UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

	· ·	vasnington, D.C. 2034)	
	-	FORM 10-Q	
(Ma ⊠	rk One) QUARTERLY REPORT PURSUANT TO S OF 1934	SECTION 13 OR 15 (d) OF TH	E SECURITIES EXCHANGE ACT
	For the quan	rterly period ended November 30, 2019	9.
		or	
	TRANSITION REPORT PURSUANT TO S 1934	SECTION 13 OR 15(d) OF THE	E SECURITIES EXCHANGE ACT OF
	For the transiti	on period from to	<u></u>
	Со	mmission file number 0-17988	
	_	gen Corporation of registrant as specified in its charte	
		620 Lesher Place Lansing, Michigan 48912 principal executive offices, including zip code)	
	(Registra	(517) 372-9200 nt's telephone number, including area code)	
	SECURITIES REGISTER	RED PURSUANT TO SECTION 12(b)	OF THE ACT:
	Title of each Class	Trading Symbol(s)	Name of each exchange on which registered
	(Former name, former a	N/A address and former fiscal year, if changed since	last report)
Indi	cate by check mark whether the registrant (1) has filed all	reports required to be filed by Section 1	3 or 15(d) of the Securities Exchange Act of 1934

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 ($\S232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES \boxtimes NO \square

during the preceding 12 months (or for such shorter period that the registrant was required to file reports), and (2) has been subject to such filing

requirements for the past 90 days. YES ⊠ NO □

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (see definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act):						
Large accelerated filer			Accelerated filer			
Non-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 \square NO \boxtimes						
As of November 30, 2019 there were 52,710,633 shares of Common Stock outstanding.						
-	<u> </u>	<u> </u>	<u> </u>			

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PART I – FINANCIAL INFORMATION

Item 1. Interim Consolidated Financial Statements

Neogen Corporation and Subsidiaries Consolidated Balance Sheets

(in thousands, except share and per share amounts)

	November 30, 2019	May 31, 2019
	Unaudited	Audited
<u>Assets</u>		
Current Assets		
Cash and cash equivalents	\$ 66,414	\$ 41,688
Marketable securities	247,191	225,836
Accounts receivable, less allowance of \$1,700 and \$1,700 at November 30, 2019 and May 31, 2019, respectively	85,377	82,582
Inventories	86,406	85,992
Prepaid expenses and other current assets	14,795	13,431
Total Current Assets	500,183	449,529
Net Property and Equipment	77,150	74,847
Other Assets		
Goodwill	103,610	103,619
Other non-amortizable intangible assets	15,495	15,649
Amortizable intangible and other assets, net of accumulated amortization of \$41,923 and \$40,835 at November 30,		
2019 and May 31, 2019, respectively	54,153	52,096
Total Assets	\$ 750,591	\$695,740
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 19,567	\$ 19,063
Accrued compensation	5,689	7,085
Income taxes	756	601
Other accruals	12,779	11,502
Total Current Liabilities	38,791	38,251
Deferred Income Taxes	15,591	15,618
Other Non-Current Liabilities	5,292	3,972
Total Liabilities	59,674	57,841
Commitments and Contingencies (note 8)		
Equity		
Preferred stock, \$1.00 par value, 100,000 shares authorized, none issued and outstanding	_	_
Common stock, \$0.16 par value, 120,000,000 shares authorized, 52,710,633 and 52,216,589 shares issued and		
outstanding at November 30, 2019 and May 31, 2019, respectively	8,434	8,355
Additional paid-in capital	244,226	221,937
Accumulated other comprehensive loss	(11,918)	(11,640)
Retained earnings	450,175	419,247
Total Stockholders' Equity	690,917	637,899
Total Liabilities and Stockholders' Equity	\$ 750,591	\$695,740
		40.0,7.0

Neogen Corporation and Subsidiaries Consolidated Statements of Income (unaudited)

(in thousands, except per share amounts)

		Three Months Ended November 30,		ths Ended iber 30,	
	2019	2018	2019	2018	
Revenues					
Product revenues	\$ 87,387	\$ 89,562	\$169,335	\$172,522	
Service revenues	20,416	17,536	39,892	34,202	
Total Revenues	107,803	107,098	209,227	206,724	
Cost of Revenues					
Cost of product revenues	45,559	47,305	87,590	90,255	
Cost of service revenues	11,218	9,760	22,417	19,707	
Total Cost of Revenues	56,777	57,065	110,007	109,962	
Gross Margin	51,026	50,033	99,220	96,762	
Operating Expenses					
Sales and marketing	17,988	18,499	35,531	35,732	
General and administrative	10,985	10,121	21,684	20,319	
Research and development	3,781	3,167	7,469	5,986	
Total Operating Expenses	32,754	31,787	64,684	62,037	
Operating Income	18,272	18,246	34,536	34,725	
Other Income (Expense)					
Interest income	1,271	1,028	2,781	1,955	
Other income (expense)	(317)	427	(439)	158	
Total Other Income	954	1,455	2,342	2,113	
Income Before Taxes	19,226	19,701	36,878	36,838	
Provision for Income Taxes	2,950	3,650	5,950	5,550	
Net Income	\$ 16,276	\$ 16,051	\$ 30,928	\$ 31,288	
Net Income Per Share					
Basic	\$ 0.31	\$ 0.31	\$ 0.59	\$ 0.60	
Diluted	\$ 0.31	\$ 0.31	\$ 0.59	\$ 0.60	

Neogen Corporation and Subsidiaries Consolidated Statements of Comprehensive Income (unaudited) (in thousands)

	Three Months Ended November 30,		Six Mont Novem	
	2019	2018	2019	2018
Net income	\$16,276	\$16,051	\$30,928	\$31,288
Other comprehensive income (loss), net of tax:				
currency translation adjustments	2,367	290	(691)	(2,488)
Other comprehensive income (loss), net of tax:				
unrealized gain (loss) on marketable securities	(149)	_	413	
Total comprehensive income	\$18,494	\$16,341	\$30,650	\$28,800

Neogen Corporation and Subsidiaries Consolidated Statements of Equity (unaudited)

(in thousands)

			Additional	Ac	cumulated Other		
	Commo		Paid-in		prehensive	Retained	
D. L. 175 . 44 . 4040	Shares	Amount	Capital		ome (Loss)	Earnings	Total
Balance at May 31, 2019	52,217	\$8,355	\$221,937	\$	(11,640)	\$419,247	\$637,899
Issuance of shares under share-based compensation plan	196	30	9,683				9,713
Issuance of shares under employee stock purchase plan	10	2	536				538
Net income for the three months ended August 31, 2019						14,652	14,652
Other comprehensive loss for the three months ended August 31, 2019					(2,496)		(2,496)
Balance at August 31, 2019	52,423	\$8,387	\$232,156	\$	(14,136)	\$433,899	\$660,306
Issuance of shares under share-based compensation plan	288	47	12,070				12,117
Net income for the three months ended November 30, 2019						16,276	16,276
Other comprehensive income for the three months ended November 30,							
2019					2,218		2,218
Balance at November 30, 2019		\$8,434	\$244,226	\$	(11,918)	\$450,175	\$690,917
Balance at May 31, 2018	51,736	\$8,278	\$202,572	\$	(9,746)	\$359,071	\$560,175
Issuance of shares under share-based compensation plan	251	40	8,433				8,473
Issuance of shares under employee stock purchase plan	8	2	517				519
Net income for the three months ended August 31, 2018						15,237	15,237
Other comprehensive loss for the three months ended August 31, 2018					(2,778)		(2,778)
Balance at August 31, 2018	51,995	\$8,320	\$211,522	\$	(12,524)	\$374,308	\$581,626
Issuance of shares under share-based compensation plan	87	14	4,093				4,107
Net income for the three months ended November 30, 2018						16,051	16,051
Other comprehensive income for the three months ended November 30,							
2018					290		290
Balance at November 30, 2018		\$8,334	\$215,615	\$	(12,234)	\$390,359	\$602,074

Neogen Corporation and Subsidiaries Consolidated Statements of Cash Flows (unaudited) (in thousands)

			Six Months Ended November 30, 2019 2018	
Cash Flows From Operating Activities				
Net Income	\$	30,928	\$	31,288
Adjustments to reconcile net income to net cash from operating activities:				
Depreciation and amortization		8,985		8,597
Share-based compensation		3,155		2,831
Change in operating assets and liabilities, net of business acquisitions:				
Accounts receivable		(2,483)		(3,615)
Inventories		(103)		(3,787)
Prepaid expenses and other current assets		(1,323)		(2,025)
Accounts payable, accruals and other changes	_	1,313		(706)
Net Cash From Operating Activities		40,472		32,583
Cash Flows For Investing Activities				
Purchases of property, equipment and other assets		(12,806)		(6,720)
Proceeds from the sale of marketable securities		199,708		179,839
Purchases of marketable securities	(220,528)	(191,488)
Business acquisitions, net of cash acquired	_			(4,903)
Net Cash For Investing Activities		(33,626)		(23,272)
Cash Flows From Financing Activities				
Exercise of stock options and issuance of employee stock purchase plan shares		19,213		10,268
Net Cash From Financing Activities		19,213		10,268
Effect of Exchange Rates on Cash		(1,333)		(1,068)
Net Increase In Cash and Cash Equivalents		24,726		18,511
Cash and Cash Equivalents, Beginning of Period	_	41,688		83,074
Cash and Cash Equivalents, End of Period	\$	66,414	\$	101,585

NEOGEN CORPORATION AND SUBSIDIARIES NOTES TO INTERIM CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. ACCOUNTING POLICIES

BASIS OF PRESENTATION AND CONSOLIDATION

The accompanying unaudited consolidated financial statements include the accounts of Neogen Corporation ("Neogen" or the "Company") and its wholly owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America (generally accepted accounting principles) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements.

In the opinion of management, all adjustments (consisting only of normal recurring adjustments) considered necessary for a fair presentation have been included in the accompanying unaudited consolidated financial statements. All intercompany balances and transactions have been eliminated in consolidation. The results of operations for the three and six month periods ended November 30, 2019 are not necessarily indicative of the results to be expected for the fiscal year ending May 31, 2020. For more complete financial information, these consolidated financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto included in our Annual Report on Form 10-K for the fiscal year ended May 31, 2019.

Recently Adopted Accounting Standards

Leases

On June 1, 2019, the Company adopted ASU No. 2016-02—Leases. Refer to Leases section of Note 1 for further information.

Recent Accounting Pronouncements Not Yet Adopted

Financial Instruments - Credit Losses

In June 2016, the FASB issued ASU No. 2016-13—Measurement of Credit Losses on Financial Instruments, which changes how companies measure credit losses on most financial instruments measured at amortized cost and certain other instruments, such as loans, receivables and held-to-maturity debt securities. Rather than generally recognizing credit losses when it is probable that the loss has been incurred, the revised guidance requires companies to recognize an allowance for credit losses for the difference between the amortized cost basis of a financial instrument and the amount of amortized cost that the company expects to collect over the instrument's contractual life. ASU 2016-13 is effective for fiscal periods beginning after December 15, 2019 and must be adopted as a cumulative effect adjustment to retained earnings; early adoption is permitted. The Company does not believe adoption of this guidance will have an impact on its consolidated financial statements.

Fair Value Measurements

In August 2018, the FASB issued ASU 2018-13—Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosure requirements of fair value measurements. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The Company does not believe adoption of this guidance will have an impact on its consolidated financial statements.

Cloud Computing Implementation Cost

In August 2018, the FASB issued ASU 2018-15—Intangible-Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Cost Incurred in a Cloud Computing Arrangement That Is a Service Contract, which clarifies the accounting for implementation costs in cloud computing arrangements. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The Company does not believe adoption of this guidance will have an impact on its consolidated financial statements.

Comprehensive Income

Comprehensive income represents net income and any revenues, expenses, gains and losses that, under U.S. generally accepted accounting principles, are excluded from net income and recognized directly as a component of equity. Accumulated other comprehensive income (loss) consists of foreign currency translation adjustments and unrealized gains or losses on marketable securities.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments other than cash equivalents and marketable securities, which include accounts receivable and accounts payable, approximate fair value based on either their short maturity or current terms for similar instruments.

Fair value measurements are determined based upon the exit price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants exclusive of any transaction costs. The Company utilizes a fair value hierarchy based upon the observability of inputs used in valuation techniques as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Cash and Cash Equivalents

Cash and cash equivalents consist of bank demand accounts, savings deposits, certificates of deposit and commercial paper with original maturities of 90 days or less. The carrying value of these assets approximates fair value due to the short maturity of these instruments and meets the Level 1 criteria.

Marketable Securities

The Company has marketable securities held by banks or broker-dealers at November 30, 2019, consisting of short-term domestic certificates of deposit, and commercial paper and U.S. treasuries rated at least A-1/P-1 (short-term) and A/A2 (long-term) with maturities between 91 days and two years. These securities are classified as available for sale. The primary objective of the Company's investment activity is to preserve capital for the purpose of funding operations, capital expenditures and business acquisitions; investments are not entered into for trading or speculative purposes. These securities are recorded at fair value based on recent trades or pricing models and therefore meet the Level 2 criteria. Interest income on these investments is recorded within other income on the consolidated statements of income.

ESTIMATES AND ASSUMPTIONS

The preparation of these financial statements requires that management make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, management evaluates the estimates, including, but not limited to, variable consideration related to revenue recognition, allowances for doubtful accounts, the market value of, and demand for, inventories, stock-based compensation, provision for income taxes and related balance sheet accounts, accruals, goodwill and other intangible assets. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

There have been no significant changes to the critical accounting policies and estimates disclosed in the Company's Annual Report on Form 10-K for the fiscal year ended May 31, 2019.

There were no significant changes to the contractual obligations or contingent liabilities and commitments disclosed in the Company's Annual Report on Form 10-K for the fiscal year ended May 31, 2019.

Accounts Receivable Allowance

Management attempts to minimize credit risk by reviewing customers' credit history before extending credit and by monitoring credit exposure on a regular basis. An allowance for doubtful accounts is established based upon factors surrounding the credit risk of specific customers, historical trends and other information. Collateral or other security is generally not required for accounts receivable. Once a receivable balance has been determined to be uncollectible, that amount is charged against the allowance for doubtful accounts.

Inventory

The reserve for obsolete and slow-moving inventory is reviewed at least quarterly based on an analysis of the inventory, considering the current condition of the asset as well as other known facts and future plans. The reserve required to record inventory at lower of cost or net realizable value is adjusted as conditions change. Product obsolescence may be caused by shelf-life expiration, discontinuance of a product line, replacement products in the marketplace or other competitive situations.

Goodwill and Other Intangible Assets

Goodwill represents the excess of purchase price over fair value of tangible net assets of acquired businesses after amounts are allocated to other identifiable intangible assets. Other intangible assets include customer relationships, trademarks, licenses, trade names, covenants not-to-compete and patents. Customer-based intangibles are amortized on either an accelerated or straight-line basis, reflecting the pattern in which the economic benefits are consumed, while all other amortizable intangibles are amortized on a straight-line basis; intangibles are generally amortized over 5 to 25 years. We review the carrying amounts of goodwill and other non-amortizable intangible assets annually, or when indications of impairment exist, to determine if such assets may be impaired by performing a quantitative assessment. If the carrying amounts of these assets are deemed to be less than fair value based upon a discounted cash flow analysis and comparison to comparable EBITDA multiples of peer companies, such assets are reduced to their estimated fair value and a charge is recorded to operations.

Long-Lived Assets

Management reviews the carrying values of its long-lived assets to be held and used, including definite-lived intangible assets, for possible impairment whenever events or changes in business conditions warrant such a review. The carrying value of a long-lived asset is considered impaired when the anticipated separately identifiable undiscounted cash flows over the remaining useful life of the asset indicate that the carrying amount of the asset may not be recoverable. In such an event, fair value is determined using discounted cash flows and, if lower than the carrying value, impairment is recognized through a charge to operations.

Equity Compensation Plans

Share options awarded to employees and shares of stock awarded to employees under certain stock purchase plans are recognized as compensation expense based on their fair value at grant date. The fair market value of options granted under the Company stock option plans was estimated on the date of grant using the Black-Scholes option-pricing model with assumptions for inputs such as interest rates, expected dividends, volatility measures and specific employee exercise behavior patterns based on statistical data. Some of the inputs used are not market-observable and have to be estimated or derived from available data. Use of different estimates would produce different option values, which in turn would result in higher or lower compensation expense recognized. To value options, several recognized valuation models exist. None of these models can be singled out as being the best or most correct. The model applied by us can handle most of the specific features included in the options granted, which is the reason for its use. If a different model were used, the option values could differ despite using the same inputs. Accordingly, using different assumptions coupled with using a different valuation model could have a significant impact on the fair value of employee stock options. Fair value could be either higher or lower than the number provided by the model applied and the inputs used. Further information on our equity compensation plans, including inputs used to determine the fair value of options, is disclosed in Note 5.

Income Taxes

We account for income taxes using the asset and liability method. Under this method, deferred income tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and for tax credit carryforwards and are measured using the enacted tax rates in effect for the years in which the differences are expected to reverse. Deferred income tax expense represents the change in net deferred income tax assets and liabilities during the year.

Leases

In February 2016, the FASB issued ASU No. 2016-02—Leases, to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. The recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessor have not significantly changed from previous U.S. GAAP. This ASU was effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2018. We adopted this ASU on June 1, 2019; the impact on our consolidated financial statements was immaterial.

We lease various manufacturing, laboratory, warehousing and distribution facilities, administrative and sales offices, equipment and vehicles under operating leases. We evaluate our contracts to determine if an arrangement is a lease at inception and classify it as a finance or operating lease. Currently, all our leases are classified as operating leases. Leased assets and corresponding liabilities are recognized based on the present value of the lease payments over the lease term. Our lease terms may include options to extend when it is reasonably certain that we will exercise that option.

Costs associated with operating leases are recognized on a straight-line basis within operating expenses over the term of the lease. With the adoption of ASC 842 on June 1, 2019, we recognized all leases with terms greater than 12 months in duration on our consolidated balance sheets as right-of-use assets and lease liabilities of approximately \$2.0 million each as of June 1, 2019. We adopted the standard using the prospective approach and did not retrospectively apply to prior periods. Right-of-use assets are recorded in other assets on our consolidated balance sheets. Current and non-current lease liabilities are recorded in other accruals within current liabilities and other non-current liabilities, respectively, on our consolidated balance sheets.

We have made certain assumptions and judgments when applying ASC 842, the most significant of which are:

- We elected the package of practical expedients available for transition that allow us to not reassess whether expired or existing contracts contain leases under the new definition of a lease, lease classification for expired or existing leases and whether previously capitalized initial direct costs would qualify for capitalization under ASC 842.
- We did not elect to use hindsight when considering judgments and estimates such as assessments of lessee options to extend or terminate a lease or purchase the underlying asset.
- For all asset classes, we elected to not recognize a right-of-use asset and lease liability for short-term leases.
- For all asset classes, we elected to not separate non-lease components from lease components to which they relate and have accounted for the combined lease and non-lease components as a single lease component.
- The determination of the discount rate used in a lease is our incremental borrowing rate that is based on what we would normally pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments.

Supplemental balance sheet information related to operating leases was as follows:

	November 30, 2019
	(in thousands)
Right of use - assets	\$ 2,034
Lease liabilities - current	585
Lease liabilities - non-current	1,456

The weighted average remaining lease term and weighted average discount rate were as follows:

	November 30,
	2019
Weighted average remaining lease term	2.5 years
Weighted average discount rate	3.5%

Operating lease expenses are classified as cost of revenues or operating expenses on the consolidated statements of income. The components of lease expense were as follows:

	Three Months Ended November 30, 2019	Six Months Ended November 30, 2019		
	(in thousands)	(in thousands)		
Operating leases	\$ 333	\$ 573		
Short term leases	34	81		
Total lease expense	\$ 367	\$ 654		

Cash paid for amounts included in the measurement of lease liabilities for operating leases included in cash flows from operations on the statement of cash flows were approximately \$558,000 for the six months ended November 30, 2019. There were no non-cash additions to right-of-use assets obtained from new operating lease liabilities for the six months ended November 30, 2019.

Undiscounted minimum lease payments as of November 30, 2019 were as follows:

	Amount (in thousands	Amount (in thousands)	
Years ending May 31,			
2020 (1)	\$ 589	9	
2021	91	7	
2022	35	8	
2023	16	9	
2024	9.	5	
2025 and thereafter	2	6	
Total lease payments	2,15	4	
Less: imputed interest	114	4	
Total lease liabilities	\$ 2,04	0	

(1) Excluding the six months ended November 30, 2019.

Revenue Recognition

The Company determines the amount of revenue to be recognized through application of the following steps:

- Identification of the contract with a customer:
- Identification of the performance obligations in the contract;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, the Company satisfies the performance obligations.

Essentially all our revenue is generated through contracts with our customers. A performance obligation is a promise in a contract to transfer a product or service to a customer. We generally recognize revenue at a point in time when all our performance obligations under the terms of a contract are satisfied. Revenue is recognized upon transfer of control of promised products and services in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The collectability of consideration on the contract is reasonably assured before revenue is recognized. To the extent that customer payment has been received before all recognition criteria are met, these revenues are initially deferred in other accruals on the balance sheet and the revenue is recognized in the period that all recognition criteria have been met. In certain situations, we provide rebates, marketing support, credits or incentives to selected customers, which are accounted for as variable consideration when estimating the amount of revenue to recognize on a contract. Variable consideration reduces the amount of revenue that is recognized. These variable consideration estimates are updated at the end of each reporting period based on information currently available.

The performance obligations in our contracts are generally satisfied well within one year of the contract inception. In such cases, we have elected the practical expedient to not adjust the promised amount of consideration for the effects of a significant financing component. We have elected to utilize the practical expedient to recognize the incremental costs of obtaining a contract as an expense when incurred because the amortization period for the prepaid costs that would otherwise have been deferred and amortized is one year or less. The Company accounts for shipping and handling for products as a fulfillment activity when goods are shipped. Revenue is recognized net of any tax collected from customers; the taxes are subsequently remitted to governmental authorities. The Company's terms and conditions of sale generally do not provide for returns of product or reperformance of service except in the case of quality or warranty issues. These situations are infrequent; due to immateriality of the amount, warranty claims are recorded in the period incurred.

We derive revenue from two primary sources - product revenue and service revenue.

Product revenue consists of shipments of:

- Diagnostic test kits, dehydrated culture media and related products used by food producers and processors to detect harmful natural toxins, foodborne bacteria, allergens and levels of general sanitation;
- Consumable products marketed to veterinarians and animal health product distributors; and
- Rodenticides, disinfectants and insecticides to assist in the control of rodents, insects and disease in and around agricultural, food production and other facilities.

Revenues for our products are recognized and invoiced when the product is shipped to the customer.

Service revenue consists primarily of:

- · Genomic identification and related interpretive bioinformatic services; and
- Other commercial laboratory services.

Revenues for our genomics and commercial laboratory services are recognized and invoiced when the applicable laboratory service is performed and the results are conveyed to the customer.

Payment terms for products and services are generally 30 to 60 days; international terms may be longer.

The following table presents disaggregated revenue by major product and service categories for the three and six month periods ended November 30, 2019 and 2018:

	Three Months ended November 30,		Six Months ended November 3			,	
		2019	 2018		2019		2018
Food Safety			(in thous	sanas)			
Natural Toxins, Allergens & Drug Residues	\$	20,681	\$ 20,571	\$	40,796	\$	39,409
Bacterial & General Sanitation		11,615	10,822		21,931		21,288
Culture Media & Other		12,757	12,191		24,037		24,408
Rodenticides, Insecticides & Disinfectants		7,447	5,943		12,896		12,569
Genomics Services		4,354	4,223		8,216		8,259
	\$	56,854	\$ 53,750	\$	107,876	\$	105,933
Animal Safety							
Life Sciences	\$	1,803	\$ 1,891	\$	3,525	\$	3,971
Veterinary Instruments & Disposables		10,486	11,683		21,822		22,087
Animal Care & Other		7,787	8,948		14,193		15,346
Rodenticides, Insecticides & Disinfectants		16,186	18,789		32,904		35,935
Genomics Services		14,687	12,037		28,907		23,452
	\$	50,949	\$ 53,348	\$	101,351	\$	100,791
Total Revenues	\$	107,803	\$ 107,098	\$	209,227	\$	206,724

2. INVENTORIES

Inventories are stated at the lower of cost, determined by the first-in, first-out method, or net realizable value. The components of inventories follow:

	November 30, 2019	May 31, 2019
	(in th	iousands)
Raw materials	\$ 43,316	\$ 41,594
Work-in-process	6,077	5,581
Finished and purchased goods	37,013	38,817
	\$ 86,406	\$ 85,992

3. NET INCOME PER SHARE

The calculation of net income per share follows:

		nths Ended aber 30,	Six Months Ended November 30,		
	2019	2018	2019	2018	
	(in	thousands, excep	t per share amoun	its)	
Numerator for basic and diluted net income per share:					
Net income attributable to Neogen	\$ 16,276	\$ 16,051	\$ 30,928	\$ 31,288	
Denominator for basic net income per share:					
Weighted average shares	52,557	52,019	52,355	51,820	
Effect of dilutive stock options	319	572	357	721	
Denominator for diluted net income per share	52,876	52,591	52,712	52,541	
Net income attributable to Neogen per share:					
Basic	\$ 0.31	\$ 0.31	\$ 0.59	\$ 0.60	
Diluted	\$ 0.31	\$ 0.31	\$ 0.59	\$ 0.60	

4. SEGMENT INFORMATION AND GEOGRAPHIC DATA

We have two reportable segments: Food Safety and Animal Safety. The Food Safety segment is primarily engaged in the development, production and marketing of diagnostic test kits, dehydrated culture media and related products used by food producers and processors to detect harmful natural toxins, foodborne bacteria, allergens and levels of general sanitation. The Animal Safety segment is primarily engaged in the development, production and marketing of products dedicated to animal safety, including a complete line of consumable products marketed to veterinarians and animal health product distributors; this segment also provides genomic identification and related interpretive bioinformatic services. Additionally, the Animal Safety segment produces and markets rodenticides, disinfectants and insecticides to assist in the control of rodents, insects and disease in and around agricultural, food production and other facilities.

Our international operations in the United Kingdom, Mexico, Brazil, China and India originally focused on the Company's food safety products, and each of these units reports through the Food Safety segment. In recent years, these operations have expanded to offer our complete line of products and services, including those usually associated with the Animal Safety segment such as cleaners, disinfectants, rodenticides, insecticides, veterinary instruments and genomics services. These additional products and services are managed and directed by existing management and are reported through the Food Safety segment.

The accounting policies of each of the segments are the same as those described in Note 1.

Segment information follows:

	Food	Animal	Corporate and Eliminations	
	Safety	Safety	(1)	Total
		(in th	iousands)	
As of and for the three months ended November 30, 2019				
Product revenues to external customers	\$ 51,188	\$ 36,199	\$ —	\$ 87,387
Service revenues to external customers	5,666	14,750	_	20,416
Total revenues to external customers	56,854	50,949		107,803
Operating income (loss)	9,556	9,729	(1,013)	18,272
Total assets	212,928	224,058	313,605	750,591
As of and for the three months ended November 30, 2018				
Product revenues to external customers	\$ 48,256	\$ 41,306	\$ —	\$ 89,562
Service revenues to external customers	5,494	12,042		17,536
Total revenues to external customers	53,750	53,348	_	107,098
Operating income (loss)	10,342	9,057	(1,153)	18,246
Total assets	201,291	218,231	240,970	660,492

⁽¹⁾ Includes corporate assets, consisting principally of cash and cash equivalents, marketable securities, current and deferred tax accounts and overhead expenses not allocated to specific business segments. Also includes the elimination of intersegment transactions.

	Food Safety	Animal Safety	Corporate and Eliminations (1)	Total
		(in t	housands)	
As of and for the six months ended November 30, 2019				
Product revenues to external customers	\$ 97,065	\$ 72,270	\$ —	\$ 169,335
Service revenues to external customers	10,810	29,082	_	39,892
Total revenues to external customers	107,875	101,352		209,227
Operating income (loss)	18,690	18,029	(2,183)	34,536
As of and for the six months ended November 30, 2018				
Product revenues to external customers	\$ 95,189	\$ 77,333	\$ —	\$ 172,522
Service revenues to external customers	10,744	23,458	_	34,202
Total revenues to external customers	105,933	100,791		206,724
Operating income (loss)	21,215	15,763	(2,253)	34,725

(1) Includes elimination of intersegment transactions.

The following table presents the Company's revenue disaggregated by geographic location:

		Three months ended November 30,		hs ended ber 30,
	2019	2019 2018		2018
	(in tho	usands)	(in tho	ısands)
Revenues by Geographic Location				
Domestic	\$ 63,317	\$ 65,033	\$ 126,657	\$ 124,879
International	44,486	42,065	82,570	81,845
Total revenue	107,803	107,098	209,227	206,724

5. EQUITY COMPENSATION PLANS

Qualified and non-qualified options to purchase shares of common stock may be granted to directors, officers and employees of the Company under the terms of our stock option plans. These options are granted at an exercise price of not less than the fair market value of the stock on the date of grant. Options vest ratably over three and five year periods and the contractual terms are generally five or ten years. A summary of stock option activity during the six months ended November 30, 2019 follows:

*** * 1 4 1

(Outline in the county)	Shares	A	eighted- verage rcise Price
(Options in thousands)		Exer	
Options outstanding June 1, 2019	2,385	\$	49.37
Granted	561		63.91
Exercised	(493)		39.01
Forfeited	(51)		56.26
Options outstanding November 30, 2019	2,402	\$	54.76

During the three and six month periods ended November 30, 2019 and 2018, the Company recorded \$1,612,000 and \$1,400,000 and \$3,155,000 and \$2,831,000, respectively, of compensation expense related to its share-based awards.

The weighted-average fair value per share of stock options granted during the first six months of fiscal year 2020, estimated on the date of grant using the Black-Scholes option pricing model, was \$15.56. The fair value of stock options granted was estimated using the following weighted-average assumptions.

	FY 2020
Risk-free interest rate	1.9%
Expected dividend yield	0.0%
Expected stock price volatility	29.4%
Expected option life	3.5 years

The Company has an employee stock purchase plan that provides for employee stock purchases at a 5% discount to market price. The discount is recorded in administrative expense as of the date of purchase.

6. BUSINESS AND PRODUCT LINE ACQUISITIONS

The Consolidated Statements of Income reflect the results of operations for business acquisitions since the respective dates of purchase. All are accounted for using the acquisition method. Goodwill recognized in the acquisitions discussed below relates primarily to enhancing the Company's strategic platform for the expansion of available product offerings.

On August 1, 2018, the Company acquired the stock of Clarus Labs, Inc., a manufacturer of water testing products. Neogen has distributed Clarus' Colitag water test to the food and beverage industries since 2004; this acquisition has given the Company the ability to sell this product to new markets. Consideration for the purchase was \$4,204,000 in cash and approximately \$1,256,000 million of contingent consideration, due semiannually for the first five years, based on an excess net sales formula. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of \$32,000, machinery and equipment of \$120,000, accounts payable of \$53,000, contingent consideration accrual of \$1,256,000, non-current deferred tax liability of \$544,000, non-amortizable intangible assets of \$878,000, intangible assets of \$1,487,000 (with an estimated life of 5-15 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. Since February 2019, \$180,000 has been paid to the former owners as contingent consideration from the accrual. Manufacturing of these products was moved to the Company's Lansing, Michigan location in October 2018, reporting within the Food Safety segment.

On September 4, 2018, the Company acquired the assets of Livestock Genetic Services, LLC, a Virginia-based company that specialized in genetic evaluations and data management for cattle breeding organizations. Livestock Genetic Services had been a long-time strategic partner of Neogen and the acquisition enhanced the Company's in-house genetic evaluation capabilities. Consideration for the purchase was \$1,100,000 in cash, with \$700,000 paid at closing and \$400,000 payable to the former owner on September 1, 2019, and up to \$585,000 of contingent consideration, payable over the next three years. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included office equipment of \$15,000, contingent consideration accrual of \$385,000, intangible assets of \$942,000 (with an estimated life of 5-15 years) and the remainder to goodwill (deductible to tax purposes). These values are Level 3 fair value measurements. In September 2019, the former owner was paid the second installment of \$400,000 and was also paid \$107,000 in contingent consideration based on the achievement of sales targets in the first year. Services provided by this operation are now performed at the Company's Lincoln, Nebraska location, reporting within the Animal Safety segment.

On January 1, 2019, the Company acquired the assets of Edmonton, Alberta based Delta Genomics Centre, an animal genomics laboratory in Canada. Delta's laboratory operations were renamed Neogen Canada and the acquisition was intended to accelerate growth of the Company's animal genomics business in Canada. Consideration for the purchase was \$1,485,000 in cash. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of \$38,000, machinery and equipment of \$371,000, unearned revenue liability of \$125,000, intangible assets of \$532,000 (with an estimated life of 5 to 10 years) and the remainder to goodwill (deductible for tax purposes). These values are Level 3 fair value measurements. Services provided by this operation continue to be performed in Edmonton, reporting within the Animal Safety segment.

7. LONG TERM DEBT

We have a financing agreement with a bank providing for a \$15,000,000 unsecured revolving line of credit, which was amended on November 30, 2018 to extend the maturity from September 1, 2019 to September 30, 2021. There were no advances against the line of credit during fiscal 2019 and there have been none thus far in fiscal 2020; there was no balance outstanding at November 30, 2019. Interest on any borrowings remained at LIBOR plus 100 basis points (rate under the terms of the agreement was 2.70% at November 30, 2019). Financial covenants include maintaining specified levels of tangible net worth, debt service coverage, and funded debt to EBITDA, each of which the Company was in compliance with at November 30, 2019.

8. COMMITMENTS AND CONTINGENCIES

The Company is involved in environmental remediation and monitoring activities at its Randolph, Wisconsin manufacturing facility and accrues for related costs when such costs are determined to be probable and estimable. The Company currently utilizes a pump and treat remediation strategy, which includes semi-annual monitoring and reporting, consulting, and maintenance of monitoring wells. Neogen expenses these annual costs of remediation, which have ranged from \$38,000 to \$131,000 per year over the past five years. The Company's estimated liability for these costs was \$916,000 at both November 30, 2019 and May 31, 2019, measured on an undiscounted basis over an estimated period of 15 years; \$100,000 of the liability is recorded within current liabilities and the remainder is recorded within other non-current liabilities on the consolidated balance sheets. In fiscal 2019, the Company performed an updated Corrective Measures Study (CMS) on the site, per a request from the Wisconsin Department of Natural Resources (WDNR), and is currently in discussion with the WDNR regarding potential alternative remediation strategies going forward. The Company believes that the current pump and treat strategy is appropriate for the site. At this time, the outcome of the review in terms of approach and future costs is unknown, but a change in the current remediation strategy, depending on the alternative selected, could require an increase in the currently recorded liability, with an offsetting charge to operations in the period recorded.

The Company is subject to certain legal and other proceedings in the normal course of business that, in the opinion of management, should not have a material effect on its future results of operations or financial position.

9. STOCK PURCHASE

In October 2018, the Company's Board of Directors passed a resolution canceling the Company's prior stock buyback program, which had been approved in December 2008, and authorized a new program to purchase, subject to market conditions, up to 3,000,000 shares of the Company's common stock. In December 2018, the Company purchased 50,000 shares under the program in negotiated and open market transactions for a total price, including commissions, of \$3,134,727. Shares acquired under the program have been retired.

PART I - FINANCIAL INFORMATION

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

The information in this Management's Discussion and Analysis of Financial Condition and Results of Operations contains both historical financial information and forward-looking statements. Neogen does not provide forecasts of future financial performance. While management is optimistic about the Company's long-term prospects, historical financial information may not be indicative of future financial results.

Safe Harbor and Forward-Looking Statements

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, are made throughout this Quarterly Report on Form 10-Q. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "seeks," "estimates," and similar expressions are intended to identify forward-looking statements. There are a number of important factors, including competition, recruitment and dependence on key employees, impact of weather on agriculture and food production, identification and integration of acquisitions, research and development risks, patent and trade secret protection, government regulation and other risks detailed from time to time in the Company's reports on file at the Securities and Exchange Commission, that could cause Neogen Corporation's results to differ materially from those indicated by such forward-looking statements, including those detailed in this "Management's Discussion and Analysis of Financial Condition and Results of Operations."

In addition, any forward-looking statements represent management's views only as of the day this Quarterly Report on Form 10-Q was first filed with the Securities and Exchange Commission and should not be relied upon as representing management's views as of any subsequent date. While management may elect to update forward-looking statements at some point in the future, it specifically disclaims any obligation to do so, even if its views change.

Executive Overview

- Consolidated revenues were \$107.8 million in the second quarter of fiscal 2020, an increase of 1% compared to \$107.1 million in the second quarter of fiscal 2019. Organic sales growth in the second quarter of fiscal 2020 was flat. For the six month period, consolidated revenues were \$209.2 million, an increase of 1% compared to \$206.7 million in the same period in the prior fiscal year. On a year to date basis, organic sales also rose 1%.
- Food Safety segment sales were \$56.9 million in the second quarter of the current fiscal year, an increase of 6% compared to \$53.8 million in the same period of the prior year. There were no contributions from acquisitions in this segment in the second quarter. For the year to date, Food Safety segment sales were \$107.9 million, an increase of 2% compared to \$105.9 million in the same period of the prior fiscal year; the organic sales increase was also 2%, with a minor contribution in the first quarter from the August 1, 2018 acquisition of Clarus Labs
- Animal Safety segment sales were \$50.9 million in the second quarter of fiscal 2020, a decrease of 4% compared to \$53.3 million in the second quarter of fiscal 2019. Organic sales in this segment decreased 5% in the second quarter, with a minor contribution from the January 1, 2019 acquisition of Delta Genomics. For the six month period, Animal Safety segment sales were \$101.4 million, an increase of 1% compared to \$100.8 million in the same period a year ago. Year to date organic sales were flat, after excluding three months revenues from the September 1, 2018 acquisition of Livestock Genetic Services and six months revenues from the January 1, 2019 Delta Genomics acquisition.
- International sales in the second quarter of fiscal 2020 were 41% of total sales compared to 39% of total sales in the second quarter of fiscal 2019. For the year to date, fiscal 2020 international sales were 39% of total sales compared to 40% of total sales in the same period of the prior year.
- Our effective tax rate in the second quarter was 15.3% compared to an effective tax rate of 18.5% in the prior year second quarter; the fiscal 2020 year to date effective tax rate was 16.1% compared to 15.1% for the same period a year ago.
- Net income for the quarter ended November 30, 2019 was \$16.3 million, or \$0.31 per diluted share, an increase of 1% compared to \$16.1 million, or \$0.31 per share in the same period in the prior year. For the year to date, net income was \$30.9 million, or \$0.59 per share, a decrease of 1% compared to prior year to date net income of \$31.3 million, or \$0.60 per diluted share.
- Cash provided from operating activities in the first six months of fiscal 2020 was \$40.5 million, compared to \$32.6 million in the first half of fiscal 2019.

Neogen's results reflect an increase in international sales of 6% in the second quarter of fiscal 2020 and 1% for the year to date, each compared to the same respective periods in the prior year. The rate of growth in our international operations in the current fiscal year has been adversely impacted by currency devaluations in a number of the countries in which we operate and the loss of forensics business in Brazil. Revenue changes, denominated in both the U.S. dollar and as reported in the local currency, for the three and six month periods of fiscal 2020 compared to the same respective periods in the prior year are as follows for each of our international locations:

	Three Mont November		Six Months Ende November 30, 201		
	Revenue % Increase/(Decrease) USD	Revenue % Increase/(Decrease) Local Currency	Revenue % Increase USD	Revenue % Increase Local Currency	
Neogen Europe (including Lab M &					
Quat-Chem)	7%	10%	1%	5%	
Neogen do Brasil (including					
Deoxi & Rogama)	20%	27%	0%	4%	
Neogen Latinoamerica	5%	5%	5%	5%	
Neogen China	40%	43%	10%	14%	
Neogen India	(1)%	(3)%	8%	7%	
Neogen Canada	329%	334%	181%	184%	
Neogen Australasia	18%	25%	20%	27%	

Currency translations reduced revenues by approximately \$1.0 million in the second quarter of fiscal 2020 compared to the same quarter a year ago, and \$2.1 million for the year to date compared to the same period last year, primarily due to the increased strength of the U.S. dollar relative to the British pound, the Brazilian real and the Australian dollar.

The 7% increase in second quarter revenues at our Neogen Europe operations was led by a 15% increase in sales of Neogen Culture Media products, a 9% increase in sales of cleaners and disinfectants and a 48% increase in sales of aflatoxin test kits, due to increased market share and an outbreak in Africa; revenues increased 1% for the year to date period. Sales in Brazil increased 20% in the second quarter, as a large non-recurring sale of insecticides offset the loss of forensics test kit business, due to a large commercial laboratory converting their testing protocol to a higher throughput method. For the six month period, sales at our Brazilian operations were flat compared to the prior year. At Neogen Latinoamerica, sales increased 5% for both the three and six month periods, respectively, as compared to the prior year, with broad based strength across the diagnostics business somewhat offset by lower sales of cleaners and disinfectants throughout the distribution channel.

Service revenue was \$20.4 million in the second quarter of fiscal 2020, an increase of 16% over prior year second quarter revenues of \$17.5 million, including a minor contribution from the January 1, 2019 acquisition of Delta Genomics. For the six month period, service revenue was \$39.9 million, an increase of 17% over prior year revenues of \$34.2 million. Year to date revenues were aided by the Delta Genomics acquisition and the September 2018 acquisition of Livestock Genetic Services. The growth in both the quarter and year to date periods was led by strong increases of genomic testing revenues to the companion animal market, and to a lesser extent, increases in our global beef and dairy cattle markets.

Revenues

	Three Months Ended November 30,			
	2019	2018 (in thousands)	Increase/ (Decrease)	%
Food Safety				
Natural Toxins, Allergens & Drug Residues	\$ 20,681	\$ 20,571	\$ 110	1%
Bacterial & General Sanitation	11,615	10,822	793	7%
Culture Media & Other	12,757	12,191	566	5%
Rodenticides, Insecticides & Disinfectants	7,447	5,943	1,504	25%
Genomics Services	4,354	4,223	131	3%
	\$ 56,854	\$ 53,750	\$ 3,104	6%
Animal Safety				
Life Sciences	\$ 1,803	\$ 1,891	\$ (88)	(5)%
Veterinary Instruments & Disposables	10,486	11,683	(1,197)	(10)%
Animal Care & Other	7,787	8,948	(1,161)	(13)%
Rodenticides, Insecticides & Disinfectants	16,186	18,789	(2,603)	(14)%
Genomics Services	14,687	12,037	2,650	22%
	\$ 50,949	\$ 53,348	\$ (2,399)	(4)%
Total Revenues	\$107,803	\$107,098	\$ 705	1%

	Si	Six Months Ended November 30, Increase/			
	2019	2018 (in thousands)	(Decrease)	%	
Food Safety					
Natural Toxins, Allergens & Drug Residues	\$ 40,796	\$ 39,409	\$ 1,387	4%	
Bacterial & General Sanitation	21,931	21,288	643	3%	
Culture Media & Other	24,037	24,408	(371)	(2)%	
Rodenticides, Insecticides & Disinfectants	12,896	12,569	327	3%	
Genomics Services	8,216	8,259	(43)	(1)%	
	\$107,876	\$105,933	\$ 1,943	2%	
Animal Safety					
Life Sciences	\$ 3,525	\$ 3,971	\$ (446)	(11)%	
Veterinary Instruments & Disposables	21,822	22,087	(265)	(1)%	
Animal Care & Other	14,193	15,346	(1,153)	(8)%	
Rodenticides, Insecticides & Disinfectants	32,904	35,935	(3,031)	(8)%	
Genomics Services	28,907	23,452	5,455	23%	
	\$101,351	\$100,791	\$ 560	1%	
Total Revenues	\$209,227	\$206,724	\$ 2,503	1%	

Food Safety

Natural Toxins, Allergens & Drug Residues – Sales in this category increased 1% and 4% for the three and six month periods ended November 30, 2019, respectively, compared to the same periods in the prior year. In the second quarter, sales of our allergens product line increased 13% and natural toxin test kit revenues increased 3%. These increases were almost entirely offset by a 29% decline in drug residue test kits resulting from lower demand at our European distributor. We have modified our contract with this distributor; effective January 1, 2020 they will be designated a non-exclusive distributor of our dairy drug residue test kits. For the six month period, sales of our allergens product line increased 11% and natural toxins test kit revenues increased 6%, while sales of drug residue test kits declined 18%.

Bacterial & General Sanitation – Revenues in this category increased 7% in the second quarter and 3% for the year to date, both compared to the same periods in the prior year. In the second quarter, sales of our AccuPoint sanitation monitoring product line increased 21% on higher sales of both equipment and related samplers; sales of test kits to detect pathogens increased 11%, as we continued to gain new business with our *Listeria* Right Now test kit that launched in fiscal 2018. Sales of products to detect spoilage organisms in processed foods decreased 9%, due primarily to backorders of readers from our primary supplier, which resulted in lower sales of equipment. For the year to date, sales of our AccuPoint product line increased 16% and pathogen test kit revenues increased 6%, while sales of products to detect spoilage organisms decreased 12%.

Culture Media & Other – Sales in this category increased 5% in the quarter ended November 30, 2019 compared to the second quarter in the prior year; for the six month period, sales decreased 2%. Sales of Neogen Culture Media increased 9% and 3% for the quarter and year to date periods, respectively. This category also includes forensic test kits sold within Brazil, which decreased significantly in both the second quarter and for the year to date as a large customer moved to a higher throughput testing method.

Rodenticides, Insecticides & Disinfectants – Revenues in this category increased 25% in the second quarter of fiscal 2020 compared to the same period a year ago, due primarily to three non-recurring sales of insecticide products to governmental agencies and the strength of disinfectant products in China, the result of increased demand in the pork market caused by the African swine fever virus outbreak in that country. For the year to date, sales in this category increased 3%, as the prior year first quarter included a large non-recurring insecticide sale.

Genomics Services – Sales of genomics services sold through our international Food Safety operations increased 3% for the three month period ended November 30, 2019; revenues decreased 1% for the six month period. Currency had a negative impact on sales in both comparative periods in the current fiscal year as the U.S. dollar has strengthened against both the British pound and the Brazilian real; the Company has sizable genomics revenues in each of those currencies.

Animal Safety

Life Sciences – Sales in this category decreased 5% in the second quarter, compared to the same period in the prior year; for the year to date, the decrease in this product line is 11%. The prior year included sales to a commercial laboratory customer that were transferred to our Brazilian operation during the second quarter of fiscal 2019.

Veterinary Instruments & Disposables – Revenues in this category decreased 10% for the three month period ended November 30, 2019; for the year to date, sales decreased 1%. For both the quarter and year to date periods, growth in disposable syringes and marking products due to market share gains was more than offset by decreased sales of various types of needles.

Animal Care & Other – Sales of these products decreased 13% in the second quarter and 8% for the year to date. In the second quarter, animal care revenues decreased 14% due to lower sales to our larger U.S. distributors. For the year to date period, timing of adjustments to promotional programs with distributors, which are recorded as a contra revenue within this category, also contributed to the decline.

Rodenticides, Insecticides & Disinfectants – Revenues in this category decreased 14% and 8% for the three and six month periods ended November 30, 2019, respectively. For the quarter, rodenticide sales were down 8% and insecticide sales were down 30%, as demand declined due to weak rodent and insect pressure in certain areas of the U.S. Disinfectant sales were down 14% due to reduced demand by our larger U.S. distributors as they worked to lower their inventory levels.

Genomics Services – Sales in this category increased 22% in the second quarter and 23% for the year to date period, both compared to the prior year; the September 2018 acquisition of Livestock Genetic Services and the January 2019 acquisition of Delta Genomics contributed to a minor amount of the growth in this category. The growth in both the three and six month periods was led by significant increases of sales to the companion animal market due to product uptake at a large customer and, to a lesser extent, continued growth in the beef and dairy cattle, and porcine markets. Growth in our Australian genomics business was strong as well, up 14% for both the three and six month periods.

Gross Margin

Gross margin was 47.3% in the second quarter of fiscal 2020 compared to 46.7% in the same quarter a year ago. The improvement in gross margin is due to a greater proportion of sales from the Food Safety segment, which have higher gross margins than the Animal Safety segment; increased gross margins on the domestic genomics service business within the Animal Safety segment also contributed to the improvement. Gross margin for the six month period ended November 30, 2019 was 47.4% compared to 46.8% in the same period of the prior year, for the same reasons.

Operating Expenses

Operating expenses were \$32.8 million in the second quarter, compared to \$31.8 million in the same quarter of the prior year, an increase of \$967,000, or 3%. Sales and marketing expenses decreased \$511,000, or 3%, primarily due to decreases in commissions, shipping and other variable expenses tied to revenues, and a reduction in bad debt expense due to the reversal of reserves for collected receivables. General and administrative expense increased \$864,000, or 9%, resulting from increases in stock-based compensation expense, legal and professional fees, and depreciation related to investments in information technology. Additionally, prior year expense in the second quarter was reduced by economic incentive credits received in Lincoln for an expansion project; these incentive credits were much lower in this year's second quarter. Research and development expense was \$3.8 million in the second quarter, an increase of \$615,000, or 19%, compared to the same period in the prior year. The increase is primarily the result of development spending on a number of new products, which are expected to be launched in late fiscal 2020 or early fiscal 2021.

Operating expenses for the six month period ended November 30, 2019 were \$64.7 million, an increase of \$2.6 million, or 4%, compared to the prior year. Driving the increase were research and development spending increases of \$1.5 million, or 25%, due primarily to new product development, and a \$1.4 million, or 7%, increase in general and administrative expense. The increase in general and administrative expense was led by increased stock based compensation expense, higher legal and professional fees, and an increase in depreciation expense.

Operating Income

Operating income was \$18.3 million in the second quarter of fiscal 2020, compared to \$18.2 million in the same period of the prior year; year to date operating income was \$34.5 million compared to \$34.7 million in the prior year. Expressed as a percentage of sales, operating income was 16.9% for the second quarter and 16.5% for the year to date, compared to 17.0% and 16.8%, respectively, in the prior year. The small decline in operating margin percentage for each period in the current fiscal year was the result of operating expenses that increased more than the gross margin improvement.

Other Income

	Three Mor Novem			Six Months Ended November 30,	
(dollars in thousands)	2019	2018	2019	2018	
Interest income (net of expense)	\$ 1,271	\$ 1,028	\$2,781	\$1,955	
Foreign currency transactions	(352)	(72)	(469)	(458)	
Royalty income	_	37	1	59	
Deoxi contingent consideration	_	_	_	(9)	
Quat-Chem contingent consideration	_	422	_	422	
Other	35	40	29	144	
Total Other Income	\$ 954	\$ 1,455	\$2,342	\$2,113	

The increase in interest income in both the three and six month periods of fiscal 2020 compared to the same periods a year ago was the result of higher cash and marketable securities balances. Other expense resulting from foreign currency transactions was primarily the result of changes in the value of foreign currencies relative to the U.S. dollar in countries in which we operate.

Income Tax Expense

Income tax expense in the second quarter of fiscal 2020 was \$3.0 million, an effective tax rate of 15.3%, compared to \$3.7 million, an effective tax rate of 18.5%, in the same period of the prior year. For the year to date, income tax expense was \$6.0 million, an effective rate of 16.1%, in fiscal 2020 and \$5.6 million, an effective rate of 15.1%, in fiscal 2019. For each period, the primary difference between the statutory rate of 21% and the effective rates recorded is the benefit resulting from the exercise of stock options; this benefit was \$1,204,000 in the second quarter of fiscal 2020 compared to \$484,000 in the second quarter of the prior year. For the year to date, the benefit was \$1,973,000 in fiscal 2020 compared to \$2,774,000 in fiscal 2019; the prior year first quarter had significant stock option exercise due to a higher stock price and the timing of the expiration of the 2013 grant in August 2018.

Net Income

Net income was \$16.3 million in the second quarter of fiscal 2020, compared to \$16.1 million in the same period in the prior year. The improvement in earnings for this year's second quarter was the result of the decrease in the effective tax rate, which was caused by increased tax benefits resulting from the exercise of stock options, due to higher option activity in the second quarter of this fiscal year compared to the same period a year ago. For the year to date, net income decreased 1% from \$31.3 million to \$30.9 million; six month net income in fiscal 2020 was negatively impacted by a higher effective tax rate.

Financial Condition and Liquidity

The overall cash, cash equivalents and marketable securities position of Neogen was \$313.6 million at November 30, 2019, compared to \$267.5 million at May 31, 2018. Approximately \$40.5 million was generated from operations during the first six months of fiscal 2020. Net cash proceeds of \$19.2 million were realized from the exercise of stock options and issuance of shares under our Employee Stock Purchase Plan during the first six months of fiscal 2020. We spent \$12.8 million for property, equipment and other non-current assets in the first six months of fiscal 2020.

Net accounts receivable balances were \$85.4 million at November 30, 2019, an increase of \$2.8 million, compared to \$82.6 million at May 31, 2019. Days sales outstanding, a measurement of the time it takes to collect receivables, were 65 days at November 30, 2019, compared to 61 days at May 31, 2019 and 63 days at November 30, 2018. The increase in time to collection is primarily the result of the increase in international revenues, which generally take longer to collect. All customer accounts are actively managed and no losses in excess of amounts reserved are currently expected.

Net inventory balances were \$86.4 million at November 30, 2019, an increase of \$414,000, compared to a May 31, 2019 balance of \$86.0 million. We actively monitor our inventory levels and balance the need for adequate levels of product availability to minimize backorders with a desire to improve inventory turnover and efficiency levels. We have continued active programs to improve our turnover in fiscal 2020.

Inflation and changing prices are not expected to have a material effect on operations, as management believes it will continue to be successful in offsetting increased input costs with price increases and/or cost efficiencies.

Management believes that our existing cash and marketable securities balances at November 30, 2019, along with available borrowings under our credit facility and cash expected to be generated from future operations, will be sufficient to fund activities for the foreseeable future. However, existing cash and borrowing capacity may not be sufficient to meet our cash requirements to commercialize products currently under development or its plans to acquire other organizations, technologies or products that fit within our mission statement. Accordingly, we may choose to issue equity securities or enter into other financing arrangements for a portion of our future financing needs.

PART I - FINANCIAL INFORMATION

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We have interest rate and foreign exchange rate risk exposure but no long-term fixed rate investments or borrowings. Our primary interest rate risk is due to potential fluctuations of interest rates for variable rate borrowings (no long-term borrowings at November 30, 2019) and short-term investments.

Foreign exchange risk exposure arises because we market and sell our products throughout the world. Revenues in certain foreign countries as well as certain expenses related to those revenues are transacted in currencies other than the U.S. dollar. Our operating results are exposed to changes in exchange rates between the U.S. dollar and the British pound sterling, the euro, the Brazilian real, the Mexican peso, the Chinese yuan, the Australian dollar, and to a lesser extent, the Indian rupee and the Canadian dollar. When the U.S. dollar weakens against foreign currencies, the dollar value of revenues denominated in foreign currencies increases. When the U.S. dollar strengthens, the opposite situation occurs. Additionally, previously recognized revenues in the course of collection can be affected positively or negatively by changes in exchange rates. The Company enters into forward contracts to help mitigate the economic impact of fluctuations in certain currency exchange rates. These contracts are adjusted to fair value through earnings.

Neogen has assets, liabilities and operations outside of the United States, located in Scotland, England, Brazil, Mexico, China, India, Canada, and Australia where the functional currency is the British pound sterling, Brazilian real, Mexican peso, Chinese yuan, Indian rupee, Canadian dollar and the Australian dollar respectively, and transacts business throughout Europe in the euro. The Company's investments in foreign subsidiaries are considered to be long-term.

PART I – FINANCIAL INFORMATION

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

An evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of November 30, 2019 was carried out under the supervision and with the participation of the Company's management, including the President & Chief Executive Officer and the Vice President & Chief Financial Officer ("the Certifying Officers"). Based on the evaluation, the Certifying Officers concluded that the Company's disclosure controls and procedures are effective.

Changes in Internal Controls over Financial Reporting

No changes in our control over financial reporting were identified as having occurred during the quarter ended November 30, 2019 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

The Company is subject to legal and other proceedings in the normal course of business. In the opinion of management, the outcomes of these matters are not expected to have a material effect on the Company's future results of operations or financial position.

Item 6. Exhibits

(a) Exhibit Index

3	Articles of Incorporation, as restated (incorporated by reference to Exhibit 3 to the registrant's Form 10-Q filed on December 28, 2018)
10	Amended and Restated Credit Agreement dated as of November 30, 2018 between Registrant and JP Morgan Chase N.A. (incorporated by reference to Exhibit 10.A of the registrant's Form 8-K filed on December 6, 2018)
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a).
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a).
32	Certification pursuant to 18 U.S.C. section 1350
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
EX-104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

Items 1A, 2, 3, 4, and 5 are not applicable or removed or reserved and have been omitted.

SIGNATURES

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

Dated: December 27, 2019

Dated: December 27, 2019

NEOGEN CORPORATION (Registrant)

/s/ John E. Adent

John E. Adent
President & Chief Executive Officer
(Principal Executive Officer)

/s/ Steven J. Quinlan

Steven J. Quinlan Vice President & Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 31.1 13a. – CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER NEOGEN CORPORATION AND SUBSIDIARIES

CEO CERTIFICATION

I, John E. Adent, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q for the period ended November 30, 2019 of Neogen Corporation;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and
 - 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; and
 - 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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of registrant's board of directors:
 - a) all significant deficiencies and material weaknesses in the design or operation of internal controls 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.

Dated: December 27, 2019

/s/ John E. Adent

John E. Adent President & Chief Executive Officer (Principal Executive Officer)

EXHIBIT 31.2 13a. – CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER NEOGEN CORPORATION AND SUBSIDIARIES

CFO CERTIFICATION

I, Steven J. Quinlan, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q for the period ended November 30, 2019 of Neogen 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 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; and
 - 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; and
 - 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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of registrant's board of directors:
 - a) all significant deficiencies and material weaknesses in the design or operation of internal controls 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.

Dated: December 27, 2019

/s/ Steven J. Quinlan

Steven J. Quinlan
Vice President & Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 32 18 U.S.C. SECTION 1350 CERTIFICATION NEOGEN CORPORATION

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 this Quarterly Report on Form 10-Q of Neogen Corporation (the "Company") for the period ended November 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John E. Adent, as Chief Executive Officer of the Company and I, Steven J. Quinlan, as Chief Financial Officer, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) This Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) Information contained in this Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Dated: December 27, 2019

/s/ John E. Adent

John E. Adent President & Chief Executive Officer (Principal Executive Officer)

/s/ Steven J. Quinlan

Steven J. Quinlan
Vice President & Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

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