulated depreciation	<u>(5,158,013)</u>	<u>(4,749,095)</u>
	<u>\$ 7,229,398</u>	<u>\$ 7,168,826</u>

## 5. PATENTS AND TRADEMARKS, NET

Patents and trademarks, net, consisted of the following:

	February 28, 2019	August 31, 2018
Patents and trademarks	\$ 2,881,841	\$ 2,824,440
Less accumulated amortization	(1,797,528)	(1,668,183)
	<u>\$ 1,084,313</u>	<u>\$ 1,156,257</u>

Patent and trademark costs are amortized over seven years. Costs incurred related to patents and trademarks are capitalized until filed and approved, at which time the amounts capitalized to date are amortized, and any further costs, including maintenance costs, are expensed as incurred. Amortization expense is estimated to approximate \$260,000 in each of the next five fiscal years.

## 6. INVESTMENTS IN JOINT VENTURES

The consolidated financial statements of the Company's foreign joint ventures are initially prepared using the accounting principles accepted in the respective joint ventures' countries of domicile. Amounts related to foreign joint ventures reported in the below tables and the accompanying consolidated financial statements have subsequently been adjusted to conform with U.S. GAAP in all material respects. All material profits recorded that remain on the consolidated balance sheet of sales from the Company to its joint ventures and from joint ventures to other joint ventures have been eliminated for financial reporting purposes.

Financial information from the audited and unaudited financial statements of the Company's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH (EXCOR) and all the Company's other joint ventures, are summarized as follows:

	As of February 28, 2019		
	Total	EXCOR	All Other
Current assets	\$ 60,831,022	\$ 30,259,315	\$ 30,571,707
Total assets	65,423,178	32,737,188	32,685,990
Current liabilities	15,529,788	3,968,110	11,561,678
Noncurrent liabilities	430,678	—	430,678
Joint ventures' equity	49,462,712	28,769,078	20,693,634
Northern Technologies International Corporation's share of joint ventures' equity	24,418,491	14,384,541	10,033,950
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	\$ 22,389,278	\$ 14,353,636	\$ 8,035,642
Northern Technologies International Corporation's dividends received from joint ventures	\$ 2,027,243	\$ 843,750	\$ 1,183,493

	Three Months Ended February 28, 2019		
	Total	EXCOR	All Other
Net sales	\$ 27,749,880	\$ 11,092,133	\$ 16,657,747
Gross profit	12,632,547	6,306,084	6,326,463
Net income	3,450,976	2,440,323	1,010,653
Northern Technologies International Corporation's share of equity in income from joint ventures	\$ 1,715,216	\$ 1,221,006	\$ 494,210

	<b>Six Months Ended February 28, 2019</b>		
	<b>Total</b>	<b>EXCOR</b>	<b>All Other</b>
Net sales	\$ 58,229,806	\$ 23,961,656	\$ 34,268,150
Gross profit	25,989,438	12,989,658	12,999,780
Net income	7,614,767	5,480,125	2,134,642
Northern Technologies International Corporation's share of equity in income from joint ventures	\$ 3,719,378	\$ 2,740,907	\$ 978,471

	<b>As of August 31, 2018</b>		
	<b>Total</b>	<b>EXCOR</b>	<b>All Other</b>
Current assets	\$ 58,086,747	\$ 27,354,788	\$ 30,731,959
Total assets	62,803,261	30,033,750	32,769,511
Current liabilities	15,991,886	4,535,954	11,455,932
Noncurrent liabilities	403,653	—	403,653
Joint ventures' equity	46,407,722	25,497,796	20,909,926
Northern Technologies International Corporation's share of joint ventures' equity	22,950,995	12,748,899	10,195,263
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	20,921,783	12,717,994	8,203,789
Northern Technologies International Corporation's dividends received from joint ventures	\$ 6,377,054	\$ 5,379,062	\$ 997,992

	<b>Three Months Ended February 28, 2018</b>		
	<b>Total</b>	<b>EXCOR</b>	<b>All Other</b>
Net sales	\$ 30,220,550	\$ 12,204,736	\$ 18,015,814
Gross profit	13,531,276	6,557,964	6,973,312
Net income	3,712,684	2,674,777	1,037,907
Northern Technologies International Corporation's share of equity in income from joint ventures	\$ 1,805,997	\$ 1,338,671	\$ 467,326

	<b>Six Months Ended February 28, 2018</b>		
	<b>Total</b>	<b>EXCOR</b>	<b>All Other</b>
Net sales	\$ 58,719,261	\$ 23,231,250	\$ 35,488,011
Gross profit	26,319,398	12,491,490	13,827,908
Net income	7,212,499	5,158,577	2,053,922
Northern Technologies International Corporation's share of equity in income from joint ventures	\$ 3,547,325	\$ 2,580,571	\$ 966,754

The Company did not make any joint venture investments during the six months ended February 28, 2019 or 2018.

## 7. CORPORATE DEBT

The Company has a revolving line of credit with PNC Bank, National Association (PNC Bank) of \$3,000,000. No amounts were outstanding under the line of credit as of either February 28, 2019, or August 31, 2018. At the option of the Company, outstanding advances under the line of credit bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by the Company or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate.

The line of credit is governed under a loan agreement. The loan agreement contains standard covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations, and other matters customarily restricted in such agreements. Under the loan agreement, the Company is subject to a minimum fixed charge coverage ratio of 1.10:1.00. As of February 28, 2019, the Company was in compliance with all debt covenants.

The revolving credit facility allows the Company to request that PNC Bank issue letters of credit up to \$1,200,000. The Company did not have any letters of credit reserved against the available letters of credit balance as of February 28, 2019, and August 31, 2018, with PNC Bank. The availability of advances under the line of credit will be reduced by the face amount of any letter of credit issued and outstanding (whether or not drawn) under the revolving credit facility.

As of February 28, 2019, and August 31, 2018, the Company had \$88,831 of letters of credit that are performance based and set to expire between 2020 and 2022.

On November 30, 2018, the Company and PNC Bank extended the maturity date of the line of credit from January 7, 2019 to January 7, 2020. All other terms of the line of credit and the loan agreement and other documents evidencing the line of credit remain the same.

## **8. STOCKHOLDERS' EQUITY**

The Company held its 2019 Annual Meeting of Stockholders (2019 Annual Meeting) on January 18, 2019. At the 2019 Annual Meeting, a proposal to ratify an amendment to the Company's Restated Certificate of Incorporation to increase the Company's authorized shares of common stock from 10,000,000 to 15,000,000 (Share Increase Amendment) was approved by the Company's stockholders by the required vote. The proposal to approve the Share Increase Amendment was initially voted on and approved at the 2018 Annual Meeting of Stockholders. However, because the description of the authority of brokers to vote on proposals without instruction in the proxy statement for the 2018 Annual Meeting of Stockholders could have created some uncertainty as to the effect of the vote obtained at last year's meeting, and out of an abundance of caution, the Board requested that stockholders at the 2019 Annual Meeting ratify the filing and effectiveness of the Certificate of Amendment to the Company's Restated Certificate of Incorporation, which was filed with the Secretary of State of the State of Delaware on January 16, 2018, pursuant to Delaware law, in order to eliminate any uncertainty related to the effectiveness of the share increase amendment. Since the ratification proposal was approved by stockholders at the 2019 Annual Meeting, the ratification will be retroactive to January 16, 2018, the time of filing of the Share Increase Amendment with the Secretary of State of the State of Delaware.

On November 16, 2018, the Board of Directors, upon recommendation of the Compensation Committee, approved the Northern Technologies International Corporation 2019 Stock Incentive Plan (the 2019 Plan) subject to approval by the Company's stockholders at its 2019 Annual Meeting. The stockholders approved the 2019 Plan, which will replace the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (2007 Plan), with the remaining shares available for grant under the 2007 Plan rolling over into the 2019 Plan, and no new awards will be granted under the 2007 Plan. The terms of the 2007 Plan will continue to govern awards outstanding under the 2007 Plan until exercised, expired, paid, or otherwise terminated or canceled. Subject to adjustment, the maximum number of shares of common stock to be authorized for issuance under the 2019 Plan is 400,000 shares. No stock options or other equity awards have been granted under the 2019 Plan as of February 28, 2019.

During the six months ended February 28, 2019, the Company granted stock options under the 2007 Plan to purchase an aggregate of 70,884 shares of its common stock to various employees and directors. The weighted average per share exercise price of the stock options is \$36.45, which was equal to the fair market value of the Company's common stock on the date of grant. During the six months ended February 28, 2019, no stock options to purchase common stock were exercised.

During the six months ended February 28, 2018, the Company granted stock options under the 2007 Plan to purchase an aggregate of 47,252 shares of its common stock to various employees and directors during the six months ended February 28, 2018. The weighted average per share exercise price of the stock options is \$18.35, which was equal to the fair market value of the Company's common stock on the date of grant. During the six months ended February 28, 2018, stock options to purchase an aggregate of 1,500 shares of common stock were exercised at a weighted average exercise price of \$10.25 per share.

The Company issued 874 and 891 shares of common stock on September 1, 2018 and 2017, respectively, under the Northern Technologies International Corporation Employee Stock Purchase Plan (the ESPP).

During the six months ended February 28, 2019, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to the following holders of the Company's common stock:

Declaration Date	Amount	Record Date	Payable Date
October 24, 2018	\$ 0.12	November 7, 2018	November 21, 2018
January 23, 2019	\$ 0.12	February 6, 2019	February 22, 2019

During the six months ended February 28, 2018, the Company's Board of Directors declared cash dividends on the following dates in the following amounts to the following holders of the Company's common stock:

Declaration Date	Amount	Record Date	Payable Date
November 20, 2017	\$ 0.10	December 8, 2017	December 21, 2017
January 24, 2018	\$ 0.10	February 8, 2018	February 21, 2018

During the six months ended February 28, 2019 and 2018, the Company repurchased no shares of its common stock.

## 9. NET INCOME PER COMMON SHARE

Basic net income per common share is computed by dividing net income by the weighted average number of common shares outstanding. Diluted net income per share assumes the exercise of stock options using the treasury stock method, if dilutive.

The following is a reconciliation of the net income per share computation for the three and six months ended February 28, 2019 and 2018:

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
<b>Numerators:</b>				
Net income attributable to NTIC	\$ 1,401,568	\$ 1,332,847	\$ 2,898,627	\$ 2,416,473
<b>Denominators:</b>				
Basic – weighted shares outstanding	4,542,177	4,537,408	4,542,175	4,537,368
Weighted shares assumed upon exercise of stock options	181,753	135,930	189,433	103,674
Diluted – weighted shares outstanding	4,723,930	4,673,338	4,731,608	4,641,042
Basic net income per share:	\$ 0.31	\$ 0.29	\$ 0.64	\$ 0.53
Diluted net income per share:	\$ 0.30	\$ 0.29	\$ 0.61	\$ 0.52

The dilutive impact summarized above relates to the periods when the average market price of the Company's common stock exceeded the exercise price of the potentially dilutive option securities granted. Net income per common share was based on the weighted average number of common shares outstanding during the periods when computing basic net income per share. When dilutive, stock options are included as equivalents using the treasury stock method when computing the diluted net income per share.

Excluded from the computation of diluted income per share for the three and six months ended February 28, 2019, were options outstanding to purchase 70,884 shares of common stock. There were no shares excluded from the computation of diluted income per share for the three and six months ended February 28, 2018.

## **10. STOCK-BASED COMPENSATION**

The Company has two stock-based compensation plans under which stock options and other stock-based awards have been granted, the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan and the Northern Technologies International Corporation Employee Stock Purchase Plan. As previously described in Note 8, the Board of Directors and stockholders of the Company approved a new Northern Technologies International Corporation 2019 Stock Incentive Plan, no stock options or other equity awards have been granted under that plan. The Compensation Committee of the Board of Directors and the Board of Directors administer these plans.

The 2019 Plan provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, stock unit awards, performance awards, and stock bonuses to eligible recipients to enable the Company and its subsidiaries to attract and retain qualified individuals through opportunities for equity participation in the Company and to reward those individuals who contribute to the achievement of the Company's economic objectives. Subject to adjustment as provided in the 2019 Plan, up to a maximum of 400,000 shares of the Company's common stock are issuable under the 2019 Plan.

Options granted generally have a term of ten years and become exercisable over a three- or four-year period beginning on the one-year anniversary of the date of grant. Options are granted at per share exercise prices equal to the market value of the Company's common stock on the date of grant. The Company issues new shares upon the exercise of options. As of February 28, 2019, only stock options and stock bonuses had been granted under the 2007 Plan and no stock options or other equity awards had been granted under the 2019 Plan.

The maximum number of shares of common stock of the Company available for issuance under the ESPP is 100,000 shares, subject to adjustment as provided in the ESPP. The ESPP provides for six-month offering periods beginning on September 1 and March 1 of each year. The purchase price of the shares is 90% of the lower of the fair market value of common stock at the beginning or end of the offering period. This discount may not exceed the maximum discount rate permitted for plans of this type under Section 423 of the Internal Revenue Code of 1986, as amended. The ESPP is compensatory for financial reporting purposes.

The Company granted options to purchase an aggregate of 70,884 and 47,252 shares of its common stock during the six months ended February 28, 2019 and 2018, respectively. The fair value of option grants is determined at date of grant using the Black-Scholes option pricing model with the assumptions listed below. The Company recognized compensation expense of \$715,960 and \$206,534 during the six months ended February 28, 2019 and 2018, respectively, related to the options that vested during such time period. As of February 28, 2019, the total compensation cost for non-vested options not yet recognized in the Company's consolidated statements of operations was \$781,195. Stock-based compensation expense of \$715,961 is expected through the remainder of fiscal year 2019 and \$65,234 is expected to be recognized during fiscal 2020, based on outstanding options as of February 28, 2019. Future option grants will impact the compensation expense recognized. Stock-based compensation expense is included in general and administrative expense on the consolidated statements of operations.

The fair value of each option grant is estimated on the grant date using the Black-Scholes option pricing model with the following assumptions and results for the grants:

	<b>Three and Six Months Ended</b>	
	<b>February 28, 2019</b>	<b>February 28, 2018</b>
Dividend yield	1.32%	2.18%
Expected volatility	45.8%	45.9%
Expected life of option (years)	10	10
Average risk-free interest rate	2.75%	1.87%

The weighted average per share fair value of options granted during the six months ended February 28, 2019 and 2018 was \$18.03 and \$7.75, respectively. The weighted average remaining contractual life of the options outstanding as of February 28, 2019 and 2018 was 6.40 years and 6.75 years, respectively.

## 11. SEGMENT AND GEOGRAPHIC INFORMATION

### *Segment Information*

The Company's chief operating decision maker (CODM) is its Chief Executive Officer. The Company's business is organized into two reportable segments: ZERUST® and Natur-Tec®. The Company has been selling its proprietary ZERUST® rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 40 years and, more recently, has targeted and expanded into the oil and gas industry. The Company also sells a portfolio of bio-based and compostable (fully biodegradable) polymer resins and finished products under the Natur-Tec® brand.

The following table sets forth the Company's net sales for the three and six months ended February 28, 2019 and 2018 by segment:

	<b>Three Months Ended</b>		<b>Six Months Ended</b>	
	<b>February 28, 2019</b>	<b>February 28, 2018</b>	<b>February 28, 2019</b>	<b>February 28, 2018</b>
ZERUST® net sales	\$ 9,108,395	\$ 10,191,459	\$ 19,173,569	\$ 19,719,196
Natur-Tec® net sales	4,207,009	2,022,516	8,235,887	4,037,817
Total net sales	\$ 13,315,404	\$ 12,213,975	\$ 27,409,456	\$ 23,757,013

The following table sets forth the Company's cost of goods sold for the three and six months ended February 28, 2019 and 2018 by segment:

	Three Months Ended				Six Months Ended			
	February 28, 2019	% of Segment Sales*	February 28, 2018	% of Segment Sales*	February 28, 2019	% of Segment Sales*	February 28, 2018	% of Segment Sales*
Direct cost of goods sold								
ZERUST®	\$ 5,249,617	57.6%	\$ 6,005,262	58.9%	\$ 10,871,316	56.7%	\$ 11,809,242	59.9%
Natur-Tec®	3,354,693	79.7%	1,447,240	71.6%	6,510,768	79.1%	2,926,439	72.5%
Indirect cost of goods sold	679,789	—	560,334	—	1,363,152	—	1,165,625	—
Total net cost of goods sold	\$ 9,284,099		\$ 8,012,836		\$ 18,745,236		\$ 15,901,306	

\* The percent of segment sales is calculated by dividing the direct cost of goods sold for each individual segment category by the net sales for each segment category.

The Company utilizes product net sales and direct and indirect cost of goods sold for each product in reviewing the financial performance of a product type. Further allocation of Company expenses or assets, aside from amounts presented in the tables above, is not utilized in evaluating product performance, nor does such allocation occur for internal financial reporting.

#### Geographic Information

Net sales by geographic location for the three and six months ended February 28, 2019 and 2018 were as follows:

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
Inside the U.S.A. to unaffiliated customers	\$ 6,467,940	\$ 6,079,835	\$ 13,391,874	\$ 12,336,040
Outside the U.S.A. to:				
Joint ventures in which the Company is a shareholder directly and indirectly	708,955	814,122	1,192,142	1,321,753
Unaffiliated customers	6,138,509	5,320,018	12,825,440	10,099,220
	\$ 13,315,404	\$ 12,213,975	\$ 27,409,456	\$ 23,757,013

Net sales by geographic location are based on the location of the customer.

Fees for services provided to joint ventures by geographic location as a percentage of total fees for services provided to joint ventures during the three and six months ended February 28, 2019 and 2018 were as follows:

	Three Months Ended			
	February 28, 2019	% of Total Fees for Services Provided to Joint Ventures	February 28, 2018	% of Total Fees for Services Provided to Joint Ventures
Germany	\$ 215,337	15.0%	\$ 236,700	14.7%
Poland	188,529	13.1%	207,038	12.9%
Japan	167,496	11.7%	172,032	10.7%
Sweden	149,750	10.4%	165,165	10.3%
France	106,270	7.4%	130,323	8.1%
Thailand	105,299	7.3%	111,779	6.9%
United Kingdom	96,209	6.7%	82,432	5.1%
Czech Republic	93,928	6.6%	98,726	6.1%
South Korea	87,413	6.1%	99,574	6.2%
India	85,401	5.9%	138,437	8.6%
Finland	64,648	4.5%	76,546	4.8%
Other	76,494	5.3%	90,138	5.6%
	\$ 1,436,774	100.0%	\$ 1,608,890	100.0%

	<b>Six Months Ended</b>			
	<b>February 28, 2019</b>	<b>% of Total Fees for Services Provided to Joint Ventures</b>	<b>February 28, 2018</b>	<b>% of Total Fees for Services Provided to Joint Ventures</b>
Germany	\$ 430,328	15.0%	\$ 456,574	14.7%
Poland	370,374	12.9%	413,114	13.3%
Japan	337,296	11.7%	346,077	11.1%
Sweden	279,993	9.8%	293,119	9.4%
France	216,332	7.6%	269,964	8.7%
Thailand	203,647	7.1%	214,311	6.9%
United Kingdom	190,990	6.7%	194,207	6.2%
Czech Republic	183,620	6.4%	182,951	5.8%
India	180,128	6.3%	225,200	7.2%
South Korea	173,880	6.1%	183,062	5.9%
Finland	146,464	5.1%	166,172	5.3%
Other	152,157	5.3%	171,281	5.5%
	<b>\$ 2,865,209</b>	<b>100.0%</b>	<b>\$ 3,116,032</b>	<b>100.0%</b>

The geographical distribution of key financial statement data is as follows:

	<b>At February 28, 2019</b>	<b>At August 31, 2018</b>
China	\$ 210,031	\$ 205,490
Brazil	124,008	71,677
India	47,852	22,220
Other	11,502	7,058
United States	6,836,005	6,862,381
Total property and equipment	<u>\$ 7,229,398</u>	<u>\$ 7,168,826</u>

	<b>Six Months Ended</b>	
	<b>February 28, 2019</b>	<b>February 28, 2018</b>
China	\$ 6,173,259	\$ 6,106,942
Brazil	1,551,595	1,456,456
India	3,875,790	1,078,294
Other	2,416,938	1,607,953
United States	13,391,874	13,507,368
Total net sales	<u>\$ 27,409,456</u>	<u>\$ 23,757,013</u>

Total property and equipment are periodically reviewed to assure the net realizable value from the estimated future production based on forecasted sales exceeds the carrying value of the assets. Total assets located in the United States include the Company's investments in joint ventures.

Sales to the Company's joint ventures are included in the foregoing segment and geographic information; however, sales by the Company's joint ventures to other parties are not included. The foregoing segment and geographic information represents only sales and cost of goods sold recognized directly by the Company.

All joint venture operations, including equity in income, fees for services, and related dividends, are primarily related to ZERUST® products and services.

## **12. COMMITMENTS AND CONTINGENCIES**

On August 31, 2018, the Compensation Committee of the Board of Directors of the Company approved the material terms of an annual bonus plan for the Company's executive officers as well as certain officers and employees for the fiscal year ending August 31, 2019. For fiscal 2019, as in past years, the total amount available under the bonus plan for all plan participants, including executive officers, is dependent upon the Company's earnings before interest, taxes, and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (Adjusted EBITOI). Each plan participant's percentage of the overall bonus pool is based upon the number of plan participants, the individual's annual base salary, and the individual's position and level of responsibility within the company. In the case of each of the Company's executive officer participants, 75% of the amount of their individual bonus payout will be determined based upon the Company's actual EBITOI for fiscal 2019 compared to a pre-established target EBITOI for fiscal 2019, and 25% of the payout will be determined based upon such executive officer's achievement of certain pre-established individual performance objectives. The payment of bonuses under the plan is discretionary and may be paid to executive officer participants in both cash and shares of NTIC common stock, with the exact amount and percentages determined by the Company's Board of Directors, upon recommendation of the Compensation Committee, after the completion of the Company's consolidated financial statements for fiscal 2019. There was \$900,000 accrued for management bonuses for the six months ended February 28, 2019, compared to \$880,000 accrued for management bonuses for the six months ended February 28, 2018.

Three joint ventures (consisting of the Company's joint ventures in South Korea, Thailand and Germany) accounted for 77.5% of the Company's trade joint venture receivables at February 28, 2019, and three joint ventures (consisting of the Company's joint ventures in South Korea, Thailand, and India) accounted for 74.1% of the Company's trade joint venture receivables at August 31, 2018.

From time to time, the Company is subject to various other claims and legal actions in the ordinary course of its business. The Company records a liability in its consolidated financial statements for costs related to claims, including future legal costs, settlements, and judgments, where the Company has assessed that a loss is probable, and an amount could be reasonably estimated. If the reasonable estimate of a probable loss is a range, the Company records the most probable estimate of the loss or the minimum amount when no amount within the range is a better estimate than any other amount. The Company discloses a contingent liability even if the liability is not probable or the amount is not estimable, or both, if there is a reasonable possibility that material loss may have been incurred. In the opinion of management, as of February 28, 2019, the amount of liability, if any, with respect to these matters, individually or in the aggregate, will not materially affect the Company's consolidated results of operations, financial position, or cash flows.

### 13. FAIR VALUE MEASUREMENTS

Assets and liabilities that are measured at fair value on a recurring basis primarily relate to marketable equity securities. These items are marked-to-market at each reporting period, and the Company estimates that market value approximates costs. The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis:

	Fair value as of February 28, 2019	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Available for sale securities	\$ 1,227,268	\$ 1,227,268	\$ —	\$ —

	Fair value as of August 31, 2018	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Available for sale securities	\$ 3,300,110	\$ 3,300,110	\$ —	\$ —

There were no transfers between Level 1, Level 2, or Level 3 during the three and six months ended February 28, 2019 and 2018.

### 14. SUPPLEMENTAL CASH FLOW INFORMATION

Supplemental disclosures of cash flow information consisted of:

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
Cash paid for interest	\$ 3,835	\$ 5,779	\$ 6,192	\$ 10,868
Cash paid for income taxes	\$ 53,975	\$ 45,000	\$ 53,975	\$ 45,000

### 15. INCOME TAXES

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act, or Tax Reform Act. The Tax Reform Act makes broad and complex changes to the U.S. tax code that impacted the Company's fiscal year ended August 31, 2018, including, but not limited to, reducing the U.S. federal corporate tax rate from 35% to 21% effective January 1, 2018, generally eliminating U.S. federal income taxes on dividends received from foreign subsidiaries and joint ventures after December 31, 2017, and imposing a one-time deemed repatriation tax on certain unremitted earnings of foreign subsidiaries and joint ventures.

The Company recorded income tax expense during the three and six months ended February 28, 2019, of \$246,371 and \$502,074, respectively, compared to \$841,909 and \$946,900 for the three and six months ended February 28, 2018.

## ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis provides material historical and prospective disclosures intended to enable investors and other users to assess NTIC's financial condition and results of operations. Statements that are not historical are forward-looking and involve risks and uncertainties discussed under the heading "*Part I. Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations—Forward-Looking Statements*" in this report and under "*Part 1. Item 1A. Risk Factors*" in our annual report on Form 10-K for the fiscal year ended August 31, 2018. The following discussion of the results of the operations and financial condition of NTIC should be read in conjunction with NTIC's consolidated financial statements and the related notes thereto included under the heading "*Part I. Item 1. Financial Statements.*"

### Business Overview

NTIC develops and markets proprietary, environmentally-beneficial products and services in over 60 countries either directly or via a network of subsidiaries, joint ventures, independent distributors, and agents. NTIC's primary business is corrosion prevention marketed mainly under the ZERUST<sup>®</sup> brand. NTIC has been selling its proprietary ZERUST<sup>®</sup> products and services to the automotive, electronics, electrical, mechanical, military, and retail consumer markets for over 40 years and, in recent years, has targeted and expanded into the oil and gas industry. NTIC also markets and sells a portfolio of bio-based and certified compostable (fully biodegradable) polymer resin compounds and finished products under the Natur-Tec<sup>®</sup> brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound waste disposal options.

NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products include plastic and paper packaging, liquids, coatings, rust removers, cleaners, and diffusers as well as engineered solutions designed specifically for the oil and gas industry. NTIC also offers worldwide, on-site, technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their performance requirements. In North America, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions through a network of independent distributors and agents supported by a direct sales force. Internationally, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions through its wholly-owned subsidiary in China, NTIC (Shanghai) Co., Ltd. (NTIC China), its majority-owned joint venture holding company for NTIC's joint venture investments in the Association of Southeast Asian Nations (ASEAN) region, NTI Asean LLC (NTI Asean), its majority-owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A. (Zerust Brazil), its wholly-owned subsidiary in Mexico, ZERUST-EXCOR MEXICO, S. de R.L. de C.V (Zerust Mexico), and joint venture arrangements in North America, Europe, and Asia. NTIC also sells products directly to its joint venture partners through its wholly-owned subsidiary in Germany, NTIC Europe GmbH (NTI Europe).

One of NTIC's strategic initiatives is to expand into and penetrate other markets for its ZERUST<sup>®</sup> corrosion prevention technologies. Consequently, for the past several years, NTIC has focused significant sales and marketing efforts on the oil and gas industry, as the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST<sup>®</sup> corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure, and reduce the risk of environmental pollution due to corrosion leaks.

NTIC markets and sells its ZERUST<sup>®</sup> rust and corrosion prevention solutions to customers in the oil and gas industry across several countries either directly, through its subsidiaries, or through its joint venture partners and other strategic partners. The sale of ZERUST<sup>®</sup> corrosion prevention solutions to customers in the oil and gas industry typically involves long sales cycles, often including multi-year trial periods with each customer and a slow integration process thereafter.

Natur-Tec<sup>®</sup> bio-based and compostable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec<sup>®</sup> biopolymer resin compound portfolio includes formulations that have been optimized for a variety of applications, including blown-film extrusion, extrusion coating, injection molding, and engineered plastics. These resin compounds are certified to be fully biodegradable in a composting environment and are currently being used to produce finished products, including can liners, shopping and grocery bags, lawn and leaf bags, pet waste collection bags, cutlery, and coated paper products. In North America, NTIC markets its Natur-Tec<sup>®</sup> resin compounds and finished products primarily through a network of regional and national distributors as well as independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec<sup>®</sup> bioplastic products. Internationally, NTIC sells its Natur-Tec<sup>®</sup> resin compounds and finished products both directly and through its majority-owned subsidiary in India, Natur-Tec India Private Limited (Natur-Tec India), and through distributors and certain joint ventures.

#### NTIC's Subsidiaries and Joint Venture Network

NTIC has ownership interests in six subsidiaries in North America, South America, Europe, and Asia. The following table sets forth a list of NTIC's operating subsidiaries as of February 28, 2019, the country in which the subsidiary is organized, and NTIC's ownership percentage in each subsidiary:

Subsidiary Name	Country	NTIC Percent (%) Ownership
NTIC (Shanghai) Co., Ltd	China	100%
NTI Asean LLC	United States	60%
Zerust Prevenção de Corrosão S.A.	Brazil	85%
ZERUST-EXCOR MEXICO, S. de R.L. de C.V	Mexico	100%
Natur-Tec India Private Limited	India	75%
NTIC Europe GmbH	Germany	100%

The results of these subsidiaries are fully consolidated in NTIC's consolidated financial statements.

On September 1, 2018, the minority owner in Natur-Tec India made an additional capital contribution of INR 9,340,118 (US\$ 134,034), which diluted NTIC's ownership interest from 90% to 75%. This contribution was made with NTIC's consent and with the intended purpose to increase the minority owner's ownership interest accordingly.

NTIC participates in 20 active joint venture arrangements in North America, Europe, and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of NTIC's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures also sell NTIC's Natur-Tec<sup>®</sup> resin compounds. NTIC has historically funded its investments in joint ventures with cash generated from operations.

The following table sets forth a list of NTIC's operating joint ventures as of February 28, 2019, the country in which the joint venture is organized, and NTIC's ownership percentage in each joint venture:

Joint Venture Name	Country	NTIC Percent (%) Ownership
TAIYONIC LTD.	Japan	50%
ACOBAL SAS	France	50%
EXCOR KORROSIONSSCHUTZ – TECHNOLOGIEN UND PRODUKTE GMBH	Germany	50%
ZERUST AB	Sweden	50%
MOSTNIC-ZERUST	Russia	50%
ZERUST OY	Finland	50%
HARITA-NTI LTD	India	50%
ZERUST (U.K.) LTD.	United Kingdom	50%
EXCOR-ZERUST S.R.O.	Czech Republic	50%
EXCOR SP. Z.O.O.	Poland	50%
ZERUST A.Ş.	Turkey	50%
ZERUST CONSUMER PRODUCTS, LLC	United States	50%
ZERUST – DNEPR	Ukraine	50%
KOREA ZERUST CO., LTD.	South Korea <sup>(1)</sup>	30%
ZERUST-NIC (TAIWAN) CORP.	Taiwan <sup>(1)</sup>	30%
PT. CHEMINDO – NTIA	Indonesia <sup>(1)</sup>	30%
ZERUST SPECIALTY TECH CO. LTD.	Thailand <sup>(1)</sup>	30%
CHONG WAH-NTIA SDN. BHD.	Malaysia <sup>(1)</sup>	30%
NTIA ZERUST PHILIPPINES, INC.	Philippines <sup>(1)</sup>	30%
ZERUST SINGAPORE PTE. LTD	Singapore <sup>(1)(2)</sup>	60%

(1) Indirect ownership interest through NTI Asean.

(2) NTI Asean owns 100% of this joint venture.

NTIC receives funds from its joint ventures as fees received for services that NTIC provides and as dividend distributions. The fees for services provided to joint ventures are determined based on either a flat fee or a percentage of sales depending on local laws and tax regulations. With respect to NTIC's joint venture in Germany (EXCOR), NTIC recognizes an agreed upon quarterly fee for services. NTIC recognizes equity income from each joint venture based on the overall profitability of the joint venture. Such profitability is subject to variability from quarter to quarter, which, in turn, subjects NTIC's earnings to variability from quarter to quarter. The profits of each joint venture are shared by the respective joint venture owners in accordance with their respective ownership percentages. NTIC typically directly or indirectly owns 50% or less of each of its joint venture entities and, thus, does not control the decisions of these entities regarding whether to pay dividends and, if paid, what amount is paid in a given year. The payment of a dividend by an entity is determined by a joint vote of the owners and is not at the sole discretion of NTIC.

NTIC accounts for the investments and financial results of its joint ventures in its financial statements utilizing the equity method of accounting.

NTIC considers EXCOR to be individually significant to NTIC's consolidated assets and income. Therefore, NTIC provides certain additional information regarding EXCOR in the notes to NTIC's consolidated financial statements and in this section of this report.

## Financial Overview

NTIC's management, including its chief executive officer, who is NTIC's chief operating decision maker, reports and manages NTIC's operations in two reportable business segments based on products sold, customer base, and distribution center: ZERUST® products and services and Natur-Tec® products.

NTIC's consolidated net sales increased 9.0% and 15.4% during the three and six months ended February 28, 2019, respectively, compared to the three and six months ended February 28, 2018. These increases were primarily a result of an increase in sales of Natur-Tec® products.

During the three and six months ended February 28, 2019, 68.4% and 70.0% of NTIC's consolidated net sales, respectively, were derived from sales of ZERUST® products and services, which decreased 10.6% and 2.8% to \$9,108,395 and \$19,173,569, respectively, compared to \$10,191,459 and \$19,719,196 during the three and six months ended February 28, 2018, respectively. These decreases were due to lower sales from existing customers for existing products as a result of decreased demand. NTIC has focused its sales efforts of ZERUST® products and services by strategically targeting customers with specific corrosion issues in new market areas, including the oil and gas industry and other industrial sectors that offer sizable growth opportunities. NTIC's consolidated net sales for the six months ended February 28, 2019, included \$1,343,460 of sales made to customers in the oil and gas industry compared to \$862,860 for the six months ended February 28, 2018. Overall demand for ZERUST® products and services depends heavily on the overall health of the markets in which NTIC sells its products, including the automotive, oil and gas, agriculture, and mining markets in particular.

During the three and six months ended February 28, 2019, 31.6% and 30.0% of NTIC's consolidated net sales, respectively, were derived from sales of Natur-Tec® products compared to 16.6% and 17.0% during the three and six months ended February 28, 2018, respectively. Net sales of Natur-Tec® products increased 108.0% and 104.0% during the three and six months ended February 28, 2019, respectively, compared to the three and six months ended February 28, 2018, primarily due to an increase in finished product sales in North America and finished product sales at NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited (Natur-Tec India).

Cost of goods sold as a percentage of net sales increased to 69.7% during the three months ended February 28, 2019, compared to 65.6% during the three months ended February 28, 2018, and increased to 68.4% during the six months ended February 28, 2019, compared to 66.9% during the prior fiscal year period primarily as a result of an increased percentage of product sales from Natur-Tec® products that have lower gross margins than NTIC's traditional ZERUST® industrial products.

NTIC's equity in income from joint ventures decreased 5.0% and increased 4.9% to \$1,715,216 and \$3,719,378 during the three and six months ended February 28, 2019, respectively, compared to \$1,805,997 and \$3,547,325 during the three and six months ended February 28, 2018, respectively. These decreases were primarily due to corresponding decreases in net sales at the joint ventures, which decreased 8.2% and 0.8% to \$27,749,880 and \$58,229,806 during the three and six months ended February 28, 2019, respectively, compared to \$30,220,550 and \$58,719,261 during the three and six months ended February 28, 2018, respectively. These decreases in net sales of NTIC's joint ventures were primarily due to lower sales from existing customers for existing products as a result of slightly decreased demand. The decreases in net sales of NTIC's joint ventures resulted in corresponding decreases in fees for services provided to joint ventures, as such fees are a function of net sales of NTIC's joint ventures.

NTIC's total operating expenses increased 0.5% and 5.3% to \$5,396,155 and \$11,575,203 during the three and six months ended February 28, 2019, respectively, compared to \$5,371,598 and \$10,990,023 for the three and six months ended February 28, 2018. This slight increase was primarily due to an increase in NTIC's personnel expenses.

NTIC spent \$927,537 and \$1,799,694 during the three and six months ended February 28, 2019, compared to \$922,746 and \$1,721,477 during the three and six months ended February 28, 2018, respectively, in connection with its research and development activities. NTIC anticipates that it will spend a total of between \$3,400,000 and \$3,600,000 in fiscal 2019 on research and development activities.

Net income attributable to NTIC increased to \$1,401,568, or \$0.30 per diluted common share, for the three months ended February 28, 2019, compared to \$1,332,847, or \$0.29 per diluted common share, for the three months ended February 28, 2018, an increase of \$68,721, or \$0.01 per diluted share. Net income attributable to NTIC increased to \$2,898,627, or \$0.61 per diluted common share, for the six months ended February 28, 2019, compared to \$2,416,473, or \$0.52 per diluted common share, for the six months ended February 28, 2018, an increase of \$482,154, or \$0.09 per diluted share. These increases were primarily the result of the increase in gross profit and joint venture operations during the current fiscal year periods compared to the prior fiscal year periods and the \$700,000 one-time provisional adjustment related to the Tax Reform Act during the prior fiscal year periods, partially offset by the increase in operating expenses.

NTIC anticipates that its quarterly net income or loss will continue to remain subject to significant volatility primarily due to the financial performance of its subsidiaries and joint ventures, sales of its ZERUST® products and services into the oil and gas industry, and sales of its Natur-Tec® bioplastics products, which fluctuate more on a quarterly basis than the traditional ZERUST® business.

NTIC's working capital, defined as current assets less current liabilities, was \$24,180,032 at February 28, 2019, including \$4,936,377 in cash and cash equivalents and \$1,227,268 in available for sale securities, compared to \$22,837,591 at August 31, 2018, including \$4,163,023 in cash and cash equivalents and \$3,300,110 in available for sale securities.

On January 23, 2019, the Company's Board of Directors declared a cash dividend of \$0.12 per share of NTIC's common stock, payable on February 22, 2019, to stockholders of record on February 6, 2019. On October 24, 2018, the Company's Board of Directors declared a cash dividend of \$0.12 per share of NTIC's common stock, payable on November 21, 2018, to stockholders of record on November 7, 2018. During fiscal 2018, the Company's Board of Directors declared quarterly cash dividends of \$0.10 per share. Although NTIC's Board of Directors intends to continue to declare regular quarterly cash dividends, the declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors.

## Results of Operations

The following table sets forth NTIC's results of operations for the three and six months ended February 28, 2019 and 2018.

	Three Months Ended					
	February 28, 2019	% of Net Sales	February 28, 2018	% of Net Sales	\$ Change	% Change
Net sales, excluding joint ventures	\$ 12,606,449	94.7%	\$ 11,399,853	93.3%	\$ 1,206,596	10.6%
Net sales, to joint ventures	708,955	5.3%	814,122	6.7%	(105,167)	(12.9)%
Cost of goods sold	9,284,099	69.7%	8,012,836	65.6%	1,271,263	15.9%
Equity in income from joint ventures	1,715,216	12.9%	1,805,997	14.8%	(90,781)	(5.0)%
Fees for services provided to joint ventures	1,436,774	10.8%	1,608,890	13.2%	(172,116)	(10.7)%
Selling expenses	2,505,081	18.8%	2,643,636	21.6%	(138,555)	(5.2)%
General and administrative expenses	1,963,537	14.7%	1,805,216	14.8%	158,321	8.8%
Research and development expenses	927,537	7.0%	922,746	7.6%	4,791	0.5%

	Six Months Ended					
	February 28, 2019	% of Net Sales	February 28, 2018	% of Net Sales	\$ Change	% Change
Net sales, excluding joint ventures	\$ 26,217,314	95.7%	\$ 22,435,260	94.4%	\$ 3,782,054	16.9%
Net sales, to joint ventures	1,192,142	4.3%	1,321,753	5.6%	(129,611)	(9.8)%
Cost of goods sold	18,745,236	68.4%	15,901,306	66.9%	2,843,930	17.9%
Equity in income from joint ventures	3,719,378	13.6%	3,547,325	14.9%	172,053	4.9%
Fees for services provided to joint ventures	2,865,209	10.5%	3,116,032	13.1%	(250,823)	(8.0)%
Selling expenses	5,316,175	19.4%	5,243,585	22.1%	72,590	1.4%
General and administrative expenses	4,459,334	16.3%	4,024,961	16.9%	434,373	10.8%
Research and development expenses	1,799,694	6.6%	1,721,477	7.2%	78,217	4.5%

*Net Sales.* NTIC's consolidated net sales increased 9.0% and 15.4% to \$13,315,404 and \$27,409,456 during the three and six months ended February 28, 2019, respectively, compared to the three and six months ended February 28, 2018. NTIC's consolidated net sales to unaffiliated customers excluding NTIC's joint ventures increased 10.6% and 16.9% to \$12,606,449 and \$26,217,314 during the three and six months ended February 28, 2019, respectively, compared to the same respective periods in fiscal 2018. These increases were primarily a result of an increase in sales of Natur-Tec® products. Net sales to joint ventures decreased 12.9% and 9.8% to \$708,955 and \$1,192,142, respectively, during the three and six months ended February 28, 2019, compared to the same respective periods in fiscal 2018. These decreases were primarily a result of decreased demand.

The following table sets forth NTIC's net sales by product segment for the six months ended February 28, 2019 and 2018 by segment:

	Three Months Ended		Six Months Ended	
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
Total ZERUST® sales	\$ 9,108,395	\$ 10,191,459	\$ 19,173,569	\$ 19,719,196
Total Natur-Tec® sales	4,207,009	2,022,516	8,235,887	4,037,817
Total net sales	\$ 13,315,404	\$ 12,213,975	\$ 27,409,456	\$ 23,757,013

During the three and six months ended February 28, 2019, 68.4% and 70.0% of NTIC's consolidated net sales, respectively, were derived from sales of ZERUST® products and services, which decreased 10.6% and 2.8% to \$9,108,395 and \$19,173,569 during the three and six months ended February 28, 2019, respectively, compared to \$10,191,459 and \$19,719,196 during the three and six months ended February 28, 2018, respectively. NTIC has strategically focused its sales efforts for ZERUST® products and services on customers with sizeable corrosion problems in industry sectors that offer sizable growth opportunities, including the oil and gas sector. Overall, demand for ZERUST® products and services depends heavily on the overall health of the market segments to which NTIC sells its products, including the automotive, oil and gas, agriculture, and mining markets in particular.

The following table sets forth NTIC's net sales of ZERUST® products for the three and six months ended February 28, 2019 and 2018:

	<b>Three Months Ended</b>			
	<b>February 28, 2019</b>	<b>February 28, 2018</b>	<b>\$ Change</b>	<b>% Change</b>
ZERUST® industrial net sales	\$ 8,042,154	\$ 8,798,319	\$ (756,165)	(8.6)%
ZERUST® joint venture net sales	708,954	814,122	(105,168)	(12.9)%
ZERUST® oil & gas net sales	357,287	579,018	(221,731)	(38.3)%
Total ZERUST® net sales	\$ 9,108,395	\$ 10,191,459	\$ (1,083,064)	(10.6)%

	<b>Six Months Ended</b>			
	<b>February 28, 2019</b>	<b>February 28, 2018</b>	<b>\$ Change</b>	<b>% Change</b>
ZERUST® industrial net sales	\$ 16,637,968	\$ 17,534,583	\$ (896,615)	(5.1)%
ZERUST® joint venture net sales	1,192,141	1,321,753	(129,612)	(9.8)%
ZERUST® oil & gas net sales	1,343,460	862,860	480,600	55.7%
Total ZERUST® net sales	\$ 19,173,569	\$ 19,719,196	\$ (545,627)	(2.8)%

NTIC's total ZERUST® net sales decreased during the three months and six months ended February 28, 2019, compared to the prior fiscal year periods, primarily due to an overall decreased demand for ZERUST® industrial products and services in North America and China, partially offset by increased demand for ZERUST® oil and gas products and services. NTIC anticipates that its sales of ZERUST® products and services into the oil and gas industry will continue to remain subject to significant volatility from quarter to quarter as sales are recognized, specifically due to the volatility of oil prices. Demand for oil and gas products around the world depends primarily on market acceptance and the reach of NTIC's distribution network. Because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of oil and gas products, the timing of one or more orders can materially affect NTIC's quarterly sales compared to prior fiscal year quarters.

During the three and six months ended February 28, 2019, 31.6 % and 30.0% of NTIC's consolidated net sales, respectively, were derived from sales of Natur-Tec® products, which increased 108.0% and 104.0% to \$4,207,009 and \$8,235,887 during the three and six months ended February 28, 2019, respectively, compared to the three and six months ended February 28, 2018. These increases were primarily due to an increase in finished product sales in North America and finished product sales at NTIC's majority-owned subsidiary in India, Natur-Tec India Private Limited (Natur-Tec India).

*Cost of Goods Sold.* Cost of goods sold increased 15.9% and 17.9% for the three and six months ended February 28, 2019, respectively, compared to the three and six months ended February 28, 2018. Cost of goods sold as a percentage of net sales increased to 69.7% during the three months ended February 28, 2019, compared to 65.6% during the three months ended February 28, 2018, and increased to 68.4% during the six months ended February 28, 2019, compared to 66.9% during the six months ended February 28, 2018. These increases were due primarily to an increased percentage of product sales from Natur-Tec® products that have lower gross margins than NTIC's traditional ZERUST® industrial products.

*Equity in Income from Joint Ventures.* NTIC's equity in income from joint ventures decreased 5.0% to \$1,715,216 and increased 4.9% to \$3,719,378 during the three and six months ended February 28, 2019, respectively, compared to \$1,805,997 and \$3,547,325 during the three and six months ended February 28, 2018, respectively. These changes were primarily a result of changing profitability of the joint ventures during the respective periods that fluctuate based on net sales. Of the total equity in income from joint ventures, NTIC had equity in income from joint ventures of \$2,740,907 attributable to EXCOR during the six months ended February 28, 2019, compared to \$2,580,571 during the six months ended February 28, 2018. NTIC had equity in income of all other joint ventures of \$978,471 during the six months ended February 28, 2019, compared to \$966,754 during the six months ended February 28, 2018.

*Fees for Services Provided to Joint Ventures.* NTIC recognized fee income for services provided to joint ventures of \$1,436,774 and \$2,865,209 during the three and six months ended February 28, 2019, respectively, compared to \$1,608,890 and \$3,116,032 during the three and six months ended February 28, 2018, respectively, representing decreases of 10.7% and 8.0%, respectively. Fee income for services provided to joint ventures is traditionally a function of the sales made by NTIC's joint ventures. Total net sales of NTIC's joint ventures decreased to \$27,749,880 and \$58,229,806 during the three and six months ended February 28, 2019, respectively, compared to \$30,220,550 and \$58,719,261 during the three and six months ended February 28, 2018, respectively, representing decreases of 8.2% and 0.8%, respectively. Net sales of NTIC's joint ventures are not included in NTIC's consolidated financial statements. Of the total fee income for services provided to joint ventures, fees of \$430,328 were attributable to EXCOR during the six months ended February 28, 2019, compared to \$456,574 attributable to EXCOR during the six months ended February 28, 2018.

*Selling Expenses.* NTIC's selling expenses decreased 5.2% and increased 1.4% for the three and six months ended February 28, 2019, respectively, compared to the same respective periods in fiscal 2018 due primarily to increases in operating expenses associated with ZERUST® sales efforts, consisting primarily of selling and personnel expenses. Selling expenses as a percentage of net sales decreased to 18.8% and 19.4% for the three and six months ended February 28, 2019, respectively, from 21.6% and 22.1% for the three and six months ended February 28, 2018, respectively, primarily due to the increase in net sales, as previously described.

*General and Administrative Expenses.* NTIC's general and administrative expenses increased 8.8% and 10.8% for the three and six months ended February 28, 2019, respectively, compared to the same respective periods in fiscal 2018 primarily due to increased personnel costs. As a percentage of net sales, general and administrative expenses decreased slightly to 14.7% and 16.3% for the three and six months ended February 28, 2019, respectively, from 14.8% and 16.9% for the same respective periods in fiscal 2018, respectively. The decreases in general and administrative expenses as a percentage of net sales for the three and six-month comparisons were primarily due to the increase in net sales, as previously described.

*Research and Development Expenses.* NTIC's research and development expenses increased 0.5% and 4.5% for the three and six months ended February 28, 2019, respectively, compared to the same respective periods in fiscal 2018 primarily due to increases in research and development efforts.

*Interest Income.* NTIC's interest income decreased to \$15,122 and \$27,909 during the three and six months ended February 28, 2019, respectively, compared to \$24,883 and \$48,939 during the three and six months ended February 28, 2018, respectively, due to changing levels of invested cash.

*Interest Expense.* NTIC's interest expense decreased to \$3,835 and \$6,192 during the three and six months ended February 28, 2019, respectively, compared to \$5,779 and \$10,868 during the three and six months ended February 28, 2018, respectively.

*Income Before Income Tax Expense.* NTIC incurred income before income tax expense equal to \$1,798,427 and \$3,695,321 for the three and six months ended February 28, 2019, respectively, compared to \$2,263,532 and \$3,567,112 for the three and six months ended February 28, 2018, respectively.

*Income Tax Expense.* Income tax expense was \$246,371 and \$502,074 for the three and six months ended February 28, 2019, respectively, compared to income tax expense of \$841,909 and \$946,900 during the three and six months ended February 28, 2018, respectively. Income tax expense was calculated based on management's estimate of NTIC's annual effective income tax rate.

The effective tax rate for the three and six months ended February 28, 2019 was 13.7% and 13.6%, respectively, compared to 37.2% and 26.5% for the three and six months ended February 28, 2018, respectively. These decreases were primarily due to one-time provisional adjustments related to the Tax Reform Act during the prior fiscal year periods. The Tax Reform Act, among other things, reduced the U.S. federal corporate tax rate from 35% to 21% effective January 1, 2018, generally eliminated U.S. federal income taxes on dividends received from foreign subsidiaries and joint ventures after December 31, 2017, and imposed a one-time deemed repatriation tax on certain unremitted earnings of foreign subsidiaries and joint ventures. As a result of the change in the tax law, a one-time non-cash tax provisional charge of \$700,000 related to the re-measurement of deferred tax assets and liabilities was recorded in the three months ended February 28, 2018. The impact of this non-cash tax charge increased NTIC's effective rate by approximately 30.3% for the three months ended February 28, 2018.

NTIC considers the earnings of certain foreign joint ventures to be indefinitely invested outside the United States on the bases of estimates that NTIC's future domestic cash generation will be sufficient to meet future domestic cash needs. As a result, U.S. income and foreign withholding taxes have not been recognized on the cumulative undistributed earnings of \$22,389,278 and \$20,921,783 at February 28, 2019, and August 31, 2018, respectively. To the extent undistributed earnings of NTIC's joint ventures are distributed in the future, they are not expected to result in any material additional income tax liability after the application of foreign tax credits.

*Net Income Attributable to NTIC.* Net income attributable to NTIC increased \$68,721 to \$1,401,568, or \$0.30 per diluted common share, for the three months ended February 28, 2019, compared to \$1,332,847, or \$0.29 per diluted common share, for the three months ended February 28, 2018. Net income attributable to NTIC increased \$482,154 to \$2,898,627, or \$0.61 per diluted common share, for the six months ended February 28, 2019, compared to \$2,416,473, or \$0.52 per diluted common share, for the six months ended February 28, 2018. These increases were primarily the result of the significant impact of the \$700,000 one-time provisional adjustment related to the Tax Reform Act during the prior fiscal year periods, partially offset by the increases in operating expenses. The increase for the six-month comparison is also due to the increase in gross profit during the current fiscal year period compared to the prior fiscal year period.

*Other Comprehensive Income - Foreign Currency Translations Adjustment.* The changes in the foreign currency translations adjustment were due to the fluctuations of the U.S. dollar compared to the Euro and other foreign currencies during the three and six months ended February 28, 2019 compared to the same period in fiscal 2018.

## **Liquidity and Capital Resources**

*Sources of Cash and Working Capital.* NTIC's working capital, defined as current assets less current liabilities, was \$24,180,032 at February 28, 2019, including \$4,936,377 in cash and cash equivalents and \$1,227,268 in available for sale securities, compared to \$22,837,591 at August 31, 2018, including \$4,163,023 in cash and cash equivalents and \$3,300,110 in available for sale securities.

As of February 28, 2019, NTIC had a revolving line of credit with PNC Bank of \$3,000,000 with no amounts outstanding. At the option of the Company, outstanding advances under the line of credit bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by the Company or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate. On November 30, 2018, the Company and PNC Bank extended the maturity date of the line of credit from January 7, 2019, to January 7, 2020. All other terms of the line of credit and the loan agreement and other documents evidencing the line of credit remain the same. It is anticipated that, as historically has been the practice, the line of credit will be renewed each year for one additional year for the immediate foreseeable future.

The line of credit is evidenced by an amended and restated committed line of credit note in the principal amount of up to \$3,000,000. The line of credit has a \$1,200,000 standby letter of credit sub-facility, with any standby letters of credit issued thereunder being at the sole discretion of PNC Bank. Any lines of credit issued by PNC Bank would decrease the availability under the revolving line of credit.

The line of credit is subject to standard covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations, and other matters customarily restricted in such agreements. Under the loan agreement, NTIC is subject to a minimum fixed charge coverage ratio of 1.10:1.00. As of February 28, 2019, NTIC was in compliance with all debt covenants.

NTIC believes that a combination of its existing cash and cash equivalents, available for sale securities, forecasted cash flows from future operations, anticipated distributions of earnings, anticipated fees to NTIC for services provided to its joint ventures, and funds available through existing or anticipated financing arrangements will be adequate to fund its existing operations, investments in new or existing joint ventures or subsidiaries, capital expenditures, debt repayments, cash dividends, and any stock repurchases for at least the next 12 months. During the remainder of fiscal 2019, NTIC expects to continue to invest in NTIC China, research and development, and in marketing efforts and resources for the application of its corrosion prevention technology in the oil and gas industry and its Natur-Tec® bio-plastics business, although the amounts of these various investments are not known at this time. In order to take advantage of such new product and market opportunities to expand its business and increase its revenues, NTIC may decide to finance such opportunities by borrowing under its revolving line of credit or raising additional financing through the issuance of debt or equity securities. There is no assurance that any financing transaction will be available on terms acceptable to NTIC, or at all, or that any financing transaction will not be dilutive to NTIC's current stockholders.

NTIC traditionally has used the cash generated from its operations, distributions of earnings from joint ventures, and fees for services provided to its joint ventures to fund NTIC's new technology investments and capital contributions to new and existing subsidiaries and joint ventures. NTIC's joint ventures traditionally have operated with little or no debt and have been self-financed with minimal initial capital investment and minimal additional capital investment from their respective owners. Therefore, NTIC believes there is limited exposure by NTIC's joint ventures that could materially impact their respective operations and/or liquidity.

*Uses of Cash and Cash Flows.* Net cash provided by operating activities during the six months ended February 28, 2019 was \$262,153, which resulted principally from NTIC's net income, depreciation, amortization, and an increase in accounts payable and accounts receivable, partially offset by NTIC's equity in income from joint ventures, an increase in inventory, a decrease in accrued liabilities, and an increase in income tax receivable. Net cash used in operating activities during the six months ended February 28, 2018, was \$516,199, which resulted principally from NTIC's equity in income from joint ventures, an increase in inventory and increases in trade receivables (excluding joint ventures), accrued liabilities, and income tax payable, partially offset by NTIC's net income, depreciation, amortization, and an increase in accounts payable.

NTIC's cash flows from operations are impacted by significant changes in certain components of NTIC's working capital, including inventory turnover and changes in receivables. NTIC considers internal and external factors when assessing the use of its available working capital, specifically when determining inventory levels and credit terms of customers. Key internal factors include existing inventory levels, stock reorder points, customer forecasts, and customer requested payment terms. Key external factors include the availability of primary raw materials and sub-contractor production lead times. NTIC's typical contractual terms for trade receivables, excluding joint ventures, are traditionally 30 days and 90 days for trade receivables from its joint ventures. Before extending unsecured credit to customers, excluding NTIC's joint ventures, NTIC reviews customers' credit histories and will establish an allowance for uncollectible accounts based upon factors surrounding the credit risk of specific customers and other information. Accounts receivable over 30 days are considered past due for most customers. NTIC does not accrue interest on past due accounts receivable. If accounts receivable in excess of the provided allowance are determined uncollectible, they are charged to selling expense in the period that the determination is made. Accounts receivable are deemed uncollectible based on NTIC exhausting reasonable efforts to collect. NTIC's typical contractual terms for receivables for services provided to its joint ventures are 90 days. NTIC records receivables for services provided to its joint ventures on an accrual basis, unless circumstances exist that make the collection of the balance uncertain, in which case the fee income will be recorded on a cash basis until there is consistency in payments. This determination is handled on a case by case basis.

NTIC experienced a decrease in trade receivables and increase in inventory as of February 28, 2019, compared to August 31, 2018. Trade receivables, excluding joint ventures, as of February 28, 2019, decreased \$590,383 compared to August 31, 2018, primarily related to the timing of collections and the increase in sales.

Outstanding trade receivables, excluding joint ventures balances as of February 28, 2019, increased 2 days to an average of 67 days from balances outstanding from these customers as of August 31, 2018.

Outstanding trade receivables from joint ventures as of February 28, 2019, decreased \$82,157 compared to August 31, 2018, primarily due to the timing of payments. Outstanding balances from trade receivables from joint ventures decreased an average of 13 days from an average of 99 days from balances outstanding from these customers compared to August 31, 2018. The average days outstanding of trade receivables from joint ventures as of February 28, 2019, were primarily due to the receivable balances at NTIC's joint ventures in South Korea, Germany and Thailand.

Outstanding receivables for services provided to joint ventures as of February 28, 2019, decreased \$18,762 compared to August 31, 2018, and the average days to pay increased an average of 2 days to an average of 84 days compared to August 31, 2018.

Net cash provided by investing activities for the six months ended February 28, 2019, was \$1,575,542, which was primarily the result of proceeds from the sale of available for sale securities, partially offset by additions to property and equipment, and additions to patents. Net cash provided by investing activities for the six months ended February 28, 2018, was \$246,587, which was primarily the result of proceeds from the sale of available for sale securities, partially offset by additions to property and equipment, and additions to patents.

Net cash used in financing activities for the six months ended February 28, 2019 was \$1,138,409, which resulted from dividends paid on NTIC common stock and a dividend paid to a non-controlling interest, partially offset by an investment by a non-controlling interest and proceeds from NTIC's employee stock purchase plan. Net cash used in financing activities for the six months ended February 28, 2018, was \$1,079,396, which resulted from dividends paid on NTIC common stock and a dividend paid to a non-controlling interest, partially offset by proceeds from stock option exercises and purchases under NTIC's employee stock purchase plan.

*Share Repurchase Plan.* On January 15, 2015, NTIC's Board of Directors authorized the repurchase of up to \$3,000,000 in shares of NTIC common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by NTIC's Board of Directors at any time. No repurchases occurred during the six months ended February 28, 2019. As of February 28, 2019, up to \$2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program.

*Cash Dividends.* On January 23, 2019, the Company's Board of Directors declared a cash dividend of \$0.12 per share of NTIC's common stock, payable on February 22, 2019, to stockholders of record on February 6, 2019. This was an increase compared to the \$0.10 per share of NTIC's common stock declared and paid during the quarter ended February 28, 2018. Although NTIC's Board of Directors intends to declare regular quarterly cash dividends going forward, the declaration of future dividends is not guaranteed and will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions, and other factors.

*Capital Expenditures and Commitments.* NTIC spent \$439,899 on capital expenditures during the six months ended February 28, 2019, which related primarily to the purchase of new equipment. NTIC expects to spend an aggregate of approximately \$600,000 to \$900,000 on capital expenditures during fiscal 2019, which it expects will relate primarily to the purchase of new equipment.

### **Contractual Obligations**

There has been no material change to NTIC's contractual obligations as provided in "*Part II. Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations—Contractual Obligations,*" included in NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2018.

### **Off-Balance Sheet Arrangements**

NTIC does not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet financial arrangements. As such, NTIC is not materially exposed to any financing, liquidity, market, or credit risk that could arise if NTIC had engaged in such arrangements.

### **Inflation and Seasonality**

Inflation in the United States and abroad historically has had little effect on NTIC. Although NTIC's business historically has not been seasonal, NTIC believes there is now some seasonality in its business. NTIC believes its net sales in the second fiscal quarter were adversely affected by the long Chinese New Year, the North American holiday season, and overall less corrosion taking place at lower winter temperatures worldwide.

## Market Risk

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices, and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, Indian Rupee, Chinese Renminbi, South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies, and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

At the option of NTIC, outstanding advances under NTIC's \$3,000,000 revolving line of credit with PNC Bank bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by NTIC or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate, and thus may subject NTIC to some market risk on interest rates. As of February 28, 2019, NTIC had no borrowings under the line of credit.

## Critical Accounting Policies and Estimates

There have been no material changes to NTIC's critical accounting policies and estimates from the information provided in "*Part II. Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies*" included in NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2018, other than as a result of NTIC's adoption of ASC 606.

## Recent Accounting Pronouncements

See Note 2 to NTIC's consolidated financial statements for a discussion of recent accounting pronouncements.

## Forward-Looking Statements

This quarterly report on Form 10-Q contains not only historical information, but also forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements are subject to the safe harbor created by those sections. In addition, NTIC or others on NTIC's behalf may make forward-looking statements from time to time in oral presentations, including telephone conferences and/or web casts open to the public, in press releases or reports, on NTIC's Internet web site, or otherwise. All statements other than statements of historical facts included in this report or expressed by NTIC orally from time to time that address activities, events, or developments that NTIC expects, believes, or anticipates will or may occur in the future are forward-looking statements, including, in particular, the statements about NTIC's plans, objectives, strategies, and prospects regarding, among other things, NTIC's financial condition, results of operations and business, the outcome of contingencies, such as legal proceedings and the effect of the liquidation of Tianjin Zerust, and the operations of NTIC China. NTIC has identified some of these forward-looking statements in this report with words like "believe," "can," "may," "could," "would," "might," "forecast," "possible," "potential," "project," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate," "approximate," "outlook," or "continue" or the negative of these words or other words and terms of similar meaning. The use of future dates is also an indication of a forward-looking statement. Forward-looking statements may be contained in the notes to NTIC's consolidated financial statements and elsewhere in this report, including under the heading "*Management's Discussion and Analysis of Financial Condition and Results of Operations.*"

Forward-looking statements are based on current expectations about future events affecting NTIC and are subject to uncertainties and factors that affect all businesses operating in a global market as well as matters specific to NTIC. These uncertainties and factors are difficult to predict, and many of them are beyond NTIC's control. The following are some of the uncertainties and factors known to us that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements:

- The effect of current worldwide economic conditions and any turmoil and disruption in the global credit and financial markets on NTIC's business;
- Variability in NTIC's sales of ZERUST® products and services to the oil and gas industry and Natur-Tec® products and NTIC's equity income of joint ventures, which variability in sales and equity in income from joint venture, in turn, subject NTIC's earnings to quarterly fluctuations;
- Risks associated with NTIC's international operations and exposure to fluctuations in foreign currency exchange rates and import duties, taxes, and tariffs;
- The effect of United Kingdom's process to exit the European Union on NTIC's operating results, including in particular future net sales of NTIC's European and other joint ventures;
- The effect of the health of the U.S. automotive industry on NTIC's business;
- NTIC's dependence on the success of its joint ventures and fees and dividend distributions that NTIC receives from them;
- NTIC's relationships with its joint ventures and its ability to maintain those relationships, especially in light of anticipated succession planning issues;
- Fluctuations in the cost and availability of raw materials, including resins and other commodities;
- The success of and risks associated with NTIC's emerging new businesses and products and services, including in particular NTIC's ability and the ability of NTIC's joint ventures to sell ZERUST® products and services to the oil and gas industry and Natur-Tec® products and the often lengthy and extensive sales process involved in selling such products and services;
- NTIC's ability to introduce new products and services that respond to changing market conditions and customer demand;
- Market acceptance of NTIC's existing and new products, especially in light of existing and new competitive products;
- Maturation of certain existing markets for NTIC's ZERUST® products and services and NTIC's ability to grow market share and succeed in penetrating other existing and new markets;

- Increased competition, especially with respect to NTIC's ZERUST<sup>®</sup> products and services, and the effect of such competition on NTIC's and its joint ventures' pricing, net sales, and margins;
- NTIC's reliance upon and its relationships with its distributors, independent sales representatives, and joint ventures;
- NTIC's reliance upon suppliers;
- Oil prices, which may affect sales of NTIC's ZERUST<sup>®</sup> products and services to the oil and gas industry;
- NTIC's operations in China, and the risks associated therewith, the termination of the joint venture agreements with Tianjin Zerust, and the anticipated liquidation of Tianjin Zerust and the effect of all these events on NTIC's business and future operating results;
- The costs and effects of complying with laws and regulations and changes in tax, fiscal, government, and other regulatory policies, including rules relating to environmental, health, and safety matters;
- Unforeseen product quality or other problems in the development, production, and usage of new and existing products;
- Unforeseen production expenses incurred in connection with new customers and new products;
- Loss of or changes in executive management or key employees;
- Ability of management to manage around unplanned events;
- Pending and future litigation;
- NTIC's reliance on its intellectual property rights and the absence of infringement of the intellectual property rights of others;
- NTIC's ability to maintain effective internal control over financial reporting, especially in light of its joint venture arrangements;
- Changes in applicable laws or regulations and NTIC's failure to comply with applicable laws, rules, and regulations;
- Changes in generally accepted accounting principles and the effect of new accounting pronouncements;
- Fluctuations in NTIC's effective tax rate, including from the Tax Cuts and Jobs Act;
- The effect of extreme weather conditions on NTIC's operating results; and
- NTIC's reliance upon its management information systems.

For more information regarding these and other uncertainties and factors that could cause NTIC's actual results to differ materially from what NTIC has anticipated in its forward-looking statements or otherwise could materially adversely affect its business, financial condition, or operating results, see NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2018, under the heading "*Part I. Item 1A. Risk Factors.*"

All forward-looking statements included in this report are expressly qualified in their entirety by the foregoing cautionary statements. NTIC wishes to caution readers not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results due to the uncertainties and factors described above and others that NTIC may consider immaterial or does not anticipate at this time. Although NTIC believes that the expectations reflected in its forward-looking statements are reasonable, NTIC does not know whether its expectations will prove correct. NTIC's expectations reflected in its forward-looking statements can be affected by inaccurate assumptions NTIC might make or by known or unknown uncertainties and factors, including those described above. The risks and uncertainties described above are not exclusive, and further information concerning NTIC and its business, including factors that potentially could materially affect its financial results or condition, may emerge from time to time. NTIC assumes no obligation to update, amend, or clarify forward-looking statements to reflect actual results or changes in factors or assumptions affecting such forward-looking statements. NTIC advises you, however, to consult any further disclosures NTIC makes on related subjects in its annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K that NTIC files with or furnishes to the Securities and Exchange Commission.

### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices, and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese Yen, the Indian Rupee, the Chinese Renminbi, the South Korean Won, and the English Pound against the U.S. Dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies, and, thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income from joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

At the option of NTIC, outstanding advances under NTIC's \$3,000,000 revolving line of credit with PNC Bank bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by NTIC or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate and, thus, may subject NTIC to some market risk on interest rates. As of February 28, 2019, NTIC had no borrowings under the line of credit.

### **ITEM 4. CONTROLS AND PROCEDURES**

#### **Evaluation of Disclosure Controls and Procedures**

NTIC maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) that are designed to provide reasonable assurance that information required to be disclosed by NTIC in the reports it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to NTIC's management, including NTIC's principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. NTIC's management evaluated, with the participation of its Chief Executive Officer and its Chief Financial Officer, the effectiveness of the design and operation of NTIC's disclosure controls and procedures as of the end of the period covered in this report. Based on that evaluation, NTIC's Chief Executive Officer and Chief Financial Officer concluded that NTIC's disclosure controls and procedures were effective as of the end of such period to provide reasonable assurance that information required to be disclosed in the reports that NTIC files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to NTIC's management, including NTIC's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

### **Changes in Internal Control over Financial Reporting**

Except for the implementation of certain internal controls related to the adoption of the new revenue recognition standard (ASC 606) during the quarter ended November 30, 2018, there were no changes in NTIC's internal financial control over financial reporting that occurred during the quarter ended February 28, 2019, that have materially affected or are reasonably likely to materially affect the Company's control over financial reporting.

## PART II - OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

On March 23, 2015, NTIC and NTI Asean LLC (NTI Asean) filed a lawsuit in Tianjin No 1 Intermediate People's Court against two individuals, Tao Meng and Xu Hui, related to breaches of duties and contractual commitments owed to NTI Asean under certain agreements related to NTIC's former joint venture in China, Tianjin Zerust Anti-Corrosion Technologies Ltd. (Tianjin Zerust). The lawsuit alleges, among other things, that Mr. Tao Meng and Xu Hui have engaged in self-dealing, usurped business opportunities, and received economic benefits that were required to go to Tianjin Zerust. As of February 28, 2019, NTIC is not able to reasonably estimate the amount of any recovery to NTI Asean, if any.

### ITEM 1A. RISK FACTORS

This Item 1A is inapplicable to NTIC as a smaller reporting company.

### ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

#### Recent Sales of Unregistered Equity Securities

During the three months ended February 28, 2019, NTIC did not issue any shares of its common stock or other equity securities of NTIC that were not registered under the Securities Act of 1933, as amended.

#### Issuer Purchases of Equity Securities

The following table shows NTIC's second quarter of fiscal 2019 stock repurchase activity.

Period	Total Number of Shares (or Units) Purchased	Average Price Paid Per Share (or Unit)	Total Number of Shares (or Units) Purchased As Part of Publicly Announced Plans or Programs	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
December 1, 2018, through December 31, 2018	0	\$0	0	(1)
January 1, 2019, through January 31, 2019	0	\$0	0	(1)
February 1, 2019, through February 28, 2019	0	\$0	0	(1)
Total	0	\$0	0	(1)(2)

(1) On January 15, 2015, NTIC's Board of Directors authorized the repurchase of up to \$3,000,000 in shares of NTIC common stock through open market purchases or unsolicited or solicited privately negotiated transactions. This program has no expiration date but may be terminated by NTIC's Board of Directors at any time.

(2) As of February 28, 2019, up to \$2,640,548 in shares of NTIC common stock remained available for repurchase under NTIC's stock repurchase program.

**ITEM 3. DEFAULTS UPON SENIOR SECURITIES**

Not applicable.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**ITEM 5. OTHER INFORMATION**

Not applicable.

**ITEM 6. EXHIBITS**

The following exhibits are being filed or furnished with this quarterly report on Form 10-Q:

<u>Exhibit No.</u>	<u>Description</u>	<u>Method of Filing</u>
<a href="#">3.1</a>	<a href="#">Certificate of Validation of the Certificate of Amendment to Restated Certificate of Incorporation of Northern Technologies International Corporation dated January 18, 2019</a>	<a href="#">Incorporated by reference to Exhibit 3.1 to NTIC's Current Report on Form 8-K dated January 18, 2019 (File No. 001-11038)</a>
<a href="#">10.1</a>	<a href="#">Northern Technologies International Corporation 2019 Stock Incentive Plan</a>	<a href="#">Incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K dated January 18, 2019 (File No. 001-11038)</a>
<a href="#">10.2</a>	<a href="#">Form of Incentive Stock Option Agreement for Northern Technologies International Corporation 2019 Stock Incentive Plan</a>	<a href="#">Incorporated by reference to Exhibit 10.2 to NTIC's Current Report on Form 8-K dated January 18, 2019 (File No. 001-11038)</a>
<a href="#">10.3</a>	<a href="#">Form of Non-Statutory Stock Option Agreement for Northern Technologies International Corporation 2019 Stock Incentive Plan</a>	<a href="#">Incorporated by reference to Exhibit 10.3 to NTIC's Current Report on Form 8-K dated January 18, 2019 (File No. 001-11038)</a>
<a href="#">31.1</a>	<a href="#">Certification of Chief Executive Officer Pursuant to Exchange Act Rules 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</a>	<a href="#">Filed herewith</a>
<a href="#">31.2</a>	<a href="#">Certification of Chief Financial Officer Pursuant to Exchange Act Rules 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</a>	<a href="#">Filed herewith</a>
<a href="#">32.1</a>	<a href="#">Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>	<a href="#">Furnished herewith</a>
<a href="#">32.2</a>	<a href="#">Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>	<a href="#">Furnished herewith</a>
101	The following materials from NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended February 28, 2019, formatted in XBRL (Extensible Business Reporting Language): (i) the unaudited Consolidated Balance Sheets, (ii) the unaudited Consolidated Statements of Operations, (iii) the unaudited Consolidated Statements of Comprehensive Income, (iv) the unaudited Consolidated Statements of Equity, (v) the unaudited Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements	Filed herewith

**SIGNATURES**

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.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION**

A handwritten signature in black ink, appearing to read 'Matthew C. Wolsfeld', written over a horizontal line.

Matthew C. Wolsfeld, CPA  
Chief Financial Officer  
(Principal Financial and Accounting Officer and  
Duly Authorized to Sign on Behalf of the Registrant)

Date: April 8, 2019

**CERTIFICATION PURSUANT TO SECTION 302(a) OF  
THE SARBANES-OXLEY ACT OF 2002**

I, G. Patrick Lynch, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Northern Technologies International Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (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: April 8, 2019



G. Patrick Lynch  
President and Chief Executive Officer  
(principal executive officer)

**CERTIFICATION PURSUANT TO SECTION 302(a) OF  
THE SARBANES-OXLEY ACT OF 2002**

I, Matthew C. Wolsfeld, certify that:

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



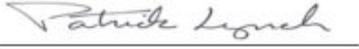
Matthew C. Wolsfeld, CPA  
Chief Financial Officer and Corporate Secretary  
(principal financial officer)

Date: April 8, 2019

**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 Northern Technologies International Corporation (the "Company") on Form 10-Q for the period ended February 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, G. Patrick Lynch, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

- (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.



G. Patrick Lynch  
President and Chief Executive Officer  
(principal executive officer)

Circle Pines, Minnesota  
April 8, 2019

**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 Northern Technologies International Corporation (the "Company") on Form 10-Q for the period ended February 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matthew C. Wolsfeld, Chief Financial Officer and Corporate Secretary of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge and belief:

- (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.



Matthew C. Wolsfeld, CPA  
Chief Financial Officer and Corporate Secretary (principal financial officer and  
principal accounting officer)

Circle Pines, Minnesota  
April 8, 2019