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 March 31, 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: 001-38071

NCS Multistage Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**46-1527455**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification number)
19450 State Highway 249, Suite 200 Houston, Texas	**77070**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (281) 453-2222

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 and post such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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	☐	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 Act). Yes ☐ No ☑

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	NCSM	NASDAQ Global Select Market

As of May 6, 2019, there were 46,669,918 shares of common stock outstanding.

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PART I. FINANCIAL INFORMATION

ITEM 1. Financial Statements

NCS MULTISTAGE HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)
(Unaudited)

	March 31, 2019	December 31, 2018
Assets		
Current assets		
Cash and cash equivalents	$ 11,984	$ 25,131
Accounts receivable—trade, net	55,718	49,984
Inventories	34,385	32,753
Prepaid expenses and other current assets	1,746	2,037
Other current receivables	5,195	4,685
Total current assets	109,028	114,590
Noncurrent assets		
Property and equipment, net	33,734	32,296
Goodwill	23,136	23,112
Identifiable intangibles, net	48,569	48,985
Deposits and other assets	8,347	1,392
Deferred income taxes, net	—	9,326
Total noncurrent assets	113,786	115,111
Total assets	$ 222,814	$ 229,701
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable—trade	$ 9,679	$ 7,167
Accrued expenses	2,933	4,084
Income taxes payable	487	184
Current contingent consideration	—	9,963
Other current liabilities	4,498	1,991
Current maturities of long-term debt	2,461	2,236
Total current liabilities	20,058	25,625
Noncurrent liabilities		
Long-term debt, less current maturities	23,547	23,455
Other long-term liabilities	5,574	1,258
Deferred income taxes, net	3,009	3,132
Total noncurrent liabilities	32,130	27,845
Total liabilities	52,188	53,470
Commitments and contingencies (Note 9)		
Stockholders' equity		
Preferred stock, $0.01 par value, 10,000,000 shares authorized, no shares issued and outstanding at March 31, 2019 and one share issued and outstanding at December 31, 2018	—	—
Common stock, $0.01 par value, 225,000,000 shares authorized, 46,752,755 shares issued and 46,669,918 shares outstanding at March 31, 2019 and 45,100,771 shares issued and 45,072,463 shares outstanding at December 31, 2018	468	451
Additional paid-in capital	415,051	411,423
Accumulated other comprehensive loss	(82,493)	(84,030)
Retained deficit	(178,172)	(166,206)
Treasury stock, at cost; 82,837 shares at March 31, 2019 and 28,308 shares at December 31, 2018	(646)	(337)
Total stockholders' equity	154,208	161,301
Non-controlling interest	16,418	14,930
Total equity	170,626	176,231
Total liabilities and stockholders' equity	$ 222,814	$ 229,701

The accompanying notes are an integral part of these condensed consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Revenues		
Product sales	$ 37,232	$ 50,108
Services	15,618	20,578
Total revenues	52,850	70,686
Cost of sales		
Cost of product sales, exclusive of depreciation and amortization expense shown below	16,746	24,703
Cost of services, exclusive of depreciation and amortization expense shown below	10,017	8,889
Total cost of sales, exclusive of depreciation and amortization expense shown below	26,763	33,592
Selling, general and administrative expenses	23,026	21,027
Depreciation	1,426	1,099
Amortization	1,161	3,321
Change in fair value of contingent consideration	37	(1,353)
Income from operations	437	13,000
Other income (expense)		
Interest expense, net	(517)	(457)
Other income, net	73	84
Foreign currency exchange (loss) gain	(297)	183
Total other expense	(741)	(190)
(Loss) income before income tax	(304)	12,810
Income tax expense	9,574	945
Net (loss) income	(9,878)	11,865
Net income attributable to non-controlling interest	2,088	887
Net (loss) income attributable to NCS Multistage Holdings, Inc.	$ (11,966)	$ 10,978
(Loss) earnings per common share		
Basic (loss) earnings per common share attributable to NCS Multistage Holdings, Inc.	$ (0.26)	$ 0.24
Diluted (loss) earnings per common share attributable to NCS Multistage Holdings, Inc.	$ (0.26)	$ 0.23
Weighted average common shares outstanding		
Basic	45,974	44,252
Diluted	45,974	47,114

The accompanying notes are an integral part of these condensed consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Net (loss) income	$ (9,878)	$ 11,865
Foreign currency translation adjustments, net of tax of $0	1,537	(6,689)
Comprehensive (loss) income	(8,341)	5,176
Less: Comprehensive income attributable to non-controlling interest	2,088	887
Comprehensive (loss) income attributable to NCS Multistage Holdings, Inc.	$ (10,429)	$ 4,289

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NCS MULTISTAGE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share data)
(Unaudited)

	Three Months Ended March 31, 2018										
	Preferred Stock		Common Stock		Additional Paid-In	Accumulated Other Comprehensive	Retained	Treasury Stock		Non-controlling	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Loss	Earnings	Shares	Amount	Interest	Equity
Balances as of December 31, 2017	1	$ —	43,931,484	$ 439	$ 399,426	$ (66,707)	$ 23,864	(18,348)	$ (175)	$ 12,144	$ 368,991
Adoption of ASC 606	—	—	—	—	—	—	247	—	—	—	247
Share-based compensation	—	—	—	—	2,374	—	—	—	—	—	2,374
Net income	—	—	—	—	—	—	10,978	—	—	887	11,865
Exercise of stock options	—	—	275,653	3	350	—	—	—	—	—	353
Cemblend exchangeable shares	—	—	442,312	4	(4)	—	—	—	—	—	—
Currency translation adjustment	—	—	—	—	—	(6,689)	—	—	—	—	(6,689)
Balances as of March 31, 2018	1	$ —	44,649,449	$ 446	$ 402,146	$ (73,396)	$ 35,089	(18,348)	$ (175)	$ 13,031	$ 377,141

	Three Months Ended March 31, 2019										
	Preferred Stock		Common Stock		Additional Paid-In	Accumulated Other Comprehensive	Retained	Treasury Stock		Non-controlling	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Loss	Deficit	Shares	Amount	Interest	Equity
Balances as of December 31, 2018	1	$ —	45,100,771	$ 451	$ 411,423	$ (84,030)	$ (166,206)	(28,308)	$ (337)	$ 14,930	$ 176,231
Share-based compensation	—	—	—	—	2,968	—	—	—	—	—	2,968
Net (loss) income	—	—	—	—	—	—	(11,966)	—	—	2,088	(9,878)
Distribution to noncontrolling interest	—	—	—	—	—	—	—	—	—	(600)	(600)
Vesting of restricted stock	—	—	168,563	2	(2)	—	—	—	—	—	—
Shares withheld	—	—	—	—	—	—	—	(54,529)	(309)	—	(309)
Proceeds from the issuance of ESPP shares	—	—	156,486	2	675	—	—	—	—	—	677
Cemblend exchangeable shares	(1)	—	1,326,935	13	(13)	—	—	—	—	—	—
Currency translation adjustment	—	—	—	—	—	1,537	—	—	—	—	1,537
Balances as of March 31, 2019	—	$ —	46,752,755	$ 468	$ 415,051	$ (82,493)	$ (178,172)	(82,837)	$ (646)	$ 16,418	$ 170,626

The accompanying notes are an integral part of these condensed consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Cash flows from operating activities		
Net (loss) income	$ (9,878)	$ 11,865
Adjustments to reconcile net (loss) income to net cash used in operating activities:		
Depreciation and amortization	2,587	4,420
Amortization of deferred loan cost	83	84
Share-based compensation	3,058	2,374
Provision for inventory obsolescence	(98)	408
Deferred income tax expense (benefit)	9,136	(1,186)
Gain on sale of property and equipment	(50)	(17)
Change in fair value of contingent consideration	37	(1,353)
Provision for doubtful accounts	573	—
Payment of contingent consideration	(3,042)	—
Changes in operating assets and liabilities:		
Accounts receivable—trade	(6,312)	(13,350)
Inventories	(1,303)	1,838
Prepaid expenses and other assets	326	(477)
Accounts payable—trade	3,462	2,709
Accrued expenses	(1,177)	(2,543)
Other liabilities	(777)	508
Income taxes receivable/payable	364	(13,579)
Net cash used in operating activities	(3,011)	(8,299)
Cash flows from investing activities		
Purchases of property and equipment	(2,505)	(1,121)
Purchase and development of software and technology	(491)	(55)
Proceeds from sales of property and equipment	169	110
Net cash used in investing activities	(2,827)	(1,066)
Cash flows from financing activities		
Equipment note borrowings	835	—
Payments on equipment note and finance leases	(1,319)	(490)
Promissory note borrowings	—	1,951
Payments on promissory note	—	(1,850)
Payment of contingent consideration	(6,958)	—
Proceeds from the exercise of options for common stock	—	353
Treasury shares withheld	(309)	—
Proceeds from the issuance of ESPP shares	677	—
Distribution to noncontrolling interest	(600)	—
Net cash used in financing activities	(7,674)	(36)
Effect of exchange rate changes on cash and cash equivalents	365	(728)
Net change in cash and cash equivalents	(13,147)	(10,129)
Cash and cash equivalents beginning of period	25,131	33,809
Cash and cash equivalents end of period	$ 11,984	$ 23,680
Supplemental cash flow information		
Cash paid for income taxes (net of refunds)	$ 61	$ 15,452

The accompanying notes are an integral part of these condensed consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Basis of Presentation

Nature of Business

NCS Multistage Holdings, Inc., a Delaware corporation, through its wholly owned subsidiaries and subsidiaries for which we have a controlling voting interest (collectively referred to as the “Company,” “NCS,” “we,” “our” and “us”), is primarily engaged in providing engineered products and support services for oil and natural gas well completions and field development strategies. We offer our products and services primarily to exploration and production companies for use in onshore wells. We operate through service facilities principally located in Houston, Midland and Corpus Christi, Texas; Tulsa and Oklahoma City, Oklahoma; Billings, Montana; Morgantown, West Virginia; Calgary, Red Deer, Grande Prairie and Estevan, Canada; Neuquen, Argentina and Stavanger, Norway.

Basis of Presentation

Our accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) for interim financial information and with the instructions to Form 10-Q and Article 8 of Regulation S-X of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), issued by the Securities Exchange Commission (“SEC”) and have not been audited by our independent registered public accounting firm. The Condensed Consolidated Balance Sheet at December 31, 2018 is derived from our audited financial statements. However, certain information and footnote disclosures required by GAAP for complete annual financial statements have been omitted or condensed as permitted by the rules and regulations of the SEC, and, therefore, these interim financial statements should be read in conjunction with our audited financial statements included in our Annual Report on Form 10-K filed with the SEC on March 8, 2019. In the opinion of management, these condensed consolidated financial statements, which have been prepared pursuant to the rules of the SEC and GAAP for interim financial reporting, reflect all adjustments, which consisted only of normal recurring adjustments that were necessary for a fair statement of the interim periods presented. The results of operations for interim periods are not necessarily indicative of those for a full year. All intercompany accounts and transactions have been eliminated for purposes of preparing these condensed consolidated financial statements.

Summary of New Significant Accounting Policy

Inventories

Inventories consist primarily of raw material, product components, assembled products, certain components used to internally construct our frac isolation assemblies and chemicals, in raw material or finished goods, used in our tracer diagnostics services. Inventories are stated at the lower of cost or estimated net realizable value. Cost is determined at standard costs approximating the first-in first-out basis. We continuously evaluate inventories, based on an analysis of inventory levels, historical sales experience and future sales forecasts, to determine obsolete, slow-moving and excess inventory. Adjustments to reduce such inventory to its estimated recoverable value have been recorded as an adjustment to cost of sales.

Recent Accounting Pronouncements

Pronouncement Adopted in 2019

In February 2016, the FASB issued Accounting Standards Update (“ASU”) No. 2016-02, *Leases (Topic 842)*, which requires lessees to recognize a right-of-use (“ROU”) asset and a lease liability for all leases with terms longer than 12 months. Under the new standard, lessees need to recognize leases on their balance sheets as lease liabilities with corresponding ROU assets. We adopted the standard effective January 1, 2019, using a modified retrospective transition method and applying certain optional practical expedients. NCS elected an optional transition method that allowed application of the new standard at the adoption date and the recognition of a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption with no adjustment to previously reported results. We also elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed the carry forward of historical lease classification as well as additional practical expedients related to land easements, short-term leases, and non-lease components. We did not elect the practical expedient related to hindsight. The standard had a material impact on our condensed consolidated balance sheet but did not materially impact our condensed consolidated statements of operations or condensed consolidated statements of cash flows. Adoption of the new standard resulted in the recording of ROU assets and lease liabilities of $7.5 million on January 1, 2019. See “Note 8. Leases” for more information.

Pronouncements Not Yet Effective

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40)*. The ASU aligns the requirements to capitalize implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements to capitalize implementation costs incurred to develop or obtain internal-use software. For public entities, this guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Early adoption is permitted, including adoption in any interim period. We are currently evaluating the impact of the adoption of this guidance.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820)*. The ASU modifies, removes and adds certain disclosure requirements on fair value measurements. For public entities, this guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. Early adoption is permitted for all amendments. Further, entities may early adopt eliminated or modified disclosure requirements and delay the adoption of all new disclosure requirements until the effective date. We are currently evaluating the impact of the adoption of this guidance.

Note 2. Revenues

Disaggregation of Revenue

We sell our products and services primarily in North America and in selected international markets. Revenue by geography is attributed based on the current billing address of the customer. The following table depicts the disaggregation of revenue by geographic region (in thousands):

	Three Months Ended March 31,	
	2019	2018
United States		
Product sales	$ 19,564	$ 13,577
Services	5,781	8,423
Total United States	25,345	22,000
Canada		
Product sales	16,621	35,698
Services	8,375	11,477
Total Canada	24,996	47,175
Other Countries		
Product sales	1,047	833
Services	1,462	678
Total Other Countries	2,509	1,511
Total		
Product sales	37,232	50,108
Services	15,618	20,578
Total	$ 52,850	$ 70,686

Contract Balances

When the timing of the delivery of products and provision of services is different from the timing of the customer payments, we recognize either a contract asset (performance precedes contractual due date in connection with estimates of variable consideration) or a contract liability (customer payment precedes performance) on our condensed consolidated balance sheet. The following table includes the contract assets and liabilities as of March 31, 2019 and January 1, 2019 (in thousands):

	Contract Assets		Contract Liabilities	
	Current	Non-Current	Current	Non-Current
Balance at January 1, 2019	$ —	$ —	$ 515	$ —
Additions	—	—	68	—
Revenue recognized	—	—	(515)	—
Balance at March 31, 2019	$ —	$ —	$ 68	$ —

Our contract liability as of March 31, 2019 and January 1, 2019 is included in current liabilities on our condensed consolidated balance sheet. Our performance obligations for our product and service revenues are usually satisfied before the customer's payment although prepayments may occasionally be required for international sales. Revenue recognized from the contract liability balance for the three months ended March 31, 2019 was $0.5 million. There was no revenue recognized from the contract liability balance for the three months ended March 31, 2018.

Practical Exemption

We do not disclose the value of unsatisfied performance obligations when the related contract has a duration of one year or less or we recognize revenue equal to what we have the right to invoice when that amount corresponds directly with the value to the customer of our performance to date.

Note 3. Inventories

Inventories consist of the following as of March 31, 2019 and December 31, 2018 (in thousands):

	March 31, 2019	December 31, 2018
Raw materials	$ 1,885	$ 2,470
Work in process	384	57
Finished goods	32,116	30,226
Total inventories	$ 34,385	$ 32,753

Note 4. Property and Equipment

Property and equipment by major asset class consist of the following as of March 31, 2019 and December 31, 2018 (in thousands):

	March 31, 2019	December 31, 2018
Land	$ 2,037	$ 1,995
Building and improvements	11,232	5,185
Machinery and equipment	19,624	18,135
Computers and software	2,277	2,373
Furniture and fixtures	1,045	1,097
Vehicles	7,545	6,980
Service equipment	244	244
	44,004	36,009
Less: Accumulated depreciation and amortization	(11,210)	(10,270)
	32,794	25,739
Construction in progress	940	6,557
Property and equipment, net	$ 33,734	$ 32,296

Note 5. Goodwill and Identifiable Intangibles

Changes in the carrying amount of goodwill are as follows (in thousands):

At December 31, 2017	$ 184,478
Purchase price allocation adjustment	54
Impairments	(154,003)
Currency translation adjustment	(7,417)
At December 31, 2018	$ 23,112
Currency translation adjustment	24
At March 31, 2019	$ 23,136

We perform our annual impairment tests of goodwill as of December 31, or when there is an indication an impairment may have occurred. There was no impairment of goodwill during the three months ended March 31, 2019.

On December 31, 2018, we performed our annual impairment test for goodwill on each of our three reporting units. As a result of unfavorable oil and gas industry market conditions in late 2018 that continued to persist into early 2019 and the related impact on expected customer activity levels, particularly in Canada, as well as a decline in the quoted price of our common stock, we concluded that there had been an impairment because the carrying values exceeded the estimated fair values. We recorded impairment charges in the fourth quarter of 2018 in two reporting units, totaling $154.0 million. As a result of the impairment loss, we have no remaining goodwill in the fracturing systems and well construction reporting unit. Subsequent to the impairment charges, our goodwill was $23.1 million at March 31, 2019 and December 31, 2018, respectively.

Identifiable intangibles by major asset class consist of the following (in thousands):

		March 31, 2019		
	Estimated Useful Lives (Years)	Gross Carrying Amount	Accumulated Amortization	Net Balance
Technology	8 - 18	$ 17,482	$ (986)	$ 16,496
Trademarks	5 - 10	1,600	(253)	1,347
Customer relationships	10 - 21	28,608	(2,736)	25,872
Internally developed software	5	5,110	(256)	4,854
Total identifiable intangibles		$ 52,800	$ (4,231)	$ 48,569

		December 31, 2018		
	Estimated Useful Lives (Years)	Gross Carrying Amount	Accumulated Amortization	Net Balance
Technology	8 - 18	$ 17,289	$ (516)	$ 16,773
Trademarks	5 - 10	1,600	(213)	1,387
Customer relationships	10 - 21	28,544	(2,339)	26,205
Internally developed software	5	4,620	—	4,620
Total identifiable intangibles		$ 52,053	$ (3,068)	$ 48,985

Identifiable intangibles with definite lives are tested for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. As a result of unfavorable oil and gas industry market conditions in late 2018 that continued to persist into early 2019 and the related impact on expected customer activity levels, particularly in Canada, as well as a decline in the quoted price of our common stock, we determined that the carrying values of certain intangible assets were no longer recoverable, which resulted in an impairment charge of $73.5 million in our asset group that includes fracturing systems and well construction, which we recorded in the fourth quarter of 2018.

Note 6. Accrued Expenses

Accrued expenses consist of the following as of March 31, 2019 and December 31, 2018 (in thousands):

	March 31, 2019	December 31, 2018
Accrued payroll and bonus	$ 1,711	$ 2,627
Property and franchise taxes accrual	340	424
Accrued other miscellaneous liabilities	882	1,033
Total accrued expenses	$ 2,933	$ 4,084

Note 7. Debt

Our long-term debt consists of the following as of March 31, 2019 and December 31, 2018 (in thousands):

	March 31, 2019	December 31, 2018
Prior Senior Secured Credit Facility	$ 20,000	$ 20,000
Promissory note	—	—
Equipment notes	2,323	2,412
Finance leases	3,685	3,279
Total debt	26,008	25,691
Less: current portion	(2,461)	(2,236)
Long-term debt	$ 23,547	$ 23,455

The estimated fair value of total debt for the periods ended March 31, 2019 and December 31, 2018 was $25.6 million and $25.3 million, respectively. The carrying value of the Prior Senior Secured Credit Facility and the lines of credit approximated the fair value of debt as they can be paid at any time. The fair value for the remaining debt was estimated using Level 2 inputs by calculating the sum of the discounted future interest and principal payments through the date of maturity.

Below is a description of our credit agreement and other financing arrangements.

Prior Senior Secured Credit Facility

On May 4, 2017, we entered into an Amended and Restated Credit Agreement (the “Prior Credit Agreement”) with Pioneer Investment, Inc., as borrower (the “U.S. Borrower”), NCS Multistage Inc., as borrower (the “Canadian Borrower”), Pioneer Intermediate, Inc. (together with the Company, the “Parent Guarantors”) and the lenders party thereto, Wells Fargo Bank, National Association as administrative agent in respect of the U.S. Facility (as defined below) and Wells Fargo Bank, National Association, Canadian Branch, as administrative agent in respect of the Canadian Facility (as defined below) (the senior secured revolving credit facilities provided thereunder, the “Prior Senior Secured Credit Facility”). The Prior Credit Agreement amended and restated the previous credit agreement in its entirety. The Prior Senior Secured Credit Facility matures on May 4, 2020.

The Prior Senior Secured Credit Facility originally consisted of a (i) senior secured revolving credit facility in an aggregate principal amount of $25.0 million made available to the U.S. Borrower (the “Prior U.S. Facility”), of which up to $5.0 million could be made available for letters of credit and up to $5.0 million may be made available for swingline loans and (ii) senior secured revolving credit facility in an aggregate principal amount of $25.0 million that could be made available to the Canadian Borrower (the “Prior Canadian Facility”).

We entered into Amendment No. 1 to the Prior Credit Agreement on August 31, 2017, which increased the loan commitment available to the U.S. Borrower to $50.0 million from $25.0 million under the Prior U.S. Facility. The loan commitment available under the Prior Canadian Facility remained at $25.0 million. On February 16, 2018 and October 9, 2018, we entered into Amendments No. 2 and No. 3, respectively, to the Prior Credit Agreement, which amended certain negative covenants contained in the Prior Credit Agreement. As of March 31, 2019 and December 31, 2018, we had $20.0 million in outstanding indebtedness under the Prior U.S. Facility and no outstanding indebtedness under the Prior Canadian Facility.

We incurred interest expense related to the Prior Senior Secured Credit Facility, including commitment fees, of $0.3 million for each of the three months ended March 31, 2019 and 2018, respectively.

Borrowings under the Prior U.S. Facility may be made in U.S. dollars, Canadian dollars or Euros and bear interest at a rate equal to the Adjusted Base Rate or Eurocurrency Rate (each as defined in the Prior Credit Agreement), in each case, plus an applicable interest margin as set forth in the Prior Credit Agreement. Borrowings under the Prior Canadian Facility may be made in U.S. dollars or Canadian dollars and bear interest at the Canadian (Cdn) Base Rate, Canadian (U.S.) Base Rate, Eurocurrency Rate or Discount Rate (each as defined in the Prior Credit Agreement), in each case, plus an applicable interest margin as set forth in the Prior Credit Agreement. The Adjusted Base Rate, Canadian (U.S.) Base Rate and Canadian (Cdn) Base Rate applicable margin could be between 2.25% and 3.00% and the Eurocurrency Rate applicable margin could be between 3.25% and 4.00%, in each case, depending on the Company’s leverage ratio. The applicable interest rate at March 31, 2019 was 6.00%.

The obligations of the U.S. Borrower under the Prior U.S. Facility are guaranteed by the Parent Guarantors and each of the other existing and future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower and such other subsidiary guarantors, in each case, subject to certain exceptions and permitted liens. The obligations of the Canadian Borrower under the Prior Canadian Facility are guaranteed by the Parent Guarantors, the U.S. Borrower and each of the future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States and Canada (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower, the Canadian Borrower and such subsidiary guarantors, in each case, subject to certain exceptions and permitted liens.

The Prior Credit Agreement contains financial covenants that require (i) commencing with the fiscal quarter ending June 30, 2017, compliance with a leverage ratio test set at (A) 3.00 to 1.00 as of the last day of each fiscal quarter ending prior to March 31, 2018 and (B) 2.50 to 1.00 as of the last day of each fiscal quarter ending on or after March 31, 2018, (ii) commencing with the fiscal quarter ending June 30, 2017, compliance with an interest coverage ratio test set at 2.75 to 1.00 as of the last day of each fiscal quarter, (iii) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the Prior Canadian Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a Canadian asset coverage ratio test set at 1.00 to 1.00 and (iv) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the Prior U.S. Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a U.S. asset coverage ratio test set at 1.00 to 1.00. As of March 31, 2019, we were in compliance with these financial covenants. The Prior Credit Agreement also contains customary affirmative and negative covenants, including, among other things, restrictions on the creation of liens, the incurrence of indebtedness, investments, dividends and other restricted payments, dispositions and transactions with affiliates. The Prior Credit Agreement also includes customary events of default for facilities of this type (with customary grace periods, as applicable). If an event of default occurs, the lenders under each of the Prior U.S. Facility and the Prior Canadian Facility could elect (after the expiration of any applicable notice or grace periods) to declare all outstanding borrowings under such facility, together with accrued and unpaid interest and other amounts payable thereunder, to be immediately due and payable. The lenders under each of the Prior U.S. Facility and the Prior Canadian Facility also have the right upon an event of default thereunder to terminate any commitments they have to provide further borrowings under such facility. Further, following an event of default under each of the Prior U.S. Facility and the Prior Canadian Facility, the lenders thereunder will have the right to proceed against the collateral granted to them to secure such facility.

Direct costs of $1.0 million were incurred in connection with the Prior Senior Secured Credit Facility. The costs were capitalized as an asset as they represent the benefit of being able to access capital over the contractual term. The costs are being amortized over the term of the Prior Senior Secured Credit Facility using the straight-line method. Amortization expense of the deferred financing charges of $0.1 million was included in interest expense, net for each of the three months ended March 31, 2019 and 2018, respectively.

On May 1, 2019, we entered into a new Second Amended and Restated Credit Agreement (the “New Credit Agreement”) amending and restating the Prior Credit Agreement. See “Note 14. Subsequent Events”.

Promissory Note

On February 27, 2017, Repeat Precision, LLC (“Repeat Precision”) entered into a promissory note with Security State Bank & Trust, Fredericksburg, for an aggregate borrowing capacity of $3.8 million. It bears interest at a variable interest rate based on prime plus 1.00%. The promissory note is secured against equipment, inventory and receivables. The promissory note was renewed on February 16, 2018 for an aggregate borrowing capacity of $4.3 million and was renewed again on February 15, 2019. The note is scheduled to mature on February 16, 2020. No other terms were changed. As of March 31, 2019 and December 31, 2018, we had no outstanding indebtedness under the promissory note.

Equipment Notes

In February 2017, Repeat Precision entered into an equipment note in the amount of $0.8 million with Security State Bank & Trust, Fredericksburg. The equipment note bears interest at prime plus 1.00%, matures on February 27, 2021 and is collateralized by certain property. As of March 31, 2019, the equipment note was paid in full and we had no outstanding indebtedness. As of December 31, 2018, the outstanding balance on the equipment note was $0.4 million.

In September 2018, Repeat Precision entered into an equipment note for an aggregate borrowing capacity of $3.8 million with Security State Bank & Trust, Fredericksburg. The equipment note bears interest at prime plus 1.00%, matures on June 7, 2023 and is collateralized by certain property. As of March 31, 2019 and December 31, 2018, the outstanding balance on the equipment note was $2.3 million and $2.0 million, respectively.

Note 8. Leases

We determine if a contract contains a lease at the inception of an arrangement. If so, ROU assets representing the right to use an underlying asset for the lease term and lease liabilities representing an obligation to make lease payments arising from the lease are included on the condensed consolidated balance sheet.

We have operating and finance leases for facilities, vehicles, and equipment. Some leases include one or more options to renew, with renewal terms that can extend the lease term from five to ten years with exercise of lease renewal options being at the sole discretion of NCS as lessee. Certain leases also include options to purchase the leased property. Some leases may include an option to terminate the contract with notice. ROU assets and lease liabilities with a term of longer than 12 months are recognized at the lease commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, our interest rate under the senior secured credit facility is used as an incremental borrowing rate applied to the present value calculation at the lease commencement date unless the implicit rate is readily determinable. Lease expense for operating leases is recognized on a straight-line basis over the lease term. At adoption, ROU assets included any lease payments already made and excluded any initial direct costs.

Our lease agreements are from a lessee perspective and do not contain (i) any leases with variable lease payments (e.g., payments that depend on a percentage of sales of a lessee or payments that increase based upon an index such as a consumer price index), (ii) residual value guarantees probable of being paid or (iii) material restrictive covenants. Lease agreements with lease and non-lease components are generally accounted for separately when practical. For leases where the lease and non-lease component are comingled and the non-lease component is determined to be insignificant when compared to the lease component, the lease and non-lease components are treated as a single lease component for all asset classes.

As of March 31, 2019, we do not have any lessor leases and we do not have any additional operating and finance leases that have not yet commenced.

Supplemental balance sheet information related to leases are as follows (in thousands):

Leases	Condensed Consolidated Balance Sheet Location		March 31, 2019
Assets			
Operating lease right-of-use assets	Deposits and other assets	$	6,938
Finance lease right-of-use assets (1)	Property and equipment, net		4,234
Total leased right-of-use assets		$	11,172
Liabilities			
Current			
Operating lease liabilities	Other current liabilities	$	2,711
Finance lease liabilities	Current maturities of long-term debt		1,758
Noncurrent			
Operating lease liabilities	Other long-term liabilities		4,263
Finance lease liabilities	Long-term debt, less current maturities		1,927
Total lease liabilities		$	10,659

(1) Finance lease right-of-use assets are recorded net of accumulated amortization of $1.6 million as of March 31, 2019.

The components of lease expense are as follows (in thousands):

Lease Cost	Three Months Ended March 31, 2019
Operating lease cost	$ 680
Finance lease cost	
Amortization of right-of-use assets	334
Interest on lease liabilities	63
Short-term lease cost	271
Total lease cost	$ 1,348

Maturities of lease liabilities are as follows (in thousands):

Year Ending December 31,	Operating Leases	Finance Leases
2019 (excluding the three months ended March 31, 2019)	$ 2,396	$ 1,493
2020	2,124	1,393
2021	1,509	891
2022	771	283
2023	265	—
Thereafter	586	—
Total lease payments	$ 7,651	$ 4,060
Less: interest	677	375
Present value of lease liabilities	$ 6,974	$ 3,685

Lease term and discount rate consist of the following:

Lease Term and Discount Rate	March 31, 2019
Weighted-average remaining lease term (years):	
Operating leases	2.8
Finance leases	1.8
Weighted-average discount rate:	
Operating leases	5.9 %
Finance leases	5.5 %

Supplemental cash flow and other information related to leases are as follows (in thousands):

Other Information	Three Month Ended March 31, 2019
Cash paid for amounts included in measurement of lease liabilities:	
Operating cash flows from operating leases	$ 829
Operating cash flows from finance leases	63
Financing cash flows from finance leases	394
Right-of-use assets obtained in exchange for new lease liabilities:	
Operating leases	$ 179
Finance leases	837

Future annual commitments at December 31, 2018 under ASC 840 are as follows:

Year Ending December 31,	Operating Leases	Finance Leases
2019	$ 2,867	$ 1,768
2020	1,276	973
2021	757	686
2022	434	198
2023	292	—
Thereafter	398	—
Total lease payments	$ 6,024	$ 3,625
Less: interest	—	346
Present value of lease liabilities	$ 6,024	$ 3,279

Note 9. Commitments and Contingencies

Litigation

In the ordinary course of our business, from time to time, we have various claims, lawsuits and administrative proceedings that are pending or threatened with respect to commercial, intellectual property and employee matters.

On July 24, 2018, we filed a patent infringement lawsuit against Kobold Corporation, Kobold Completions Inc. and 2039974 Alberta Ltd. (“Kobold”) in the Federal Court of Canada, alleging that Kobold’s fracturing tools and methods infringe on several of our Canadian patents. We previously filed a breach of contract lawsuit on March 16, 2018, against Kobold Corporation in the Court of Queen’s Bench of Alberta, alleging breach of a prior settlement agreement. Both of these lawsuits seek unspecified monetary damages and injunctive relief.

In early February 2019, we filed a lawsuit against Diamondback Industries, Inc. (“Diamondback”) in the United States District Court for the Western District of Texas, Waco Division, alleging patent infringement, breach of contract and related claims stemming from Diamondback’s breach of an exclusive license, granted by Diamondback to Repeat Precision, to a patent necessary for the manufacture and sale of a disposable setting tool. Around the same time, Diamondback filed a lawsuit against Repeat Precision and various NCS entities in an effort to invalidate the exclusive license agreement and requested monetary damages. We believe the exclusive license is enforceable and there is no basis to support the claims asserted by Diamondback and we intend to vigorously enforce our rights under the license agreement.

In accordance with GAAP, we accrue for contingencies where the occurrence of a material loss is probable and can be reasonably estimated, based on our estimate of the expected liability. If we have any outstanding legal accruals, we may increase or decrease these in the future, on a matter-by-matter basis, to account for developments. Our assessment of the likely outcome of litigation matters is based on our judgment of a number of factors, including experience with similar matters, past history, precedents, relevant financial information and other evidence and facts specific to the matter. While the outcome of any legal proceedings cannot be predicted with any certainty, based on a consideration of relevant facts and circumstances, our management currently does not expect that the results of these legal proceedings would have a material adverse effect on our financial position, results of operations or cash flows.

Note 10. Share-Based Compensation

During the first quarter of 2019, we granted 918,155 equity-classified restricted stock units ("RSUs") with a weighted average grant date fair value of $5.51. Of the RSUs granted, 799,317 RSUs will vest and settle ratably in three equal annual installments beginning on the anniversary of the date of grant and 118,838 RSUs, which were granted to the nonemployee members of the Board of Directors, will vest on the one year anniversary of the grant date. The RSUs for the members of the Board of Directors either settle at vesting or, if the director has elected to defer the RSUs, within thirty days following the earlier of the termination of the director's service for any reason or a change of control.

During the first quarter of 2019, we granted 610,570 equivalent stock units, or cash-settled, liability-classified RSUs ("ESUs"), with a weighted average grant date fair value of $5.51, which will vest and settle ratably in three equal annual installments beginning on the anniversary of the date of grant. The ESUs will be settled in cash and the cash settled for any ESU will not exceed two times the fair market value of our common stock as of the day before the grant date. Compensation cost is remeasured each reporting period at fair value based upon the closing stock price of our common stock until the awards are settled.

In addition, during the first quarter of 2019, we granted 377,334 performance stock unit awards ("PSUs"), which have a performance period from January 1, 2019 to December 31, 2021. The grant date fair value of the PSUs of $6.50 was measured using a Monte Carlo simulation. The number of PSUs ultimately issued under the program is dependent upon our total shareholder return relative to our performance peer group ("relative TSR") over the three-year performance period. Each PSU will settle for between zero and two shares of our common stock in the first quarter of 2021. The threshold performance level (25th percentile relative TSR) starts to earn PSUs, the mid-point performance level (50th percentile relative TSR) earns 65% of the target PSUs and the maximum performance level (90th percentile relative TSR) or greater earns 200% of the target PSUs.

The total share-based compensation expense for all awards was $3.1 million and $2.4 million for the three months ended March 31, 2019 and 2018, respectively.

Note 11. Income Taxes

The computation of the annual expected effective tax rate at each interim period requires certain estimates and assumptions including, but not limited to, the expected operating income (or loss) for the year, projections of the proportion of income (or loss) earned and taxed in foreign jurisdictions, permanent and temporary differences and the likelihood of recovering deferred tax assets generated in the current year. The accounting estimates used to compute the provision for income taxes may change as new events occur, more experience is acquired or additional information is obtained. The computation of the annual effective rate would include applicable modifications, which were projected for the year, such as certain book expenses not deductible for tax, tax credits and foreign deemed dividends.

We recorded a tax expense of $9.6 million and $0.9 million for the three months ended March 31, 2019 and 2018, respectively. Included in tax expense for the three months ended March 31, 2019 was a valuation allowance in the amount of $9.8 million against our U.S. deferred tax asset based on management's position that the Company has not met the more likely than not condition of realizing the deferred tax asset based on the existence of sufficient projected U.S. taxable income of the appropriate character to recognize the tax benefit. Without the valuation allowance, the net income tax benefit is approximately $0.2 million. For the three months ended March 31, 2018, our effective tax rate was 7.4%. The income tax expense and effective tax rate for the three months ended March 31, 2018 was significantly impacted by the U.S. Tax Cuts and Jobs Act of 2017 (the "2017 Tax Act") including administrative guidance issued by the Internal Revenue Service on April 2, 2018. This guidance along with other updates resulted in a change to the calculation of the mandatory one-time tax on accumulated earnings of foreign subsidiaries in 2017 and a tax benefit of $2.1 million for the three months ended March 31, 2018 was recorded in tax expense with a corresponding reduction in the effective tax rate of 16.4%. Additionally, the effective tax rate for the three months ended March 31, 2019 and 2018 included a tax expense (benefit) of $0.3 million and $(0.3) million, respectively, for the tax effect of stock awards.

The 2017 Tax Act was signed into law on December 22, 2017. The 2017 Tax Act significantly revised the U.S. corporate income tax by, among other things, lowering the statutory corporate tax rate from 35% to 21%, eliminating certain deductions, imposing a mandatory one-time tax on accumulated earnings of foreign subsidiaries as of 2017, introducing new tax regimes, and changing how foreign earnings are subject to U.S. tax. Our preliminary estimate of the 2017 Tax Act and the remeasurement of our deferred tax assets and liabilities is subject to the finalization of management's analysis related to certain matters, such as developing interpretations of the provisions of the 2017 Tax Act, changes to certain estimates and the filing of our tax returns. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates. Those adjustments may impact our provision for income taxes in the period in which the adjustments are made.

For our calendar year beginning in 2018 we are subject to several provisions of the 2017 Tax Act including computations under Global Intangible Low Taxed Income ("GILTI") and Foreign Derived Intangible Income ("FDII"). We were able to make a reasonable estimate of the impact of each provision of the 2017 Tax Act on our effective tax rate for the three months ended March 31, 2019 and 2018.

ASC 740 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements. The impact of an uncertain income tax position on the income tax returns must be recognized at the largest amount that is more-likely-than-not to be required to be recognized upon audit by the relevant taxing authority. This standard also provides guidance on de-recognition, measurement, classification, interest and penalties, accounting for interim periods, disclosure and transition issues with respect to tax positions. We include interest and penalties as a component of other income, net in the condensed consolidated statements of operations and recognized $26 thousand for the three months ended March 31, 2019. There was no interest and penalties for the three months ended March 31, 2018.

Note 12. (Loss) Earnings Per Common Share

The following table presents the reconciliation of the numerator and denominator for calculating (loss) earnings per common share from net (loss) income (in thousands, except per share data):

	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Numerator—Basic		
Net (loss) income	$ (9,878)	$ 11,865
Less: income attributable to participating shares	—	399
Less: income attributable to non-controlling interest	2,088	887
Net (loss) income attributable to NCS Multistage Holdings, Inc.—Basic	$ (11,966)	$ 10,579
Numerator—Diluted		
Net (loss) income	$ (9,878)	$ 11,865
Less: income attributable to non-controlling interest	2,088	887
Net (loss) income attributable to NCS Multistage Holdings, Inc.—Diluted	$ (11,966)	$ 10,978
Denominator		
Basic weighted average number of shares	45,974	44,252
Exchangeable shares for common stock	—	1,543
Dilutive effect of stock options, RSUs, PSUs and ESPP	—	1,319
Diluted weighted average number of shares	45,974	47,114
(Loss) earnings per common share		
Basic	$ (0.26)	$ 0.24
Diluted	$ (0.26)	$ 0.23
Potentially dilutive securities excluded as anti-dilutive	4,391	-

Note 13. Segment and Geographic Information

We have determined that we operate in one reportable segment that has been identified based on how our chief operating decision maker manages our business.

Note 14. Subsequent Events

On May 1, 2019, we entered into a Second Amended and Restated Credit Agreement with Pioneer Investment, Inc., as U.S. borrower, NCS Multistage Inc., as Canadian borrower, Pioneer Intermediate, Inc. and the lenders party thereto, Wells Fargo Bank, National Association as administrative agent in respect of the New U.S. Facility (as defined below) and Wells Fargo Bank, National Association, Canadian Branch, as administrative agent in respect of the New Canadian Facility (as defined below) (the senior secured revolving credit facilities provided thereunder, the “New Senior Secured Credit Facility”). The New Credit Agreement amended and restated the Prior Credit Agreement in its entirety.

The New Senior Secured Credit Facility consists of a (i) senior secured revolving credit facility in an aggregate principal amount of $50.0 million made available to the U.S. Borrower (the “New U.S. Facility”), of which up to $5.0 million may be made available for letters of credit and up to $5.0 million may be made available for swingline loans and (ii) senior secured revolving credit facility in an aggregate principal amount of $25.0 million made available to the Canadian Borrower (the “New Canadian Facility”). The New Senior Secured Credit Facility will mature on May 1, 2023.

Borrowings under the New U.S. Facility may be made in U.S. dollars for Adjusted Base Rate Advances, and in U.S. dollars, Canadian dollars or Euros for Eurocurrency Rate Advances (each as defined in the New Credit Agreement). Such advances bear interest at the Adjusted Base Rate or at the Eurocurrency Rate plus an applicable interest margin as set forth in the New Credit Agreement. Borrowings under the New Canadian Facility may be made in U.S. dollars or Canadian dollars and bear interest at the Canadian (Cdn) Base Rate, Canadian (U.S.) Base Rate, Eurocurrency Rate or Discount Rate (each as defined in the New Credit Agreement), in each case, plus an applicable interest margin as set forth in the New Credit Agreement.

The obligations of the U.S. Borrower under the New U.S. Facility are guaranteed by the Parent Guarantors and each of the other existing and future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower and such other subsidiary guarantors, in each case, subject to certain exceptions and permitted liens. The obligations of the Canadian Borrower under the New Canadian Facility are guaranteed by the Parent Guarantors, the U.S. Borrower and each of the other future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States and Canada (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower, the Canadian Borrower and such other subsidiary guarantors, in each case, subject to certain exceptions and permitted liens.

The New Credit Agreement contains financial covenants that require (i) commencing with the fiscal quarter ending June 30, 2019, compliance with a maximum leverage ratio test set at 2.50 to 1.00 as of the last day of each fiscal quarter, (ii) commencing with the fiscal quarter ending June 30, 2019, compliance with an interest coverage ratio test set at not more than 2.75 to 1.00 as of the last day of each fiscal quarter, (iii) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the New Canadian Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a Canadian asset coverage ratio test of at least 1.00 to 1.00 and (iv) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the New U.S. Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a U.S. asset coverage ratio test of at least 1.00 to 1.00. The New Credit Agreement also contains customary affirmative and negative covenants, including, among other things, restrictions on the creation of liens, the incurrence of indebtedness, investments, dividends and other restricted payments, dispositions and transactions with affiliates. The New Credit Agreement also includes customary events of default for facilities of this type (with customary grace periods, as applicable). If an event of default occurs, the lenders under each of the New U.S. Facility and the New Canadian Facility may elect (after the expiration of any applicable notice or grace periods) to declare all outstanding borrowings under such facility, together with accrued and unpaid interest and other amounts payable thereunder, to be immediately due and payable. The lenders under each of the New U.S. Facility and the New Canadian Facility also have the right upon an event of default thereunder to terminate any commitments they have to provide further borrowings under such facility. Further, following an event of default under each of the New U.S. Facility and the New Canadian Facility, the lenders thereunder will have the right to proceed against the collateral granted to them to secure such facility.

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

The following discussion and analysis of our financial condition and results of our operations should be read together with our financial statements and the related notes thereto included in this Quarterly Report on Form 10-Q ("Quarterly Report") and with our audited financial statements and the related notes thereto included in our Annual Report on Form 10-K ("Annual Report"), filed with the Securities and Exchange Commission (the "SEC"). This discussion and analysis contains forward-looking statements regarding the industry outlook, estimates and assumptions concerning events and financial and industry trends that may affect our future results of operations or financial condition and other non-historical statements. These forward-looking statements are subject to numerous risks and uncertainties, including but not limited to the risks and uncertainties described in "—Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors." Our actual results may differ materially from those contained in or implied by these forward-looking statements. As used in this Quarterly Report, except where the context otherwise requires or where otherwise indicated, the terms "Company," "NCS," "we," "our" and "us" refer to NCS Multistage Holdings, Inc.

Overview and Outlook

We are a leading provider of highly engineered products and support services that facilitate the optimization of oil and natural gas well completions and field development strategies. We provide our products and services primarily to exploration and production ("E&P") companies for use in onshore wells, predominantly wells that have been drilled with horizontal laterals in unconventional oil and natural gas formations. Our products and services are utilized in oil and natural gas basins throughout North America and in selected international markets, including Argentina, China, Russia and the North Sea. We have provided our products and services to various customers, including leading large independent oil and natural gas companies and major oil companies.

Our primary offering is our fracturing systems products and services, which enable efficient pinpoint stimulation: the process of individually stimulating each entry point into a formation targeted by an oil or natural gas well. Our fracturing systems products and services are typically utilized in cemented wellbores and enable our customers to precisely place stimulation treatments in a more controlled and repeatable manner as compared with traditional completion techniques. Our fracturing systems products and services are utilized in conjunction with third-party providers of pressure pumping, coiled tubing and other services.

We sell products for well construction, including our AirLock casing buoyancy system, liner hanger systems and toe initiation sleeves. We provide tracer diagnostics services for well completion and reservoir characterization that utilize downhole chemical and radioactive tracers and consult on reservoir strategies by providing engineering services. Repeat Precision, LLC ("Repeat Precision"), sells composite frac plugs and related products and provides third-party manufacturing services. We operate in one reportable segment.

Based on capital budgets set by E&P companies, we believe that industry drilling and completions activity in North America will be lower in 2019 than it was in 2018. Many of our customers in North America are prioritizing free cash flow and the return of capital to shareholders over production growth, which is leading to lower levels of capital expenditures. This is due in part to relatively low commodity prices at the time our customers established their budgets and also concerns over global demand for oil and natural gas based on macroeconomic conditions. We expect customer activity in the U.S. to decline slightly on a year-over-year basis, with activity levels declining in early 2019 from year-end 2018 levels. With the reduction in industry activity, we are experiencing increased competition across all of our product and services offerings in the United States, which is negatively impacting our market share and margins. We believe that customer activity in Canada will be significantly below levels seen in prior years. This is due to the factors mentioned above and to mandatory production curtailments imposed on certain operators in Alberta. Market conditions in Canada have resulted in continued customer and competitor-driven pricing pressure for our products and services, negatively impacting our margins and market share in certain markets. We currently expect international activity to increase slightly in 2019 as market conditions remain more constructive than in North America.

Market Conditions

Oil and Natural Gas Drilling and Completion Activity

Our products and services are primarily sold to North American E&P companies and our ability to generate revenues from our products and services depends upon oil and natural gas drilling and production activity in North America. Oil and natural gas drilling and production activity is directly related to oil and natural gas prices.

Oil and natural gas prices remain volatile, with WTI crude oil pricing falling to approximately $45 per barrel in December 2018 before recovering to approximately $60 per barrel by the end of March 2019. Crude oil pricing has been supported by voluntary oil production reductions by members of the Organization of Petroleum Exporting Countries ("OPEC"), and certain other countries, including Russia. Most recently, in response to falling crude oil prices in late 2018, OPEC and certain other countries, including Russia, agreed to a new round of supply reductions in December 2018, which were intended to be effective as of January 2019. There can be no assurance that the countries involved will continue to comply with the intended reductions and the amount of oil supply that may be returned to the market if the supply reductions are not extended further is unknown.

On August 6, 2018, the United States announced its intent to impose economic sanctions on Iran, following the United States' withdrawal from an international accord intended to limit Iran's nuclear programs. The sanctions, including secondary sanctions targeting companies that do business with Iran, are expected to reduce Iran's level of crude oil exports and went into effect in early November. However, the United States granted temporary waivers to eight countries that import oil from Iran, but those waivers expired on May 2, 2019. Other oil exporting countries, including Saudi Arabia and Russia may increase oil supplies to offset any shortfall related to a reduction in Iranian oil exports. There can be no assurance of the ability of other countries to readily supply crude oil to the market if Iranian crude exports decline materially.

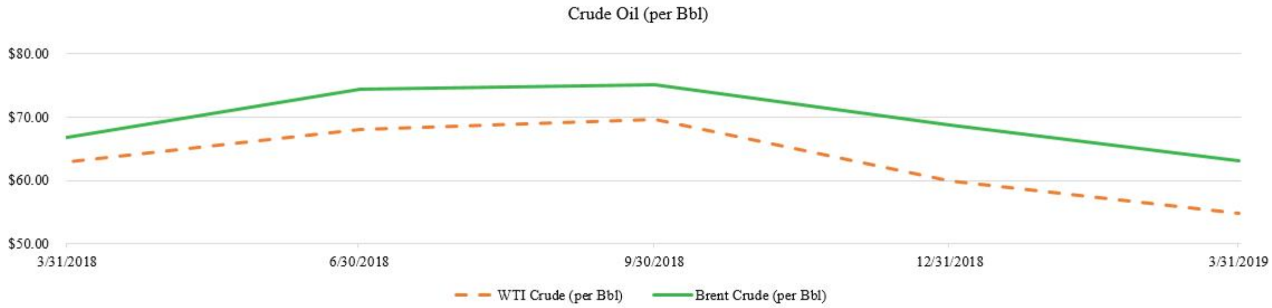
Over the course of 2018, there was an increase in the difference between the benchmark crude oil pricing in certain markets and WTI, known in the industry as differentials. Crude oil in certain areas, including West Texas, North Dakota and Canada traded at a larger discount to WTI than in historical periods due to current and forecasted production levels that are in excess of local refining demand and pipeline capacity. In response to these price differentials, many E&P companies operating in these areas reduced their drilling and completion activity in the second half of 2018 and into 2019 or chose to delay completions until additional pipeline or rail capacity is placed into service. In Canada, the Province of Alberta implemented measures intended to reduce the differential in the region, including the implementation of mandatory production curtailments for companies producing more than 10,000 barrels per day in the province, which are expected to be in place through the end of 2019.

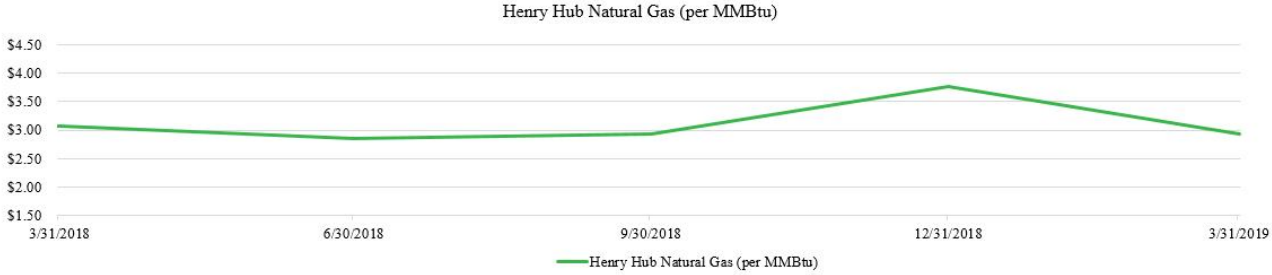
Natural gas pricing was at an average level of $3.15 per MMBtu during 2018 but has fallen to an average level of $2.92 per MMBtu during the first quarter of 2019. Realized natural gas prices for Canadian E&P customers are typically at a discount to U.S. Henry Hub pricing. Spot pricing for Canadian natural gas at the AECO hub has been volatile since mid-2017, with wider-than-normal discounts to Henry Hub pricing resulting from infrastructure bottlenecks. Some Canadian E&P customers have reacted to the lower prices by shutting in a portion of their natural gas production, negatively impacting their cash flows, capital spending and drilling activity.

Sustained declines in commodity prices, or sustained periods of high differentials, would be expected to lead North American E&P companies to reduce drilling and completion activity, which could negatively impact our business.

Listed and depicted below are recent crude oil and natural gas pricing trends, as provided by the Energy Information Administration ("EIA") of the U.S. Department of Energy:

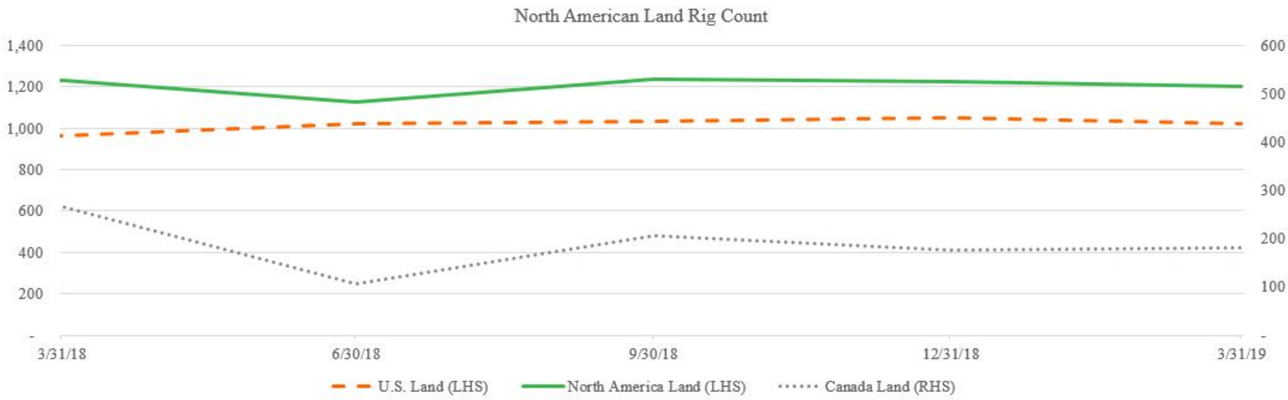
	Average Price		
Quarter Ended	**WTI Crude (per Bbl)**	**Brent Crude (per Bbl)**	**Henry Hub Natural Gas (per MMBtu)**
3/31/2018	$ 62.91	$ 66.86	$ 3.08
6/30/2018	68.07	74.45	2.85
9/30/2018	69.69	75.07	2.93
12/31/2018	59.97	68.76	3.77
3/31/2019	54.82	63.10	2.92





Listed and depicted below are the average number of operating onshore rigs in the U.S. and in Canada per quarter since the first quarter of 2018, as provided by Baker Hughes, a GE company. The Canadian land rig count illustrates the seasonality of activity in that market:

	Average Drilling Rig Count		
Quarter Ended	U.S. Land	Canada Land	North America Land
3/31/2018	965	267	1,232
6/30/2018	1,021	105	1,126
9/30/2018	1,032	207	1,239
12/31/2018	1,050	177	1,227
3/31/2019	1,023	181	1,204



Over the past several years, North American E&P companies have been able to reduce their cost structures and have also utilized technologies, including ours, to increase efficiency and improve well performance. After a period of declining drilling and completion activity from late 2014 through early 2016, North American E&P companies began to increase activity levels beginning in the second quarter of 2016, as evidenced by increasing rig counts in the U.S. and Canada. The rate of increase slowed in the U.S. during 2018 and decreased during the first quarter of 2019 from the fourth quarter of 2018 by three percent. The average rig count in Canada for the first quarter of 2019 was 32% lower than in the same period in 2018.

A substantial portion of our business is subject to quarterly variability. In Canada, we typically experience higher activity levels in the first quarter of each year, as our customers take advantage of the winter freeze to gain access to remote drilling and production areas. In the past, our revenue in Canada has declined during the second quarter due to warming weather conditions that result in thawing, softer ground, difficulty accessing drill sites and road bans that curtail drilling and completion activity. Access to well sites typically improves throughout the third and fourth quarters in Canada, leading to activity levels that are higher than in the second quarter, but lower than activity in the first quarter. Our business can also be impacted by a reduction in customer activity during the winter holidays in late December and early January. Similar to the first quarter of 2019, we anticipate that activity in Canada in the second quarter of 2019 will be significantly lower than in the same periods of prior years due to customer budgets and production curtailments that are currently in place in Alberta.

The market in Canada also continues to be impacted by logistical constraints in moving oil and natural gas from areas of production activity to demand centers. These constraints have led to lower realized pricing for our Canadian customers, which have been partially offset by the initiatives implemented by the Province of Alberta. As a result, industry activity and capital spending in Canada in 2019 is currently forecasted to be materially below 2018 levels, both for producers of oil and liquids-rich natural gas and producers of natural gas. During the four months ended April 30, 2019, the average land drilling rig count in Canada, as provided by Baker Hughes, was 32% lower than in the same period in 2018. Commodity price differentials are forecasted to remain at elevated levels for an extended period of time, which we expect to have a negative impact on customer activity in 2019 and potentially beyond.

The industry experienced a reduction in completions activity in the United States in the second half of 2018, which has extended into early 2019. In addition, capital budgets from E&P companies indicate that capital spending in 2019 is expected to be below capital spending in 2018, with a number of customers taking steps to reduce the number of rigs and completion crews that they are operating.

Adoption of Pinpoint Stimulation

Traditional well completion techniques, including plug and perf and ball drop, currently account for the majority of unconventional well completions in North America. We believe that pinpoint stimulation provides substantial benefits compared to these traditional well completion techniques. Our ability to grow our market share, as evidenced by the percentage of horizontal wells in North America completed using our products and services, will depend in large part on the industry's further adoption of pinpoint stimulation to complete wells, our ability to continue to innovate our technology to compete against continuing technological advances in competing traditional well completions techniques, and our ability to successfully compete with other providers of pinpoint stimulation products and services, including adjusting our pricing in certain markets to respond to customer demands and to competitors that may provide discounted pricing to our customers.

Increasing Well Complexity and Focus on Completion Optimization

In recent years, E&P companies have drilled longer horizontal wells and completed more hydraulic fracturing stages per well to maximize the volume of hydrocarbon recoveries per well. This trend towards longer and more complex wells has resulted in us selling more sliding sleeves or composite frac plugs per well on average, which increases our revenue opportunity per well completion and has led to increased sales of our AirLock casing buoyancy systems. Additionally, E&P companies have become increasingly focused on well productivity through optimization of completion designs and we believe this trend may further the adoption of pinpoint stimulation, and in turn, increase the opportunity for sales of our products and services if our customers observe operational benefits and long-term production results from the application of pinpoint stimulation. This trend towards more complex well completions has also resulted in increased use of tracer diagnostics services, which can be utilized to assess the effectiveness of various well completion techniques and well spacing strategies in support of completion and field development optimization efforts.

How We Generate Revenues

We derive the majority of our revenues from the sale of our fracturing systems products and the provision of related services. The remainder of our revenues are generated from sales of our AirLock casing buoyancy system, liner hanger systems, toe initiation sleeves and tracer diagnostics and reservoir strategies services. Repeat Precision generates revenue through the sale of composite frac plugs and related products and the provision of third-party manufacturing services.

Product sales represented 70% and 71% of our revenue for the three months ended March 31, 2019 and 2018, respectively. Most of our sales are on a just-in-time basis, as specified in individual purchase orders, with a fixed price for our products. We occasionally supply our customers with large orders that may be filled on negotiated terms. Services represented 30% and 29% of our revenues for the three months ended March 31, 2019 and 2018, respectively. Services include our tool charges and associated services related to our fracturing systems and our tracer diagnostics services (which are classified together as "services" in our financial results). Services are provided at agreed rates we charge to our customers for the provision of our downhole frac isolation assembly, our personnel and for the provision of tracer diagnostics services.

During periods of low drilling and well completion activity or as may be needed to compete in certain markets we will, in certain instances, lower the prices of our products and services. Our revenues are also impacted by well complexity, with wells with more stages resulting in longer jobs and increased revenue attributable to selling more sliding sleeves or composite frac plugs and the provision of our services.

For the three months ended March 31, 2019 and 2018, approximately 47% and 67%, respectively, of our revenues were derived from sales in Canada and were denominated in Canadian dollars. Because our Canadian contracts are typically invoiced in Canadian dollars, the effects of foreign currency fluctuations impact our revenues and are regularly monitored.

Although most of our sales are to North American E&P companies, we do have sales to customers outside of North America and expect sales to international customers to increase over time. These international sales are made through local NCS entities or to our local operating partners on a free on board or free carrier basis with a point of sale in the United States. Some of the locations in which we have operating partners or sales representatives include China and the Middle East. Our operating partners and representatives do not have authority to contractually bind our company, but market our products in their respective territories as part of their product or service offering.

Costs of Conducting our Business

Our cost of sales is comprised of expenses relating to the manufacture of our products in addition to the costs of our support services. Manufacturing cost of sales includes payments made to our suppliers for raw materials and payments made to machine shops for the manufacturing of components used in our products and costs related to our employees that perform quality control analysis, assemble and test our products. Our strategic 50% purchase of Repeat Precision has allowed us to reduce our costs for certain product categories. We review forecasted activity levels in our business and either directly procure or ensure that our vendors procure the required raw materials with sufficient lead time to meet our business requirements. On March 8, 2018, the President of the United States signed an order to impose a tariff of 25% on steel imported from certain countries. On July 1, 2018, Canada implemented retaliatory tariffs on certain U.S. imports, including steel. While we and our suppliers have locked in pricing for certain raw materials required to support some of our anticipated business activity during 2019, we anticipate that the tariff could result in an increase in our cost of sales during the year. On September 24, 2018, the United States implemented a tariff of 10% on a significant number of commodities originating from China, including certain chemicals utilized in our tracer diagnostics business. The tariffs were scheduled to increase to 25% on January 1, 2019 but the increase has been delayed pending ongoing trade negotiations between the two countries, with a possibility of being implemented on May 10, 2019. If a trade resolution with China is not reached, the increased tariffs would result in an increase in our cost of sales. We will strive to pass through some of the increases in raw material costs directly resulting from the tariffs to our customers, however there can be no assurance that we will be able to do so. Cost of sales for support services includes compensation and benefit-related expenses for employees who provide direct revenue generating services to customers in addition to the costs incurred by these employees for travel and subsistence while on site. Cost of sales includes other variable manufacturing costs, such as shrinkage, obsolescence and revaluation or scrap related to our existing inventory and costs related to the chemicals and laboratory analysis associated with our tracer diagnostics services.

Our selling, general and administrative (“SG&A”) expenses are comprised of compensation expense, which includes compensation and benefit-related expenses for our employees who are not directly involved in revenue generating activities, including those involved in our research and development activities, as well as our general operating costs. These general operating costs include, but are not limited to: rent and occupancy for our facilities, information technology infrastructure, software licensing, advertising and marketing, third party research and development, risk insurance and professional service fees for audit, legal and other consulting services. As a result of being a public company, our legal, accounting and other expenses have increased and will further increase for costs associated with our compliance with the Sarbanes-Oxley Act.

The percentage of our costs, defined as cost of sales, excluding depreciation and amortization, and including SG&A, denominated in Canadian dollars were approximately 17% and 23% for the three months ended March 31, 2019 and 2018, respectively.

Results of Operations

Three Months Ended March 31, 2019 compared to Three Months Ended March 31, 2018

The following table summarizes our revenues and expenses for the period presented (dollars in thousands):

	Three Months Ended March 31,		Variance	
	2019	2018	$	% (1)
Revenues				
Product sales	$ 37,232	$ 50,108	$ (12,876)	(25.7)%
Services	15,618	20,578	(4,960)	(24.1)%
Total revenues	52,850	70,686	(17,836)	(25.2)%
Cost of sales				
Cost of product sales, exclusive of depreciation and amortization expense shown below	16,746	24,703	(7,957)	(32.2)%
Cost of services, exclusive of depreciation and amortization expense shown below	10,017	8,889	1,128	12.7 %
Total cost of sales, exclusive of depreciation and amortization expense shown below	26,763	33,592	(6,829)	(20.3)%
Selling, general and administrative expenses	23,026	21,027	1,999	9.5 %
Depreciation	1,426	1,099	327	29.8 %
Amortization	1,161	3,321	(2,160)	(65.0)%
Change in fair value of contingent consideration	37	(1,353)	1,390	102.7 %
Income from operations	437	13,000	(12,563)	(96.6)%
Other income (expense)				
Interest expense, net	(517)	(457)	(60)	(13.1)%
Other income, net	73	84	(11)	(13.1)%
Foreign currency exchange (loss) gain	(297)	183	(480)	(262.3)%
Total other expense	(741)	(190)	(551)	(290.0)%
(Loss) income before income tax	(304)	12,810	(13,114)	(102.4)%
Income tax expense	9,574	945	8,629	NM
Net (loss) income	(9,878)	11,865	(21,743)	(183.3)%
Net income attributable to noncontrolling interest	2,088	887	1,201	135.4 %
Net (loss) income attributable to NCS Multistage Holdings, Inc.	$ (11,966)	$ 10,978	$ (22,944)	(209.0)%

(1) NM – Percentage not meaningful

Revenues

Revenues were $52.9 million for the three months ended March 31, 2019 as compared to $70.7 million for the three months ended March 31, 2018. This decrease was primarily attributable to a decrease in the volume of sales of our fracturing systems product sales and services, especially in the U.S. and Canada and lower tracer diagnostics revenue in the United States, partially offset by increased sales of our well construction and Repeat Precision products. Product sales for the three months ended March 31, 2019 were $37.2 million as compared to $50.1 million for the three months ended March 31, 2018. Our service revenue was $15.6 million for the three months ended March 31, 2019 as compared to $20.6 million for the three months ended March 31, 2018.

Cost of sales

Cost of sales was $26.8 million, or 50.6% of revenues, for the three months ended March 31, 2019 as compared to $33.6 million, or 47.5% of revenues, for the three months ended March 31, 2018. Cost of sales was a higher percentage of revenues due to reduced fixed cost utilization related to lower sales volumes for fracturing systems product sales and services, especially in the U.S. and Canada, reductions in the pricing of our fracturing systems products, and higher cost of sales in tracer diagnostics, related to field service staffing levels and increased chemical costs associated with tariffs imposed on certain imports from China in September 2018. These increases were partially offset by increased sales of well construction products and increased sales at Repeat Precision, which enabled better utilization of fixed costs. Cost of product sales was $16.7 million, or 45.0% of product sales revenue, and cost of services was $10.0 million, or 64.1% of service revenue, for the three months ended March 31, 2019. For the three months ended

March 31, 2018, cost of product sales was $24.7 million, or 49.3% of product sales revenue, and cost of services was $8.9 million, or 43.2% of service revenue.

Selling, general and administrative expenses

Selling, general and administrative expenses were $23.0 million for the three months ended March 31, 2019 as compared to $21.0 million for the three months ended March 31, 2018. The increase was due to higher overall headcount, professional services to support our new enterprise resource planning (“ERP”) system, higher share-based compensation and an increase in bad debt expense.

Depreciation

Depreciation was $1.4 million for the three months ended March 31, 2019 as compared to $1.1 million for the three months ended March 31, 2018. The increase is primarily attributable to capital expenditures made during 2018.

Amortization

Amortization was $1.2 million for the three months ended March 31, 2019 as compared to $3.3 million for the three months ended March 31, 2018. The decrease in amortization was related to non-cash impairment charges of $73.5 million in customer relationships and technology during the fourth quarter of 2018, which reduced the carrying values of those intangible assets.

Change in fair value of contingent consideration

Change in fair value of contingent consideration was $37 thousand for the three months ended March 31, 2019 compared to $(1.4) million for the three months ended March 31, 2018. The change for the three months ended March 31, 2019 was related to the passage of time from December 31, 2018 to January 31, 2019 when the $10.0 million cash payment for the Repeat Precision earn-out was paid to the joint venture partner. No payment is expected for the Spectrum Tracer Services, LLC (“Spectrum”) earnout. The change for the three months ended March 31, 2018 was due to the revaluation of the earn-out obligations for Repeat Precision and Spectrum, of which the fair value measures included the impact of both actual results and forecasted future earnings at the time.

Foreign currency exchange (loss) gain

Foreign currency exchange loss was $(0.3) million for the three months ended March 31, 2019 as compared to a gain of $0.2 million for the three months ended March 31, 2018. The change was primarily due to the movement in the foreign currency exchange rates between the periods.

Income tax expense

Income tax expense was $9.6 million for the three months ended March 31, 2019 as compared to $0.9 million for the three months ended March 31, 2018. Included in tax expense for the three months ended March 31, 2019 was a valuation allowance in the amount of $9.8 million against our U.S. deferred tax asset based on management’s position that the Company has not met the more likely than not condition of realizing the deferred tax asset based on the existence of sufficient projected U.S. taxable income of the appropriate character to recognize the tax benefit. Without the valuation allowance, the net income tax benefit is approximately $0.2 million. For the three months ended March 31, 2018, our effective income tax rate was 7.4%. The income tax expense and effective tax rate for the three months ended March 31, 2018 was significantly impacted by the U.S. Tax Cuts and Jobs Act of 2017 (the “2017 Tax Act”) including administrative guidance issued by the Internal Revenue Service on April 2, 2018. This guidance resulted in a final change to the calculation of the mandatory one-time tax on accumulated earnings of foreign subsidiaries in the 2017 tax return filing and a tax benefit of $2.1 million for the three months ended March 31, 2018 was recorded in tax expense with a corresponding reduction in the effective tax rate of 16.4%

The 2017 Tax Act significantly changes how the U.S. taxes corporations. The 2017 Tax Act requires complex computations to be performed that were not previously required by U.S. tax law, significant judgments to be made in interpretation of the provisions of the 2017 Tax Act, significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The ultimate impact of the 2017 Tax Act may differ from our estimates, possibly materially, due to changes in the interpretations and assumptions made as well as additional regulatory guidance that may be issued and actions we may take as a result of the 2017 Tax Act.

The 2017 Tax Act was signed into law on December 22, 2017. The 2017 Tax Act significantly revised the U.S. corporate income tax by, among other things, lowering the statutory corporate tax rate from 35% to 21%, eliminating certain deductions, imposing a mandatory one-time tax on accumulated earnings of foreign subsidiaries as of 2017, introducing new tax regimes, and changing how foreign earnings are subject to U.S. tax. Our preliminary estimate of the 2017 Tax Act and the remeasurement of our deferred tax assets and liabilities is subject to the finalization of management's analysis related to certain matters, such as developing interpretations of the provisions of the 2017 Tax Act, changes to certain estimates and the filing of our tax returns. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates. Those adjustments may impact our provision for income taxes in the period in which the adjustments are made.

For our calendar year beginning in 2018 we are subject to several provisions of the 2017 Tax Act including computations under Global Intangible Low Taxed Income ("GILTI") and Foreign Derived Intangible Income ("FDII"). We were able to make a reasonable estimate of the impact of each provision of the 2017 Tax Act on our effective tax rate for the three months ended March 31, 2019 and 2018.

On a longer term basis, certain aspects of the 2017 Tax Act are expected to have a positive impact on our future income tax expense, including the reduction in the U.S. corporate income tax rate.

As a result of the geographic mix of earnings and losses, including discrete items, our tax rate has been and will continue to be volatile.

Liquidity and Capital Resources

Our primary sources of liquidity are our existing cash and cash equivalents, cash provided by operating activities and borrowings under our New Senior Secured Credit Facility (defined below). As of March 31, 2019, we had cash and cash equivalents of $12.0 million and potential availability under the Prior Senior Secured Credit Facility (defined below) of $55.0 million. Our total indebtedness was $26.0 million as of March 31, 2019. The New Senior Secured Credit Facility consists of revolving credit facilities in aggregate principal amount of $75.0 million. Our principal liquidity needs have been, and are expected to continue to be, capital expenditures, working capital, debt service and potential mergers and acquisitions.

Our capital expenditures for the three months ended March 31, 2019 and 2018 were $3.0 million and $1.2 million, respectively. We plan to incur approximately $8.0 million to $12.0 million in capital expenditures during 2019, which includes capital expenditures related to (i) additional machining capacity at Repeat Precision, (ii) additional production equipment and instrumentation to support tracer diagnostics services, (iii) machinery and equipment utilized in manufacturing and engineering and (iv) our research and development facility. We believe our cash on hand, cash flows from operations and potential borrowings under our New Senior Secured Credit Facility will be sufficient to fund our capital expenditure and liquidity requirements for the next twelve months.

We anticipate that to the extent that we require additional liquidity, it will be funded through the incurrence of additional indebtedness, the proceeds of equity issuances, or a combination thereof. We cannot assure you that we will be able to obtain this additional liquidity on reasonable terms, or at all. Our liquidity and our ability to meet our obligations and fund our capital requirements are also dependent on our future financial performance, which is subject to general economic, financial and other factors that are beyond our control. Accordingly, we cannot assure you that our business will generate sufficient cash flow from operations or that funds will be available from additional indebtedness, the capital markets or otherwise to meet our liquidity needs. If we decide to pursue one or more significant acquisitions, we may incur additional debt or sell additional equity to finance such acquisitions, which could result in additional expenses or dilution.

Cash Flows

The following table provides a summary of cash flows from operating, investing and financing activities for the periods presented (in thousands):

	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Net cash used in operating activities	$ (3,011)	$ (8,299)
Net cash used in investing activities	(2,827)	(1,066)
Net cash used in financing activities	(7,674)	(36)
Effect of exchange rate changes on cash and cash equivalents	365	(728)
Net change in cash and cash equivalents	$ (13,147)	$ (10,129)

Operating Activities

Net cash used in operating activities was $3.0 million and $8.3 million for the three months ended March 31, 2019 and 2018, respectively. The reduction in the use of cash was primarily driven by more favorable changes in working capital, including accounts receivable and income tax receivable/payable in addition to higher levels of non-cash expense, including deferred income tax expense, partially offset by lower net income and unfavorable changes in inventories.

Investing Activities

Net cash used in investing activities was $2.8 million and $1.1 million for the three months ended March 31, 2019 and 2018, respectively. The increase in cash used in investing activities during the three months ended March 31, 2019 as compared to the three months ended March 31, 2018 was primarily related to capital expenditures, including property, equipment, software and technology, of $3.0 million in the three months ended March 31, 2019 compared to $1.2 million for the same period in 2018.

Financing Activities

Net cash used in financing activities was $7.7 million and $36 thousand for the three months ended March 31, 2019 and 2018, respectively. The increase was primarily related to the $10.0 million cash payment to the joint venture partner for the Repeat Precision earn-out consideration on January 31, 2019, of which $7.0 million was classified as a financing activity to reflect the acquisition date fair value of the contingent consideration liability and $3.0 million was included in operating activities as the liability was settled at an amount greater than the acquisition date fair value.

Financing Arrangements

Prior Senior Secured Credit Facility

On May 4, 2017, we entered into an Amended and Restated Credit Agreement (the “Prior Credit Agreement”) with Pioneer Investment, Inc., as borrower (the “U.S. Borrower”), NCS Multistage Inc., as borrower (the “Canadian Borrower”), Pioneer Intermediate, Inc. (together with the Company, the “Parent Guarantors”) and the lenders party thereto, Wells Fargo Bank, National Association as administrative agent in respect of the Prior U.S. Facility (as defined below) and Wells Fargo Bank, National Association, Canadian Branch as administrative agent in respect of the Prior Canadian Facility (as defined below) (the senior secured revolving credit facilities provided thereunder, the “Prior Senior Secured Credit Facility”).

The Prior Senior Secured Credit Facility consisted of a (i) senior secured revolving credit facility in an aggregate principal amount of $50.0 million made available to the U.S. Borrower (the “Prior U.S. Facility”), of which up to $5.0 million could be made available for letters of credit and up to $5.0 million could be made available for swingline loans and (ii) senior secured revolving credit facility in an aggregate principal amount of $25.0 million made available to the Canadian Borrower (the “Prior Canadian Facility”). At March 31, 2019, we had $20.0 million in outstanding indebtedness under the Prior U.S. Facility and no outstanding indebtedness under the Prior Canadian Facility. We amended and restated the Prior Senior Secured Credit Facility. See “Note 7. Debt” to our unaudited condensed consolidated financial statements for additional details regarding our Prior Senior Secured Credit Facility.

New Senior Secured Credit Facility

On May 1, 2019, we entered into a Second Amended and Restated Credit Agreement (the “New Credit Agreement”) with Pioneer Investment, Inc., as U.S. borrower, NCS Multistage Inc., as Canadian borrower, Pioneer Intermediate, Inc. and the lenders party thereto, Wells Fargo Bank, National Association as administrative agent in respect of the New U.S. Facility (as defined below) and Wells Fargo Bank, National Association, Canadian Branch, as administrative agent in respect of the New Canadian Facility (as defined below) (the senior secured revolving credit facilities provided thereunder, the “New Senior Secured Credit Facility”). The New Credit Agreement amended and restated the Prior Credit Agreement in its entirety.

The New Senior Secured Credit Facility consists of a (i) senior secured revolving credit facility in an aggregate principal amount of $50.0 million made available to the U.S. Borrower (the “New U.S. Facility”), of which up to $5.0 million may be made available for letters of credit and up to $5.0 million may be made available for swingline loans and (ii) senior secured revolving credit facility in an aggregate principal amount of $25.0 million made available to the Canadian Borrower (the “New Canadian Facility”). The New Senior Secured Credit Facility will mature on May 1, 2023.

Borrowings under the New U.S. Facility may be made in U.S. dollars for Adjusted Base Rate Advances, and in U.S. dollars, Canadian dollars or Euros for Eurocurrency Rate Advances (each as defined in the New Credit Agreement). Such advances bear interest at the Adjusted Base Rate or at the Eurocurrency Rate plus an applicable interest margin as set forth in the New Credit Agreement. Borrowings under the New Canadian Facility may be made in U.S. dollars or Canadian dollars and bear interest at the Canadian (Cdn) Base Rate, Canadian (U.S.) Base Rate, Eurocurrency Rate or Discount Rate (each as defined in the New Credit Agreement), in each case, plus an applicable interest margin as set forth in the New Credit Agreement. The Adjusted Base Rate, Canadian (U.S.) Base Rate, Canadian (Cdn) Base Rate and Eurocurrency Rate applicable margin will be between 2.75% and 3.50%, in each case, depending on the Company’s leverage ratio.

The obligations of the U.S. Borrower under the New U.S. Facility are guaranteed by the Parent Guarantors and each of the other existing and future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower and such other subsidiary guarantors, in each case, subject to certain exceptions and permitted liens. The obligations of the Canadian Borrower under the New Canadian Facility are guaranteed by the Parent Guarantors, the U.S. Borrower and each of the other future direct and indirect restricted subsidiaries of the Company organized under the laws of the United States and Canada (subject to certain exceptions) and are secured by substantially all of the assets of the Parent Guarantors, the U.S. Borrower, the Canadian Borrower and such other subsidiary guarantors, in each case, subject to certain exceptions and permitted liens.

The New Credit Agreement contains financial covenants that require (i) commencing with the fiscal quarter ending June 30, 2019, compliance with a maximum leverage ratio test set at 2.50 to 1.00 as of the last day of each fiscal quarter, (ii) commencing with the fiscal quarter ending June 30, 2019, compliance with an interest coverage ratio test set at not more than 2.75 to 1.00 as of the last day of each fiscal quarter, (iii) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the New Canadian Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a Canadian asset coverage ratio test of at least 1.00 to 1.00 and (iv) if the leverage ratio as of the end of any fiscal quarter is greater than 2.00 to 1.00 and the amount outstanding under the New U.S. Facility at any time during such fiscal quarter was greater than $0, compliance as of the end of such fiscal quarter with a U.S. asset coverage ratio test of at least 1.00 to 1.00. The New Credit Agreement also contains customary affirmative and negative covenants, including, among other things, restrictions on the creation of liens, the incurrence of indebtedness, investments, dividends and other restricted payments, dispositions and transactions with affiliates. The New Credit Agreement also includes customary events of default for facilities of this type (with customary grace periods, as applicable). If an event of default occurs, the lenders under each of the New U.S. Facility and the New Canadian Facility may elect (after the expiration of any applicable notice or grace periods) to declare all outstanding borrowings under such facility, together with accrued and unpaid interest and other amounts payable thereunder, to be immediately due and payable. The lenders under each of the New U.S. Facility and the New Canadian Facility also have the right upon an event of default thereunder to terminate any commitments they have to provide further borrowings under such facility. Further, following an event of default under each of the New U.S. Facility and the New Canadian Facility, the lenders thereunder will have the right to proceed against the collateral granted to them to secure such facility.

Contractual Obligations

There have been no material changes in our contractual obligations and commitments disclosed in the Annual Report for the year ended December 31, 2018.

Off-Balance Sheet Arrangements

We have no off-balance sheet financing arrangements.

Critical Accounting Policies

See “Note 1. Basis of Presentation” to our unaudited condensed consolidated financial statements for our new significant accounting policy. We have also updated our lease policies in conjunction with our adoption of ASU 2016-02 and its related amendments (collectively known as “ASC 842”) as further described in “Note 8. Leases” in our unaudited condensed consolidated financial statements. There are no other material changes to our critical accounting policies from those included in the Annual Report for the year ended December 31, 2018.

Recently Issued Accounting Pronouncements

See “Note 1. Basis of Presentation” to our unaudited condensed consolidated financial statements for discussion of the accounting pronouncement we recently adopted and the accounting pronouncements recently issued by the Financial Accounting Standards Board.

Emerging Growth Company and Smaller Reporting Company Status

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). We will remain an emerging growth company until the earlier of (1) the last day of our fiscal year (a) following the fifth anniversary of the completion of our initial public offering, (b) in which we have total annual gross revenue of at least $1.07 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the last business day of our most recently completed second fiscal quarter, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. Additionally, we are also a "smaller reporting company" as defined by Section 12b-2 of the Securities Exchange Act of 1934, as amended ("Exchange Act"), meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have a public float of less than $250 million. As an emerging growth company and a smaller reporting company, we may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies that do not qualify for those classifications.

Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as "anticipates," "intends," "plans," "seeks," "believes," "estimates," "expects" and similar references to future periods, or by the inclusion of forecasts or projections. Examples of forward-looking statements include, but are not limited to, statements we make regarding the outlook for our future business and financial performance, such as those contained in this Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, by their nature, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. As a result, our actual results may differ materially from those contemplated by the forward-looking statements. Important factors that could cause our actual results to differ materially from those in the forward-looking statements include regional, national or global political, economic, business, competitive, market and regulatory conditions and the following:

- declines in the level of oil and natural gas exploration and production activity within Canada and the United States;
- oil and natural gas price fluctuations;
- loss of significant customers;
- inability to successfully implement our strategy of increasing sales of products and services into the United States;
- significant competition for our products and services;
- our inability to accurately predict customer demand;
- impairment in the carrying value of long-lived assets and goodwill;
- our inability to successfully develop and implement new technologies, products and services;
- our inability to protect and maintain critical intellectual property assets;
- currency exchange rate fluctuations;
- losses and liabilities from uninsured or underinsured business activities;
- our failure to identify and consummate potential acquisitions;
- our inability to integrate or realize the expected benefits from acquisitions;
- impact of severe weather conditions;
- restrictions on the availability of our customers to obtain water essential to the drilling and hydraulic fracturing processes;
- our inability to meet regulatory requirements for use of certain chemicals by our tracer diagnostics business;
- change in trade policy, including the impact of additional tariffs;
- changes in legislation or regulation governing the oil and natural gas industry, including restrictions on emissions of greenhouse gases;
- failure to comply with or changes to federal, state and local and non-U.S. laws and other regulations, including environmental regulations and the 2017 Tax Act;
- loss of our information and computer systems;

- system interruptions or failures, including cyber-security breaches, identity theft or other disruptions that could compromise our information;
- our failure to establish and maintain effective internal control over financial reporting;
- complications with the design and implementation of our new enterprise resource planning system;
- our success in attracting and retaining qualified employees and key personnel; and
- our inability to satisfy technical requirements and other specifications under contracts and contract tenders.

For the reasons described above, as well as factors identified in “Item 1A. Risk Factors” in this Quarterly Report and the section of the Annual Report entitled “Risk Factors,” we caution you against relying on any forward-looking statements. Any forward-looking statement made by us in this Quarterly Report speaks only as of the date on which we make it. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

Item 3. Qualitative and Quantitative Disclosures About Market Risk

For our quantitative and qualitative disclosures about market risk, see Item 7A, “Quantitative and Qualitative Disclosures About Market Risk,” of our Annual Report for the fiscal year ended December 31, 2018. With the exception of our New Credit Facility, which has similar terms and conditions to our Prior Credit Facility, our exposure to market risk has not changed materially since December 31, 2018.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2019, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports we file or submit 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 management, including the Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

During the quarter ended March 31, 2019, we implemented our ERP system, which was designed to upgrade our technology and improve our financial and operational information. In connection with this ERP system implementation, we updated our internal controls over financial reporting, as necessary, to accommodate modifications to our business processes and accounting procedures.

There were no other changes to our internal control over financial reporting that occurred during the quarter ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

In the ordinary course of our business, from time to time, we have various claims, lawsuits and administrative proceedings that are pending or threatened with respect to commercial, intellectual property and employee matters.

On July 24, 2018, we filed a patent infringement lawsuit against Kobold Corporation, Kobold Completions Inc. and 2039974 Alberta Ltd. (“Kobold”) in the Federal Court of Canada, alleging that Kobold’s fracturing tools and methods infringe on several of our Canadian patents. We previously filed a breach of contract lawsuit on March 16, 2018, against Kobold Corporation in the Court of Queen’s Bench of Alberta, alleging breach of a prior settlement agreement. Both of these lawsuits seek unspecified monetary damages and injunctive relief.

In early February 2019, we filed a lawsuit against Diamondback Industries, Inc. (“Diamondback”) in the United States District Court for the Western District of Texas, Waco Division, alleging patent infringement, breach of contract and related claims stemming from Diamondback’s breach of an exclusive license, granted by Diamondback to Repeat Precision, to a patent necessary for the manufacture and sale of a disposable setting tool. Around the same time, Diamondback filed a lawsuit against Repeat Precision and various NCS entities in an effort to invalidate the exclusive license agreement and requested monetary damages. We believe the exclusive license is enforceable and there is no basis to support the claims asserted by Diamondback and we intend to vigorously enforce our rights under the license agreement.

While the outcome of any legal proceedings cannot be predicted with any certainty, based on a consideration of relevant facts and circumstances, our management currently does not expect that the results of these legal proceedings would have a material adverse effect on our financial position, results of operations or cash flows.

Item 1A. Risk Factors

There have been no material changes from the risk factors disclosed in our Annual Report for the year ended December 31, 2018.

Item 6. Exhibits

	Exhibit No.	Description
	10.1	Second Amended and Restated Credit Agreement, dated as of May 1, 2019, by and among NCS Multistage Holdings, Inc., Pioneer Intermediate, Inc., Pioneer Investment, Inc., NCS Multistage Inc., Wells Fargo Bank, National Association, Wells Fargo Bank, National Association, Canadian Branch, and the lenders party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 6, 2019).
†	10.2	Form of Restricted Stock Unit Award Agreement under the NCS Multistage Holdings, Inc. 2017 Equity Incentive Plan ("2017 Equity Incentive Plan") for directors (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on March 4, 2019).
†	10.3	Form of Equivalent Stock Unit Award Agreement under the 2017 Equity Incentive Plan for executives (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on March 4, 2019).
†	10.4	Form of Equivalent Stock Unit Award Agreement under the 2017 Equity Incentive Plan for non-executives (incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K filed on March 8, 2019).
*	31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
*	31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
**	32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
**	32.2	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
***	101.INS	XBRL Instance Document
***	101.SCH	XBRL Taxonomy Extension Schema
***	101.CAL	XBRL Taxonomy Extension Calculation Linkbase
***	101.DEF	XBRL Taxonomy Extension Definition Linkbase
***	101.LAB	XBRL Taxonomy Extension Label Linkbase
***	101.PRE	XBRL Taxonomy Extension Presentation Linkbase

† Management contracts or compensatory plans or arrangements.
* Filed herewith.
** Furnished herewith.
*** Submitted electronically with this Report.

SIGNATURES

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

Date: May 7, 2019

NCS Multistage Holdings, Inc.

By: /s/ Ryan Hummer
Ryan Hummer
Chief Financial Officer

(Principal Financial Officer and Authorized Signatory)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Robert Nipper, certify that:

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

Date: May 7, 2019

/s/ Robert Nipper
Robert Nipper
Chief Executive Officer

EXHIBIT 31.2

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Ryan Hummer, certify that:

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

Date: May 7, 2019

/s/ Ryan Hummer
Ryan Hummer
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER UNDER SECTION 906 OF THE
SARBANES OXLEY ACT OF 2002, 18 U.S.C. § 1350

In connection with the Quarterly Report of NCS Multistage Holdings, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert Nipper, Chief Executive Officer and Director 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 my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 7, 2019	/s/ Robert Nipper
	Robert Nipper
	Chief Executive Officer

EXHIBIT 32.2

**CERTIFICATION OF
CHIEF FINANCIAL OFFICER UNDER SECTION 906 OF THE
SARBANES OXLEY ACT OF 2002, 18 U.S.C. § 1350**

In connection with the Quarterly Report of NCS Multistage Holdings, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Ryan Hummer, Chief Financial 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 my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 7, 2019	/s/ Ryan Hummer
	Ryan Hummer
	Chief Financial Officer