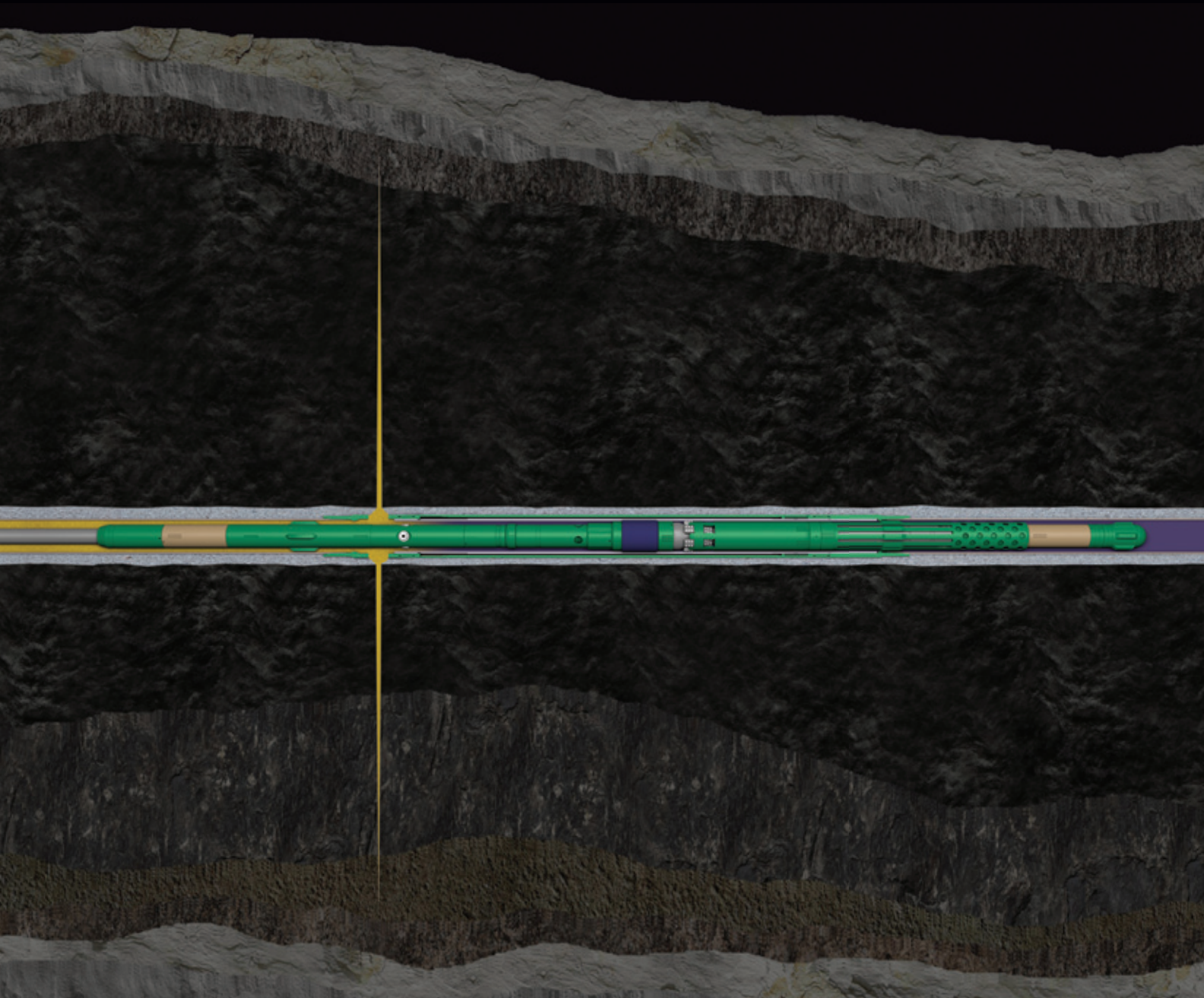


A leading resource for optimized unconventional completions





Dear Fellow Stockholders:

In many ways, 2017 was an exciting and eventful year for NCS Multistage, as improved commodity prices led to increased customer activity, supporting a sustained turnaround following the industry downturn that began in late 2014. We benefitted from this increase in industry activity, as well as the continuation of increased completions intensity and initiatives designed to improve our market share in unconventional completions. Our 2017 revenue of \$201.6 million represented an increase of 105% from 2016, driven by record sliding sleeves sales as well as contributions from our Repeat Precision joint venture and Spectrum Tracer Services, which were both acquired in 2017. We generated adjusted EBITDA* of \$49.5 million in 2017, an improvement from \$13.9 million in 2016, and also generated free cash flow* of \$11.1 million in 2017. We ended the year with \$33.8 million in cash, and total available liquidity of \$88.8 million, providing us with ample liquidity to execute our strategy.

Repeat Precision Joint Venture

On February 1, 2017, we acquired a 50% interest in Repeat Precision (Repeat) for \$6.0 million plus potential earn-out consideration. Repeat provides third-party machining services and has developed a full line of composite bridge plugs, marketed under the PurpleSeal brand. Our purchase of 50% of Repeat provides us with continued access to Repeat's machining capabilities, ensuring that Repeat can continue to support growth in the sales of our sliding sleeves. Our ownership in Repeat also provides us with an additional revenue opportunity through sales of PurpleSeal composite plugs which are utilized in plug-and-perf completions.

Initial Public Offering

On May 3, 2017, we completed our initial public offering (IPO) of 9.5 million shares of our common stock at a price to the public of \$17.00 per share. The underwriters exercised their option to purchase approximately 1.4 million additional shares of our common stock from certain selling stockholders. We received \$148.9 million in net proceeds after deducting underwriting discounts, commissions and other offering expenses. We used a portion of the net proceeds from the IPO to repay debt under our prior term loan and used the remaining proceeds in the acquisition of Spectrum Tracer Services. We added three new Board members in connection with the IPO: Matthew Fitzgerald, Franklin Myers and W. Matt Ralls. Each of our new Board members has extensive energy industry experience and provides leadership and strategic insights that will benefit NCS in years to come.

Spectrum Tracer Services Acquisition

On August 31, 2017, we acquired Spectrum Tracer Services (Spectrum), a provider of chemical and radioactive diagnostics services, for \$83.4 million plus potential earn-out consideration. Customers utilize these services to better characterize their assets and to optimize completion designs. Chemical and radioactive tracer studies provide a cost-effective and reliable means to determine the production profile along a lateral, assess fluid and proppant communication between wells during completions and determine the efficiency of completions in stimulating each stage or cluster. We believe Spectrum's tracer diagnostics services strengthen our ability to provide our customers with actionable data and analysis to optimize well completion and field development strategies.

2018 Outlook and Conclusion

So far in 2018, customer activity, as measured by publicly available rig count information, has continued to improve in the United States, while rig count levels in Canada, which historically have more seasonal variability, have lagged the levels from the same period in 2017.

Looking forward, we expect to deliver on profitable growth by capitalizing on any increases in completions activity, especially in the U.S., further increases in completions intensity, and our ability to utilize our proprietary technology to improve our market position across our entire products and services portfolio.

We remain focused on creating long-term value for our stockholders. We are, and we will continue to be, responsible stewards of capital.

On behalf of the entire management team and our Board, I want to thank our stockholders, customers, vendors, and our employees whose hard work empowers our company to deliver these results.

A handwritten signature in black ink, appearing to read "Robert J. ...". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Chief Executive Officer

*Adjusted EBITDA and free cash flow are "non-GAAP financial measures." For an explanation of why we believe these financial measures are meaningful and reconciliations of these measures to the most directly comparable measures under generally accepted accounting principles, see "Item 6. Selected Financial Data" on page 38 and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Cash Flows and Free Cash Flow" on page 49 of the Form 10-K included herewith.

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

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017

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

(State or other jurisdiction of
incorporation or organization)

46-1527455

(IRS Employer
Identification number)

19450 State Highway 249, Suite 200

Houston, Texas

(Address of principal executive offices)

77070

(Zip Code)

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

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

Title of each class

Common Stock, \$0.01 par value

Name of each exchange on which registered

NASDAQ Global Select Market

Securities registered pursuant to section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

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

As of June 30, 2017, the aggregate market value of the common stock of the registrant held by non-affiliates of the registrant was approximately \$274.7 million (based on the closing sale price of the registrant's common stock on that date).

As of March 7, 2018, there were 44,482,948 shares of common stock outstanding.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this “Form 10-K”) includes certain 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 Item 7. “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 successfully develop and implement new technologies, products and services;
- our inability to protect and maintain critical intellectual property assets;
- currency exchange rate fluctuations;
- impact of severe weather conditions;
- restrictions on the availability of our customers to obtain water essential to the drilling and hydraulic fracturing processes;
- our failure to identify and consummate potential acquisitions;
- our inability to integrate or realize the expected benefits from acquisitions;
- our inability to meet regulatory requirements for use of certain chemicals by our tracer diagnostics business;
- our inability to accurately predict customer demand;
- losses and liabilities from uninsured or underinsured drilling and operating activities;
- changes in legislation or regulation governing the oil and natural gas industry, including restrictions on emissions of greenhouse gases (“GHGs”);
- failure to comply with or changes to federal, state and local and non-U.S. laws and other regulations, including environmental regulations and the U.S. Tax Cuts and Jobs Act of 2017 (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;
- 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.

See Item 1A. “Risk Factors” and Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Form 10-K for a further description of these and other factors that could cause actual results to differ materially from those in the forward-looking statements. For the reasons described above, we caution you against relying on any forward-looking statements, which should also be read in conjunction with the other cautionary statements that are included elsewhere in this Form 10-K. Any forward-looking statement made by us in this Form 10-K 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.

Trademarks and Trade Names

We own or have the rights to use various trademarks, service marks and trade names referred to in this Form 10-K, including, among others, AirLock, GripShift, Mongoose, MultiCycle, Multistage Unlimited, ATRS, OST, Vector Max, Vector-1, NCS, Spectrum Tracer Services and their respective logos. Solely for convenience, we refer to trademarks, service marks and trade names in this Form 10-K without the TM, SM and ® symbols. Such references are not intended to indicate, in any way, that we will not assert, to the fullest extent permitted by law, our rights to our trademarks, service marks and trade names. Other trademarks, service marks or trade names appearing in this Form 10-K are the property of their respective owners.

Available information

Our website address is www.ncsmultistage.com. Information that we furnish to or file with the Securities and Exchange Commission (the "SEC"), including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and any amendments to, or exhibits included in, those reports or statements are available for download, free of charge, on our website as soon as reasonably practicable after such materials are filed with or furnished to the SEC. From time to time, we also post announcements, updates, events, investor information and presentations on our website at <http://ir.ncsmultistage.com> in addition to copies of all recent press releases as means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD.

Reports and statements that we file with or furnish to the SEC, including related exhibits, are also available on the SEC's website at www.sec.gov. In addition, you may obtain and copy materials we furnish to or file with the SEC at the SEC's public reference room at 100 F Street, NE, Room 1580, Washington, D.C. 20549. Information on the operation of the SEC's public reference facilities may be obtained by calling the SEC at 1-800-SEC-0330. You may request copies of these documents, upon payment of a duplicating fee, by writing to the SEC at its principal office at 100 F Street, NE, Room 1580, Washington, D.C. 20549.

The contents of the websites referred to above are not incorporated into this filing. References to the URLs for these websites are intended to be inactive textual references only.

PART I

Item 1. Business

Overview

NCS Multistage Holdings, Inc. (“NCS,” the “Company,” “we,” “our” or “us”) is 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 and Russia. We provided our products and services to over 240 customers in 2017, including leading large independent oil and natural gas companies and major oil companies.

Our primary offering is our Multistage Unlimited family of completion 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 Multistage Unlimited 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 Multistage Unlimited products and services are utilized in conjunction with third-party providers of pressure pumping, coiled tubing and other services.

We began providing pinpoint stimulation products and services in 2006, and since then our technology has been used in the completion of more than 9,200 wells comprising over 195,000 individual frac stages. Our initial focus on the Canadian market has resulted in our products and services being used in 25% of all horizontal wells drilled in Canada in 2017. We began our efforts to increase our penetration of the U.S. market in 2013, and the United States accounted for approximately 32% and 23% of our revenue in 2017 and 2016, respectively. We are focused on increasing our market share in the United States, particularly in the Permian Basin.

Multistage Unlimited completion products and services include our casing-installed sliding sleeves and downhole frac isolation assembly. Customers typically purchase our casing-installed sliding sleeves, a consumable product that is cemented at intervals into the casing of the wellbore, and can also utilize services associated with our downhole frac isolation assembly. Our downhole frac isolation assembly is comprised of numerous subcomponents, including a resettable bridge plug for stage isolation, a sleeve locator to efficiently locate our sliding sleeves in the wellbore, an abrasive perforating sub that can perforate the casing where our sliding sleeves are not installed and gauge packages that can measure and record downhole data. Our personnel supervise the use of the downhole frac isolation assembly during completion operations. In addition, our downhole frac isolation assembly provides valuable downhole data, including recorded downhole temperatures and pressures, which can be analyzed and used in designing future completion strategies. Further, because our downhole frac isolation assembly is deployed on coiled tubing, our customers have access to real-time downhole pressure measurements which can be used to adjust strategies during a well completion. We offer two primary models of sliding sleeves: our GripShift sliding sleeves, which open one time, and our MultiCycle sliding sleeves, which can be opened and closed multiple times giving our customers the benefit of additional completion options and the ability to better optimize a well’s production phase. We hold 28 patents related to our technology and received the *World Oil* Best Completions Technology Award in 2014 and 2015 for our Multistage Unlimited products and services and MultiCycle sliding sleeves, respectively.

We also offer chemical and radioactive tracer diagnostics services through Spectrum Tracer Services, LLC and its subsidiaries (“Spectrum”). Our customers utilize these services to better characterize their assets and to optimize completion designs. Chemical and radioactive tracer studies may provide a cost-effective and reliable means to determine the production profile along a lateral, assess fluid and proppant communication between wells during completions and determine stage and cluster level efficiency of completion designs.

We complement our proprietary products and services with our in-house expertise in completions engineering, reservoir engineering and geology. These capabilities allow us to engage with our customers on well completion design and well spacing decisions, thereby supporting our customers’ completion optimization strategies and building lasting relationships. In addition, our extensive research and development efforts are influenced and driven by the needs of our customers, allowing us to introduce innovative and commercial solutions that improve customer efficiency and profitability.

Our revenue for the years ended December 31, 2017, 2016 and 2015, was \$201.6 million, \$98.5 million and \$114.0 million, respectively. Our net income (loss) attributable to NCS Multistage Holdings, Inc. for the years ended December 31, 2017, 2016 and 2015, was \$2.1 million, \$(17.9) million and \$28.0 million, respectively. Our total assets for the years ended December 31, 2017, 2016 and 2015, were \$463.9 million, \$326.8 million and \$332.5 million, respectively. For additional financial information by geographic area, see Note 16. “Segment and Geographic Information” of our consolidated financial statements.

Competitive Strengths

We believe we are well positioned to achieve our business objectives based on the following competitive strengths:

- ***Patented and differentiated completions technology.*** Our value proposition is built on a foundation of patent-protected technology and industry leading technical capabilities. Our Multistage Unlimited products and services are designed to provide our customers with an enhanced degree of precision for more predictable, repeatable and verifiable well completions, in order to maximize reservoir connectivity while minimizing the impact of the completion on the productivity of offsetting wells. Our technology also provides E&P companies access to accurate real-time and recorded downhole information which can enhance completion and well spacing optimization strategies. This information is typically not available with traditional completion techniques. We believe that the benefits provided by our proprietary technology and our operating experience and know-how differentiate us from providers of traditional completion technologies, including plug and perf and ball drop, and from other pinpoint stimulation competitors.
- ***Proven record of successfully introducing new technologies that drive completion and production optimization.*** Our research and development efforts are targeted to solve customer challenges and provide solutions that improve customer efficiency and profitability. Our in-house and field engineering teams are responsible for developing new technology to expand our product and service offerings and enhance the performance of our existing products. During the recent commodity price downturn, we accelerated our investment in these efforts, adding to our pipeline for future product and service introductions. We believe we are a leader in the development of new completions technology, which is reflected in our extensive and growing suite of patent-protected products and methods. We hold 11 U.S. patents and 17 related international patents. We received the *World Oil* Best Completions Technology Award in 2014 and 2015 for our Multistage Unlimited products and services and MultiCycle sliding sleeves, respectively. Our patented oil-soluble tracers (“OSTs”) were the first such tracers to be deployed as a particulate, providing for more uniform distribution throughout the fracture network and longer-duration results as compared to fluid-based oil tracers. We believe our engineering expertise, combined with our focus on completions technology, gives us a competitive advantage in designing and commercializing new completions technology.
- ***Market leader in pinpoint stimulation.*** We believe we are a global leader in pinpoint stimulation products and services, based on the number of wells completed using our technology and the number of stages in the wells completed using our technology. Since our founding, our products and services have been utilized by our customers for the pinpoint completion of over 9,200 wells, resulting in the placement of over 195,000 frac stages. Our experience as a leader in pinpoint stimulation has given us the opportunity to gain valuable operational insights into the use of this stimulation technique. We have used these insights to continually improve upon our existing products and to develop new products. Our products and services have been utilized in all major unconventional oil and natural gas basins in North America and in selected global markets. Our leadership in pinpoint stimulation has led to the use of our products and services in a number of wells that include what we believe to be the highest number of stages in the following basins: 156 stages in a well in the U.S. Bakken shale, 147 stages in a well in the Permian Basin, 116 stages in a well in the Marcellus shale, 168 stages in a well in the Montney, 135 stages in a well in the Cardium, 123 stages in a well in the Duvernay, 60 stages in a well in the Vaca Muerta region in Argentina and 30 stages in a well in the Khantos region in Russia.
- ***Asset-light business model and strong balance sheet provide significant flexibility.*** By focusing on downhole completion equipment and services, and not high-cost assets deployed on the surface, such as coiled tubing or pressure pumping units, our net property and equipment as of December 31, 2017 and 2016 was \$23.7 million and \$9.8 million, respectively. Sales of our products, which are consumable items, represented approximately 72%, 74% and 70% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. We believe we have a strong balance sheet and ample liquidity to pursue our growth initiatives. As of December 31, 2017, we had \$33.8 million in liquidity from cash on hand and \$55.0 million of available borrowing capacity under our current revolving credit facility (the “Senior Secured Credit Facility”).
- ***Trusted advisor to a leading customer base.*** We have leveraged our extensive experience and differentiated products and services to establish strong relationships with our customers. Our technology has been vetted and chosen by some of the largest, most sophisticated energy companies in the world, resulting in a customer base that includes more than 240 customers globally, including national, major and large independent oil companies. We established Anderson Thompson Reservoir Strategies (“ATRS”), a team of engineering consultants, in 2015 as a complement to our products and services to provide in-house expertise to assist our customers in optimizing their completion designs and development plans and to evaluate well performance. We believe our ATRS group has deepened our relationships with existing customers, helped us add new customers and effectively demonstrated the value proposition of our pinpoint stimulation offerings. Our acquisition of Spectrum has added several additional customers in the United States and Canada, and we expect this acquisition will further enhance our ability to support our customers’ field development strategies. In addition, several of our customers have worked with us to develop new completion technology for specific applications, highlighting their trust in our product development capabilities and adding to our pipeline of technologies available to all of our customers.

- ***Experienced, entrepreneurial management team with strong culture of innovation.*** Our management team, led by co-founders, CEO, Robert Nipper, and President, Marty Stromquist, provides disciplined strategic direction and insight gained from multi-decade careers in the energy technology and oilfield service industries. Our founders, pioneers in pinpoint stimulation, led our company through a period of exceptional growth and provide the keystone for our culture. Our culture is defined by “The Promise,” a document that guides our relationships with our employees, customers, vendors and other stakeholders and affirms our commitment to quality and safety. We maintain our culture through the ongoing coaching of our employees and continuously measure ourselves to identify areas for improvement. Together, Mr. Nipper and Mr. Stromquist, have assembled a management team with extensive backgrounds in research and development, manufacturing, operations and finance, with an average of over 25 years of industry and otherwise relevant experience.

Business Strategy

Our primary business objectives are to increase the adoption of our products and services in all geographies, continue to be an innovator of technology and create value for our stockholders. We intend to achieve these objectives through the execution of the following strategies:

- ***Focus on expansion in the United States while pursuing disciplined organic growth globally.*** We plan to continue to grow our business in all geographies in which we operate, with our current emphasis on profitably expanding our presence in the United States. We increased our efforts to target the U.S. market in 2013 and believe we can increase our share in all basins in the United States as our customers focus on optimizing completion designs in an effort to increase overall hydrocarbon recovery and improve financial returns from their assets. The United States accounted for approximately 32%, 23% and 29% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. We continue to focus on growing our presence in the Permian Basin, the most active basin in the United States. During 2016, we expanded into a larger operational facility in Midland, Texas and directed additional sales efforts to customers operating in the Permian Basin. Outside of the United States, we plan to increase our market position in several deep basin plays in Canada, including the Montney formation, where we currently have lower, but growing, market shares relative to other regions in Canada. We also plan to increase our market position in Argentina, China, and Russia, regions where we have successful operations and which have significant unconventional resource development potential.
- ***Develop and introduce innovative technologies that are aligned with customer needs.*** Our team of over 40 engineers and engineering technicians works closely with our technical services organization and our customers to identify specific product and service needs, develop business cases and bring new technology to market on an expedited basis. Collaborating with our customers allows us to identify unaddressed industry-wide needs and to develop new technologies, of which we have several under development. By introducing new technologies, we expand our product and service portfolio, grow our customer base and leverage our current customer relationships to generate additional revenue. We believe we have established strong working relationships with our customers, and we are collaborating with several of our customers on solutions for specific onshore and offshore completions needs. We expect to continue to work with our customers on specific solutions to supplement our in-house technology development efforts.
- ***Leverage technology leadership to grow market share.*** Our extensive experience, differentiated offerings and focus on responding to evolving customer needs has allowed us to establish strong relationships with our customers. Over the years we have added in-house capabilities that provide additional value-added expertise and services to our customers, including tracer diagnostics, completions engineering and ATRS engineering services. We believe that by focusing on customer service, while continuing to introduce innovative completions solutions, we can strengthen our relationships with existing customers, grow our customer base and increase our revenues. We believe the benefits provided by our technology and our expertise position us to continue to increase our penetration of large independent and major oil companies. We believe these customers are typically more consistent in their capital budgeting, operate in multiple geographies and in many cases are focused on evaluating and deploying technology that can improve well performance. We believe that our ability to pair our in-house expertise, together with the data that is available through our Multistage Unlimited products and services have been key factors enabling us to increase our business with these customers.
- ***Maintain financial strength and flexibility.*** We expect to continue to employ a disciplined financial policy that maintains our financial strength and flexibility. We have maintained our financial flexibility by taking actions designed to preserve positive cash flows, minimize capital expenditures and reduce debt levels. We believe our resulting financial strength and flexibility provides us with the ability to execute our strategy through industry volatility and commodity price cycles, as evidenced by our performance throughout the recent commodity price downturn. For example, during the downturn we were able to leverage our supply chain through initiatives to reduce the number of vendors in our manufacturing operations, as well as reduce our manufacturing costs for certain products by over 30%, which has supported our gross margin. We believe that our cash on hand, borrowing capacity and ability to access debt and equity capital markets, combined with our ability to generate free cash flow, will provide the financial flexibility required to execute our growth strategies.

- ***Selectively pursue complementary acquisitions and joint ventures.*** We believe there is an opportunity to enhance our existing product and service capabilities and geographic scope by selectively pursuing acquisitions and joint ventures. We intend to target strategic acquisitions that will enhance our market position, expand our product and service offerings and provide opportunities for synergies. Our acquisition of Spectrum complements our Multistage Unlimited completion products and services offering and ATRS engineering services and has expanded our service offering and customer base. We believe that being a public company allows us to target a broader range of acquisition candidates.

Products and Services

We provide highly engineered products and support services that facilitate the optimization of oil and natural gas well completions and field development strategies. Our key products and services include:

- ***Multistage Unlimited.*** Our Multistage Unlimited family of products and services encompasses our technology developed to enable efficient pinpoint stimulation and re-stimulation strategies. Pinpoint stimulation is the process of individually stimulating each entry point into a formation targeted by an oil or natural gas well, a process that we believe improves on traditional completion techniques. Our pinpoint stimulation solutions and refined field processes are designed to enable efficient, controlled, verifiable and repeatable completions.

Multistage Unlimited completion products and services are comprised of our casing-installed sliding sleeves and our downhole frac isolation assemblies, which are deployed using coiled tubing. Our services include advising customers on optimizing completion designs and operating the downhole frac isolation assemblies.

- ***Casing-installed sliding sleeves.*** Our casing-installed sliding sleeves are a consumable product, sold to our customers and cemented in place in a well's casing. Over 148,000 of our casing-installed sliding sleeves have been installed, including over 55,000 of our MultiCycle sliding sleeves. We produce two primary models of sliding sleeves: our GripShift sliding sleeves, which can be opened only once, and our MultiCycle sliding sleeves, introduced in late 2013, which can be opened and closed multiple times throughout the life of a well. Our casing-installed sliding sleeves can be utilized in both cemented and open-hole wellbores, with no practical limitation on the number of stages that can be installed in a well, and feature an inner-diameter which is the same as the casing in the wellbore. During completion operations, the downhole frac isolation assembly is placed in the sleeve and the inner barrel of the sleeve is shifted down, exposing the frac ports to the formation, allowing the completion of that stage to begin.
- ***Downhole frac isolation assembly.*** Our proprietary downhole frac isolation assembly is comprised of several subcomponents. The assembly, which is attached to a third-party's coiled tubing reel, is primarily used to locate our sliding sleeves, to establish wellbore isolation and to shift our sliding sleeves open or closed. In addition, gauges within the downhole frac isolation assembly record downhole pressure and temperature data, which can be utilized to optimize the design of future completions. We typically own the assemblies and utilize them in our service to our customers. Our personnel operate the assemblies during completion operations in coordination with other on-site service providers.
- ***Sand jet perforating.*** Our sand jet perforating technology uses a variation of the downhole frac isolation assembly utilized for shifting sleeves. Sand jet perforating is typically used with cemented wellbores. To cut access points into the formation, sand-laden fluid is pumped down the coiled tubing and through tungsten-carbide nozzles. The high-velocity slurry cuts through the casing and cement and into the formation. The tunnels created through this process serve as initiation points for stimulation. Stimulation treatments are pumped down the annulus between the coiled tubing and the casing. Although the sand jet perforating process requires more time per stage than using Multistage Unlimited sliding sleeves, it provides a practical option for pinpoint stimulation in wells that are already cased, as in the case of drilled, but uncompleted wells.
- ***SpotFrac system.*** Our SpotFrac system provides a means to straddle and mechanically isolate producing zones for targeted refracturing applications. The system includes a sand jet perforating assembly, enabling additional stages to be added if desired, and can perforate, isolate and stimulate multiple stages in a single trip.
- ***BallShift sleeves.*** Our BallShift sliding sleeves can be cemented in place and are activated by pumping a ball from surface that lands on seats in the sleeves, providing pinpoint stimulation. In some instances the BallShift sleeves will be utilized together with our coiled-tubing deployed technology in a hybrid application to increase the amount of stages that can be run in extended reach applications, with the BallShift sleeves installed at the toe of such wells.

- ***Spectrum Tracer Services.*** We provide chemical and radioactive tracer diagnostics technologies used by oil and gas operators to assess completion performance, evaluate well production, and optimize field development strategies. Our fracture fluid identifier tracers, oil-soluble tracers and natural gas tracers enable efficient, cost-effective downhole diagnostics, providing oil and gas operators with critical data to efficiently optimize reservoir development and production.
- ***Anderson Thompson Reservoir Strategies.*** Our specialized team of engineering consultants advises customers on optimized completion designs and field development strategies and evaluates well performance. ATRS engineers help us strengthen our relationships with our customers and have been effective at demonstrating the benefits of our Multistage Unlimited products and services as compared to traditional completion techniques.
- ***AirLock casing buoyancy system.*** Our AirLock casing buoyancy system facilitates landing casing strings in horizontal wells without altering a customer's preferred casing and cementing operations. The AirLock system, which is installed with a well's casing, allows the vertical casing section to be filled with fluid, while the lateral section remains air-filled and buoyant. The enhanced buoyancy significantly reduces sliding friction, while the enhanced weight of the vertical section provides the force needed to push the casing to the toe of the well, ensuring the casing reaches the desired depth and reducing casing running time and cost. Our AirLock system consists of two components that are made up in the casing string during run-in: a debris-trap and a seal collar. The debris-trap is installed in a casing connection just above the float shoe and the seal collar is installed at the bottom-most point of the vertical portion of the wellbore. The seal collar contains a breakable seal that locks air in the lower section of casing while the upper section is run and filled with fluid. After the casing is landed, surface pressure is increased to fragment the seal at a predetermined pressure, leaving an unrestricted casing bore, while seal fragments are collected by the debris trap, facilitating cementing operations.
- ***Liner hanger systems.*** Introduced in late 2014, our proprietary liner hanger systems are specifically designed to perform in complex horizontal wells and are fully compatible with our Multistage Unlimited products. The liner hanger is used to distribute the loads and weight of the liner to the supporting casing.

Business History

We were incorporated in Delaware on November 28, 2012, under the name "Pioneer Super Holdings, Inc." On December 13, 2016, we changed our name to "NCS Multistage Holdings, Inc." On May 3, 2017, we completed the initial public offering ("IPO") of our common stock.

Intellectual Property and Patent Protection

We have dedicated resources toward the development of new technology and products designed to enhance the safety and efficiency of well completions processes. Our sales and earnings are influenced by our ability to successfully introduce new or improved products to the market. Our MultiCycle sliding sleeves, downhole frac isolation assembly and other equipment involve a high degree of proprietary technology developed over several years, some of which is protected by patents.

We hold 11 U.S. patents and 17 related international patents that relate to our Airlock casing buoyancy system, OST tracers, casing installed sliding sleeves, frac isolation assemblies, and the methods utilized in the provision of our services. Our U.S. patents expire between 2030 and 2035. Our international patents expire between 2025 and 2032.

We also have a number of U.S. and international patent applications pending. Some of these patent applications cover equipment and methods which are currently in development. The applications are in various stages of the patent prosecution process and patents may not issue on such applications in any jurisdiction for some time, if they issue at all.

We believe that our patents have historically been important in enabling us to compete in the market to supply our customers with our products and services. We intend to enforce, and have in the past vigorously enforced, our patents. We may from time to time in the future be involved in litigation to determine the enforceability, scope and validity of our patent rights. In addition to patent rights, we use a significant amount of trade secrets, or "know-how," and other proprietary information and technology.

Research and Development

We are engaged in research and development activities focused on the design, development, trialing and commercialization of innovative completions technologies and the improvement of existing products and services. For the years ended December 31, 2017, 2016 and 2015, we incurred approximately \$3.0 million, \$3.3 million and \$3.0 million, respectively, of research and development expense. In 2017, research and development expense was 1.5% of consolidated revenue and 4.6% of our total selling, general and administrative ("SG&A") expense. We expect that our research and development expense will increase in anticipation of the growth of our business.

Customers

Our customer base primarily consists of oil and natural gas producers in North America and in certain international markets as well as oilfield service companies. For the years ended December 31, 2017, 2016 and 2015, we had over 240, 140 and 150 customers, respectively. Our top five customers accounted for approximately 30%, 49% and 44% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. Crescent Point Energy (“Crescent Point”) accounted for 14%, 26% and 31% of our revenue during the years ended December 31, 2017, 2016 and 2015, respectively. No other customer accounted for more than 10% of our revenue during those years. Although we believe we have a broad customer base and wide geographic coverage of operations, the loss of one or more of our significant customers could have a material adverse effect on our results of operations.

Sales and Marketing

Our sales and marketing activities are performed through a technically-trained direct sales force. We recognize the importance of a technical marketing program in demonstrating the advantages of new technologies that offer benefits relative to established industry methodologies. Our technical sales force advises customers on the benefits of pinpoint stimulation, MultiCycle sliding sleeves, tracer diagnostics services and our technical engineering resources.

In the U.S. and Canada, sales of our Multistage Unlimited products and services, tracer diagnostics services and ATRS services are made directly to E&P companies. Our customers also hire the coiled tubing companies and pressure pumping services companies that work alongside us during the completion of a well. We provide our AirLock casing buoyancy system and liner hanger products directly to E&P companies as well as to oilfield services companies that act as distributors for those product lines. Although we do not typically maintain supply or service contracts with our customers, a significant portion of our sales represent repeat business.

International sales are typically made to our local operating partners on a free on board basis with a point of sale in the United States. Some of the locations in which we have operating partners or sales representatives include Argentina, China, Russia 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.

We provide extensive support services and have developed proprietary methodologies for assessing and reporting the information that is collected on our downhole gauges and through tracer diagnostics evaluations. In addition, ATRS engineers work with customers to evaluate post-completion well performance and on a pre-job basis to simulate the production and economic outcomes from pinpoint stimulation strategies relative to traditional completion techniques. We also provide technical education to the coiled tubing services companies and pressure pumping services companies, explaining the benefits of utilizing our technology for their operations and our customers.

In addition to the technical marketing effort, we occasionally engage in field trials to demonstrate the economic benefits of our products and services. Periodically, we will provide ATRS services to E&P companies on a discounted basis, in exchange for their agreement to provide production data for direct comparison of the results of pinpoint stimulation to traditional completion techniques.

Seasonality

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.

Suppliers and Raw Materials

We acquire component parts and raw materials from suppliers, including machine shops. The prices we pay for our raw materials may be affected by, among other things, energy, steel and other commodity prices, tariffs and duties on imported materials and foreign currency exchange rates. Most of the raw materials we use in our operations, such as steel in various forms, electronic components, chemicals and elastomers are available from many sources.

We generally try to purchase our raw materials from multiple suppliers, so we are not dependent on any one supplier. We will generally utilize multiple machine shops for the manufacturing of our component parts so that we are not dependent on any one machine shop. Our suppliers are also active in multiple regions which allows us to react to changes in foreign currency exchange rates. During 2017, we added suppliers to increase third-party component part supply capacity. In addition, our joint venture, Repeat Precision, LLC (“Repeat Precision”), allows us to reduce our costs for certain product categories.

Operating Risks and Insurance

We currently carry a variety of insurance for our operations. Although we believe we currently maintain insurance coverage adequate for the risks involved, there is a risk our insurance may not be sufficient to cover any particular loss or that our insurance may not cover all losses.

Competition

The markets in which we operate are highly competitive. To be successful, we must provide services and products that meet the specific needs of E&P companies at competitive prices. We compete in all areas of our operations with a number of companies, some of which have financial and other resources greater than or comparable to ours.

We believe that we compete not only against other providers of pinpoint stimulation equipment and services, but also with companies that support the other primary means of hydraulically fracturing a horizontal well, including plug and perf and ball drop completions.

Our major competitors for our completion products and services include Schlumberger Limited, Halliburton Company, Baker Hughes, a GE company (“Baker Hughes”), Weatherford International Ltd, Packers Plus Energy Services, Nine Energy Service Inc., Superior Energy Services Inc. and Core Laboratories N.V. as well as a number of smaller or regional competitors.

We believe that the most significant factors influencing our customer’s decision to utilize our equipment and services are technology, service quality, safety track record and price. While we must be competitive in our pricing, we believe our customers select our products and services based on the technical attributes of our products and equipment, the level of technical and operational service we provide before, during and after the job, and the know-how derived from our extensive operational track record.

Environmental and Occupational Health and Safety Matters

We are subject to stringent and complex federal, state, provincial and local laws and regulations governing the discharge of materials into the environment or otherwise relating to protection of worker health, safety and the environment. Compliance with these laws and regulations may require the acquisition of permits to conduct regulated activities, capital expenditures to prevent, limit or address emissions and discharges, and stringent practices to handle, recycle and dispose of certain wastes and materials. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of remedial or corrective obligations, and the issuance of injunctive relief.

We believe that we are in substantial compliance with applicable environmental, health and safety laws and regulations. Further, we do not anticipate that compliance with existing environmental, health and safety laws and regulations will have a material effect on our consolidated financial statements. However, laws and regulations protecting the environment generally have become more stringent in recent years and are expected to continue to do so. It is possible, that substantial costs for compliance with applicable environmental, health and safety laws and regulations may be incurred in the future. Moreover, it is possible that other developments, such as the adoption of stricter environmental laws, regulations, and enforcement policies, could result in additional costs or liabilities that we cannot currently quantify.

While we do not anticipate that compliance with existing environmental, health and safety laws and regulations will have a direct adverse effect on our operations, our customers are subject to a wide range of such laws and regulations, which could materially and adversely affect their businesses and indirectly, through reduced demand for our products and services, have a material adverse effect on our business, financial condition and results of operations, including with respect to the following:

- **Air Emissions.** The Federal Clean Air Act (the “CAA”) and comparable state laws regulate emissions of various air pollutants through air emissions permitting programs and the imposition of other emission control requirements. In addition, the Environmental Protection Agency (“EPA”) has developed, and continues to develop, stringent regulations governing emissions of toxic air pollutants at specified sources. Non-compliance with air permits or other requirements of the CAA and associated state laws and regulations can result in the imposition of administrative, civil and criminal penalties, as well as the issuance of orders or injunctions limiting or prohibiting non-compliant operations.
- **Water Discharges.** The Federal Clean Water Act (the “CWA”), and analogous state laws impose restrictions and strict controls with respect to the discharge of pollutants, including spills and leaks of oil and other substances, into state waters or waters of the United States. The discharge of pollutants into regulated waters is prohibited, except in accordance with the terms of a permit issued by the EPA or an analogous state agency. Federal and state regulatory agencies can impose administrative, civil and criminal penalties as well as other enforcement mechanisms for non-compliance with discharge permits or other requirements of the CWA and analogous state laws and regulations.

- Climate Change.** Our customers are or may become subject to statutes or regulations aiming to reduce emissions of GHGs. In December 2009, the EPA determined that emissions of carbon dioxide, methane and other GHGs present an endangerment to public health and the environment because emissions of such gases are, according to the EPA, contributing to warming of the earth's atmosphere and other climatic changes. Based on these findings, the EPA has begun adopting and implementing regulations to restrict emissions of GHGs under existing provisions of the CAA. For example, in June 2016, the EPA published final rules under the CAA that establish new and more stringent emission control standards for methane and volatile organic compounds ("VOCs") released from new and modified oil and natural gas development and production operations. These rules could have an adverse effect on our customers and result in an indirect material adverse effect on our business. However, in June 2017, the EPA published a proposal to stay the implementation of certain requirements while it reconsiders the rules. These rules have also been the subject of litigation. As a result, the future implementation of these rules remains uncertain. In addition, the United States and Canada are among almost 200 nations that, in December 2015, agreed to the Paris Agreement, an international climate change agreement that calls for countries to set their own GHG emissions targets and be transparent about the measures each country will use to achieve its GHG emissions targets. The agreement entered into force on November 4, 2016. On June 1, 2017, the Trump Administration announced that the United States would be pulling out of the Paris Agreement. Although it is not possible at this time to predict how any legal requirements imposed following the implementation of the Paris Agreement that may be adopted or issued to address GHG emissions would impact our business or that of our customers, any such future laws, regulations or legal requirements imposing reporting or permitting obligations on, or limiting emissions of GHGs from, oil and natural gas exploration activities could require our customers to incur costs to reduce emissions of GHGs associated with their operations. In addition, substantial limitations on GHG emissions could adversely affect demand for the oil and natural gas our customers produce.
- Non-Hazardous and Hazardous Wastes.** The Resource Conservation and Recovery Act ("RCRA") and comparable state laws control the management and disposal of hazardous and non-hazardous waste. These laws and regulations govern the generation, storage, treatment, transfer and disposal of wastes that our customers generate. Drilling fluids, produced waters, and most of the other wastes associated with the exploration, development, and production of oil or natural gas, if properly handled, are currently exempt from regulation as hazardous waste under RCRA and, instead, are regulated under RCRA's less stringent non-hazardous waste provisions, state laws or other federal laws. It is possible, however, that certain oil and natural gas drilling and production wastes now classified as non-hazardous could be classified as hazardous wastes in the future. For example, in May 2016, several non-governmental environmental groups filed suit against the EPA in the U.S. District Court for the District of Columbia for failing to timely assess its RCRA Subtitle D criteria regulations for oil and natural gas wastes, asserting that the agency is required to review its Subtitle D regulations every three years but has not conducted an assessment on those oil and natural gas waste regulations since July 1988. A loss of the RCRA exclusion for drilling fluids, produced waters and related wastes could result in an increase in our customers' costs to manage and dispose of generated wastes and a corresponding decrease in their drilling operations, which developments could have a material adverse effect on our business.

The Comprehensive Environmental Response, Compensation, and Liability Act, and comparable state laws, impose joint and several liability, without regard to fault or legality of conduct, on classes of persons who are considered to be responsible for the release of a hazardous substance into the environment. These persons include the owner or operator of the site where the release occurred, and anyone who disposed or arranged for the disposal of a hazardous substance released at the site. In addition, it is not uncommon for neighboring landowners and other third-parties to file claims for personal injury and property damage allegedly caused by hazardous substances released into the environment.

The oil and natural gas industry is extensively regulated by numerous federal, state and local authorities. Legislation affecting the oil and natural gas industry is under constant review for amendment or expansion, frequently increasing the regulatory burden. Also, numerous departments and agencies, at the federal, state and local level, are authorized to issue rules and regulations that are binding on the oil and natural gas industry and its individual members, some of which carry substantial penalties for failure to comply. Although changes to the regulatory burden on the oil and natural gas industry could affect the demand for our services, we would not expect to be affected any differently or to any greater or lesser extent than other companies in the industry with similar operations.

Our customers' operations are subject to various types of regulation at the federal, state and local level. These types of regulation include requiring permits for the drilling of wells, drilling bonds and reports concerning operations. The effect of these regulations may be to limit or increase the cost of oil and natural gas exploration and production, which could have a material adverse effect on our customers and indirectly materially and adversely affect our business.

We supply equipment and services to customers in the oil and natural gas industry conducting hydraulic fracturing operations. Although we do not directly engage in hydraulic fracturing activities, our customers purchase our products and services for use in their hydraulic fracturing activities. Hydraulic fracturing is typically regulated by state oil and natural gas commissions and similar agencies. Some states have adopted, and other states are considering adopting, regulations that could impose new or more stringent permitting, disclosure or well construction requirements on hydraulic fracturing operations. States could also elect to prohibit high volume hydraulic fracturing altogether, following the approach taken by the State of New York in 2015. Aside from state laws, local

land use restrictions may restrict drilling in general or hydraulic fracturing in particular. Municipalities may adopt local ordinances attempting to prohibit hydraulic fracturing altogether or, at a minimum, allow such fracturing processes within their jurisdictions to proceed but regulating the time, place and manner of those processes. In addition, federal agencies have asserted regulatory authority over the process and various studies have also been conducted or are currently underway by the EPA, and other federal agencies concerning the potential environmental impacts of hydraulic fracturing activities. State and federal regulatory agencies have recently focused on a possible connection between the operation of injection wells used for oil and natural gas waste disposal and seismic activity. Similar concerns have been raised that hydraulic fracturing may also contribute to seismic activity. At the same time, certain environmental groups have suggested that additional laws may be needed to more closely and uniformly limit or otherwise regulate the hydraulic fracturing process, and legislation has been proposed by some members of Congress to provide for such regulation.

The adoption of new laws or regulations at the federal or state levels prohibiting, limiting or otherwise regulating the hydraulic fracturing process could make it more difficult, or even impossible, to complete oil and natural gas wells, increase our customers' costs of compliance and doing business, and otherwise adversely affect the hydraulic fracturing services they perform, which could negatively impact demand for our products and services. In addition, heightened political, regulatory, and public scrutiny of hydraulic fracturing practices could expose us or our customers to increased legal and regulatory proceedings, which could be time-consuming, costly, or result in substantial legal liability or significant reputational harm. We could be directly affected by adverse litigation involving us, or indirectly affected if the cost of compliance limits the ability of our customers to operate. Such costs and scrutiny could directly or indirectly, through reduced demand for our products and services, have a material adverse effect on our business, financial condition and results of operations.

We are subject to a number of federal and state laws and regulations, including the federal Occupational Safety and Health Act and comparable state statutes, establishing requirements to protect the health and safety of workers. Substantial fines and penalties can be imposed and orders or injunctions limiting or prohibiting certain operations may be issued in connection with any failure to comply with laws and regulations relating to worker health and safety.

Part of our business involves the use of radioactive tracers, typically consisting of three standard isotopes (Iridium 192, Scandium 46 and Antimony 124), to help determine the existence of fractures within a well formation. The use of these materials requires us to obtain and comply with radioactive materials licenses issued by the U.S. Nuclear Regulatory Commission ("NRC") or its counterparts in the states where we perform these services if they are among the states to which the NRC has delegated its regulatory authority pursuant to the Atomic Energy Act (so-called "Agreement States"). Under the terms of these licenses, we are required to train designated personnel, maintain records, submit periodic reports, ensure the safety and reliability of related equipment and storage facilities, conduct radiation safety monitoring, and ensure the proper disposal of materials and equipment at the end of their useful lives. In the event we fail to adequately comply with these requirements, we could be subject to enforcement action, which could include fines, injunctive relief, or the revocation of our licenses.

Employees

As of December 31, 2017, we had 363 employees. 256 of our employees as of such date were based in the United States, 104 were based in Canada and three were based outside of North America. Our international operations are currently serviced by employees operating out of the United States and Canada. We are not a party to any collective bargaining agreements, and we consider our relations with our employees to be good.

Item 1A. Risk Factors

Described below are certain risks that we believe apply to our business and the industry in which we operate. You should carefully consider each of the following risk factors in conjunction with other information provided in this Form 10-K and in our other public disclosures. The risks described below highlight potential events, trends or other circumstances that could adversely affect our business, financial condition, results of operations, cash flows, liquidity or access to sources of financing, and consequently, the market value of our common stock. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also materially adversely affect our business, financial condition and results of operations. All forward-looking statements made by us or on our behalf are qualified by the risks described below.

Risks Related to Our Business and the Oil and Natural Gas Industry

Our business depends on the oil and natural gas industry and particularly on the level of exploration and production activity within Canada and the United States, and the volatility of prices for oil and natural gas has had, and may continue to have, a material adverse effect on our business, financial condition and results of operations.

Demand for our products and services depends substantially on the level of expenditures by companies in the oil and natural gas industry. The average price of oil during the year ended December 31, 2017 was \$50.78 per barrel. This average oil price remains well

below the average prices in 2014. The low commodity price environment resulted in a reduction in the drilling, completion and other production activities of most of our customers and a reduction in their spending on our products and services. The reduction in demand from our customers reduced the prices we were able to charge our customers for our products and services. Although oil pricing has improved since mid-2016, and the demand for our products and services has subsequently increased, oil and natural gas prices remain volatile, and prolonged reductions in oil and natural gas prices have had and may continue to have a material adverse effect on our business, financial condition and results of operations.

Many factors over which we have no control affect the supply of and demand for, and our customers' willingness to explore, develop and produce oil and natural gas, and therefore, influence demand levels and prices for our products and services, including:

- the domestic and foreign supply of and demand for oil and natural gas;
- the level of prices, and expectations about future prices, of oil and natural gas;
- the level of global oil and natural gas exploration and production;
- the cost of exploring for, developing, producing and delivering oil and natural gas;
- the expected decline rates of current production;
- the price and quantity of foreign imports;
- political and economic conditions in oil producing countries, including the Middle East, Africa, South America and Russia;
- the ability of members of the Organization of Petroleum Exporting Countries to agree to and maintain oil price and production controls;
- speculative trading in crude oil and natural gas derivative contracts;
- the level of consumer product demand;
- the discovery rates of new oil and natural gas reserves;
- contractions in the credit market;
- the strength or weakness of the U.S. dollar;
- available pipeline and other transportation capacity;
- the levels of oil and natural gas storage;
- weather conditions and other natural disasters;
- political instability in oil and natural gas producing countries;
- domestic and foreign tax policy;
- domestic and foreign governmental approvals and regulatory requirements and conditions;
- the continued threat of terrorism and the impact of military and other action, including military action in the Middle East;
- technical advances affecting energy demand, generation and consumption;
- the proximity and capacity of oil and natural gas pipelines and other transportation facilities;
- alternative fuel requirements or technological advances and the demand and availability of alternative fuel sources;
- fuel conservation measures;
- the ability of oil and natural gas producers to raise equity capital and debt financing;
- merger and divestiture activity among oil and natural gas producers; and
- overall domestic and global economic conditions.

These factors and the volatility of the energy markets make it difficult to predict future oil and natural gas price movements with any certainty or how long the current low commodity price environment will continue. Any of the above factors could impact the level of oil and natural gas exploration and production activity and could have a material adverse effect on our business, financial condition and results of operations. Further, should the low commodity price environment continue or worsen, we could encounter difficulties such as an inability to access needed capital on attractive terms or at all, the incurrence of asset impairment charges, an inability to meet the financial ratios contained in our debt agreements, a need to reduce our capital spending and other similar impacts any of which could have a material adverse effect on our business, financial condition and results of operations.

The cyclical nature of the oil and natural gas industry may cause our results of operations to fluctuate.

We derive our revenues from companies in the oil and natural gas exploration and production industry, a historically cyclical industry with levels of activity that are significantly affected by the levels and volatility of oil and natural gas prices. Prices for oil and natural gas historically have been extremely volatile and are expected to continue to be volatile. During the past four years, the posted West Texas Intermediate (WTI) price for oil has ranged from a low of \$26.21 per barrel, or Bbl, in February 2016 to a high of \$107.95 per Bbl in June 2014. Over the same period, the Henry Hub spot market price of natural gas has ranged from a low of \$1.49 per million British thermal units, or MMBtu, in March 2016 to a high of \$7.92 per MMBtu in March 2014. During 2016, WTI prices ranged from \$26.21 to \$54.06 per Bbl and during 2017, WTI prices ranged from \$42.48 to \$60.46 per Bbl. During 2016, the Henry Hub spot market price of natural gas ranged from \$1.49 to \$3.80 per MMBtu and during 2017, the Henry Hub spot market price of natural gas ranged from \$2.44 to \$3.71 per MMBtu. We have, and may in the future, experience significant fluctuations in operating results as a result of the reactions of our customers to changes in oil and natural gas prices. For example, prolonged low commodity prices experienced by the oil and natural gas industry during 2015 and 2016, combined with adverse changes in the capital and credit markets, caused many E&P companies to reduce their capital budgets and drilling activity. This resulted in a significant decline in demand for oilfield services and adversely impacted the prices oilfield services companies could charge for their services. We have master services agreements (“MSAs”) with most of our customers which have no minimum purchase requirements. As a result, most of our customers are not obligated to buy our products or utilize our services for an extended period or at all.

Low commodity price environments can negatively impact oil and natural gas E&P companies and, in some cases, impair their ability to timely pay for products or services provided or can result in their insolvency or bankruptcy, any of which exposes us to credit risk of our oil and natural gas exploration and production customers.

In weak economic and commodity price environments, we may experience difficulties, delays or failures in collecting outstanding receivables from our customers, due to, among other reasons, a reduction in their cash flow from operations, their inability to access the credit markets and, in certain cases, their insolvencies. Such collection issues could have a material adverse effect on our business, financial condition and results of operations.

To the extent one or more of our key customers commences bankruptcy proceedings, our contracts with these customers may be subject to rejection under applicable provisions of the United States Bankruptcy Code, or may be renegotiated. Further, during any such bankruptcy proceeding, prior to assumption, rejection or renegotiation of such contracts, the bankruptcy court may temporarily authorize the payment of value for our services less than contractually required, which could also have a material adverse effect on our business, financial condition and results of operations.

A single customer constituted 14%, 26% and 31% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively, and the loss of that customer or any other of our significant customers, or their failure to pay the amounts they owe us, could cause our revenue to decline substantially.

Our largest customer is Crescent Point which accounted for approximately 14%, 26% and 31% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. Additionally, our top five customers accounted for approximately 30%, 49% and 44% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. It is likely that we will continue to derive a significant portion of our revenue from these customers in the near future. If any of these customers decided not to continue to use our products and services, our revenue would decline, which could have a material adverse effect on our business, financial condition and results of operations. In addition, we are subject to credit risk due to the concentration of our customer base. Any nonperformance by these customers, including their failure to pay the amounts they owe us, either as a result of changes in general financial and economic conditions, conditions in the oil and natural gas industry or otherwise, could have a material adverse effect on our business, financial condition and results of operations.

We may not be able to successfully implement our strategy of increasing sales of our products and services for use in basins located in the United States.

A key component of our growth strategy is to increase our market share in the United States. Our products and services enable pinpoint stimulation of an oil or natural gas well. Currently, most E&P companies in the United States rely on traditional well completion techniques and do not utilize pinpoint stimulation. We may not be successful in convincing potential customers of the benefits of our technologies relative to traditional well completion techniques. If we are unable to convince potential customers in the United States of the benefits of our pinpoint stimulation, we will not be able to execute on our strategy to increase the level of sales of our products and services in the United States, which could harm our growth prospects. Additionally, the sales of our products and services depend in large part on the perception of pinpoint stimulation in the oil and natural gas industry. Events that would harm the perception of pinpoint stimulation, including unfavorable industry reports or poor well performance for wells that were completed using pinpoint stimulation could impact our ability to grow our U.S. sales, which could harm our growth prospects.

Competition within our industry may adversely affect our ability to market our services.

The markets in which we operate are generally highly competitive. The principal competitive factors in our market are technology, service quality, safety track record and price. We compete with large national and multi-national companies that have substantially longer operating histories, greater financial, technical and other resources and greater name recognition than we do. Several of our competitors provide a broader array of services and have a stronger presence in more geographic markets. In addition, we compete with several smaller companies capable of competing effectively on a regional or local basis. Our competitors may be able to respond more quickly to new or emerging technologies, products and services and changes in customer requirements. In certain circumstances, work is awarded on a bid basis, which further increases competition based on price. Pricing is often the primary factor in determining which qualified contractor is awarded the work. The competitive environment may be further intensified by mergers and acquisitions among oil and natural gas companies or other events that have the effect of reducing the number of available customers. As a result of competition, we may lose market share or be unable to maintain or increase prices for our present services or to acquire additional business opportunities, which could have a material adverse effect on our business, financial condition and results of operations.

Advancements in drilling and well completion technologies could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our industry is characterized by rapid and significant technological advancements and introductions of new products and services using new technologies. As new well completion technologies develop, we may be placed at a competitive disadvantage, and competitive pressure may force us to implement new technologies at a substantial cost. We may not be able to successfully acquire or use new technologies. New technologies, services or standards, including improvements to existing competing technologies, could render our technologies, products or services obsolete, which could have a material adverse effect on our business, financial condition and results of operations. In addition, the development of new processes to replace hydraulic fracturing altogether or that replace our technologies, could cause a decline in the demand for the products and services that we provide and could result in a material adverse effect on our business, financial condition and results of operations.

We often have long sales cycles, which can result in significant time between initial contact with a prospective customer and sales of our products and services to that customer, making it difficult to project when, if at all, we will obtain new customers and when we will generate revenue from those customers.

Our sales cycle, from initial contact to sales of our products and services to a customer can take significant time. Our sales efforts involve educating our customers about the use, technical capabilities and benefits of our completion technologies. Some of our customers undertake an evaluation process that frequently involves not only our technology but also the offerings of our competitors. As a result, it is difficult to predict when we will obtain new customers and begin generating revenue from these new customers. As a result, we may not be able to add customers, or generate revenue, as quickly as we may expect, which could harm our growth prospects.

Our success depends on our ability to develop and implement new technologies, products and services.

Our success depends on the ongoing development and implementation of new product designs and improvements, and on our ability to protect and maintain critical intellectual property assets related to these developments. If we are not able to obtain patent or other intellectual property protection of our technology, we may not be able to recoup development costs or fully exploit systems, services and technologies in a manner that allows us to meet evolving industry requirements at prices acceptable to our customers. In addition, some of our competitors are large national and multinational companies that may be able to devote greater financial, technical, manufacturing and marketing resources to research and development of new systems, services and technologies than we are able to do.

Investments in new technologies involve uncertainties and risk. Commercial success depends on many factors, including the levels of innovation, the development costs and the availability of capital resources to fund those costs, the levels of competition from others developing similar or other competing technologies, our ability to obtain or maintain government permits or certifications, the effectiveness of production, distribution and marketing efforts, and the costs to customers to deploy and provide support for the new technologies. We may not achieve significant revenues from new product and service investments for a number of years, if at all, which could have a material adverse effect on our business, financial condition and results of operations.

Most of our revenue generated is denominated in the Canadian dollar and could be negatively impacted by currency fluctuations.

Because approximately 63% of our revenue for the year ended December 31, 2017 was generated in Canada, we could be materially affected by currency fluctuations. Changes in currency exchange rates, particularly with respect to the Canadian dollar (“CAD”), could have a material adverse effect on our results of operations or financial position. As we have a trade accounts receivable balance in Canadian dollars of \$27.3 million CAD as of December 31, 2017 a 10% increase in the strength of the Canadian dollar versus the U.S. dollar would result in an increase in pre-tax income of \$2.0 million. Conversely, a corresponding decrease in the strength of the Canadian dollar would have resulted in a comparable decrease in pre-tax income. We have not hedged our exposure to changes in foreign currency exchange rates and, as a result, could incur significant and unanticipated translation gains and losses.

Our operations may be limited or disrupted in certain parts of the continental United States and Canada during severe weather conditions, which could have a material adverse effect on our business, financial condition and results of operations.

We provide products and services to E&P companies that operate in basins throughout the continental United States and Canada. We serve these markets through our facilities and service centers located in Texas, Oklahoma, Montana, West Virginia and Alberta and Saskatchewan, Canada. A substantial portion of our revenue is generated from our operations in geographies where weather conditions may be severe, particularly during winter and spring months. Repercussions of severe weather conditions may include:

- curtailment of drilling and completion activity;
- weather-related damage to equipment resulting in suspension of operations;
- weather-related damage to our facilities;
- inability to deliver equipment and materials to jobsites in accordance with contract schedules; and
- loss of productivity.

Many municipalities impose bans or other restrictions on the use of roads and highways, which include weight restrictions on the paved roads that lead to our jobsites due to the muddy conditions caused by spring thaws. This can limit our access to these jobsites and our ability to service wells in these areas. These constraints and the resulting shortages or high costs could delay our operations and materially increase our operating and capital costs in those regions. Weather conditions may also affect the price of crude oil and natural gas, and related demand for our services. Any of these factors could have a material adverse effect on our business, financial condition and results of operations.

Hydraulic fracturing is substantially dependent on the availability of water. Restrictions on the ability of our customers to obtain water may have a material adverse effect on our business, financial condition and results of operations.

Water is an essential component of deep shale oil and natural gas production during both the drilling and hydraulic fracturing processes. Over the past several years, certain of the areas in which we sell our products and services have experienced extreme drought conditions and competition for water in such shales is growing. As a result of this severe drought, some local water districts have begun restricting the use of water subject to their jurisdiction for hydraulic fracturing to protect local water supply. The inability of our customers to obtain water to use in their operations from local sources or to effectively utilize flowback water could impact demand for our products and services, which could have a material adverse effect on our business, financial condition and results of operations.

The growth of our business through acquisitions or strategic partnerships exposes us to various risks, including identifying suitable opportunities and integrating businesses, assets and personnel.

We completed the acquisition of Spectrum in 2017 (the “Spectrum Acquisition”) and we expect to pursue future acquisitions in order to expand and diversify our business. We may also form strategic partnerships with third parties that we believe will complement or augment our existing business. We may not be able to identify any potential acquisition or strategic partnership candidates, consummate any acquisitions or enter into any strategic partnerships and any future acquisitions or strategic partnerships may not be successfully integrated or may not be advantageous to us. In addition, we may not have or be able to obtain sufficient capital resources to complete any acquisitions. Entities we acquire may not achieve the revenue and earnings we anticipate or their liabilities may exceed our expectations. We could face integration issues pertaining to the internal controls and operational functions of the acquired companies and we also could fail to realize cost efficiencies or synergies that we anticipated when selecting our acquisition candidates. Client dissatisfaction or performance problems with a particular acquired entity or resulting from a strategic partnership could have a material adverse effect on our reputation as a whole. We may be unable to profitably manage any acquired entities, or we may fail to integrate them successfully without incurring substantial expenses, delays or other problems. We may not achieve the anticipated benefits from our acquisitions or any of the strategic partnerships we form. In addition, business acquisitions, including the Spectrum Acquisition, and strategic partnerships involve a number of risks that could affect our business, financial condition and results of operations, including but not limited to:

- our ability to integrate operational, accounting and technology policies, processes and systems and the implementation of those policies and procedures;
- our ability to integrate personnel and human resources systems as well as the cultures of each of the acquired businesses;
- our ability to implement our business plan for the acquired business;
- transition of operations, users and clients to our existing platforms or the integration of data, systems and technology platforms with ours;
- compliance with regulatory requirements and avoiding potential conflicts of interest in markets that we serve;
- diversion of management’s attention and other resources;
- our ability to retain or replace key personnel;
- our ability to maintain relationships with the customers of the acquired business or a strategic partner and further develop the acquired business or the business of our strategic partner;
- our ability to cross-sell our products and services of the acquired businesses or strategic partners to our respective clients;
- entry into unfamiliar markets;
- assumption of unanticipated legal or financial liabilities and/or negative publicity related to prior acts by the acquired entity;
- litigation or other claims in connection with the acquired company, including claims from terminated employees, clients, former stockholders or third parties;
- misuse of intellectual property by our strategic partners;
- disagreements with strategic partners or a misalignment of incentives within any strategic partnership;
- becoming subject to increased regulation or a result of an acquisition;
- becoming significantly leveraged as a result of incurring debt to finance an acquisition;
- unanticipated operating, accounting or management difficulties in connection with the acquired entities; and
- impairment of acquired intangible assets, including goodwill, and dilution to our earnings per share.

If we fail to successfully integrate the businesses that we acquire or strategic partnerships that we enter into, we may not realize any of the benefits we anticipate in connection with the acquisitions or partnerships, which could have a material adverse effect on our business, financial condition and results of operations.

If we are unable to accurately predict customer demand or if customers cancel their orders on short notice, we may hold excess or obsolete inventory, which would reduce gross margins. Conversely, insufficient inventory would result in lost revenue opportunities and potentially in loss of market share and damaged customer relationships.

Customers can generally cancel or defer purchase orders on short notice without incurring a significant penalty. As a result, we cannot accurately predict what or how many products such customers will need in the future. Anticipating demand is difficult because our customers face unpredictable demand for their own products and are increasingly focused on cash preservation and tighter inventory management.

Orders are placed with our suppliers based on forecasts of customer demand and, in some instances, we may establish buffer inventories to accommodate anticipated demand. Our forecasts of customer demand are based on multiple assumptions, each of which may introduce errors into the estimates. If we overestimate customer demand, we may allocate resources to the purchase of material or manufactured products that we may not be able to sell when we expect to, if at all. As a result, we would hold excess or obsolete inventory, which would reduce gross margin and adversely affect financial results. Conversely, if we underestimate customer demand or if insufficient manufacturing capacity is available, we would miss revenue opportunities and potentially lose market share and damage our customer relationships. In addition, any future significant cancellations or deferrals of product orders or the return of previously sold products could materially and adversely affect profit margins, increase product obsolescence and restrict our ability to fund our operations.

Our products are used in operations that are subject to potential hazards inherent in the oil and natural gas industry, including claims for personal injury and property damage, and, as a result, we are exposed to potential liabilities that may affect our financial condition and reputation.

Our products are used in potentially hazardous drilling, completion and production applications in the oil and natural gas industry where an accident or a failure of a product can potentially have catastrophic consequences. Risks inherent to these applications, such as equipment malfunctions and failures, equipment misuse and defects, explosions, blowouts and uncontrollable flows of oil, natural gas or well fluids and natural disasters can cause personal injury, loss of life, suspension of operations, damage to formations, damage to facilities, business interruption and damage to or destruction of property, surface water and drinking water resources, equipment and the environment. If our products or services fail to meet specifications or are involved in accidents or failures, we could face warranty, contract or other litigation claims, which could expose us to substantial liability for personal injury, wrongful death, property damage, pollution and other environmental damages. We operate with most of our customers under MSAs. We endeavor to allocate potential liabilities and risks between the parties in MSAs, which may result in material liability to us. In addition, despite our intention to generally allocate risk under MSAs, we might not succeed in enforcing such contractual allocation, might incur an unforeseen liability falling outside the scope of such allocation or may be required to enter into an MSA with terms that are unfavorable to us. As a result, we may incur substantial losses which could have a material adverse effect on our business, financial condition and results of operations.

In addition, the frequency and severity of such incidents will affect operating costs, insurability and relationships with customers, employees and regulators. In particular, our customers may elect not to purchase our services if they view our safety record as unacceptable, which could cause us to lose customers and substantial revenues. In addition, these risks may be greater for us because we may acquire companies that have not allocated significant resources and management focus to safety and have a poor safety record requiring rehabilitative efforts during the integration process and we may incur liabilities for losses before such rehabilitation occurs.

Losses and liabilities from uninsured or underinsured drilling and operating activities could have a material adverse effect on our financial condition and operations.

Our insurance policies may not be adequate to cover all liabilities. Further, insurance may not be generally available in the future or, if available, insurance premiums may make such insurance commercially unjustifiable. Moreover, even if we are successful in defending a claim, it could be time-consuming and costly to defend. The operational insurance coverage we maintain for our business may not fully insure us against all risks, either because insurance is not available or because of the high premium costs relative to perceived risk. Further, any insurance obtained by us may not be adequate to cover any losses or liabilities and this insurance may not continue to be available at all or on terms which are acceptable to us. Insurance rates have in the past been subject to wide fluctuation and changes in coverage could result in less coverage, increases in cost or higher deductibles and retentions. Liabilities for which we are not insured, or which exceed the policy limits of our applicable insurance, could have a material adverse effect on our business, financial condition and results of operations.

Our competitors may infringe upon, misappropriate, violate or challenge the validity or enforceability of our intellectual property and we may not be able to adequately protect or enforce our intellectual property rights in the future.

We currently hold multiple U.S. and international patents and have multiple pending patent applications for products and processes. Patent rights give the owner of a patent the right to exclude third parties from making, using, selling, and offering for sale the inventions claimed in the patents in the applicable country. Patent rights do not necessarily grant the owner of a patent the right to practice the invention claimed in a patent, but merely the right to exclude others from practicing the invention claimed in the patent. It may be possible for a third-party to design around our patents. Furthermore, patent rights have strict territorial limits. We may not be able to enforce our patents against infringement occurring in “non-covered” territories. Also, we do not have patents in every jurisdiction in which we conduct business and our patent portfolio will not protect all aspects of our business and may relate to obsolete or unusual methods, which would not prevent third parties from entering the same market.

In addition, by customarily entering into employment, confidentiality and/or license agreements with our employees, customers and potential customers and suppliers, we attempt to limit access to and distribution of our technology. Our rights in our confidential information, trade secrets, and confidential know-how will not prevent third parties from independently developing similar information. Publicly available information (e.g. information in expired issued patents, published patent applications, and scientific literature) can also be used by third parties to independently develop technology. This independently developed technology may be equivalent or superior to our proprietary technology.

Confidential information shared with employees, customers and potential customers and suppliers may be used by those parties in a manner inconsistent with their employment, confidentiality and/or license agreements and we may not be able to adequately protect against or stop such behavior. We may not be able to determine if competitive technology offered by third parties was independently developed or resulted from breach of our agreements. When we do become aware of breaches, we may become involved in legal proceedings from time to time to protect our legal interests and enforce such agreements.

We may be adversely affected by disputes regarding intellectual property rights and the value of our intellectual property rights is uncertain.

As discussed above, we may become involved in legal proceedings from time to time to protect and enforce our intellectual property rights. Third parties from time to time may initiate litigation against us by asserting that the conduct of our business infringes, misappropriates or otherwise violates intellectual property rights. We may not prevail in any such legal proceedings related to such claims, and our products and services may be found to infringe, impair, misappropriate, dilute or otherwise violate the intellectual property rights of others. If we are sued for infringement and lose, we could be required to pay substantial damages and/or be enjoined from using or selling the infringing products or technology. Any legal proceeding concerning intellectual property could be protracted and costly and is inherently unpredictable and could have a material adverse effect on our business, financial condition and results of operation, regardless of its outcome.

Further, our intellectual property rights may not have the value that management believes them to have and such value may change over time as we and others develop new product designs and improvements.

The adoption of climate change legislation or regulations restricting emissions of GHGs could result in increased operating costs and reduced demand for oil and natural gas.

In recent years, federal, state and local governments have taken steps to reduce emissions of GHGs. The EPA has finalized a series of GHG monitoring, reporting and emissions control rules for the oil and natural gas industry. For example, in October 2015, the EPA finalized rules adding new sources to the scope of the GHG monitoring and reporting rule. These new sources include gathering and boosting facilities as well as completions and workovers of hydraulically fractured wells. More recently, in June 2016, the EPA published final rules establishing new and more stringent methane and VOCs emissions control requirements for oil and natural gas development and production operations. However, in June 2017, the EPA published a proposal to stay the implementation of certain requirements while it reconsiders the rules. These rules have also been the subject of litigation. As a result, the future implementation of these rules remains uncertain.

While Congress has from time to time considered legislation to reduce emissions of GHGs, there has not been significant activity in the form of adopted legislation to reduce GHG emissions at the federal level in recent years. In the absence of federal climate legislation, a number of state and regional efforts have emerged that are aimed at tracking or reducing GHG emissions by means of cap and trade programs. In addition, in December 2015, the United States joined the international community at the 21st Conference of the Parties of the United Nations Framework Convention on Climate Change in Paris, France. The resulting Paris Agreement calls for the parties to undertake “ambitious efforts” to limit the average global temperature, and to conserve and enhance sinks and reservoirs of GHGs. The Paris Agreement, which entered into force on November 4, 2016, establishes a framework for the parties to cooperate and report actions to reduce GHG emissions. The direction of future U.S. climate change regulation is difficult to predict given the current uncertainties surrounding the policies of the Trump Administration. The EPA may or may not continue

developing regulations to reduce greenhouse gas emissions from the oil and natural gas industry. Even if federal efforts in this area slow, states may continue pursuing climate regulations.

Restrictions on emissions of methane or carbon dioxide that may be imposed could adversely affect the oil and natural gas industry by reducing demand for hydrocarbons and by making it more expensive to develop and produce hydrocarbons, either of which could have a material adverse effect on future demand for our products and services. At this time, it is not possible to accurately estimate how potential future laws or regulations addressing GHG emissions would impact our or our customers' business.

In addition, claims have been made against certain energy companies alleging that GHG emissions from oil and natural gas operations constitute a public nuisance under federal and/or state common law. As a result, private individuals may seek to enforce environmental laws and regulations against certain energy companies and could allege personal injury or property damages. While our business is not a party to any such litigation, we could be named in actions making similar allegations. An unfavorable ruling in any such case could significantly impact our or our customers' operations and could have a material adverse effect on our business, financial condition and results of operations.

Moreover, climate change may cause more extreme weather conditions such as more intense hurricanes, thunderstorms, tornadoes and snow or ice storms, as well as rising sea levels and increased volatility in seasonal temperatures. Extreme weather conditions can interfere with our or our customers' operations and increase our costs, and damage resulting from extreme weather may not be fully insured. However, at this time, we are unable to determine the extent to which climate change may lead to increased storm or weather hazards affecting our operations.

Federal and state legislative and regulatory initiatives relating to hydraulic fracturing could result in increased costs and additional operating restrictions or delays on our customers which could in turn decrease the demand for our products and services.

Our business is dependent on the ability of our customers to conduct hydraulic fracturing and horizontal drilling activities. Hydraulic fracturing is an important common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations, including shales. The process, which involves the injection of water, sand and other proppants under pressure into formations to fracture the surrounding rock and stimulate production, is typically regulated by state oil and natural gas commissions. However, federal agencies have asserted regulatory authority over certain aspects of the process and there are certain governmental reviews either completed, underway, or being proposed that focus on the environmental aspects of hydraulic fracturing practices. These completed, ongoing, or proposed studies, depending on their degree of pursuit and whether any meaningful results are obtained, could spur initiatives to further regulate hydraulic fracturing. For example, in December 2016, the EPA released a final report assessing the potential impacts of hydraulic fracturing on drinking water resources. In this report, the EPA found scientific evidence that hydraulic fracturing activities can impact drinking water resources under some circumstances. Other governmental agencies, including the U.S. Department of Energy, the U.S. Geological Survey and the U.S. Government Accountability Office, have evaluated or are evaluating various other aspects of hydraulic fracturing. State and federal regulatory agencies recently have focused on a possible connection between the operation of injection wells used for oil and natural gas waste disposal and seismic activity. Similar concerns have been raised that hydraulic fracturing may also contribute to seismic activity. When caused by human activity, such events are called induced seismicity. Regulatory agencies at all levels are continuing to study the possible linkage between oil and natural gas activity and induced seismicity. These ongoing or proposed studies could spur initiatives to further regulate hydraulic fracturing, and could ultimately make it more difficult or costly to perform fracturing and increase the costs of compliance and doing business for our customers. In addition, in response to concerns regarding induced seismicity, regulators in some states have from time to time, developed and implemented plans directing certain wells where seismic incidents have occurred to restrict or suspend disposal well operations. Such actions to restrict or suspend disposal well operations could make it more difficult or costly for our customers to perform fracturing.

Various state and local-level initiatives in regions with substantial shale resources have been or may be proposed or implemented to further regulate hydraulic fracturing practices, limit water withdrawals and water use, require disclosure of fracturing fluid constituents, restrict which additives may be used, or implement temporary or permanent bans on hydraulic fracturing. For instance, the State of New York elected in 2015 to prohibit high volume hydraulic fracturing altogether. Any increased regulation of hydraulic fracturing could reduce our customers' demand for our products and services and have a material adverse effect on our business, financial condition and results of operations.

At this time, it is not possible to estimate the impact on our business of newly enacted or potential federal, state or local laws governing hydraulic fracturing.

We may not be able to meet applicable regulatory requirements for our use of certain chemicals by our recently acquired tracer diagnostics business, and, even if requirements are met, complying on an ongoing basis with the numerous regulatory requirements will be time-consuming and costly.

The chemicals that we use in our recently acquired tracer diagnostics business may be subject to government regulation in our target markets. In the United States, the EPA administers the Toxic Substances Control Act (the “TSCA”) which regulates the commercial registration, distribution, and use of many chemicals, including the chemicals we use in our tracer diagnostics business. Before we can manufacture or distribute significant volumes of a chemical, we need to determine whether that chemical is listed in the TSCA inventory. If the substance is listed, then manufacture or distribution can commence immediately. If not, then we must file a Pre-Manufacture Notice (“PMN”) with the EPA for review. Certain categories of chemical substances may be exempt from a full PMN review, including chemical substances that qualify for a Low Volume Exemption (“LVE”). We have filed PMNs for certain chemicals, and have sought for and obtained LVEs for other chemicals that we use in our tracer diagnostics business, and we may file additional PMNs or seek additional LVEs in the future. We may not be able to expediently receive approval from the EPA to list such chemicals on the TSCA inventory, resulting in delays in our ability to manufacture such chemicals, or significant increases in testing requirements.

In addition, even once we have a consent order from the EPA allowing us to manufacture PMN substances for our tracer diagnostics business, we remain subject to numerous regulatory requirements, including, as applicable, volume limitations that may impede us from producing sufficient quantities of such chemicals. Noncompliance with an EPA consent order could result in civil or criminal penalties and delays, or require us to cease operations that are authorized under the consent order. Similar programs exist in most, if not all, of the countries in which we may seek to produce, import or use certain chemicals in our tracer diagnostics business, including compliance with regulations imposed in Canada by the Environment and Climate Change Canada/Health Canada. We cannot assure you that we will be able to obtain necessary approvals in a timely manner or at all. If we do not meet applicable regulatory requirements in a particular country for some chemicals, then we may not be able to commercialize those chemicals or tracers in such country, and our business could be adversely affected. Changes in regulatory requirements, laws and policies, or evolving interpretations of existing regulatory requirements, laws and policies, may result in increased compliance costs, delays, capital expenditures and other financial obligations that could adversely affect our business or financial results.

Our operations and our customers’ operations are subject to a variety of governmental laws and regulations that may increase our costs, limit the demand for our products and services or restrict our operations.

Our business and our customers’ businesses may be significantly affected by:

- federal, state and local and non-U.S. laws and other regulations relating to import tariffs, oilfield operations, worker safety and protection of the environment;
- changes in these laws and regulations; and
- the level of enforcement of these laws and regulations.

If we fail to comply with safety regulations or maintain an acceptable level of safety at our facilities we may incur fines, penalties or other liabilities, or may be held criminally liable. We may incur additional costs to upgrade equipment or conduct additional training, or otherwise incur costs in connection with compliance with safety regulations. Failure to maintain safe operations or achieve certain safety performance metrics could disqualify us from doing business with certain customers, particularly major oil companies.

We depend on the demand for our products and services from the oil and natural gas industry which is affected by changing taxes, price controls and other laws and regulations relating to the oil and natural gas industry in general. For example, the adoption of laws and regulations curtailing exploration and development drilling for oil and natural gas for economic or other policy reasons could adversely affect our operations by limiting demand for our products. In addition, some non-U.S. countries may adopt regulations or practices that give advantage to indigenous oil companies in bidding for oil leases, or require indigenous companies to perform oilfield services currently supplied by international service companies. To the extent that such companies are not our customers, or we are unable to develop relationships with them, our business may suffer. We cannot determine the extent to which our future operations and earnings may be affected by new legislation, new regulations or changes in existing regulations.

In addition, the prices we pay for raw materials used in our products may be impacted by tariffs. On March 8, 2018, the Trump Administration signed an order that will impose an import tariff of 25% on steel. As a result of this tariff, if we are unable to obtain raw materials, including steel, at historical prices, it could have a material adverse effect on our business, financial condition and results of operations.

Because of our non-U.S. operations and sales, we are subject to changes in regional, political or economic conditions, and non-U.S. laws and policies, including taxes, trade protection measures, and changes in regulatory requirements governing the operations of companies in non-U.S. countries. We are also subject to changes in non-U.S. laws and regulations that may encourage or require hiring of local contractors or require non-U.S. contractors to employ citizens of, or purchase supplies from, a particular jurisdiction. If we fail to comply with any applicable law or regulation, it could have a material adverse affect on our business, financial condition and results of operations.

We could be subject to additional income tax liabilities.

We are subject to income taxes in the U.S. (federal and state), Canada and other foreign jurisdictions. Tax laws, regulations, and administrative practices in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions, and significant judgment is required in evaluating and estimating our provision and accruals for these taxes. There are many transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. Our effective tax rates could be affected by numerous factors, such as intercompany transactions, the relative amount of our foreign earnings, including earnings being lower than anticipated in jurisdictions where we have lower statutory rates and higher than anticipated in jurisdictions where we have higher statutory rates, losses incurred in jurisdictions for which we are not able to realize the related tax benefit, changes in foreign currency exchange rates, entry into new businesses and geographies, changes to our existing businesses and operations, acquisitions (including integrations) and investments and how they are financed, changes in our deferred tax assets and liabilities and their valuation, and changes in the relevant tax, accounting, and other laws, regulations, administrative practices, principles, and interpretations. In addition, a number of countries are actively pursuing changes to their tax laws applicable to corporate multinationals, such as the recently enacted U.S. tax reform legislation. Finally, foreign governments may enact tax laws in response to the 2017 Tax Act that could result in further changes to global taxation and materially affect our financial position and results of operations.

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, judgments to be made in interpretation of the provisions of the 2017 Tax Act and estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The U.S. Treasury Department, the IRS, and other standard-setting bodies could interpret or issue guidance on how provisions of the 2017 Tax Act will be applied or otherwise administered that is different from our interpretation. As we complete our analysis of the 2017 Tax Act, collect and prepare necessary data, and interpret any additional guidance, we may make adjustments to amounts that we have recorded that may impact our provision for income taxes in the period in which the adjustments are made.

We are also currently subject to audit in various jurisdictions, and these jurisdictions may assess additional income tax liabilities against us. Developments in an audit, litigation, or the relevant laws, regulations, administrative practices, principles, and interpretations could have a material effect on our operating results or cash flows in the period or periods for which that development occurs, as well as for prior and subsequent periods.

Loss of our information and computer systems could adversely affect our business.

We are heavily dependent on our information systems and computer based programs, including our engineering information and accounting data. If any of such programs or systems were to fail or create erroneous information in our hardware or software network infrastructure, whether due to cyber-attack or otherwise, possible consequences include our loss of communication links and inability to automatically process commercial transactions or engage in similar automated or computerized business activities. Any such consequence could have a material adverse effect on our business, financial condition and results of operations.

We are subject to cyber security risks. A cyber incident could occur and result in information theft, data corruption, operational disruption and/or financial loss.

The oil and natural gas industry has become increasingly dependent on digital technologies to conduct certain processing activities. For example, we depend on digital technologies to perform many of our services and process and record financial and operating data. At the same time, cyber incidents, including deliberate attacks or unintentional events, have increased. The United States government has issued public warnings that indicate that energy assets might be specific targets of cyber security threats. Our technologies, systems and networks, and those of our customers, vendors, suppliers and other business partners, may become the target of cyberattacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of proprietary and other information, or other disruption of its business operations.

Our databases and systems, as well as those of our third-party vendors, have been, and likely will continue to be, subject to computer viruses or other malicious codes, unauthorized access attempts, denial of service attacks, phishing and other cyber-attacks. We also face risks associated with new personnel, as well as with new processes and technologies which are implemented from time to time to augment our security and privacy management programs. To date, we have seen no material impact on our business or operations from these attacks, however, we cannot guarantee that our security efforts or the security efforts of our third-party vendors will prevent breaches or breakdowns to our or their databases or systems. If our security measures or those of the third-party vendors we use who have access to this information are inadequate or are breached as a result of third party action, employee error, malfeasance, malware, phishing, hacking attacks, system error, trickery or otherwise, and, as a result, someone obtains unauthorized access to sensitive information on our systems or our providers' systems, our reputation and business could be damaged. We cannot guarantee that our security efforts will prevent breaches or breakdowns to our or our third-party vendors' databases or systems.

In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period. Our systems and insurance coverage for protecting against cyber security risks may not be sufficient. As cyber incidents continue to evolve, we may be required to expend additional resources to continue to modify or enhance our protective measures or to investigate and remediate any vulnerability to cyber incidents. Our insurance coverage for cyberattacks may not be sufficient to cover all the losses we may experience as a result of such cyberattacks.

Our business operations in countries outside of the United States are subject to a number of U.S. federal laws and regulations, including restrictions imposed by the Foreign Corrupt Practices Act as well as trade sanctions administered by the Office of Foreign Assets Control ("OFAC") and the Commerce Department.

Local laws and customs in many countries differ significantly from those in the United States. In many countries, particularly in those with developing economies, it is common to engage in business practices that are prohibited by U.S. regulations applicable to us. The United States Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery laws in other jurisdictions, including the UK Bribery Act 2010, prohibit corporations and individuals, including us and our employees, from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. We are responsible for any violations by our employees, contractors and agents, whether based within or outside of the United States, for violations of the FCPA. We may also be held responsible for any violations by an acquired company that occur prior to an acquisition, or subsequent to the acquisition but before we are able to institute our compliance procedures. In addition, our non-U.S. competitors that are not subject to the FCPA or similar laws may be able to secure business or other preferential treatment in such countries by means that such laws prohibit with respect to us. A violation of any of these laws, even if prohibited by our policies, could have a material adverse effect on our business, financial condition or results of operation. Actual or alleged violations could damage our reputation, be expensive to defend, and impair our ability to do business.

Compliance with U.S. regulations on trade sanctions and embargoes administered by OFAC also poses a risk to us. We cannot provide products or services to certain countries subject to U.S. trade sanctions. Furthermore, the laws and regulations concerning import activity, export recordkeeping and reporting, export control and economic sanctions are complex and constantly changing. Any failure to comply with applicable legal and regulatory trading obligations could result in criminal and civil penalties and sanctions, such as fines, imprisonment, debarment from governmental contracts, seizure of shipments and loss of import and export privileges.

We may have difficulty managing growth in our business, which could have a material adverse effect on our business, financial condition and results of operations.

Any significant growth, if achieved, could place a significant strain on our financial, technical, operational and management resources. As we expand the scope of our activities and our geographic coverage through organic growth, acquisitions and strategic partnerships, there will be additional demands on our financial, technical, operational and management resources. The failure to continue to upgrade our technical, administrative, operating and financial control systems or the occurrences of unexpected expansion difficulties, including the failure to recruit and retain experienced managers, engineers and other professionals, could have a material adverse effect on our business, financial condition and results of operations.

Our success may depend on the continued service and availability of key personnel.

Our success and future growth is dependent upon the ability of our executive officers, senior managers and other key personnel to operate and manage our business and execute on our growth strategies successfully. We may be unable to continue to attract and retain our executive officers, senior managers or other key personnel. We may incur increased expenses in connection with the hiring, promotion, retention or replacement of any of these individuals. The loss of the services of any of our key personnel could have a material adverse effect our business, financial condition and results of operations.

We may be unable to attract and retain skilled and technically knowledgeable employees, which could adversely affect our business.

Our success and future growth is dependent upon attracting and retaining highly skilled professionals and other technical personnel. A number of our employees are highly skilled engineers, geologists and highly trained technicians, and our failure to continue to attract and retain such individuals could adversely affect our ability to compete in the oilfield services industry. We may confront significant and potentially adverse competition for these skilled and technically knowledgeable personnel, particularly during periods of increased demand for oil and natural gas. Additionally, at times there may be a shortage of skilled and technical personnel available in the market, potentially compounding the difficulty of attracting and retaining these employees. If we are unable to recruit or retain sufficient skilled and technical personnel it could have a material adverse effect on our business, financial condition and results of operations.

Unionization efforts could increase our costs or limit our flexibility.

Presently, none of our employees work under collective bargaining agreements. Unionization efforts have been made from time to time within our industry, to varying degrees of success. Any such unionization could increase our costs or limit our flexibility, which could have a material adverse effect on our business, financial condition and results of operations.

Restrictions on drilling activities intended to protect certain species of wildlife may adversely affect the ability of our customers to conduct drilling activities in some of the areas where we operate.

Oil and natural gas operations in our operating areas can be adversely affected by seasonal or permanent restrictions on drilling activities designed to protect various wildlife, which may limit the ability of our customers to operate in protected areas. Permanent restrictions imposed to protect endangered species could prohibit drilling in certain areas or require the implementation of expensive mitigation measures. Additionally, the designation of previously unprotected species as threatened or endangered in areas where we operate could result in increased costs arising from species protection measures. Restrictions on the oil and natural gas operations of our customers to protect wildlife could reduce demand for our products and services, which could have a material adverse effect on our business, financial condition and results of operations.

We are subject to the risk of supplier concentration.

Certain of our product lines depend on a limited number of third-party suppliers and vendors. As a result of this concentration in some of our supply chains, our business and operations could be negatively affected if our key suppliers were to experience significant disruptions affecting the price, quality, availability or timely delivery of their products. The partial or complete loss of any one of our key suppliers, or a significant adverse change in the relationship with any of these suppliers, through consolidation or otherwise, may limit our ability to manufacture and sell certain of our products.

We may not be able to satisfy technical requirements, testing requirements, code requirements or other specifications under contracts and contract tenders.

Many of our products could be used in harsh environments and severe service applications. Our contracts with customers and customer requests for bids may set forth detailed specifications or technical requirements (including that they meet certain industrial code requirements, such as API, ASME or similar codes, or that our processes and facilities maintain ISO or similar certifications) for our products and services, which may also include extensive testing requirements. We anticipate that such code testing requirements will become more common in our contracts. We cannot assure you that our products or facilities will be able to satisfy the specifications or requirements, or that we will be able to perform the full-scale testing necessary to prove that the product specifications are satisfied in future contract bids or under existing contracts, or that the costs of modifications to our products or facilities to satisfy the specifications and testing will not adversely affect our results of operations. If our products or facilities are unable to satisfy such requirements, or we are unable to perform or satisfy any scale testing, our customers may cancel their contracts and/or seek new suppliers, and could have a material adverse effect on our business, financial conditions and results of operations.

Risks Relating to Our Indebtedness

We are a holding company and rely on dividends, distributions and other payments, advances and transfers of funds from our subsidiaries to meet our obligations.

We are a holding company that does not conduct any business operations of our own. As a result, we are largely dependent upon cash dividends and distributions and other transfers from our subsidiaries to meet our obligations. The agreements governing the indebtedness of our subsidiaries impose restrictions on our subsidiaries' ability to pay dividends or other distributions to us. The deterioration of the earnings from, or other available assets of, our subsidiaries for any reason also could limit or impair their ability to pay dividends or other distributions to us.

Our outstanding indebtedness could adversely affect our financial condition and our ability to operate our business, and we may not be able to generate sufficient cash flows to meet our debt service obligations.

As of December 31, 2017, our total outstanding indebtedness was \$27.0 million, including \$20.0 million under our Senior Secured Credit Facility. Our outstanding indebtedness and any additional indebtedness we incur may have important consequences for us, including, without limitation, that:

- we may be required to use a substantial portion of our cash flow to pay the principal of and interest on our indebtedness;
- our indebtedness and leverage may increase our vulnerability to adverse changes in general economic and industry conditions, as well as to competitive pressures;
- our ability to obtain additional financing for working capital, capital expenditures, acquisitions and for general corporate and other purposes may be limited;
- expose us to the risk of increased interest rates because our borrowings are at variable rates of interest;
- prevent us from taking advantage of business opportunities as they arise or successfully carrying out our plans to expand our business; and
- our flexibility in planning for, or reacting to, changes in our business and our industry may be limited.

Under the terms of the credit agreement governing our Senior Secured Credit Facility, we are required to comply with specified financial and operating covenants, which may limit our ability to operate our business as we otherwise might operate it. The obligations under our Senior Secured Credit Facility may be accelerated upon the occurrence of an event of default, which includes customary events of default including, without limitation, payment defaults, cross-defaults to certain material indebtedness, covenant defaults, material inaccuracy of representations and warranties, bankruptcy events, material judgments, certain ERISA-related events, material defects with respect to guarantees and collateral, invalidity of subordination provisions and change of control. If not cured, an event of default could result in any amounts outstanding, including any accrued interest and unpaid fees, becoming immediately due and payable, which would require us to, among other things: seek additional financing in the debt or equity markets, refinance or restructure all or a portion of our indebtedness, sell selected assets and/or reduce or delay planned capital or operating expenditures. Such measures might not be sufficient to enable us to service our debt and any such financing or refinancing might not be available on economically favorable terms or at all. If we are not able to generate sufficient cash flows to meet our debt service obligations or are forced to take additional measures to be able to service our indebtedness, it could have a material adverse effect on our business, financial condition and results of operations.

We and our subsidiaries may be able to incur substantial indebtedness.

We may incur substantial additional indebtedness in the future. Although the terms of the agreement governing our Senior Secured Credit Facility contains restrictions on our ability to incur additional indebtedness these restrictions are subject to a number of important exceptions, and indebtedness incurred in compliance with these restrictions could be substantial. If we and our subsidiaries incur significant additional indebtedness, the related risks to our financial condition could increase.

Restrictive covenants in the agreement governing our Senior Secured Credit Facility may restrict our ability to pursue our business strategies.

The agreement governing our Senior Secured Credit Facility contains a number of restrictive covenants that impose significant operating and financial restrictions on us and may limit our ability to engage in acts that may be in our long-term best interests. These include covenants restricting, among other things, our ability to:

- incur additional indebtedness;
- grant liens;
- enter into burdensome agreements with negative pledge clauses or restrictions on subsidiary distributions;
- make certain investments;
- pay dividends;
- make payments in respect of junior lien or subordinated debt;
- make acquisitions;
- consolidate, amalgamate, merge, liquidate or dissolve;
- sell, transfer or otherwise dispose of assets;

- make certain organizational changes (including with respect to organizational documents and changes in fiscal year);
- engage in sale-leaseback transactions;
- engage in transactions with affiliates;
- enter into operating leases;
- enter into hedging arrangements;
- enter into certain leasehold arrangements and arrangements with respect to inventory and equipment;
- materially alter our business; and
- incur capital expenditures.

Our Senior Secured Credit Facility contains financial covenants that require (i) commencing with the fiscal quarter ended 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 ended 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 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 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. Our ability to meet these financial ratios can be affected by events beyond our control and we cannot assure you that we will be able to meet these ratios. A breach of any covenant or restriction contained in the agreement governing our Senior Secured Credit Facility could result in an event of default under this agreement. If any such event of default occurs, the lenders under the facility, may elect (after the expiration of any applicable notice or grace periods) to declare all outstanding borrowings, together with accrued and unpaid interest and other amounts payable thereunder, to be immediately due and payable. The lenders under our Senior Secured Credit Facility, also have the right upon an event of default thereunder to terminate any commitments they have to provide further borrowings. Further, following an event of default under the agreement governing our Senior Secured Credit Facility, the lenders under the facility will have the right to proceed against the collateral granted to them to secure that debt. If the debt under our Senior Secured Credit Facility was to be accelerated, our assets may not be sufficient to repay in full that debt or any other debt that may become due as a result of that acceleration.

Volatility and weakness in bank and capital markets may adversely affect credit availability and related financing costs for us.

Bank and capital markets can experience periods of volatility and disruption. If the disruption in these markets is prolonged, our ability to refinance, and the related cost of refinancing, some or all of our debt could be adversely affected. Additionally, during periods of volatile credit markets, there is a risk that lenders, even those with strong balance sheets and sound lending practices, could fail or refuse to honor their legal commitments and obligations under existing credit commitments, including our Senior Secured Credit Facility. Although we currently can access the bank and capital markets, there is no assurance that such markets will continue to be a reliable source of financing for us. These factors, including the tightening of credit markets, could adversely affect our ability to obtain cost-effective financing. Increased volatility and disruptions in the financial markets also could make it more difficult and more expensive for us to refinance outstanding indebtedness and obtain financing. In addition, the adoption of new statutes and regulations, the implementation of recently enacted laws or new interpretations or the enforcement of older laws and regulations applicable to the financial markets or the financial services industry could result in a reduction in the amount of available credit or an increase in the cost of credit. Disruptions in the financial markets can also adversely affect our lenders, insurers, customers and other counterparties. Any of these results could result in a material adverse effect to our business, financial condition and results of operations.

Risks Relating to Ownership of Our Common Stock

The price of our common stock may be volatile and you could lose all or part of your investment.

Securities markets worldwide have experienced in the past, and are likely to experience in the future, significant price and volume fluctuations. Specifically, the oilfield services sector has recently experienced significant market volatility. This market volatility, as well as general economic, market or political conditions could reduce the market price of our common stock regardless of our results of operations. The trading price of our common stock may be highly volatile and could be subject to wide price fluctuations in response to various factors, including, among other things, the risk factors described herein and other factors beyond our control. Factors affecting the trading price of our common stock could include:

- market conditions in the broader stock market;
- actual or anticipated variations in our quarterly financial and operating results;

- developments in the oil and natural gas industry in general or in the oil and natural gas services market in particular;
- variations in operating results of similar companies;
- introduction of new services by us, our competitors or our customers;
- issuance of new, negative or changed securities analysts' reports, recommendations or estimates;
- investor perceptions of us and the industries in which we or our customers operate;
- sales, or anticipated sales, of our stock, including sales by our officers, directors and significant stockholders;
- additions or departures of key personnel;
- regulatory or political developments;
- the public's response to press releases or other public announcements by us or third parties, including our filings with the SEC;
- announcements media reports or other public forum comments related to litigation, claims or reputational charges against us;
- guidance, if any, that we provide to the public, any changes in this guidance or our failure to meet this guidance;
- the sustainability of an active trading market for our common stock;
- investor perceptions of the investment opportunity associated with our common stock relative to other investment alternatives;
- other events or factors, including those resulting from system failures and disruptions, earthquakes, hurricanes, war, acts of terrorism, other natural disasters or responses to these events;
- changes in accounting principles;
- share-based compensation expense under applicable accounting standards;
- litigation and governmental investigations; and
- changing economic conditions.

These and other factors may cause the market price and demand for shares of our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock sometimes have instituted securities class action litigation against the company that issued the stock. Securities litigation against us, regardless of the merits or outcome, could result in substantial costs and divert the time and attention of our management from our business, which could significantly harm our business, profitability and reputation.

We are controlled by the Advent Funds, whose interests may differ from those of our public stockholders.

We are controlled by funds (the "Advent Funds") managed by Advent International Corporation ("Advent"), which beneficially own in the aggregate 64.7% of the combined voting power of our common stock. As a result of this ownership, Advent will have effective control over the outcome of votes on all matters requiring approval by our stockholders, including the election of directors, the adoption of amendments to our charter and bylaws and other significant corporate transactions.

In addition, persons associated with Advent currently serve on our board of directors (our "Board"). The interests of Advent may not always coincide with the interests of our other stockholders, and the concentration of effective control in Advent will limit other stockholders' ability to influence corporate matters. The concentration of ownership and voting power of Advent also may delay, defer or even prevent an acquisition by a third-party or other change of control and may make some transactions more difficult or impossible without their support, even if such events are in the best interests of our other stockholders.

Further, Advent may have an interest in having us pursue acquisitions, divestitures, financing or other transactions, including, but not limited to, the issuance of additional debt or equity and the declaration and payment of dividends, that, in its judgment, could enhance Advent's equity investments, even though such transactions may involve risk to us or to our creditors. Additionally, the Advent Funds may make investments in businesses that directly or indirectly compete with us, or may pursue acquisition opportunities that may be complementary to our business and, as a result, those acquisition opportunities may not be available to us.

Advent may take actions that our other stockholders do not view as beneficial, which may adversely affect our business, financial condition and results of operations and cause the value of your investment to decline.

Advent and our directors affiliated with Advent, with certain exceptions, do not have obligations to present business opportunities to us and may compete with us.

Our amended and restated certificate of incorporation provides that Advent and our directors affiliated with Advent do not have any obligation to offer us an opportunity to participate in business opportunities presented to them even if the opportunity is one that we might reasonably have pursued (and therefore may be free to compete with us in the same business or similar businesses), and that, to the extent permitted by law, Advent and such directors, will not be liable to us or our stockholders for breach of any duty by reason of any such activities.

As a result, Advent or any of its managers, officers, directors, agents, stockholders, members, partners, affiliates and subsidiaries (other than us and our subsidiaries) will not be prohibited from investing in competing businesses or doing business with our clients. Therefore, we may be in competition with Advent and such persons or their respective affiliates, and we may not have knowledge of, or be able to pursue, transactions that could potentially be beneficial to us. Accordingly, we may lose certain corporate opportunities or suffer competitive harm, which could have a material adverse effect on our business, financial condition, results of operation or prospects.

Future sales of our common stock, or the perception in the public markets that these sales may occur, could cause the market price for our common stock to decline.

We may sell additional shares of common stock in subsequent public offerings. As of March 7, 2018, we had 44,482,948 outstanding shares of our common stock and one outstanding share of preferred stock. We also have registered 7,645,071 shares of common stock reserved for issuance under our equity incentive plans and 2,000,000 registered shares of common stock are reserved for issuance under our Employee Stock Purchase Plan for U.S. Employees (the “U.S. ESPP”) and our Employee Stock Purchase Plan for non-U.S. Employees (the “Non-U.S. ESPP”). Certain equity holders of NCS Multistage Inc. (Canada), our indirect subsidiary, also have an exchange right to convert shares of common stock of NCS Multistage Inc. (Canada) into 1,326,935 shares of common stock.

We cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Sales of substantial amounts of shares of our common stock in the public market, or the perception that those sales will occur, could cause the market price of our common stock to decline.

We have elected to take advantage of the “controlled company” exemption to the corporate governance rules for publicly-listed companies, which could make our common stock less attractive to some investors or otherwise harm our stock price.

Because we qualify as a “controlled company” under the corporate governance rules for publicly-listed companies on NASDAQ Global Select Market (“NASDAQ”), we are not required to have a majority of our Board be independent, nor are we required to have a compensation committee or a Board committee performing the Board nominating function. As permitted by our status as a controlled company, we may choose to change our Board composition, or the composition of the compensation, nominating and corporate governance committee. Accordingly, should the interests of the Advent Funds differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for publicly-listed companies. Our status as a controlled company could make our common stock less attractive to some investors or otherwise harm our stock price.

Anti-takeover protections in our amended and restated certificate of incorporation, our amended and restated bylaws or our contractual obligations may discourage or prevent a takeover of our company, even if an acquisition would be beneficial to our stockholders.

Provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as amended, as well as provisions of the Delaware General Corporation Law (the “DGCL”), could delay or make it more difficult to remove incumbent directors or could impede a merger, takeover or other business combination involving us or the replacement of our management or discourage a potential investor from making a tender offer for our common stock, which, under certain circumstances, could reduce the market value of our common stock, even if it would benefit our stockholders.

In addition, our Board has the authority to cause us to issue, without any further vote or action by the stockholders, up to 10,000,000 shares of preferred stock, par value \$0.01 per share, in one or more series, to designate the number of shares constituting any series, and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, voting rights, rights and terms of redemption, redemption price or prices and liquidation preferences of such series. The issuance of shares of preferred stock or the adoption of a stockholder rights plan may have the effect of delaying, deferring or preventing a change in control of our company without further action by the stockholders, even where stockholders are offered a premium for their shares.

In addition, under the agreement governing our Senior Secured Credit Facility, a change of control would cause an event of default to occur and the lenders under the facility would have the right to accelerate their loans, and if so accelerated, we would be required to repay all of our outstanding obligations under our Senior Secured Credit Facility. In addition, from time to time we may enter into contracts that contain change of control provisions that limit the value of, or even terminate, the contract upon a change of control. These change of control provisions may discourage a takeover of our company, even if an acquisition would be beneficial to our stockholders.

The requirements of being a public company, including compliance with the reporting requirements of the Exchange Act, and the requirements of the Sarbanes-Oxley Act, may strain our resources, increase our costs and distract management, and we may be unable to comply with these requirements in a timely or cost-effective manner.

As a publicly traded company, we have incurred and will continue to incur additional legal, accounting and other expenses that we were not required to incur in the past, and will incur additional expenses after we cease to be an emerging growth company (to the extent that we take advantage of certain exceptions from reporting requirements that are available to us as an emerging growth company under the JOBS Act). We are required to file with the SEC annual and quarterly information and other reports that are specified in Section 13 of the Exchange Act. We are also subject to other reporting and corporate governance requirements, including the requirements of NASDAQ and certain provisions of the Sarbanes-Oxley Act and the regulations promulgated thereunder, which impose additional compliance obligations upon us. Among other things, as a public company:

- we prepare and distribute periodic public reports and other stockholder communications in compliance with our obligations under the federal securities laws and applicable NASDAQ rules;
- the roles and duties of our Board and committees of the Board are expanded;
- we comply with more comprehensive financial reporting and disclosure compliance functions;
- we manage enhanced investor relations functions; and
- we involve and retain to a greater degree outside counsel and accountants in the activities listed above.

These changes require a commitment of additional resources. Our internal resources may not be adequate to support our increased reporting obligations, and we may be unable to hire, train or retain necessary staff and may be reliant on engaging outside consultants or professionals to overcome our lack of resources. If our internal resources are inadequate, we are unable to engage outside consultants or are otherwise unable to fulfill our public company obligations, it could have a material adverse effect on our business, financial condition and results of operations.

The changes necessitated by becoming a public company require a significant commitment of resources and management oversight that has increased and may continue to increase our costs and might place a strain on our systems and resources. As a result, our management's attention might be diverted from other business concerns. If we are unable to offset these costs through other savings then it could have a material adverse effect on our business, financial condition and results of operations.

In addition, being a public company subject to these rules and regulations makes it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our Board or as executive officers.

We are an “emerging growth company” and may elect to comply with reduced reporting requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

We are an emerging growth company and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of Sarbanes-Oxley, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. In addition, even if we choose to comply with certain of the greater obligations of public companies that are not emerging growth companies, we may avail ourselves of the reduced requirements applicable to emerging growth companies from time to time in the future. We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until December 31, 2022, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed \$1.07 billion, (ii) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, or (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the preceding three-year period, whether or not issued in a registered offering.

We have identified material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our financial statements or cause us to fail to meet our reporting obligations or fail to prevent fraud; which would harm our business and could negatively impact the price of our common stock.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. If we fail to maintain an effective system of internal controls, we might not be able to report on our financial results accurately or prevent fraud; which would harm our business and could negatively impact the price of our common stock. Prior to our IPO, we were a private company and had limited accounting and financial reporting personnel and other resources with which to address our internal controls and procedures. In connection with the audit of our financial statements for the years ended December 31, 2015 and December 31, 2016, we and our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting, which have not yet been remediated as of December 31, 2017. A material weakness is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis.

We determined that we did not design or maintain an effective control environment with a sufficient number of trained professionals with the appropriate level of accounting knowledge and experience to properly analyze, record and disclose accounting matters commensurate with our financial reporting requirements. This material weakness contributed to the following material weaknesses in our internal control over financial reporting:

- We did not design and maintain sufficient formal accounting policies and controls over income taxes. Specifically, we did not have controls designed to address the accuracy of income tax expense (benefit) and related consolidated balance sheet accounts, including deferred income taxes, as well as adequate procedures and controls to review the work of external experts engaged to assist in income tax matters related to our tax structure or to monitor the presentation and disclosure of income taxes.
- We did not design and maintain sufficient formal accounting policies and controls over the presentation of the statement of cash flows. Specifically, we did not have controls designed to properly classify cash flows related to our foreign exchange gains (losses) associated with our foreign denominated debt and deferred financing costs related to our extinguishment of debt.
- We did not design and maintain adequate controls to address segregation of duties related to journal entries and account reconciliations as certain accounting personnel have the ability to prepare and post journal entries, as well as reconcile accounts, without an independent review by someone other than the preparer. Specifically, our internal controls were not designed or operating effectively to evidence that journal entries were appropriately recorded or were properly reviewed for validity, accuracy and completeness.

These material weaknesses resulted in the need to correct material misstatements in our consolidated financial statements for the years ended December 31, 2014 and 2015 prior to their issuance. Each of the material weaknesses described above or any newly identified material weakness could result in a misstatement of our accounts or disclosures that would result in a material misstatement of our annual or interim consolidated financial statements that would not be prevented or detected.

We have begun to remediate and plan to further remediate these material weaknesses primarily by implementing additional review procedures within the accounting and finance department, hiring additional staff, implementing new software and, if appropriate, engaging external accounting experts with the appropriate knowledge to supplement our internal resources in our computation and review processes. These actions and planned actions are subject to ongoing management review and the oversight of our Board. We cannot assure you that the measures we have taken to date, or any measures we may take in the future, will be sufficient to remediate the control deficiencies that led to our material weaknesses in our internal control over financial reporting or to avoid potential future material weaknesses. In addition, neither our management nor an independent registered public accounting firm has ever performed an evaluation of our internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act because no such evaluation has been required. Had we or our independent registered public accounting firm performed an evaluation of our internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act, additional material weaknesses may have been identified. If we are unable to successfully remediate our existing or any future material weakness in our internal control over financial reporting, or identify any additional material weaknesses that may exist, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, we may be unable to prevent fraud, investors may lose confidence in our financial reporting, and our stock price may decline as a result. Additionally, our reporting obligations as a public company could place a strain on our management, operational and financial resources and systems for the foreseeable future and may cause us to fail to timely achieve and maintain the adequacy of our internal control over financial reporting.

Our amended and restated certificate of incorporation provides, subject to certain exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our amended and restated certificate of incorporation provides, subject to limited exceptions, that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders; (iii) any action asserting a claim against us, any director or our officers or employees arising pursuant to any provision of the DGCL, our certificate or our amended and restated by-laws; or (iv) any action asserting a claim against us, any director or our officers or employees that is governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our certificate described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision that will be contained in our certificate to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could have a material adverse effect on our business, financial condition and results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are located at 19450 State Highway 249, Suite 200, Houston, Texas 77070. We currently own one property, located in Calgary, Alberta, which is used for our engineering and research and development activities. In addition to our property in Calgary, Alberta, we also lease 33 properties that are used for our corporate headquarters, sales offices, manufacturing, engineering, district operations, laboratory, warehousing and storage yards. All of these properties are leased from third parties. We believe that these facilities are adequate for our current operations and that none of our leases are individually material to our business.

Item 3. 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 and employee matters. Our management currently does not expect that the results of any of these legal proceedings, either individually or in the aggregate, would have a material adverse effect on our financial position, results of operations or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock has traded on the NASDAQ under the symbol “NCSM” since April 28, 2017. Prior to that time, there was no public market for our shares. The following table sets forth the NASDAQ high and low sales prices for our common stock for the periods indicated.

	High		Low	
Year Ended December 31, 2017				
Second Quarter (beginning April 28, 2017 (first trading date after IPO))	\$	29.07	\$	19.25
Third Quarter	\$	25.96	\$	18.17
Fourth Quarter	\$	24.16	\$	13.85

See Item 12. “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” for information regarding shares of common stock authorized for issuance under our stock incentive plans.

Holder

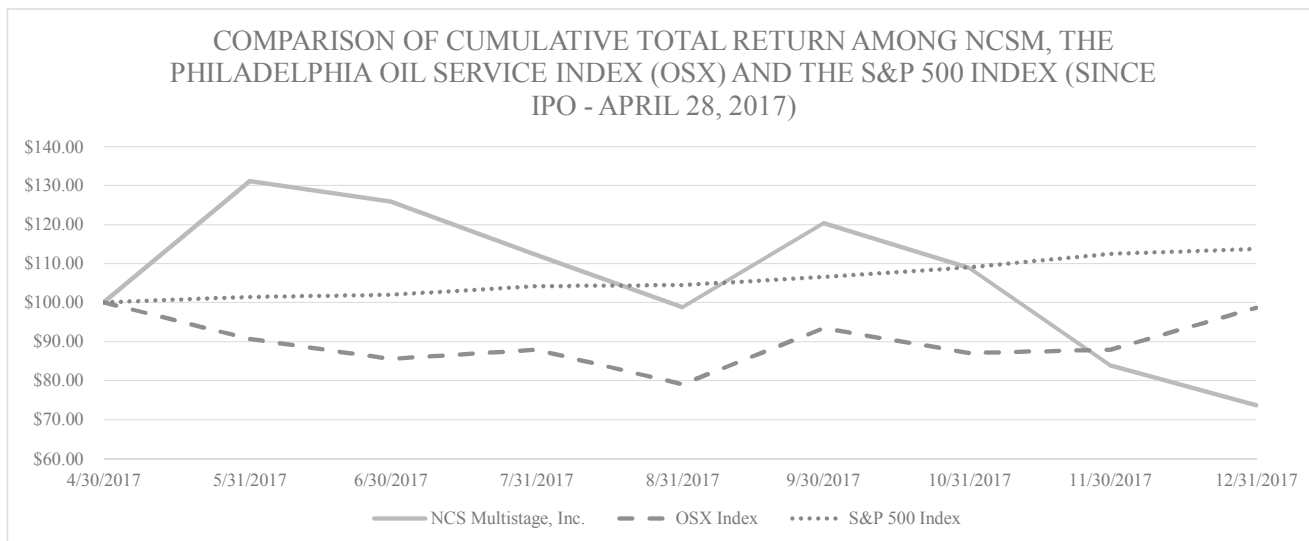
On March 7, 2018, we had 44,482,948 shares of common stock outstanding, which were held by approximately 22 record holders. The actual number of stockholders is considerably greater than this number of record holders, and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividends

We do not intend to pay cash dividends on our common stock in the foreseeable future. However, in the future, we may change this policy and choose to pay dividends. Any future determination to pay dividends will be at the discretion of our Board and will take into account restrictions in our debt instruments, including our secured credit facilities, our general economic business conditions, our net income, financial condition and results of operations, our capital requirements, our prospects, the ability of our operating subsidiaries to pay dividends and make distributions to us, legal restrictions and such other factors as our Board may deem relevant.

Performance Graph

The following performance graph compares the performance of our common stock to the Philadelphia Oil Service Index (OSX) and the S&P 500 Index. The graph compares the cumulative total return to holders of our common stock with the cumulative total returns of the Philadelphia Oil Service Index (OSX) and the S&P 500 Index for the period from April 28, 2017, using the closing price for the first day of trading immediately following the effectiveness of our IPO (rather than the IPO offering price of \$17.00 per share) through December 31, 2017. The graph assumes the value of the investment of \$100 on April 28, 2017 and tracks the return on the investment, including the reinvestment of dividends, through December 31, 2017. The shareholder return set forth herein is not necessarily indicative of future performance.



The performance graph above and related information shall not be deemed “soliciting material” or to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended (the “Securities Act”) or the Securities Exchange Act of 1934, as amended (the “Exchange Act”), except to the extent that we specifically incorporate by reference.

Unregistered Sales of Equity Securities and Use of Proceeds

The following sets forth information regarding all unregistered securities sold by us in transactions that were exempt from the requirements of the Securities Act in the last three years:

- In May 2015, we granted options to purchase 18,612 and 15,399 shares of common stock at a strike price of \$11.82 per share, to certain employees.
- In December 2015, we granted options to purchase an aggregate of 8,289 shares of common stock at a strike price of \$0.003 per share, to certain employees.
- In December 2015, in connection with entering into the Subscription Agreement with the Advent Funds, we issued to Advent and certain stockholders and members of our management consisting of Robert Nipper, Tim Willems, Wade Bitter, Ryan Hummer and certain employees, an aggregate of 4,179,174 shares of common stock at a purchase price of \$9.55 per share.

- In January 2016, we issued 5,235 shares of common stock at a purchase price of \$9.55 per share, to a former employee.
- In April 2016, we granted options to purchase 6,150, 4,500 and 18,843 shares of common stock at a strike price of \$9.55 per share, to certain employees.
- In July 2016, we issued 5,400 shares of common stock at a purchase price of \$9.55 per share and granted options to purchase an aggregate of 23,553 shares of common stock at a strike price of \$9.55 per share, to Kevin Trautner.
- In August 2016, we granted options to purchase an aggregate of 17,835 shares of common stock at a strike price of \$9.81 per share, to a certain employee.
- In May 2017, in connection with the exercise of the over-allotment option in connection with our IPO, we issued 50,000 shares of common stock to Cemblend Systems, Inc. (“Cemblend”) in exchange for shares of one of our wholly-owned subsidiaries.
- In August 2017, we issued 355,658 shares of common stock to certain individuals in exchange for their membership interests in Spectrum.
- In February 2018, we issued 442,312 shares of common stock to Cemblend in exchange for shares of one of our wholly-owned subsidiaries.

The shares of common stock in all of the transactions listed above were issued or will be issued in reliance upon Section 4(a)(2) of the Securities Act or Rule 701 promulgated under Section 3(b) of the Securities Act as the sale of such securities did not or will not involve a public offering. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us.

Issuer Purchases of Equity Securities

None.

Item 6. Selected Financial Data

The selected consolidated financial information contained below is derived from our consolidated financial statements and should be read in conjunction with Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited consolidated financial statements each of which is included in this Form 10-K. Our historical results are not necessarily indicative of our results to be expected in any future period.

	Year Ended December 31,		
	2017	2016	2015
(in thousands, except per share amounts)			
Revenues			
Product sales	\$ 144,666	\$ 73,220	\$ 80,079
Services	56,968	25,259	33,926
Total revenues	201,634	98,479	114,005
Cost of sales			
Cost of product sales, exclusive of depreciation and amortization expense shown below	76,288	40,511	40,160
Cost of services, exclusive of depreciation and amortization expense shown below	22,504	13,322	14,553
Total cost of sales, exclusive of depreciation and amortization expense shown below	98,792	53,833	54,713
Selling, general and administrative expenses	64,707	37,061	37,804
Depreciation	3,193	1,766	2,695
Amortization	24,458	23,801	24,576
Change in fair value of contingent consideration	5,525	—	—
Income (loss) from operations	4,959	(17,982)	(5,783)
Other income (expense)			
Interest expense, net	(4,306)	(6,286)	(8,064)
Other income (expense), net	1,085	45	(131)
Foreign currency exchange gain (loss)	224	(2,522)	25,779
Total other (expense) income	(2,997)	(8,763)	17,584
Income (loss) before income tax	1,962	(26,745)	11,801
Income tax expense (benefit)	670	(8,818)	(16,224)
Net income (loss)	1,292	(17,927)	28,025
Net loss attributable to non-controlling interest	(810)	—	—
Net income (loss) attributable to NCS Multistage Holdings, Inc.	\$ 2,102	\$ (17,927)	\$ 28,025
Net income (loss) per share			
Basic	\$ 0.05	\$ (0.53)	\$ 0.88
Diluted	\$ 0.05	\$ (0.53)	\$ 0.86
Weighted average shares outstanding			
Basic	40,484	34,008	29,966
Diluted (1)	43,583	34,008	32,433
Consolidated Statement of Cash Flows Data:			
Net cash provided by (used in)			
Operating activities	\$ 16,114	\$ 10,684	\$ 4,369
Investing activities	(85,221)	(1,840)	(1,221)
Financing activities	84,033	(315)	(12,766)
Other Financial Data:			
Adjusted EBITDA (2)	\$ 49,498	\$ 13,880	\$ 26,219
Consolidated Balance Sheet Data:			
Cash and cash equivalents	\$ 33,809	\$ 18,275	\$ 9,545
Total assets	463,913	326,827	332,537
Total debt, net	27,036	89,166	85,856
Total liabilities	94,922	149,349	145,068
Total stockholders' equity	356,847	177,478	187,469

(1) The diluted weighted average shares outstanding amount excludes the impact of options that would be anti-dilutive.

- (2) Adjusted EBITDA is defined as net income (loss) before interest expense, net, income tax expense (benefit) and depreciation and amortization adjusted to exclude certain items which we believe are not reflective of ongoing performance or which, in the case of share-based compensation, are non-cash in nature. We believe that Adjusted EBITDA is an important measure that excludes costs that management believes do not reflect our ongoing operating performance and certain costs associated with our capital structure. Accordingly, Adjusted EBITDA is a key metric that management uses to assess the period-to-period performance of our core business operations. We believe that presenting Adjusted EBITDA enables investors to assess our performance from period to period using the same metrics utilized by management and also allows investors to evaluate our performance relative to other companies that are not subject to such factors. Adjusted EBITDA is not defined under generally accepted accounting principles (“GAAP”), is not a measure of net income, income from operations or any other performance measure derived in accordance with GAAP, and is subject to important limitations. Adjusted EBITDA may not be comparable to similarly titled measures of other companies in our industry and is not a measure of performance calculated in accordance with GAAP.

A reconciliation of net income (loss), the most directly comparable GAAP measure, to Adjusted EBITDA on a consolidated basis for the periods indicated is as follows (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Net income (loss)	\$ 1,292	\$ (17,927)	\$ 28,025
Income tax expense (benefit)	670	(8,818)	(16,224)
Interest expense, net (a)	4,306	6,286	8,064
Depreciation	3,193	1,766	2,695
Amortization	24,458	23,801	24,576
EBITDA	33,919	5,108	47,136
Share-based compensation (b)	6,108	1,354	1,313
Restructuring charges (c)	—	277	430
Professional fees (d)	3,870	3,079	306
Unrealized foreign currency loss (gain) (e)	17,006	2,612	(12,787)
Realized foreign currency gain (f)	(17,230)	(89)	(12,992)
Change in fair value of contingent consideration (g)	5,525	—	—
Other (h)	300	1,539	2,813
Adjusted EBITDA	\$ 49,498	\$ 13,880	\$ 26,219

- (a) Includes the remaining debt issuance costs of \$1,422 related to the prior credit agreement that were expensed when the debt was repaid with a portion of our net proceeds from the IPO during the second quarter of 2017.
- (b) Represents non-cash compensation charges related to share-based compensation granted to our officers, employees and directors.
- (c) Represents severance and other expenses associated with headcount reductions and other cost savings initiated as part of our restructuring initiatives.
- (d) Represents non-capitalizable costs of professional services incurred in connection with our IPO, financings and refinancings and the evaluation of proposed and completed acquisitions.
- (e) Represents unrealized foreign currency translation gains and losses primarily in respect of our indebtedness.
- (f) Represents realized foreign currency translation gains and losses with respect to principal and interest payments related to our indebtedness.
- (g) Represents the change in the fair value of the earn-outs associated with our acquisitions.
- (h) Represents the impact of a research and development subsidy that is included in income tax expense (benefit) in accordance with GAAP, fees incurred in connection with refinancing our credit facilities, arbitration awards, board of directors fees and travel expenses prior to our IPO as permitted by the terms of our prior credit agreement and other charges and credits.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following is a discussion and analysis of our financial condition and results of operations as of, and for, the periods presented. You should read the following discussion and analysis of our financial condition and results of operations together with the sections entitled Item 1A. "Risk Factors," "—Cautionary Note Regarding Forward-Looking Statements," Item 6. "Selected Historical Financial Data" and our consolidated financial statements and related notes thereto included elsewhere in this Form 10-K. This section and other parts of the Form 10-K contain 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 Item 1A. "Risk Factors." Our actual results may differ materially from those contained in or implied by these forward-looking statements.

Overview

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 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 and Russia. We provided our products and services to over 240 customers in 2017, including leading large independent oil and natural gas companies and major oil companies.

Our primary offering is our Multistage Unlimited family of completion 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 Multistage Unlimited 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 Multistage Unlimited products and services are utilized in conjunction with third-party providers of pressure pumping, coiled tubing and other services.

In addition to our Multistage Unlimited family of completion products and services, we sell other products including our AirLock casing buoyancy system and liner hanger systems. We also provide well completion diagnostics and reservoir characterization services that utilize downhole chemical and radioactive tracers through Spectrum Tracer Services and engineering consulting services through Anderson Thompson Reservoir Strategies. We operate in one reportable segment.

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 depend 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.

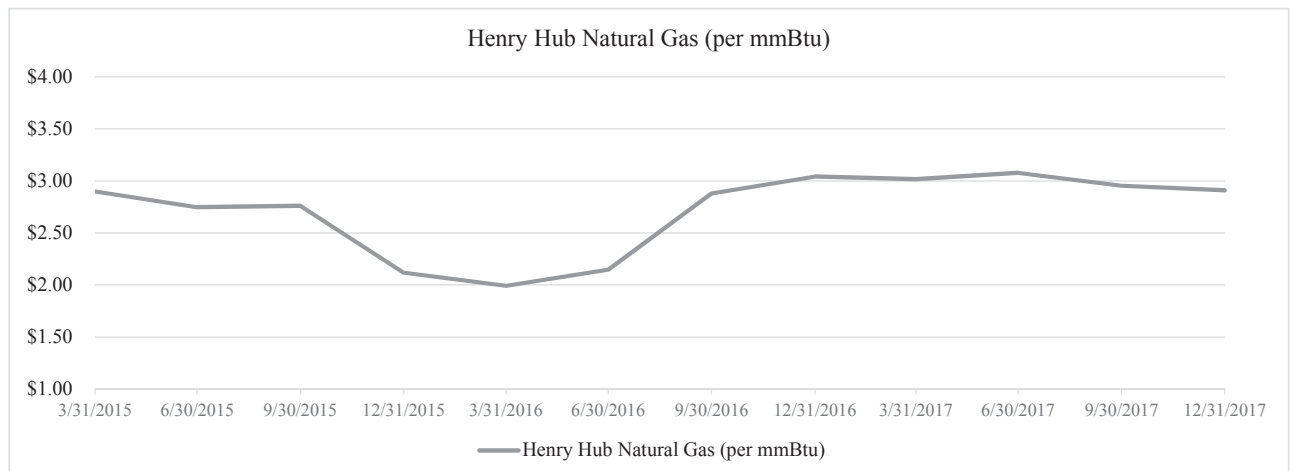
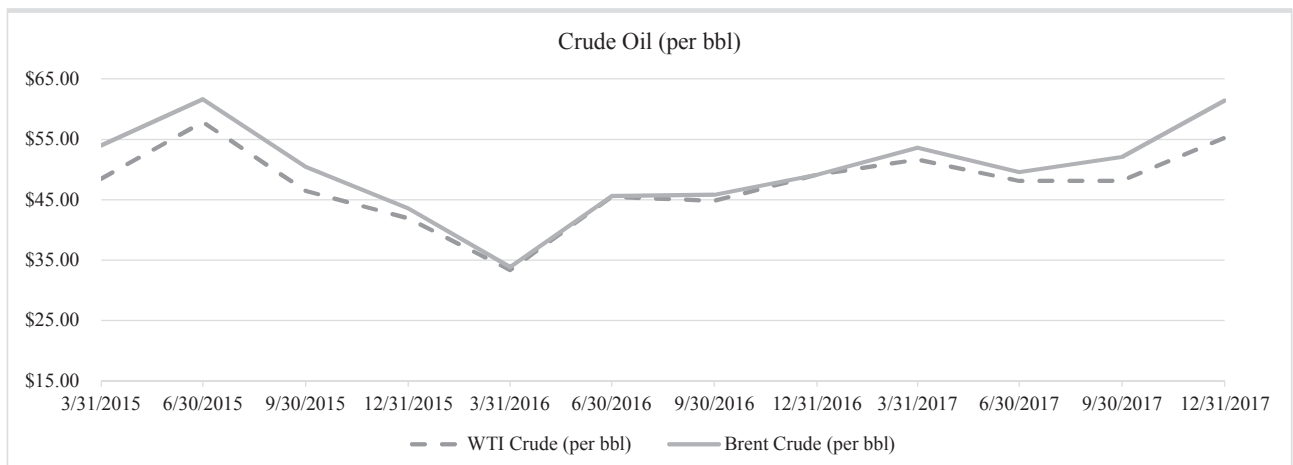
Over the past several years, North American E&P companies have been able to reduce their cost structures in response to lower oil and natural gas prices and have also utilized technologies, including ours, to increase efficiency and improve well performance. After a period of declining drilling and completion 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 average U.S. land rig count improved from 398 in the second quarter of 2016 to 902 in the fourth quarter of 2017, while the average rig count in Canada, which exhibits a higher degree of seasonality than the U.S., increased from 180 in the fourth quarter of 2016 to 203 in the fourth quarter of 2017. Over this time, the demand for our products and services has also increased. On an annual basis, the average U.S. land rig count improved from 486 in 2016 to 856 in 2017, while the average rig count in Canada increased from 128 in 2016 to 205 in 2017.

Oil and natural gas prices remain volatile, with WTI crude oil pricing falling to a low of approximately \$26 per barrel in February 2016 before recovering to approximately \$60 per barrel by the end of December 2017. 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. These supply reductions were announced in November 2016 and were initially implemented in 2017. In November 2017, OPEC and certain other countries, including Russia, announced their intent to extend the supply reductions through the end of 2018. There can be no assurance that the countries involved will comply with the intended reductions or the amount of oil supply that may be returned to the market if the supply reductions are not extended beyond the end of 2018. Natural gas pricing reached a low of approximately \$1.50 per mmBtu in March 2016 before recovering to an average level of approximately \$3.00 per mmBtu during 2017. 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 and elevated local storage levels. 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 and planned capital spending and drilling activity. Sustained declines in commodity prices, combined with potential increases in the cost of drilling and completing wells resulting from high utilization in certain oilfield services categories could lead North American E&P companies to reduce drilling and completion activity, which could negatively impact our business.

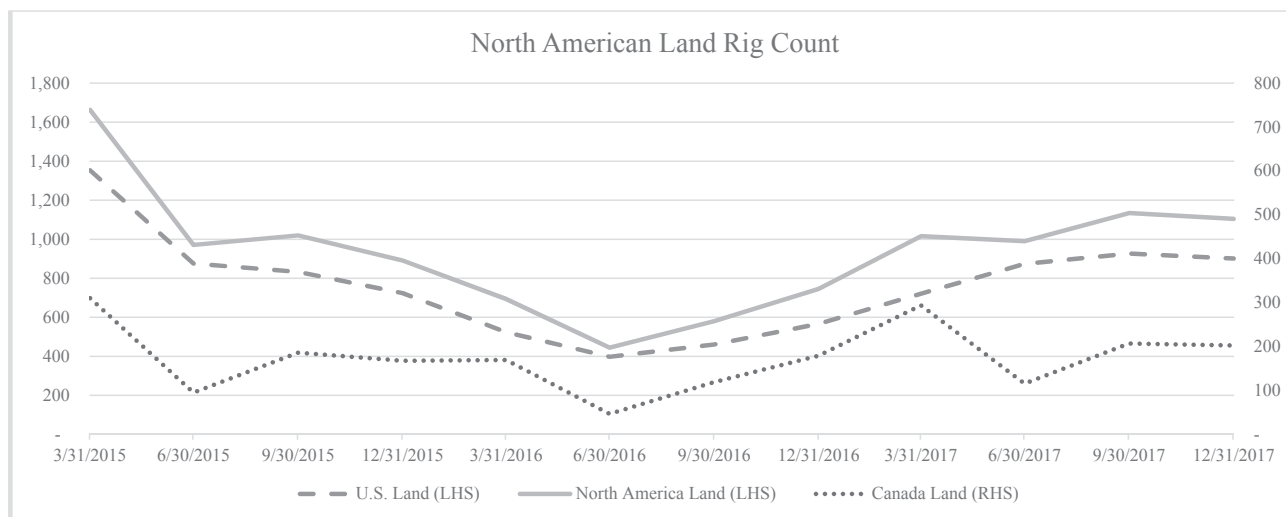
Listed and depicted below are recent crude oil and natural gas pricing trends, as provided by the Energy Information Administration (“EIA”) of the U.S. Department of Energy:

Quarter Ended	Average Price		
	WTI Crude (per bbl)	Brent Crude (per bbl)	Henry Hub Natural Gas (per mmBtu)
3/31/2015	\$ 48.49	\$ 53.98	\$ 2.90
6/30/2015	57.85	61.65	2.75
9/30/2015	46.49	50.44	2.76
12/31/2015	41.94	43.56	2.12
3/31/2016	33.35	33.84	1.99
6/30/2016	45.46	45.57	2.15
9/30/2016	44.85	45.80	2.88
12/31/2016	49.14	49.11	3.04
3/31/2017	51.62	53.59	3.02
6/30/2017	48.10	49.55	3.08
9/30/2017	48.15	52.10	2.95
12/31/2017	55.27	61.40	2.91



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 2015, as provided by Baker Hughes:

Quarter Ended	Average Drilling Rig Count		
	U.S. Land	Canada Land	North America Land
3/31/2015	1,353	310	1,664
6/30/2015	876	95	971
9/30/2015	833	186	1,020
12/31/2015	724	168	892
3/31/2016	524	170	694
6/30/2016	398	47	445
9/30/2016	461	119	580
12/31/2016	567	180	746
3/31/2017	722	294	1,016
6/30/2017	874	116	990
9/30/2017	927	207	1,134
12/31/2017	902	203	1,105



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.

The average Canadian rig count declined slightly in the fourth quarter of 2017 relative to the third quarter, especially in Saskatchewan, where we have significant operations. We believe this reduction in drilling activity was primarily a result of low recent spot natural gas prices, certain customers having exhausted their 2017 capital budgets prior to year-end and typical reductions in activity driven by holidays in the fourth quarter.

Based on the current commodity price environment, many U.S. E&P companies have indicated that they expect to increase their drilling and completions budgets in 2018, relative to 2017. In the first quarter of 2018 many E&P and oilfield services companies, including us, have noted instances of supply chain disruptions related to material and labor availability, which have resulted in what are expected to be temporary delays in planned drilling and completion activity. The market in Canada 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, especially those that sell natural gas into the local market. As a result, industry capital spending in Canada in 2018 is currently forecast to be in line with or below 2017 levels, with higher spending by producers of oil and liquids-rich natural gas offset by declines by producers of natural gas. During the first nine weeks of 2018, the average land drilling rig count in Canada, as provided by Baker Hughes, has been seven percent lower than during the same period in 2017. We expect that we will be able to leverage our technologically differentiated product and service offering to continue to grow our business in 2018, especially in the United States, where industry activity is expected to grow and where we have greater opportunities for further market share penetration.

Increasing 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 and that pinpoint stimulation has become increasingly utilized by operators in North America, particularly in Canada. 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 continued adoption of pinpoint stimulation to complete wells.

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 more complex wells has resulted in us selling more sleeves per well on average, which increases our revenue opportunity per well completion. 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 in support of completion optimization efforts.

Acquisitions

On August 31, 2017, we acquired 100% of the equity interests in Spectrum in exchange for approximately \$83 million. Spectrum offers chemical and radioactive tracer diagnostics services that our customers utilize to better characterize their assets and to optimize completion designs. Chemical and radioactive tracer studies may provide a cost-effective and reliable means to determine the production profile along a lateral, assess fluid and proppant communication between wells during completions and determine stage and cluster level efficiency of completion designs. We believe Spectrum's tracer diagnostics services strengthens our ability to provide our customers with actionable data and analysis to optimize oil and natural gas well completions and field development strategies.

On February 1, 2017, we acquired a 50% interest in Repeat Precision for \$6.0 million. Repeat Precision has historically been a supplier to NCS. Our strategic purchase of 50% of this business ensures that we have continued access to their machining services and allows us greater control of the allocation of Repeat Precision's capacity, ensuring that we can scale their operations together with ours. In addition, Repeat Precision also markets certain completion products on a wholesale basis, providing an additional revenue opportunity.

In connection with both the Repeat Precision and Spectrum acquisitions, we may need to pay the respective sellers additional consideration as part of an earn-out upon meeting certain specified targets. For additional information regarding our 2017 acquisitions, see "Note. 3 Acquisitions" of our consolidated financial statements.

How We Generate Revenues

We derive the majority of our revenues from the sale of our Multistage Unlimited products and the provision of related services. The remainder of our revenues are generated from sales of our AirLock casing buoyancy system, our liner hanger systems and services provided by Spectrum and Anderson Thompson Reservoir Strategies. Our joint venture, Repeat, generates revenue through the provision of third-party manufacturing services and the sale of composite bridge plugs.

Product sales represented approximately 72%, 74% and 70% of our revenue for the years ended December 31, 2017, 2016 and 2015, respectively. Most of our sales are on a just-in-time basis, as specified in individual purchase orders, with a fixed price for our sliding sleeves. We occasionally supply our customers with large orders that may be filled on negotiated terms. Services represented 28%, 26% and 30% for the years ended December 31, 2017, 2016 and 2015. Services include our tool charges and associated services related to our Multistage Unlimited offering 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 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 and the provision of our services.

For the years ended December 31, 2017, 2016 and 2015, approximately 63%, 71% and 66%, 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 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 typically made to our local operating partners on a free on board basis with a point of sale in the United States. Some of the locations in which we have operating partners or sales representatives include Argentina, China, Russia 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. During the first quarter of 2017, we entered into our joint venture, Repeat Precision, which we believe will allow 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 Trump Administration signed an order that will impose an import tariff of 25% on steel. While we and our suppliers have locked in pricing for certain raw materials required to support our anticipated business activity during 2018, we anticipate that the tariff could result in an increase in our cost of sales, beginning as early as the second quarter. We expect to have success in passing through some, if not all, increases in raw material costs directly resulting from the tariff 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 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. In 2015 and 2016, in response to decreased demand for our products and services resulting from the decline in E&P activity in our markets, we reduced our headcount and took certain other actions which resulted in restructuring charges, primarily severance expense. 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 for the years ended December 31, 2017, 2016 and 2015, were approximately 32%, 36% and 33%, respectively.

How We Evaluate our Results of Operations

Our management uses a variety of financial and operating metrics to analyze our performance. These metrics are significant factors in assessing our results of operations and profitability and include:

Revenues

We primarily sell our products and services under purchase orders with pricing negotiated on a one-off basis with each customer. Our revenues are generated primarily from the sales of our completion products and from services related to the utilization of our downhole frac isolation assembly as well as from the provision of tracer diagnostics services. We compare our actual revenue performance on a monthly, quarterly and annual basis to our annual budget and to the most recent estimate we have for the relevant period and to applicable market metrics.

Adjusted EBITDA

We define Adjusted EBITDA as net income (loss) before interest expense, net, income tax expense (benefit) and depreciation and amortization further adjusted to exclude certain items which we believe are not reflective of our ongoing performance or which, in the case of share-based compensation, are noncash in nature. We believe that Adjusted EBITDA is an important measure that excludes many of the costs associated with our existing capital structure and excludes costs that management believes do not reflect our ongoing operating performance. Adjusted EBITDA helps to identify trends in the performance of our core ongoing operations by excluding the effects related to (i) noncash items, such as share-based compensation expense, the amortization of intangible assets,

and realized and unrealized gains associated with fluctuations in foreign currency exchange rates and (ii) charges that do not relate to our operations, such as interest expense and income tax benefits. Accordingly, Adjusted EBITDA is a key metric that management uses to assess the period-to-period performance of our core business operations, as a benchmark for certain performance-based compensation awards and to compare our operating performance to our peers and competitors.

Adjusted EBITDA is a non-GAAP financial measure and should not be considered as an alternative to net income as a measure of profitability.

Free Cash Flow

We also utilize free cash flow to evaluate the cash generated by our operations and results of operations. We define free cash flow as net cash provided by (used in) operating activities less purchases of property and equipment plus proceeds from sales of property and equipment, as presented in our consolidated statement of cash flows. Management believes free cash flow is useful because it provides information to investors regarding the cash that was available in the period that was in excess of our needs to fund our capital expenditures and other investment needs. Free cash flow does not represent our residual cash flow available for discretionary expenditures, as we have non-discretionary expenditures, including, but not limited to, repayment of outstanding balances under our Senior Secured Credit Facility, that is not deducted in calculating free cash flow.

Free Cash Flow is a non-GAAP financial measure and should not be considered as an alternative to cash provided by operating activities as a cash flow measurement.

Total Sleeves Sold and Total Wells Completed

We also evaluate our performance using certain key operating data relating to levels of activity in our business, including, the number of wells completed using our technology, and the number of sleeves we sold to our customers. We use the operating metrics described above as measures of performance. Our management also evaluates and manages the performance of our business by comparing our current actual results against budgeted and estimated amounts and industry trends.

Results of Operations

We made acquisitions in the first quarter and third quarter of 2017. For additional information about these acquisitions, see “Note. 3 Acquisitions” of our consolidated financial statements. Due to these acquisitions, our results of operations for the 2017 periods presented may not be comparable to historical results of operations for the prior periods. The following table summarizes our revenues and expenses for the periods indicated (dollars in thousands):

	Year Ended December 31,				
	2017	2016	2015	2017 /2016 % Change	2016 /2015 % Change
Revenues					
Product sales	\$ 144,666	\$ 73,220	\$ 80,079	97.6 %	(8.6)%
Services	56,968	25,259	33,926	125.5 %	(25.5)%
Total revenues	201,634	98,479	114,005	104.7 %	(13.6)%
Cost of sales					
Cost of product sales, exclusive of depreciation and amortization expense shown below	76,288	40,511	40,160	88.3 %	0.9 %
Cost of services, exclusive of depreciation and amortization expense shown below	22,504	13,322	14,553	68.9 %	(8.5)%
Total cost of sales, exclusive of depreciation and amortization expense shown below	98,792	53,833	54,713	83.5 %	(1.6)%
Selling, general and administrative expenses	64,707	37,061	37,804	74.6 %	(2.0)%
Depreciation	3,193	1,766	2,695	80.8 %	(34.5)%
Amortization	24,458	23,801	24,576	2.8 %	(3.2)%
Change in fair value of contingent consideration	5,525	—	—	100.0 %	—%
Income (loss) from operations	4,959	(17,982)	(5,783)	127.6 %	(210.9)%
Other income (expense)					
Interest expense, net	(4,306)	(6,286)	(8,064)	(31.5)%	(22.0)%
Other income (expense), net	1,085	45	(131)	2,311.1 %	134.4 %
Foreign currency exchange gain (loss)	224	(2,522)	25,779	108.9 %	(109.8)%
Total other (expense) income	(2,997)	(8,763)	17,584	65.8 %	(149.8)%
Income (loss) before income tax	1,962	(26,745)	11,801	107.3 %	(326.6)%
Income tax expense (benefit)	670	(8,818)	(16,224)	(107.6)%	(45.6)%
Net income (loss)	1,292	(17,927)	28,025	107.2 %	(164.0)%
Net loss attributable to non-controlling interest	(810)	—	—	(100.0)%	—%
Net income (loss) attributable to NCS Multistage Holdings, Inc.	\$ 2,102	\$ (17,927)	\$ 28,025	111.7 %	(164.0)%

Year Ended December 31, 2017 compared to Year Ended December 31, 2016

Revenues

Revenues were \$201.6 million for the year ended December 31, 2017 as compared to \$98.5 million for the year ended December 31, 2016. This increase was primarily attributable to an increase in volume of sales of our completions products and services due to higher drilling and well completion activity in North America as a result of an improved commodity price environment in 2017 as compared to 2016 as well as the contribution of Repeat Precision and four months of revenue from Spectrum. Product sales for the year ended December 31, 2017 were \$144.7 million as compared to \$73.2 million for the year ended December 31, 2016. Our service revenue was \$57.0 million for the year ended December 31, 2017 as compared to \$25.3 million for the year ended December 31, 2016.

Cost of sales

Cost of sales was \$98.8 million, or 49.0% of revenues, for the year ended December 31, 2017 as compared to \$53.8 million, or 54.7% of revenues, for the year ended December 31, 2016. The increase in cost of sales was primarily a result of a higher number of wells completed and a higher volume of product sales as well as the effect of Repeat Precision and four months of cost of sales from Spectrum. Cost of sales were a lower percentage of revenues due to the higher volume of well completions and sliding sleeve and AirLock system sales, resulting in greater absorption of fixed costs. Cost of product sales was \$76.3 million or 52.7% of product sales revenue and cost of services was \$22.5 million or 39.5% of service revenue for the year ended December 31, 2017. For the year ended December 31, 2016, cost of product sales was \$40.5 million or 55.3% of product sales revenue and cost of services was \$13.3 million or 52.7% of service revenue.

Selling, general and administrative expenses

Selling, general and administrative expenses were \$64.7 million for the year ended December 31, 2017 as compared to \$37.1 million for the year ended December 31, 2016. The increase was the direct result of headcount additions in substantially all functional areas. In addition, there were significant non-capitalizable additional expenses incurred related to our IPO of \$2.3 million, subsequent costs related to operating as a public company, expenses related to the acquisitions, the effect of Repeat Precision and four months of operations from Spectrum and an increase in share-based compensation related to the issuance of restricted stock units and amendments to certain stock options that were to vest only in connection with a change of control (the "Liquidity Options") as discussed in "Note 11. Share-Based Compensation" of our consolidated financial statements.

Depreciation

Depreciation was \$3.2 million for the year ended December 31, 2017 as compared to \$1.8 million for the year ended December 31, 2016. The increase is attributable to a higher level of property and equipment, primarily related to our acquisitions.

Amortization

Amortization was \$24.5 million for the year ended December 31, 2017 as compared to \$23.8 million for the year ended December 31, 2016. The majority of the increase in amortization was due to an increase in amortizable intangible assets related to our acquisitions and the increase in the average exchange rate between the Canadian dollar and the U.S. dollar.

Change in fair value of contingent consideration

Change in fair value of contingent consideration was \$5.5 million for the year ended December 31, 2017 due to the \$5.5 million increase in the fair value of the earn-outs associated with our acquisitions.

Interest expense, net

Interest expense, net was \$4.3 million for the year ended December 31, 2017 as compared to \$6.3 million for the year ended December 31, 2016. The decrease in interest expense, net was primarily a result of prepaying our Prior Term Loan in full in May 2017 by utilizing a portion of the proceeds from our IPO. The decrease was partially offset by the write-off of the remaining loan fees of \$1.4 million associated with the prepayment of the Prior Term Loan and interest expense due to borrowing \$20.0 million under our Senior Secured Credit Facility in August 2017.

Other income (expense), net

Other income (expense), net was \$1.1 million for the year ended December 31, 2017 as compared to \$45 thousand for the year ended December 31, 2016. Other income (expense), net was higher primarily due to the receipt of \$0.9 million from an arbitration case that was decided in our favor in February 2017.

Foreign currency exchange gain (loss)

Foreign currency exchange gain was \$0.2 million for the year ended December 31, 2017 as compared to a loss of \$(2.5) million for the year ended December 31, 2016. The change was primarily due to the impact of the retirement of our foreign currency denominated debt and changes in the foreign currency exchange rates between the periods.

Income tax expense (benefit)

Income tax expense (benefit) was \$0.7 million for the year ended December 31, 2017 as compared to a benefit of \$(8.8) million for the year ended December 31, 2016. For the years ended December 31, 2017 and 2016, our effective income tax rates were 34.1% and 33.0%, respectively. The primary differences between these effective tax rates were due to several offsetting items, including the effects of recording a tax expense for the recently enacted U.S. tax reform legislation commonly referred to as the 2017 Tax Act of \$3.9 million, not providing U.S. income taxes on the undistributed earnings of foreign subsidiaries because we intend to permanently reinvest such earnings outside the U.S. and a tax benefit for the reversal of our deferred tax liability due to the change in our foreign unremitted earnings assertion of \$3.9 million. During the first quarter of 2017, we changed our assertion to state that undistributed foreign earnings are indefinitely or permanently reinvested as a result of cash proceeds received from the IPO during May 2017, a portion of which was used to pay off existing debt.

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 revises 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. We have reasonably estimated the effects of the 2017 Tax Act and recorded amounts in our financial statements as of December 31, 2017. We recorded a tax benefit of \$0.5 million for the remeasurement of federal net deferred tax liabilities resulting from the permanent reduction in the U.S. statutory corporate tax rate to 21% from 35% and recorded a mandatory one-time tax on the accumulated earnings of our foreign subsidiaries of \$4.4 million. As we complete our analysis of the 2017 Tax Act, collect and prepare necessary data, and interpret any additional guidance issued by the U.S. Treasury Department, the IRS, and other standard-setting bodies, we may make adjustments to the recorded amounts. Those adjustments may impact our provision for income taxes in the period in which the adjustments are made.

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 tax items, our tax rate has been and will continue to be volatile.

Year Ended December 31, 2016 compared to Year Ended December 31, 2015

Revenues

Revenues were \$98.5 million for the year ended December 31, 2016 as compared to \$114.0 million for the year ended December 31, 2015. The decrease was a direct result of a decline in the sales of our completions products and services resulting from lower drilling and well completion activity in North America driven by declines in commodity pricing. Product sales for the year ended December 31, 2016 were \$73.2 million as compared to \$80.1 million for the year ended December 31, 2015. The decreased revenue as compared to the increased sleeve quantity reflects pricing declines per sleeve and a shift in mix to lower-priced sleeve models during the period. Our service revenue was \$25.3 million for the year ended December 31, 2016 as compared to \$33.9 million for the year ended December 31, 2015.

Cost of sales

Cost of sales was \$53.8 million, or 54.7% of revenues, for the year ended December 31, 2016 as compared to \$54.7 million, or 48.0% of revenues, for the year ended December 31, 2015. The decrease in cost of sales was primarily a result of a decline in the number of wells completed, partially offset by the higher volume of product sales. The higher percentage of revenues is related to the realized pricing concessions on all product lines in addition to the specific lower pricing related to excess inventory sales made at discounted prices. Offsetting some of these negative effects was improved pricing in conjunction with our strategic decision to manufacture products with a new international vendor in Mexico to produce certain products at a significantly lower cost, which began in the second quarter of 2016. Cost of product sales was \$40.5 million or 55.3% of product sales revenue and cost of services was \$13.3 million or 52.7% of service revenue for the year ended December 31, 2016. For the year ended December 31, 2015, cost of product sales was \$40.2 million or 50.2% of product sales revenue and cost of services was \$14.6 million or 42.9% of service revenue.

Selling, general and administrative expenses

Selling, general and administrative expenses were \$37.1 million for the year ended December 31, 2016 as compared to \$37.8 million for the year ended December 31, 2015. The decrease was the direct result of headcount reductions in all functional areas, with the exception of engineering. In addition, discretionary spending was reduced to improve profitability during the prolonged market downturn. Offsetting these operating expense reductions were significant additional expenses incurred related to the IPO process.

Depreciation

Depreciation was \$1.8 million for the year ended December 31, 2016 as compared to \$2.7 million for the year ended December 31, 2015. The decrease is attributable to the reduction in our fleet of trucks along with a portion of our service tools becoming fully depreciated at the end of 2015.

Amortization

Amortization was \$23.8 million for the year ended December 31, 2016 as compared to \$24.6 million for the year ended December 31, 2015. The majority of the decrease in amortization was due to the decrease in the exchange rate between the Canadian dollar and the U.S. dollar.

Interest expense, net

Interest expense, net was \$6.3 million for the year ended December 31, 2016 as compared to \$8.1 million for the year ended December 31, 2015. The decrease was due to lower average debt outstanding for the year ended December 31, 2016 as a result of a prepayment made on our Term Loan in December 2015 of \$40.0 million in addition to a small favorable foreign exchange effect due to the weakening of the Canadian dollar of \$0.2 million.

Other income (expense) net

Other expense, net was \$45 thousand for the year ended December 31, 2016 as compared to other income, net of (\$0.1) million for the year ended December 31, 2015.

Foreign currency exchange (loss) gain

Foreign currency exchange loss was (\$2.5) million for the year ended December 31, 2016 as compared to a gain of \$25.8 million for the year ended December 31, 2015. The decrease was directly due to the change in foreign currency exchange rates between the periods and the effect that the change had on the outstanding balance of debt on our Prior Senior Secured Credit Facility, which is denominated in Canadian dollars, within each respective period.

Income tax expense (benefit)

Income tax benefit was (\$8.8) million for the year ended December 31, 2016 as compared to a benefit of (\$16.2) million for the year ended December 31, 2015. For the years ended December 31, 2016 and 2015 our effective income tax rates were 33.0% and (137.5%), respectively. The difference in the effective income tax rate for the year ended December 31, 2016 and for the year ended December 31, 2015 was due to a tax planning strategy implemented in 2015 and the effect of an adjustment of our deferred tax liability on our differences between book value and tax basis in our Canadian subsidiary. The tax planning strategy was a change to the foreign company's year-end to conform to United States income tax reporting.

Liquidity and Capital Resources

Our primary sources of liquidity are our existing cash and cash equivalents, cash provided by operating activities, borrowings under our Senior Secured Credit Facility and proceeds from sales of our equity securities. As of December 31, 2017, we had cash and cash equivalents of \$33.8 million and availability under the Senior Secured Credit Facility of \$55.0 million. Our total indebtedness was \$27.0 million as of December 31, 2017.

Our principal liquidity needs have been, and are expected to continue to be, capital expenditures, working capital, debt service and potential mergers and acquisitions. On February 1, 2017, we contributed \$6.0 million in exchange for a 50% interest in a joint venture, Repeat Precision, which was funded from available cash. Concurrent with entering into the joint venture, we made a \$3.0 million Term Loan prepayment, also funded from available cash, and the previous owner of the 50% interest repaid in full a \$1.0 million promissory note to us. On August 31, 2017, we acquired 100% of the equity interests in Spectrum in exchange for approximately \$83 million, subject to certain adjustments, which was comprised of approximately \$76 million in cash and 0.4 million shares of common stock. The cash portion was funded with available cash and borrowings under our Senior Secured Credit Facility. Also, in connection with both the Repeat Precision and Spectrum acquisitions, we may need to pay the respective sellers additional consideration as part of an earn-out upon meeting certain specified targets. See "Note 3. Acquisitions" of our consolidated financial statements.

On May 3, 2017, we completed our IPO of 9,500,000 shares of our common stock at a price to the public of \$17.00 per share. The underwriters exercised their option to purchase an additional 1,425,000 shares of our common stock from certain selling stockholders and the closing of the over-allotment option occurred on May 3, 2017 concurrently with the closing of the IPO. We received \$148.9 million in net proceeds after deducting underwriting discounts and commissions and other offering expenses. We used a portion of the net proceeds from the IPO to repay our remaining indebtedness under our Term Loan and used the remaining net proceeds to acquire Spectrum on August 31, 2017.

We plan to incur \$15.0 million to \$18.0 million in capital expenditures in 2018, which includes capital expenditures related to a new enterprise resource planning system and the remainder of the estimated spending for our research and development facility

described below. We are investing in our owned facility in Canada to create a research and development facility for product development as well as to further demonstrate the capabilities and benefits of our products to our customers. We estimate total spending for the project to be approximately \$11 million CAD (\$9 million at December 31, 2017), which started in 2017 and will continue in 2018. Our capital expenditures for the years ended December 31, 2017, 2016, and 2015 were \$5.4 million, \$1.2 million and \$0.9 million, respectively. We believe our cash on hand, cash flows from operations and potential borrowings under our 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 and Free Cash Flow

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

	Year Ended December 31,		
	2017	2016	2015
Net cash provided by operating activities	\$ 16,114	\$ 10,684	\$ 4,369
Net cash used in investing activities	(85,221)	(1,840)	(1,221)
Net cash provided by (used in) financing activities	84,033	(315)	(12,766)
Effect of exchange rate changes on cash and cash equivalents	608	201	(1,008)
Net change in cash and cash equivalents	<u>\$ 15,534</u>	<u>\$ 8,730</u>	<u>\$ (10,626)</u>
Free cash flow (1)	<u>\$ 11,102</u>	<u>\$ 9,844</u>	<u>\$ 3,903</u>

- (1) Free cash flow is a non-GAAP financial measure. We define free cash flow as net cash provided by (used in) operating activities less purchases of property and equipment plus proceeds from sales of property and equipment. Management believes free cash flow is useful because it provides information to investors regarding the cash that was available in the period that was in excess of our needs to fund our capital expenditures and other investment needs. Free cash flow does not represent our residual cash flow available for discretionary expenditures, as we have non-discretionary expenditures, including, but not limited to, repayment of outstanding balances under our Senior Secured Credit Facility, that are not deducted in calculating free cash flow. A reconciliation of net cash provided by (used in) operating activities, the most directly comparable GAAP measure, to free cash flow for the periods indicated is as follows (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Net cash provided by operating activities	\$ 16,114	\$ 10,684	\$ 4,369
Purchases of property and equipment	(5,366)	(1,157)	(890)
Proceeds from sales of property and equipment	354	317	424
Free cash flow	<u>\$ 11,102</u>	<u>\$ 9,844</u>	<u>\$ 3,903</u>

Operating Activities

Net cash provided by operating activities was \$16.1 million and \$10.7 million for the years ended December 31, 2017 and 2016, respectively. The increase in 2017 was primarily related to higher net income and higher levels of non-cash expenses, including share-based compensation and changes in the fair value of contingent consideration. The increase was partially offset by changes in working capital including higher accounts receivable, inventories and income taxes payable and a decrease in accounts payable.

Net cash provided by operating activities was \$10.7 million and \$4.4 million for the years ended December 31, 2016 and 2015, respectively. The increase in 2016 was primarily related to an increase in business activity in the fourth quarter that resulted in accounts payable, accrued expenses and taxes payable all being higher, along with lower inventory. Offsetting these increases were higher accounts receivables and lower net income for the year.

Investing Activities

Net cash used in investing activities was \$85.2 million and \$1.8 million for the years ended December 31, 2017 and 2016, respectively. The increase in cash used in investing activities during the year ended December 31, 2017 as compared to the year ended December 31, 2016 was primarily due to the \$81.2 million funding of two acquisitions. See “Note 3. Acquisitions” in our consolidated financial statements. We also incurred an additional \$4.2 million of capital expenditures for the year ended December 31, 2017 in comparison to the same period in 2016. The increase is primarily attributable to the growth of our business and capital expenditures for Repeat Precision and Spectrum. The increase was partially offset by a \$1.0 million note receivable repayment during the year ended December 31, 2017.

Net cash used in investing activities was \$1.8 million and \$1.2 million for the years ended December 31, 2016 and 2015, respectively. The increase in cash used in investing activities during the year ended December 31, 2016 as compared to the year ended December 31, 2015 primarily was due to the funding of a \$1.0 million short-term loan to a supply chain partner to support expenditures required for our business activity.

Financing Activities

The net cash provided by financing activities for the year ended December 31, 2017 was \$84.0 million as compared to net cash used in financing activities of \$0.3 million for the year ended December 31, 2016. The cash provided by financing activities for the year ended December 31, 2017 primarily related to net proceeds of \$148.9 million from our IPO after deducting underwriting discounts and commissions and other offering expenses. Additionally, we borrowed \$20.0 million under our Senior Secured Credit Facility. The increases were partially offset by \$89.1 million of note repayments of the Prior Term Loan under our Prior Senior Secured Credit Facility.

The net cash used in financing activities was \$0.3 million and \$12.8 million for the years ended December 31, 2016 and 2015, respectively. The cash used in financing activities for the year ended December 31, 2015 primarily related to amortization payments of the Prior Term Loan under our Prior Senior Secured Credit Facility.

Prior Senior Secured Credit Facility

On August 7, 2014, Pioneer Investment, Inc. and Pioneer Intermediate, Inc., each wholly owned subsidiaries of the Company along with certain of their subsidiaries entered into that certain Credit Agreement (the “Prior Credit Agreement,” and the facilities thereunder, the “Prior Senior Secured Credit Facility”). The Prior Senior Secured Credit Facility consisted of a term loan in the original principal amount of \$197.6 million CAD (the “Prior Term Loan”) and a \$27.8 million CAD revolving credit facility (the “Prior Revolving Credit Facility”), of which \$5.0 million CAD was available for letters of credit and \$5.0 million CAD was available for swingline loans. In connection with the IPO, we repaid all outstanding indebtedness under the Prior Term Loan.

Senior Secured Credit Facility

On May 4, 2017, we entered into an Amended and Restated Credit Agreement (the “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 Credit Agreement amended and restated the Prior Credit Agreement in its entirety. The Senior Secured Credit Facility will mature on May 4, 2020.

The 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 “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 “Canadian Facility”). We entered into Amendment No. 1 to the Credit Agreement on August 31, 2017 (the “Amendment”). The Amendment increased the loan commitment available to the U.S. Borrower to \$50.0 million from \$25.0 million under the U.S. Facility. The loan commitment available under the Canadian Facility remained at \$25.0 million. At December 31, 2017, we had \$20.0 million in outstanding indebtedness under the U.S. Facility.

Borrowings under the 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 Credit Agreement), in each case, plus an applicable interest margin as set forth in the Credit Agreement. Borrowings under the 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 Credit Agreement), in each case, plus an applicable interest margin as set forth in the Credit Agreement. The Adjusted Base Rate, Canadian (U.S.) Base Rate and Canadian (Cdn) Base Rate applicable margin will be between 2.25% and 3.00% and

Eurocurrency Rate applicable margin will be between 3.25% and 4.00%, in each case, depending on the Company's leverage ratio. The applicable interest rate at December 31, 2017 was 5.50%.

The obligations of the U.S. Borrower under the 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 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 Credit Agreement contains financial covenants that require (i) commencing with the fiscal quarter ended 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 ended 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 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 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. The 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. As of December 31, 2017, we were in compliance with these financial covenants. The 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 U.S. Facility and the 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 U.S. Facility and the 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 U.S. Facility and the Canadian Facility, the lenders thereunder will have the right to proceed against the collateral granted to them to secure such facility. If the debt under the Senior Secured Credit Facility were to be accelerated, our assets may not be sufficient to repay in full that debt or any other debt that may become due as a result of that acceleration.

Contractual Obligations

The following table presents our contractual obligations and other commitments as of December 31, 2017 (in thousands):

	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3- 5 years</u>	<u>More than 5 years</u>
Capital lease obligations including interest payments	\$ 2,661	\$ 1,286	\$ 1,179	\$ 196	\$ —
Senior Secured Credit Facility and other debt	24,608	4,184	20,390	34	—
Interest on long-term debt	3,325	1,456	1,869	—	—
Earn-outs for the acquisitions	12,835	—	12,835	—	—
Income tax payable related to the 2017 Tax Act (1)	4,157	333	665	665	2,494
Equipment and office operating leases	5,597	2,983	2,223	391	—
	<u>\$ 53,183</u>	<u>\$ 10,242</u>	<u>\$ 39,161</u>	<u>\$ 1,286</u>	<u>\$ 2,494</u>

- (1) The 2017 Tax Act includes a mandatory one-time tax on accumulated earnings of foreign subsidiaries, and as a result, all previously unremitted earnings for which no U.S. deferred tax liability had been accrued have now been subject to U.S. tax. The income tax payable related to the 2017 Tax Act is due in installments in varying percentages over the next eight years.

Off-Balance Sheet Arrangements

We have no off-balance sheet financing arrangements with the exception of operating leases.

Effects of Inflation

We do not believe that the effects of inflation have had a material effect on our business, financial condition or results of operations. However, if our costs become subject to significant inflationary pressures, we may not be able to offset such increased

costs through price increases. Our inability or failure to offset any such cost increases in the future could have a material adverse effect on our business, financial condition and results of operations.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses. Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. Our actual results may differ from these estimates. The accounting policies that we believe to be the most critical to an understanding of our financial condition and results of operations and that require the most complex and subjective management judgments are discussed below.

Revenue Recognition

We recognize revenue when it is determined that the following criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured. For the year ended December 31, 2017, we recognized revenue from our largest customer totaling \$27.4 million, or 14% of total revenue for the year. Amounts due from this customer included in trade accounts receivable was \$2.0 million, or 4% of trade accounts receivable, as of December 31, 2017. No other customer individually accounted for 10% or more of our consolidated revenue during the year ended 2017 or trade receivable accounts balance as of December 31, 2017. For the year ended December 31, 2016, we recognized revenue from our largest customer totaling \$25.5 million, or 26% of total revenue for the year. Amounts due from this customer included in trade accounts receivable was \$7.8 million, or 24% of trade accounts receivable, as of December 31, 2016. No other customer individually accounted for 10% or more of our consolidated revenue during 2016 or trade receivable accounts balance as of December 31, 2016. For the year ended December 31, 2015, the same customer accounted for \$35.1 million, or approximately 31% of total revenue, and as of December 31, 2015, \$4.4 million in trade accounts receivable were due from this customer, or 17% of trade accounts receivable.

We recognize revenue based upon a purchase order, contract or other persuasive evidence of an arrangement with the customer that includes a fixed or determinable price, provided that collectability is reasonably assured, but it does not include right of return or other similar provisions or other significant post-delivery obligations. Revenue is recognized for products generally upon installation and when the customer assumes the risks and rewards of ownership. In cases where services are being performed, we generally do not recognize revenue until a job has been completed, which includes a customer signature or acknowledgement and that there are no additional services or future performance obligations required by us. Rates for services are typically priced on a per day, per man-hour or similar basis that include both the cost of the downhole frac isolation assembly and our personnel required to supervise the operation of the assembly.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for estimated losses that may result from the inability of our customers to make required payments. Earnings are charged with a provision for doubtful accounts based on a current review of the collectability of customer accounts by management. Such allowances are based upon several factors including, but not limited to, credit approval practices, industry and customer historical experience as well as the current and projected financial condition of the specific customer. Accounts deemed uncollectible are applied against the allowance for doubtful accounts. We have recorded \$11 thousand and \$0.1 million in provisions for doubtful accounts as of December 31, 2017 and 2016, respectively.

Inventories

Inventories consist primarily of raw material, sliding sleeve components, assembled sliding sleeves, certain components used to internally construct our frac isolation assemblies and chemicals, in raw material or finished goods, used for frac diagnostics testing and reporting. 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 with the exception of chemical costs, which are determined using average costing. 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 by management as an adjustment to cost of sales.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Equipment held under capital leases are stated at the present value of minimum lease payments. Expenditures for property and equipment and for items which substantially increase the useful lives of existing assets are capitalized at cost and depreciated over their estimated useful life utilizing the straight-line method.

Routine expenditures for repairs and maintenance are expensed as incurred. Depreciation is calculated over the estimated useful lives of the related assets using the straight-line method. Leasehold improvements and property under capital leases are amortized over the shorter of the remaining lease term or useful life of the related asset. Depreciation expense includes amortization of assets under capital leases. The cost and related accumulated depreciation of assets retired or otherwise disposed of are eliminated from the accounts, and any resulting gains or losses are recognized in other (expense) income, net in the year of disposal.

Depreciation on property and equipment, including assets held under capital leases, is calculated using the straight-line method over the following useful service lives or lease term (which includes reasonably assured renewal periods):

	Years
Buildings	30
Building equipment	5 - 15
Machinery and equipment	5 - 12
Furniture and fixtures	3 - 5
Computers and software	3 - 5
Vehicles and rental equipment	3 - 4
Leasehold improvements	Lease term (1-4)

We periodically assess potential impairment of our property and equipment, when events or changes in circumstances occur that indicate the carrying value of the asset or asset group may not be recoverable. The assessment of possible impairment is based on our overall valuation calculation using forward looking as well as historical computations to measure the value of our long-lived assets. If the overall valuation results are less than the carrying value of such assets, an impairment loss with respect to property and equipment is recognized for the difference between estimated fair value and carrying value. No impairment loss has been recognized for the years ended December 31, 2017, 2016 and 2015.

Business Combinations, Goodwill and Intangible Assets

Business combinations are accounted for under the acquisition method of accounting in accordance with Financial Accounting Standards Board (“FASB”) ASC 805, *Business Combinations*. Under the acquisition method of accounting, the total consideration transferred in connection with the acquisition is allocated to the tangible and intangible assets acquired, liabilities assumed, and any non-controlling interest in the acquiree based on their fair values. Goodwill acquired in connection with business combinations represents the excess of consideration transferred over the net tangible and identifiable intangible assets acquired. Certain assumptions and estimates are employed in evaluating the fair value of assets acquired and liabilities assumed. These estimates may be affected by factors such as changing market conditions, technological advances in the oil and natural gas industry or changes in regulations governing that industry. The most significant assumptions requiring judgment involve identifying and estimating the fair value of intangible assets and the associated useful lives for establishing amortization periods. To finalize purchase accounting for significant acquisitions, we utilize the services of independent valuation specialists to assist in the determination of the fair value of acquired intangible assets.

Costs related to the acquisition, other than those associated with the issuance of debt or equity securities, that we incur in connection with a business combination are expensed as incurred.

Any contingent consideration payable is recognized at fair value at the acquisition date. Liability-classified contingent consideration is remeasured each reporting period with changes in fair value recognized in earnings until the contingent consideration is settled.

For goodwill, an assessment for impairment is performed annually or, more frequently, when there is an indication an impairment may have occurred. We complete our annual impairment test for goodwill using an assessment date in the fourth quarter of each fiscal year. Goodwill is reviewed for impairment by comparing the carrying value of the reporting unit’s net assets (including allocated goodwill) to the fair value of the reporting unit. The fair value of the reporting unit is determined using a discounted cash flow approach. Determining the fair value of a reporting unit requires the use of estimates and assumptions. The principal estimates and assumptions that we use include revenue growth rates, operating margins, weighted average costs of capital, a terminal growth rate, and future market conditions. We believe that the estimates and assumptions used in impairment assessments are reasonable. Any impairment losses are reflected in operating income. We concluded that there was no impairment of goodwill in 2017, 2016 or 2015, based on our annual impairment analysis.

All identifiable intangibles are amortized on a straight-line basis over the estimated useful life or term of related agreements. Deferred loan costs are amortized to interest expense using the effective interest method. These assets are tested for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. We concluded there was no impairment of identifiable intangibles for the years ended December 31, 2017, 2016 or 2015.

Income Taxes

NCS Multistage Holdings, Inc. is taxed as a corporation as defined under the Internal Revenue Code. The liability method is used in accounting for deferred income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when these differences are expected to reverse. The realizability of deferred tax assets is evaluated annually and a valuation allowance is provided if it is more likely than not that the deferred tax assets will not give rise to future benefits. We recognize tax benefits from uncertain tax positions only if it is more likely than not that the tax position will be sustained, based upon technical merits, upon examination by the taxing authorities. If the income tax position is expected to meet the more likely than not criteria, the benefit recorded in the consolidated financial statements equals the largest amount that is greater than 50% likely to be realized upon its ultimate settlement. A valuation allowance to reduce deferred tax assets is established when it is more likely than not that some portion or all the deferred tax assets will not be realized. As of December 31, 2017 and 2016, the valuation allowance was \$18 thousand and \$63 thousand, respectively. We recognize accrued interest and penalties related to uncertain tax positions in other income (expense). During the years ended December 31, 2017, 2016 and 2015, we recognized \$0.2 million, \$0.1 million and \$0.1 million, respectively, in interest and penalties. We had \$0.6 million and \$0.4 million in interest and penalties accrued at December 31, 2017 and 2016, respectively.

One of our Canadian subsidiaries guaranteed the credit facilities of our U.S. entities until May 2017 when cash proceeds were received from the IPO, a portion of which was used to pay off the existing debt. Under U.S. federal income tax rules, this guarantee resulted in all of the earnings and profits of our Canadian subsidiary being subject to current U.S. tax. As a result of the 2017 Tax Act and a change in our permanent earnings reinvestment assertion, we have recognized a U.S. tax benefit for the reversal of our deferred tax liability on a portion of our differences between book value and tax basis in our Canadian subsidiary for which we are now asserting indefinite reinvestment. No U.S. deferred tax liabilities have been recognized on the differences between book value and tax basis that we continue to indefinitely reinvest. Upon reversal of these book value and tax basis differences through dividends or otherwise, we may be subject to foreign withholding taxes. It is not practical, however, to estimate the amount of taxes that may be payable on the eventual remittance of these temporary differences after consideration of available foreign tax credits.

We completed our analysis of our tax positions and believe there are no material uncertain tax positions that would require derecognition in the consolidated financial statements as of December 31, 2017 and 2016. We believe that there are no tax positions taken or expected to be taken that would significantly increase or decrease unrecognized tax benefits within the next twelve months following the balance sheet date. As of December 31, 2017 and 2016, there were no material amounts that had been accrued with respect to uncertain tax positions.

We file income tax returns in the United States, Canada and various state and foreign jurisdictions. Our U.S. income tax returns for 2011 and subsequent years remain open for examination. The Internal Revenue Service (“IRS”) commenced an examination of our United States income tax returns for 2011 through 2012 in the first quarter of 2014 which was completed in 2015. No tax adjustments were proposed. Additionally, subsequent to December 31, 2015, the IRS commenced an examination of our United States income tax return for 2014 in the second quarter of 2016, which was completed in 2017. No tax adjustments were proposed.

Share-Based Compensation

We account for our stock-based compensation awards in accordance with ASC Topic 718, *Compensation—Stock Compensation* (“ASC 718”). We recognize compensation cost for all share-based payment transactions with employees, including compensation cost associated with the grant of options and restricted stock units for our common stock using the Black-Scholes model for options and the market price of the common stock on the date of the grant for the restricted stock units. Expense is recognized ratably from one to five years based upon the requisite service period. We also have an employee stock purchase plan, which allows eligible employees to purchase shares of our common stock. The purchase price of the stock will be 85% of the lower of the stock price at the beginning or end of the plan period. The fair value of the employees’ purchase rights under the employee stock purchase plan will be estimated using the Black-Scholes model. The Black-Scholes model for both options and the shares purchased under the employee stock purchase plan requires assumptions and estimates for inputs, especially the estimate of volatility, that affect the resultant values and hence the amount of compensation expense recognized. Prior to our IPO, we were a private company. Therefore, we estimated our expected stock volatility based on the historical volatility of a publicly traded set of peer companies and expect to continue to do so until such time as we have adequate historical data regarding the volatility of our own traded stock price.

The following table presents the timing of service based options granted, number of underlying shares and related exercise prices of stock options granted between January 1, 2015 and December 31, 2017, along with the fair value per share of common stock utilized to calculate share-based compensation expense.

Grant Timing	Shares Underlying Options	Common Stock Fair Value Per Share as of Grant Date	Exercise Price Per Option
2015:			
First Quarter	—	\$ —	\$ —
Second Quarter	13,605	\$ 4.84	\$ 11.82
Third Quarter	—	\$ —	\$ —
Fourth Quarter	8,289	\$ 9.55	\$ 0.003
2016:			
First Quarter	—	\$ —	\$ —
Second Quarter	11,796	\$ 4.24-4.47	\$ 8.96-9.55
Third Quarter	12,552	\$ 4.40-5.45	\$ 9.55-9.81
Fourth Quarter	—	\$ —	\$ —
2017:			
First Quarter	—	\$ —	\$ —
Second Quarter	12,647	\$ 7.61	\$ 17.00
Third Quarter	—	\$ —	\$ —
Fourth Quarter	—	\$ —	\$ —

Determining fair market value

Determining the appropriate fair value model and calculating the fair value of options requires the input of highly subjective assumptions, including the expected volatility of the price of our stock, the risk-free rate, the expected term of the options and the expected dividend yield of our common stock. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our share-based compensation expense could be materially different in the future. We estimate the fair value of each option grant using the Black-Scholes option-pricing model. The Black-Scholes option pricing model requires estimates of key assumptions based on both historical information and management judgment regarding market factors and trends.

Expected volatility—We developed our expected volatility by using the historical volatilities of our peer group of public companies for a period equal to the expected life of the option by taking the median of the annualized weekly ten year standard deviation of their stock prices.

Risk-free interest rate—The risk-free interest rates for options granted are based on the constant maturity Treasury bond rates whose term is consistent with the expected life of an option from the date of grant.

Expected term—As we do not have sufficient historical experience for determining the expected term of the stock option awards granted, we based our expected term for awards issued to employees on the “simplified” method under the provisions of ASC Topic 718-10, Compensation-Stock Compensation. The expected term is based on the midpoint between the vesting date and contractual term of an option. The expected term represents the period that our stock-based awards are expected to be outstanding.

Expected dividend yield—We do not anticipate paying cash dividends on our shares of common stock; therefore, the expected dividend yield is assumed to be zero.

The fair value of each option granted in 2017, 2016 and 2015 was estimated on the date of grant using the Black-Scholes-Merton method, with the following weighted average assumptions being used:

	Year Ended December 31,		
	2017	2016	2015
Expected volatility	44.4 %	42-44.7%	43.0 %
Average risk free interest rate	2.0 %	1.7 %	2.3 %
Expected term (in years)	6.0	6.5	6.5
Expected dividends	— %	— %	— %

In conjunction with the stock options issued above, we also issued Liquidity Options. In connection with the IPO, the Liquidity Options were amended for 22 employees to provide that such awards will vest in three equal installments on each of the first three anniversaries of the consummation of our IPO, which occurred on May 3, 2017, subject to certain requirements including, as applicable, the recipient's continued employment on the vesting date. The Liquidity Options are still subject to accelerated vesting upon a company sale, as defined in our 2012 Equity Incentive Plan. The unamortized compensation expense of the Liquidity Options is being recognized over a period of three years from the date of the modification.

As a result of the modification, we estimated the fair value of the Liquidity Options on April 27, 2017, the amendment date, using the Black-Scholes option-pricing model, which required estimates of key assumptions based on both historical information and management judgment regarding market factors and trends. The weighted average assumptions used to estimate the fair value of the Liquidity Options were as follows:

Expected volatility	44.4 %
Average risk free interest rate	1.7 %
Expected term (in years)	4.6
Expected dividends	— %

Upon completion of the IPO, we began granting restricted stock units. All restricted stock units vest ratably over a period of one to three years. During the year ended December 31, 2017, we granted 167,494 restricted stock units at a weighted average grant date fair value of \$18.78 of which 57,348 restricted stock units were granted to the non-employee members of the Board of Directors. The fair value of restricted stock units issued subsequent to the IPO is based on the closing price of our common stock on the NASDAQ on the grant date.

As of December 31, 2017, the total unamortized compensation expense was valued at \$16.0 million compared to \$11.7 million and \$12.7 million at December 31, 2016 and 2015, respectively. For additional information, see "Note. 11 Share-Based Compensation" of our consolidated financial statements.

Recently Issued Accounting Pronouncements

See "Note 2. Summary of Significant Accounting Policies" to our consolidated financial statements for discussion of the accounting pronouncements we recently adopted and the accounting pronouncements recently issued by the Financial Accounting Standards Board.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Commodity Price Risk

The market for our products and services is indirectly exposed to fluctuations in the prices of crude oil and natural gas to the extent such fluctuations impact drilling and completion activity levels and thus impact the activity levels of our customers in the exploration and production industries. Additionally, because we do not sell our products under long-term contracts, we believe we are particularly exposed to short-term fluctuations in the prices of crude oil and natural gas. We do not currently intend to hedge our indirect exposure to commodity price risk.

Foreign Currency Exchange Rate Risk

A substantial amount of our revenues are derived in Canada and, accordingly, our competitiveness and financial results are subject to foreign currency fluctuations where revenues and costs are denominated in Canadian dollars rather than U.S. dollars. During the years ended December 31, 2017, 2016 and 2015, approximately 63%, 71% and 66%, respectively, of our revenues were attributable to our operations in Canada. We indirectly hedged our exposure to adverse changes in foreign currency exchange rates by having our Prior Senior Secured Credit Facility denominated in Canadian dollars, which allowed us to have a significant amount of our fixed costs related to interest and principal payments denominated in Canadian dollars. On May 4, 2017, we repaid the Prior Term Loan under our Prior Senior Secured Credit Facility in full and entered into a Senior Secured Credit Facility, which included a U.S. Facility and a Canadian Facility. We also may use foreign currency forward exchange contracts to hedge our future exposure to the Canadian dollar.

Interest Rate Risk

We were exposed to interest rate risk through our Prior Revolving Credit Facility and the Prior Term Loan under our Prior Senior Secured Credit Facility. We repaid the Prior Term Loan under our Prior Senior Secured Credit Facility on May 4, 2017 and entered into our Senior Secured Credit Facility, which is also subject to variable interest rates. The Senior Secured Credit Facility consists of a U.S. Facility and a Canadian Facility. As of December 31, 2017, we had \$20.0 million in outstanding indebtedness under our U.S. Facility.

Borrowings under the U.S. Facility may be made in U.S. dollars, Canadian dollars or Euros and will bear interest at a rate equal to the Adjusted Base Rate or Eurocurrency Rate (each as defined in the Credit Agreement), in each case, plus an applicable interest margin. Borrowings under the Canadian Facility may be made in U.S. dollars or Canadian dollars and will bear interest at the Canadian (Cdn) Base Rate, Canadian (U.S.) Base Rate, Eurocurrency Rate or Discount Rate (each as defined in the Credit Agreement), in each case, plus an applicable interest margin as set forth in the Credit Agreement. The Adjusted Base Rate, Canadian (U.S.) Base Rate and Canadian (Cdn) Base Rate applicable margin will be between 2.25% and 3.00% and Eurocurrency Rate applicable margin will be between 3.25% and 4.00%, in each case, depending on our leverage ratio. The applicable interest rate at December 31, 2017 was 5.50%. Based on our outstanding debt as of December 31, 2017, and assuming that it remains the same, the annualized effect of a one percentage point change in variable interest rates would have an annualized pre-tax impact on our earnings and cash flows of \$0.2 million.

Credit Risk

Our customers are E&P companies and other oilfield services companies. This concentration of counterparties operating in a single industry may increase our overall exposure to credit risk, in that the counterparties may be similarly affected by changes in economic, regulatory or other conditions. We manage credit risk by analyzing the counterparties' financial condition prior to accepting new customers and prior to adjusting existing credit limits.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of NCS Multistage Holdings, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of NCS Multistage Holdings, Inc. and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income (loss), changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, including the related notes and financial statement schedules listed in the accompanying index (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it presents deferred tax assets and liabilities in 2017.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP
Houston, Texas
March 9, 2018

We have served as the Company's auditor since 2013.

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

	December 31, 2017	December 31, 2016
Assets		
Current assets		
Cash and cash equivalents	\$ 33,809	\$ 18,275
Accounts receivable—trade, net	47,880	32,116
Inventories	33,135	17,017
Prepaid expenses and other current assets	1,616	2,445
Other current receivables	1,369	3,053
Deferred income taxes, net	—	2,116
Total current assets	<u>117,809</u>	<u>75,022</u>
Noncurrent assets		
Property and equipment, net	23,651	9,759
Goodwill	184,478	122,077
Identifiable intangibles, net	136,412	118,697
Deposits and other assets	1,563	1,272
Total noncurrent assets	<u>346,104</u>	<u>251,805</u>
Total assets	<u>\$ 463,913</u>	<u>\$ 326,827</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable—trade	\$ 7,448	\$ 10,258
Accrued expenses	6,673	3,290
Income taxes payable	10,561	—
Other current liabilities	1,673	3,223
Current maturities of long-term debt	5,334	772
Total current liabilities	<u>31,689</u>	<u>17,543</u>
Noncurrent liabilities		
Long-term debt, less current maturities	21,702	88,394
Contingent consideration	12,835	—
Other long-term liabilities	4,513	717
Deferred income taxes, net	24,183	42,695
Total noncurrent liabilities	<u>63,233</u>	<u>131,806</u>
Total liabilities	<u>94,922</u>	<u>149,349</u>
Commitments and contingencies (Note 9)		
Stockholders' equity		
Preferred stock, \$0.01 par value, 10,000,000 shares authorized, one share issued and outstanding at December 31, 2017 and one share authorized, issued and outstanding at December 31, 2016	—	—
Common stock, \$0.01 par value, 225,000,000 shares authorized, 43,931,484 shares issued and 43,913,136 shares outstanding at December 31, 2017 and 54,000,000 shares authorized, 34,024,326 shares issued and 34,005,978 shares outstanding at December 31, 2016	439	340
Additional paid-in capital	399,426	237,566
Accumulated other comprehensive loss	(66,707)	(82,015)
Retained earnings	23,864	21,762
Treasury stock, at cost; 18,348 shares at December 31, 2017 and at December 31, 2016	(175)	(175)
Total stockholders' equity	<u>356,847</u>	<u>177,478</u>
Non-controlling interest	12,144	—
Total equity	<u>368,991</u>	<u>177,478</u>
Total liabilities and stockholders' equity	<u>\$ 463,913</u>	<u>\$ 326,827</u>

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

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

	Year Ended December 31,		
	2017	2016	2015
Revenues			
Product sales	\$ 144,666	\$ 73,220	\$ 80,079
Services	56,968	25,259	33,926
Total revenues	201,634	98,479	114,005
Cost of sales			
Cost of product sales, exclusive of depreciation and amortization expense shown below	76,288	40,511	40,160
Cost of services, exclusive of depreciation and amortization expense shown below	22,504	13,322	14,553
Total cost of sales, exclusive of depreciation and amortization expense shown below	98,792	53,833	54,713
Selling, general and administrative expenses	64,707	37,061	37,804
Depreciation	3,193	1,766	2,695
Amortization	24,458	23,801	24,576
Change in fair value of contingent consideration	5,525	—	—
Income (loss) from operations	4,959	(17,982)	(5,783)
Other income (expense)			
Interest expense, net	(4,306)	(6,286)	(8,064)
Other income (expense), net	1,085	45	(131)
Foreign currency exchange gain (loss)	224	(2,522)	25,779
Total other (expense) income	(2,997)	(8,763)	17,584
Income (loss) before income tax	1,962	(26,745)	11,801
Income tax expense (benefit)	670	(8,818)	(16,224)
Net income (loss)	1,292	(17,927)	28,025
Net loss attributable to non-controlling interest	(810)	—	—
Net income (loss) attributable to NCS Multistage Holdings, Inc.	\$ 2,102	\$ (17,927)	\$ 28,025
Earnings (loss) per common share			
Basic earnings (loss) per common share attributable to NCS Multistage Holdings, Inc.	\$ 0.05	\$ (0.53)	\$ 0.88
Diluted earnings (loss) per common share attributable to NCS Multistage Holdings, Inc.	\$ 0.05	\$ (0.53)	\$ 0.86
Weighted average common shares outstanding			
Basic	40,484	34,008	29,966
Diluted	43,583	34,008	32,433

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

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

	Year Ended December 31,		
	2017	2016	2015
Net income (loss)	\$ 1,292	\$ (17,927)	\$ 28,025
Foreign currency translation adjustments, net of tax of \$0	15,308	6,655	(43,280)
Comprehensive income (loss)	16,600	(11,272)	(15,255)
Comprehensive loss attributable to non-controlling interest	(810)	—	—
Comprehensive income (loss) attributable to NCS Multistage Holdings, Inc.	<u>\$ 17,410</u>	<u>\$ (11,272)</u>	<u>\$ (15,255)</u>

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

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

	Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive (Loss) Income	Retained Earnings	Treasury Stock		Non- controlling Interest	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				Shares	Amount		
Balances as of											
December 31, 2014	1	\$ —	29,826,669	\$ 298	\$ 194,840	\$ (45,390)	\$ 11,664	—	\$ —	\$ —	\$ 161,412
Contributions	—	—	4,187,022	42	39,957	—	—	—	—	—	39,999
Share-based compensation	—	—	—	—	1,313	—	—	—	—	—	1,313
Net income	—	—	—	—	—	—	28,025	—	—	—	28,025
Currency translation adjustment	—	—	—	—	—	(43,280)	—	—	—	—	(43,280)
Balances as of											
December 31, 2015	1	\$ —	34,013,691	\$ 340	\$ 236,110	\$ (88,670)	\$ 39,689	—	\$ —	\$ —	\$ 187,469
Contributions	—	—	10,635	—	102	—	—	—	—	—	102
Share-based compensation	—	—	—	—	1,354	—	—	—	—	—	1,354
Treasury shares purchased at cost	—	—	—	—	—	—	—	18,348	(175)	—	(175)
Net loss	—	—	—	—	—	—	(17,927)	—	—	—	(17,927)
Currency translation adjustment	—	—	—	—	—	6,655	—	—	—	—	6,655
Balances as of											
December 31, 2016	1	\$ —	34,024,326	\$ 340	\$ 237,566	\$ (82,015)	\$ 21,762	18,348	\$ (175)	\$ —	\$ 177,478
Acquisitions	—	—	355,658	4	6,903	—	—	—	—	12,954	19,861
Share-based compensation	—	—	—	—	6,108	—	—	—	—	—	6,108
Net income (loss)	—	—	—	—	—	—	2,102	—	—	(810)	1,292
Issuance of common stock upon IPO, net of offering costs	—	—	9,550,000	95	148,841	—	—	—	—	—	148,936
Exercise of stock options	—	—	1,500	—	8	—	—	—	—	—	8
Currency translation adjustment	—	—	—	—	—	15,308	—	—	—	—	15,308
Balances as of											
December 31, 2017	1	\$ —	43,931,484	\$ 439	\$ 399,426	\$ (66,707)	\$ 23,864	18,348	\$ (175)	\$ 12,144	\$ 368,991

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

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

	Year Ended December 31,		
	2017	2016	2015
Cash flows from operating activities			
Net income (loss)	\$ 1,292	\$ (17,927)	\$ 28,025
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	27,651	25,567	27,271
Amortization of deferred loan cost	444	740	945
Share-based compensation	6,108	1,354	1,313
Provision for doubtful accounts receivable	—	—	113
Provision for inventory obsolescence	—	2,415	1,544
Deferred income tax benefit	(18,959)	(9,266)	(11,300)
(Gain) loss on sale of property and equipment	(33)	(143)	744
Foreign exchange (gain) loss on financing item	(1,760)	2,576	(26,277)
Deferred loan costs	1,422	—	—
Change in fair value of contingent consideration	5,525	—	—
Changes in operating assets and liabilities:			
Accounts receivable—trade	(9,490)	(6,482)	16,297
Inventories	(10,608)	3,540	4,159
Prepaid expenses and other assets	(114)	(119)	(195)
Accounts payable—trade	(3,755)	5,131	(3,130)
Accrued expenses	2,843	1,861	(6,672)
Other liabilities	(247)	1,209	(2,842)
Income taxes receivable/payable	15,795	228	(25,626)
Net cash provided by operating activities	<u>16,114</u>	<u>10,684</u>	<u>4,369</u>
Cash flows from investing activities			
Purchases of property and equipment	(5,366)	(1,157)	(890)
Proceeds from sales of property and equipment	354	317	424
Purchases of intangible assets	(54)	—	—
Issuance of note receivable—related party	—	—	(755)
Proceeds (funding) from short-term note receivable	1,000	(1,000)	—
Acquisitions of businesses, net of cash acquired	(81,155)	—	—
Net cash used by investing activities	<u>(85,221)</u>	<u>(1,840)</u>	<u>(1,221)</u>
Cash flows from financing activities			
Debt issuance cost	—	—	(1,195)
Equipment note borrowings	1,533	—	—
Payments on equipment note and capital leases	(704)	—	—
Promissory note borrowings	8,995	—	—
Payments on promissory note	(5,682)	—	—
Line of credit borrowings	20,000	—	—
Payment of deferred loan cost related to new credit agreement	(971)	—	—
Payments related to public offering	(2,178)	(242)	—
Proceeds from related party note receivable	752	—	—
Repayment of term note	(89,077)	—	(51,570)
Proceeds from the exercise of options for common stock, net	9	—	—
Purchases of treasury stock	—	(175)	—
Proceeds from issuance of common stock, net of offering costs	151,356	102	39,999
Net cash provided (used) by financing activities	<u>84,033</u>	<u>(315)</u>	<u>(12,766)</u>
Effect of exchange rate changes on cash and cash equivalents	608	201	(1,008)
Net change in cash and cash equivalents	<u>15,534</u>	<u>8,730</u>	<u>(10,626)</u>
Cash and cash equivalents beginning of period	18,275	9,545	20,171
Cash and cash equivalents end of period	<u>\$ 33,809</u>	<u>\$ 18,275</u>	<u>\$ 9,545</u>
Supplemental cash flow information			
Cash paid for interest, net of amounts capitalized	\$ 3,023	\$ 5,447	\$ 9,381
Cash paid for income taxes (net of refunds)	4,033	130	20,476
Noncash investing and financing activities			
Unpaid costs related to public offering	—	708	—
Issuance of common stock for business acquisition	6,907	—	—
Assets obtained by entering into a capital lease	1,092	—	—

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

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Organization and Basis of Presentation

Organization

NCS Multistage Holdings, Inc., through its wholly owned subsidiaries and subsidiaries for which we have a controlling voting interest (collectively referred to as the “Company,” “NCS,” “we” or “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; and Calgary, Red Deer, Grande Prairie and Estevan, Canada.

We are a Delaware corporation. We changed our name from Pioneer Super Holdings, Inc. to NCS Multistage Holdings, Inc. on December 13, 2016.

Basis of Presentation

Our accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”). All intercompany transactions have been eliminated in consolidation

Initial Public Offering

On April 13, 2017, in connection with the initial public offering of shares of our common stock (“IPO”), our board of directors and stockholders approved an amendment to the amended and restated certificate of incorporation effecting a 3.00 for 1.00 stock split of our issued and outstanding shares of common stock. The stock split was implemented on April 13, 2017 and the par value of the common and preferred stock was not adjusted as a result of the stock split. All other common stock share amounts disclosed in this Annual Report on Form 10-K (this “Form 10-K”) have been adjusted to reflect this stock split for all periods presented. In addition, in connection with the IPO, our certificate of incorporation was amended and restated to increase our authorized capital stock to consist of 225.0 million shares of common stock, par value \$0.01 per share, and 10.0 million shares of preferred stock, par value \$0.01 per share.

On May 3, 2017, we completed the initial public offering of 9.5 million shares of our common stock, \$0.01 par value, at a price to the public of \$17.00 per share pursuant to a Registration Statement on Form S-1, as amended (File No. 333-216580) (the “Registration Statement”). The underwriters exercised their option to purchase an additional 1.425 million shares of our common stock from certain selling stockholders and the closing of the over-allotment option occurred on May 3, 2017, concurrently with the closing of the IPO. We received \$148.9 million in net proceeds after deducting underwriting discounts and commissions and other offering expenses of \$12.6 million. We used a portion of the net proceeds from the IPO to repay our indebtedness under our Prior Senior Secured Credit Facility (see “Note 8. Debt”). We used the remaining net proceeds from the IPO to acquire Spectrum Tracer Services, LLC, an Oklahoma limited liability company (“Spectrum”), on August 31, 2017.

Note 2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Such estimates include but are not limited to estimated losses on accounts receivables, estimated realizable value on excess and obsolete inventories, estimates related to fair value of reporting units for purposes of assessing possible goodwill impairment, expected future cash flows from long lived assets to support impairment tests, share based compensation, amounts of deferred taxes and income tax contingencies. Actual results could materially differ from those estimates.

Foreign Currency

Our functional currency is the U.S. Dollar (“USD”). The financial position and results of operations of our Canadian subsidiary are measured using the local currency as the functional currency. In accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 830, *Foreign Currency Matters*, revenues and expenses of the subsidiary have been translated into U.S. dollars at average exchange rates prevailing during the period. Assets and liabilities have been translated at the rates of exchange on the consolidated balance sheet date. The resulting translation gain and loss adjustments have been recorded

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

directly as a separate component of other comprehensive (loss) in the accompanying consolidated statements of comprehensive (loss), and changes in stockholders' equity.

Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are included in the consolidated statements of operations as incurred.

Revenue Recognition

We recognize revenue when it is determined that the following criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured.

We recognize revenue based upon a purchase order, contract or other persuasive evidence of an arrangement with the customer that includes a fixed or determinable price, provided that collectability is reasonably assured, but it does not include right of return or other similar provisions or other significant post-delivery obligations. Revenue is recognized generally for products upon installation and when the customer assumes the risks and rewards of ownership. In cases where services are being performed, we generally do not recognize revenue until a job has been completed, which includes a customer signature or acknowledgement and that there are no additional services or future performance obligation required by us. Rates for services are typically priced on a per day, per man-hour or similar basis that include both the cost of utilizing our downhole frac isolation assembly and our personnel required to supervise the operation of the assembly.

Cash and Cash Equivalents

We consider all highly liquid instruments purchased with an original maturity date of three months or less to be cash equivalents. These items are carried at cost, which approximates fair value.

In accordance with ASC 230, *Statements of Cash Flow*, cash flows from our Canadian subsidiary are calculated based on our functional currency. As a result, amounts related to changes in assets and liabilities reported in the consolidated statements of cash flows will not necessarily agree to changes in the corresponding balances on the consolidated balance sheets.

Concentration of Credit Risk

Financial instruments that potentially subject us to credit risk are cash and cash equivalents and trade accounts receivable. Cash balances are maintained in financial institutions which, at times, exceed federally insured limits. We monitor the financial condition of the financial institutions in which the accounts are maintained and have not experienced any losses in such accounts.

Substantially all of our sales are to customers whose activities are directly or indirectly related to the oil and gas industry. We generally extend credit to these customers and, therefore, collection of receivables is affected by the oil and gas industry economy. We perform ongoing credit evaluations as to the financial condition of our customers with respect to trade accounts receivables. Generally, no collateral is required as a condition of sale.

For the years ended December 31, 2017, 2016 and 2015, there was one customer that accounted for 10% or more of the total revenue or 10% or more of the total accounts receivable balance at the end of the respective periods. We recognized revenue from this customer totaling \$27.4 million, or 14% of 2017 total revenue for the year ended December 31, 2017, \$25.5 million, or 26% of 2016 total revenue for the year ended December 31, 2016 and \$35.1 million or 31% of 2015 total revenue for the year ended December 31, 2015. Amounts due from this customer included in trade accounts receivable in the accompanying consolidated balance sheets was \$2.0 million as of December 31, 2017 and \$7.8 million as of December 31, 2016. No other customer individually accounted for 10% or more of our consolidated revenue during 2017, 2016 and 2015 or trade receivable balance as of December 31, 2017 and 2016.

Accounts Receivable, Trade and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at their invoiced amounts and do not bear interest. We perform ongoing credit evaluations of our clients and monitor collections and payments.

We maintain an allowance for doubtful accounts for estimated losses that may result from the inability of our customers to make required payments. Earnings are charged with a provision for doubtful accounts based on a current review of the collectability of customer accounts by management. Such allowances are based upon several factors including, but not limited to credit approval practices, industry and customer historical experience as well as the current and projected financial condition of the specific customer.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Accounts deemed uncollectible are applied against the allowance for doubtful accounts. As of December 31, 2017 and 2016, we have recorded \$11 thousand and \$0.1 million, respectively, in provisions for doubtful accounts.

Inventories

Inventories consist primarily of raw material, sliding sleeves components, assembled sliding sleeves, certain components used to internally construct our frac isolation assemblies and chemicals, in raw material or finished goods, used for frac diagnostics testing and reporting. 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 with the exception of chemical costs, which are determined using average costing. 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.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Equipment held under capital leases are stated at the present value of minimum lease payments. Expenditures for property and equipment and for items which substantially increase the useful lives of existing assets are capitalized at cost and depreciated over their estimated useful life utilizing the straight-line method. Routine expenditures for repairs and maintenance are expensed as incurred. Depreciation is calculated over the estimated useful lives of the related assets using the straight-line method. Leasehold improvements and property under capital leases are amortized over the shorter of the remaining lease term or useful life of the related asset. Depreciation expense includes amortization of assets under capital leases. The cost and related accumulated depreciation of assets retired or otherwise disposed of are eliminated from the accounts, and any resulting gains or losses are recognized in other (expense) income, net in the year of disposal.

Depreciation on property and equipment, including assets held under capital leases, is calculated using the straight-line method over the following useful service lives or lease term (which includes reasonably assured renewal periods):

	Years
Buildings	30
Building equipment	5 - 15
Machinery and equipment	5 - 12
Furniture and fixtures	3 - 5
Computers and software	3 - 5
Vehicles and rental equipment	3 - 4
Leasehold improvements	Lease term (1-4)

We periodically assess potential impairment of our property and equipment, when events or changes in circumstances occur that indicate the carrying value of the asset or asset group may not be recoverable. The assessment of possible impairment is based on our overall valuation calculation using forward looking as well as historical computations to measure the value of our long-lived assets. If the overall valuation results are less than the carrying value of such assets, an impairment loss is recognized for the difference between estimated fair value and carrying value. No impairment loss has been recognized for the years ended December 31, 2017, 2016 and 2015.

Business Combinations, Goodwill and Intangible Assets

Business combinations are accounted for under the acquisition method of accounting in accordance with FASB ASC 805, *Business Combinations*. Under the acquisition method of accounting, the total consideration transferred in connection with the acquisition is allocated to the tangible and intangible assets acquired, liabilities assumed, and any non-controlling interest in the acquiree based on their fair values. Goodwill acquired in connection with business combinations represents the excess of consideration transferred over the net tangible and identifiable intangible assets acquired. Certain assumptions and estimates are employed in evaluating the fair value of assets acquired and liabilities assumed. These estimates may be affected by factors such as changing market conditions, technological advances in the oil and natural gas industry or changes in regulations governing that industry. The most significant assumptions requiring judgment involve identifying and estimating the fair value of intangible assets and the associated useful lives for establishing amortization periods. To finalize purchase accounting for significant acquisitions, we utilize the services of independent valuation specialists to assist in the determination of the fair value of acquired intangible assets.

Costs related to the acquisition, other than those associated with the issuance of debt or equity securities, that we incur in connection with a business combination are expensed as incurred.

NCS MULTISTAGE HOLDINGS, INC.
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Any contingent consideration payable is recognized at fair value at the acquisition date. Liability-classified contingent consideration is remeasured each reporting period with changes in fair value recognized in earnings until the contingent consideration is settled.

For goodwill, an assessment for impairment is performed annually or, more frequently, when there is an indication an impairment may have occurred. We complete our annual impairment test for goodwill using an assessment date in the fourth quarter of each fiscal year. Goodwill is reviewed for impairment by comparing the carrying value of the reporting unit's net assets (including allocated goodwill) to the fair value of the reporting unit. The fair value of the reporting unit is determined using a discounted cash flow approach. Determining the fair value of a reporting unit requires the use of estimates and assumptions. The principal estimates and assumptions that we use include revenue growth rates, operating margins, weighted average costs of capital, a terminal growth rate, and future market conditions. We believe that the estimates and assumptions used in impairment assessments are reasonable.

All identifiable intangibles are amortized on a straight-line basis over the estimated useful life or term of related agreements. Deferred loan costs are amortized to interest expense using the effective interest method. These assets are tested for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable.

We concluded that there was no impairment of goodwill or identifiable assets for the years ended December 31, 2017, 2016 or 2015.

Income Taxes

NCS Multistage Holdings, Inc. is taxed as a corporation as defined under the Internal Revenue Code. The liability method is used in accounting for deferred income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when these differences are expected to reverse. The realizability of deferred tax assets are evaluated annually and a valuation allowance is provided if it is more likely than not that the deferred tax assets will not give rise to future benefits. We follow guidance in ASC 740 "Income Taxes" for uncertainty in income taxes by prescribing the minimum recognition threshold an income tax position is required to meet before being recognized in the consolidated financial statements and applies to all income tax positions. Each income tax position is assessed using a two-step process. A determination is first made as to whether it is more likely than not that the income tax position will be sustained, based upon technical merits, upon examination by the taxing authorities. If the income tax position is expected to meet the more likely than not criteria, the benefit recorded in the consolidated financial statements equals the largest amount that is greater than 50% likely to be realized upon its ultimate settlement. A valuation allowance to reduce deferred tax assets is established when it is more likely than not that some portion or all the deferred tax assets will not be realized. As of December 31, 2017 and 2016, our valuation allowance was \$18 thousand and \$63 thousand, respectively. We recognize accrued interest and penalties related to uncertain tax positions in other income (expense) on the statements of operations. During the years ended December 31, 2017, 2016 and 2015, respectively, we recognized \$0.2 million, \$0.1 million and \$0.1 million in interest and penalties. We had \$0.6 million and \$0.4 million in interest and penalties accrued at December 31, 2017 and 2016, respectively.

We completed our analysis of our tax positions and believe there are no material uncertain tax positions that would require recognition in the consolidated financial statements as of December 31, 2017 and 2016. We believe that there are no tax positions taken or expected to be taken as of December 31, 2017 and 2016 that would significantly increase or decrease unrecognized tax benefits within the next twelve months following the balance sheet date. As of December 31, 2017 and 2016, there were no material amounts that had been accrued with respect to uncertain tax positions.

One of our Canadian subsidiaries guaranteed the credit facilities of our U.S. entities until May 2017 when cash proceeds were received from the IPO, a portion of which was used to pay off the existing debt. Under U.S. federal income tax rules, this guarantee resulted in all of the earnings and profits of our Canadian subsidiary being subject to current U.S. tax. As a result of the 2017 Tax Act and a change in our permanent earnings reinvestment assertion, we have recognized a \$3.9 million U.S. tax benefit for the reversal of our deferred tax liability on a portion of our differences between book value and tax basis in our Canadian subsidiary for which we are now asserting indefinite reinvestment. Therefore, as of December 31, 2017 no U.S. deferred tax liabilities have been recognized on the differences between book value and tax basis that we continue to indefinitely reinvest. As of December 31, 2016, we have recognized a U.S. deferred tax liability of \$3.9 related to a portion of our book value and tax basis differences in our Canadian subsidiary for which we are unable to assert indefinite reinvestment.

No U.S. deferred taxes have been recognized on \$91.3 million and \$52.1 million as of December 31, 2017 and 2016, respectively, of our book value and tax basis differences that we continue to indefinitely reinvest. Upon reversal of these book value and tax basis differences through dividends or otherwise, we may be subject to foreign withholding taxes. It is not practical,

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

however, to estimate the amount of taxes that may be payable on the eventual remittance of these temporary differences after consideration of available foreign tax credits.

We file income tax returns in the U.S., Canada and various state and foreign jurisdictions. Our U.S. income tax returns for 2011 and subsequent years remain open for examination. The Internal Revenue Service (“IRS”) commenced an examination of our U.S. income tax returns for 2011 through 2012 in the first quarter of 2014 which was completed in 2015. No tax adjustments were proposed. Additionally, the IRS commenced an examination of our U.S. income tax return for 2014 in the second quarter of 2016 which was completed in the second quarter of 2017. No tax adjustments were proposed.

Share-Based Compensation

We account for our stock-based compensation awards in accordance with ASC Topic 718, *Compensation—Stock Compensation* (“ASC 718”). We measure all share-based compensation awards at fair value on the date they are granted and recognize the compensation expense in the financial statements over the requisite period. We record forfeitures as they occur. Fair value of the share-based compensation was measured using the market price of the common stock for restricted stock units and the Black-Scholes model for options. We also have an employee stock purchase plan, which allows eligible employees to purchase shares of our common stock. The purchase price of the stock will be 85% of the lower of the stock price at the beginning or end of the plan period. The fair value of the employees’ purchase rights under the employee stock purchase plan will also be estimated using the Black-Scholes model. The Black-Scholes model for both options and the shares purchased under the employee stock purchase plan requires assumptions and estimates that affect the resultant values and hence the amount of compensation recognized. These assumptions include our stock price, expected stock price volatility over the term of the awards, expected term, risk free interest rate and expected dividends. Prior to our IPO, we were a private company. Therefore, we estimated our expected stock volatility based on the historical volatility of a publicly traded set of peer companies and expect to continue to do so until such time as we have adequate historical data regarding the volatility of our own traded stock price.

Shipping and Handling Fees and Cost

Shipping and handling fees, if billed to customers, are included in revenues. Shipping and handling costs are classified as cost of revenues.

Fair Value

The carrying amounts for financial instruments classified as current assets and current liabilities approximate fair value, due to the short maturity of such instruments. The book values of other financial instruments, such as our debt under our Senior Credit Facility, approximates fair value because interest rates charged are similar to other financial instruments with similar terms and maturities and the rates vary in accordance with a market index in accordance with ASC 820—Fair Value measurement.

For the financial assets and liabilities disclosed at fair value, fair value is determined as the exit price, or the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The established fair value hierarchy divides fair value measurement into three broad levels:

- Level 1—inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date;
- Level 2—inputs other than quoted prices included within Level 1 that are observable for the assets or liability, either directly or indirectly; and
- Level 3—inputs are unobservable for the asset or liability, which reflect the best judgment of management.

The financial assets and liabilities that are disclosed at fair value for disclosure purposes are categorized in one of the above three levels based on the lowest level input that is significant to the fair value measurement in its entirety. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. For additional information on our Level 3 liabilities, see “Note 3. Acquisitions.”

Earnings Per Share

Basic income per share is calculated by dividing net income (loss) attributable to NCS Multistage Holdings, Inc., reduced for the allocation of net income (loss) attributable to participating security holders of exchangeable securities held in our indirect subsidiary, by the weighted-average number of common shares outstanding during the period. The participating security holders were allocated

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

4.2%, 0.0% and 5.7% of the net income for December 31, 2017, 2016 and 2015, respectively. The participating security holders are not contractually obligated to share in our losses, therefore, losses are not allocated to the participating security holders. The diluted income per share computation is calculated by dividing net income (loss) attributable to NCS Multistage Holdings, Inc. by the weighted-average number of common shares outstanding during the period, taking into effect, if any, of shares that would be issuable upon the exercise of outstanding stock options, unvested restricted stock units, purchases under the employee stock purchase plan and conversion of the participating security holders exchangeable securities, reduced by the number of shares purchased by us at cost, when such amounts are dilutive to the income per share calculation.

Research and Development

Research and development (“R&D”) costs are incurred both through engaging third parties to perform development activities under our coordination and management as well as through the utilization of our employees to create and develop new ideas and product. We incurred approximately \$3.0 million, \$3.3 million and \$3.0 million in R&D costs for the years ended December 31, 2017, 2016 and 2015, respectively. These costs are recorded in selling, general and administrative expense on the consolidated statements of operations.

Recent Accounting Pronouncements

Pronouncements Adopted in 2017

In May 2017, the FASB issued Accounting Standards Update (“ASU”) No. 2017-09, *Scope of Modification Accounting (Topic 718)*, which clarifies when to account for a change to the terms and conditions of a share-based payment award as a modification. Under the new guidance, an entity should apply modification accounting unless the modified award has the same fair value, vesting conditions, and classification of equity or liability as the original award. We have elected to early adopt this ASU in the second quarter of 2017. The adoption of this ASU had no material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Accounting for Goodwill Impairment (Topic 350)*. This new standard simplifies the test for goodwill impairment. In the original guidance, an entity is required to perform additional analysis in Step 2, which measures a goodwill impairment loss by comparing the implied fair value of a report unit’s goodwill with the carrying amount of that goodwill. The FASB simplifies the subsequent measurement of goodwill by eliminating Step 2. Instead, under the amendments in this update, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount with excess carrying value over the fair value recognized as a loss on impairment. In addition, income tax effects from any tax deductible goodwill are considered in measuring the goodwill impairment loss, if applicable. The amendments in this update are effective for public companies for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2020, with early adoption permitted. We adopted the guidance in ASU 2017-04 effective April 1, 2017.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 718)*, to simplify the accounting for share-based payment transactions, including accounting for forfeitures, excess tax benefit/expense, and tax withholding requirements. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 31, 2016. We adopted this guidance on January 1, 2017 and have elected to recognize actual forfeitures when they occur. The adoption did not have a material impact on our consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740)*. This standard requires all deferred taxes, along with any related valuation allowance, to be presented as a noncurrent deferred asset or liability. The guidance is effective for fiscal years beginning after December 15, 2016, and includes interim periods within those fiscal years. Early adoption is permitted and the guidance may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively by reclassifying the comparative balance sheet. We adopted this ASU in the first quarter of 2017 on a prospective basis.

Pronouncements Not Yet Effective

In January 2017, the FASB issued ASU 2017-01, *Clarifying the Definition of a Business (Topic 805)*, to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. For public entities, this guidance will be effective for annual periods beginning after December 15, 2017, including interim periods within those periods. We will adopt ASU 2017-01 on January 1, 2018 and do not expect to have a material impact on our consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In August 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments (Topic 230)*. The objective of the guidance is to reduce the existing diversity in practice related to the presentation and classification of certain cash receipts and cash payments. The guidance addresses eight specific cash flow issues including but not limited to, debt prepayment or extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims and proceeds from the settlement of corporate-owned life insurance policies. For public entities, the guidance is effective for financial statements issued for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and is retrospective for all periods presented. Early adoption is permitted including for interim periods. We will adopt ASU 2016-15 on January 1, 2018 and do not expect to have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, which replaces the existing guidance in ASC 840, *Leases*. ASC 842 requires lessees to recognize most leases on their balance sheets as lease liabilities with corresponding right-of-use assets. The new lease standard does not substantially change lessor accounting. The new standard is effective for interim and annual reporting periods beginning after December 15, 2018, with early adoption permitted. We are currently evaluating the impact of the adoption of this guidance.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The new standard is effective for annual reporting periods beginning after December 15, 2017 and early adoption is permitted, however, not before fiscal years beginning after December 15, 2016. Subsequent to ASU 2014-09's issuance, Topic 606 was amended for FASB updates that changed the effective date as well as addressed certain aspects regarding new revenue standards. The comprehensive new standard will supersede existing revenue recognition guidance and require revenue to be recognized when promised goods or services are transferred to customers in amounts that reflect the consideration to which entities expect to be entitled in exchange for those goods or services. Adoption of the new rules could affect the timing of revenue recognition for certain transactions. The guidance permits the use of either a full retrospective or modified retrospective transition method. We put in place a team during the second quarter of 2017, including a third-party consultant, to assess the impacts of the new standard and to develop and carry out our implementation plan. The team reviewed our revenue streams and compared our historical accounting policies and practices to the new accounting guidance. The review also included our acquisitions of Spectrum and Repeat Precision, LLC ("Repeat Precision"). Based upon the analysis, we will adopt and apply the modified retrospective method of transition on January 1, 2018. We have concluded that the adoption of this ASU will not have a material impact on our consolidated financial statements.

Note 3. Acquisitions

Spectrum Tracer Services

On August 31, 2017, we acquired 100% of the equity interests in Spectrum in exchange for approximately \$83 million, subject to certain adjustments, which was comprised of (i) approximately \$76 million in cash and (ii) 0.4 million shares of our common stock using a fair market value of \$19.42 per share. The cash portion was funded with available cash and borrowings under our Senior Secured Credit Facility. We believe Spectrum's tracer diagnostics services strengthens our ability to provide our customers with actionable data and analysis to optimize oil and natural gas well completions and field development strategies.

The acquisition of Spectrum includes an earn-out provision that could provide up to \$12.5 million in additional cash consideration to Spectrum's former unitholders if Spectrum's actual gross profit during the earn-out period that commenced on October 1, 2017 and ends on December 31, 2018 is greater than the earn-out threshold. The fair value of the earn-out recognized on the acquisition date was \$0.4 million and is included in contingent consideration on the balance sheet. We estimated the fair value of the earn-out using a Black-Scholes closed form option pricing model. The earn-out is subject to re-measurement each reporting period using Level 3 inputs until the full amount of the liability has been satisfied. Subsequent changes in the fair value of the liability are reflected in our consolidated statements of operations as a change in fair value of contingent consideration. As of December 31, 2017, the earn-out had a value of \$3.4 million. During the year ended December 31, 2017, we recognized \$3.0 million as a change in fair value of contingent consideration expense in the consolidated statements of operations related to the change in fair value of the Spectrum earn-out. The cash payment, if any, is expected to be paid during the second quarter of 2019.

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Spectrum contributed revenues of \$12.8 million and net income of \$0.3 million to us for the period from September 1, 2017 to December 31, 2017. The net income included a one-time charge of \$0.4 million of income tax expense related to the U.S. transition tax on its unremitted foreign earnings. The following unaudited pro forma summary presents our select financial information as if the acquisition had occurred on January 1, 2016. The below information reflects pro forma adjustments based on available information and certain assumptions we believe are reasonable, including: (i) adjustments related to the depreciation and amortization of the fair value of acquired intangibles and fixed assets, (ii) removal of the historical interest expense of Spectrum as well as the addition of the interest expense of the borrowings under our Senior Secured Credit Facility in connection with the acquisition, (iii) tax effect related to historical U.S. operations and the aforementioned pro forma adjustments, (iv) adjustments related to the number of shares of our common stock outstanding to reflect the 0.4 million shares issued in connection with the acquisition and (v) accounting policy conformity changes. The pro forma combined financial information has been included for comparative purposes and is not necessarily indicative of the results that might have actually occurred had the Spectrum acquisition taken place on January 1, 2016; furthermore, the financial information is not intended to be a projection of future results. The following table summarizes our unaudited selected financial information on a pro forma basis (in thousands, except per share data):

	Pro Forma (Unaudited)	
	Year Ended December 31,	
	2017	2016
Revenue	\$ 220,478	\$ 117,211
Net income (loss) attributable to NCS Multistage Holdings, Inc.	\$ 1,664	\$ (19,442)
Diluted earnings (loss) per share	\$ 0.04	\$ (0.57)

The purchase price is allocated to the estimated fair value of assets acquired and liabilities assumed as of the acquisition date. Goodwill is calculated as the excess of the consideration transferred over the fair value of the net assets recognized. The assets and liabilities of Spectrum have been measured based on various preliminary estimates using assumptions that we believe are reasonable based on information that is currently available. The purchase price allocation is preliminary and adjustments to provisional amounts may occur as we continue to analyze information. We have recognized \$40.2 million of goodwill as a result of the transaction of which approximately \$6 million will be non-deductible for tax purposes. Additional changes to the purchase price allocation may result in a corresponding change to goodwill in the period of the change, however, we do not expect such adjustments to materially change the purchase price allocation. We also incurred acquisition costs of \$0.7 million and \$1.0 million during the years ended December 31, 2017 and 2016, respectively, which were included in general and administrative expense on our consolidated statements of operations.

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The following table summarizes the consideration and the assets acquired at the Spectrum closing date (in thousands):

Consideration

Cash consideration	\$	76,485
Equity consideration		6,907
Earn-out liability recognized		352
Total consideration	\$	<u>83,744</u>

Preliminary purchase price allocation

Cash	\$	1,326
Accounts receivable		4,648
Inventories		3,761
Other current assets		480
Property and equipment		4,725
Intangible assets		31,900
Other long-term assets		26
Total identifiable assets acquired		<u>46,866</u>
Accounts payable—trade		454
Accrued expenses		436
Income taxes payable		228
Other current liabilities		44
Deferred tax liability		956
Other long-term liabilities		1,191
Total liabilities assumed		<u>3,309</u>
Net identifiable assets acquired		43,557
Goodwill		40,187
Net assets acquired	\$	<u>83,744</u>

The amount allocated to intangible assets was attributed to the following categories (in thousands):

	Fair Value	Estimated Useful Lives (Years)
Technology	\$ 5,600	16
Trademarks	1,600	10
Customer relationships	24,700	21
Total intangible assets	<u>\$ 31,900</u>	

These intangible assets are amortized on a straight-line basis, which is presented in amortization in our consolidated statements of operations. Amortization expense for the intangible assets for the Spectrum acquisition was \$0.6 million for the year ended December 31, 2017.

Repeat Precision

On February 1, 2017, we acquired a 50% interest in Repeat Precision for \$6.0 million. Historically, the business has been a supplier to NCS. Our strategic purchase of 50% of this business ensures that we have continued access to these services and allows us greater control of the allocation of their capacity, ensuring that we can scale their operations together with ours. In addition, Repeat Precision also markets certain completion products on a wholesale basis, providing an additional revenue opportunity.

Concurrent with entering into the transaction, the previous owner of the 50% interest repaid a \$1.0 million promissory note to us. We also recorded an earn-out at the acquisition date as a contingent adjustment to the purchase price in the amount of \$7.0 million, which was included in contingent consideration on the balance sheet. We estimated the fair value of the earn-out using a Monte Carlo simulation on the acquisition date. The earn-out equity value was based on Repeat Precision's 2018 EBITDA, multiplied by three, which was then reduced by debt and increased by cash. The earn-out equity value was then discounted at the adjusted cost of equity. The earn-out is subject to re-measurement each reporting period using Level 3 inputs until the full amount of the liability has been satisfied. Subsequent changes in the fair value of the liability are reflected in our consolidated statements of operations as a change in fair value of contingent consideration. As of December 31, 2017, the earn-out had a value of \$9.4 million. During the year ended December 31, 2017, we recognized \$2.5 million as a change in fair value of contingent consideration expense in the consolidated statements of operations related to the change in fair value of the earn-out. The cash payment, if any, is expected to be paid during the first quarter of 2019 and will not exceed \$10.0 million.

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As NCS has the controlling voting interest in the joint venture, we determined that the transaction was a business combination and used the acquisition method of accounting and have included Repeat Precision in our consolidated financial statements from the acquisition date. As a result, the other party's ownership percentage is presented separately as a non-controlling interest.

The purchase price is allocated to the fair value of assets acquired and liabilities assumed as of the acquisition date and goodwill is recognized for the excess consideration transferred over the fair value of the net assets. The purchase price allocation is preliminary and adjustments to the working capital provisional amounts may continue to occur as we analyze information. We have recognized \$15.2 million of goodwill as a result of the transaction and expect the full amount to be deductible for tax purposes. Additional changes to the purchase price allocation may result in a corresponding change to goodwill in the period of the change, however, we do not expect such adjustments to materially change the purchase price allocation. We also incurred acquisition costs of \$0.3 million during the first quarter of 2017, which were included in general and administrative expense on our consolidated statements of operations.

The following table summarizes the consideration and the assets acquired at the Repeat Precision closing date (in thousands):

Consideration

Cash paid by NCS	\$	5,996
Earn-out liability recognized		6,958
Total consideration	\$	<u>12,954</u>

Preliminary purchase price allocation

Other net assets	\$	174
Inventory		662
Property and equipment		5,750
Intangible assets		4,100
Goodwill		<u>15,222</u>
Total assets acquired	\$	25,908
Less: non-controlling interest		<u>(12,954)</u>
Net assets acquired	\$	<u>12,954</u>

The unaudited pro forma operating results pursuant to ASC 805 related to the Repeat Precision acquisition have been excluded due to immateriality.

In connection with the Repeat Precision acquisition, we acquired intangible assets in the amount of \$4.1 million related to customer relationships. The intangible assets are amortized over their estimated ten year useful lives. Amortization expense for the intangible assets for the Repeat Precision acquisition was \$0.4 million for the year ended December 31, 2017.

Note 4. Inventories

Inventories consist of the following as of December 31, 2017 and 2016 (in thousands):

	December 31, 2017	December 31, 2016
Raw materials	\$ 2,412	\$ 695
Work in process	623	688
Finished goods	30,100	15,634
	<u>\$ 33,135</u>	<u>\$ 17,017</u>

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Note 5. Property and Equipment

Property and equipment by major asset class consist of the following as of December 31, 2017 and 2016 (in thousands):

	December 31, 2017	December 31, 2016
Land	\$ 2,167	\$ 2,026
Building and improvements	5,155	4,517
Machinery and equipment	13,418	1,983
Computers and software	2,157	1,345
Furniture and fixtures	1,013	916
Vehicles	5,751	2,475
Service equipment	244	1,964
	<u>29,905</u>	<u>15,226</u>
Less: Accumulated depreciation and amortization	(7,012)	(5,763)
	<u>22,893</u>	<u>9,463</u>
Construction in progress	758	296
Property and equipment, net	<u>\$ 23,651</u>	<u>\$ 9,759</u>

Depreciation expense and amortization for property and equipment totaled \$3.2 million, \$1.8 million and \$2.7 million for the years ended December 31, 2017, 2016 and 2015, respectively.

We lease vehicles for our transportation fleet, which are included in the table above. See “Note 8. Debt” for the related amortization expense.

Note 6. Goodwill and Identifiable Intangibles

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

At December 31, 2015	\$ 119,283
Currency translation adjustment	2,794
At December 31, 2016	\$ 122,077
Acquisitions	55,409
Currency translation adjustment	6,992
At December 31, 2017	<u>\$ 184,478</u>

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

	Estimated Useful Lives (Years)	December 31, 2017		
		Gross Carrying Amount	Accumulated Amortization	Net Balance
Technology	14 - 16	\$ 151,433	\$ (52,730)	\$ 98,703
Trademarks	5 - 10	2,588	(1,042)	1,546
Customer relationships	10 - 21	41,058	(4,895)	36,163
Total identifiable intangibles		<u>\$ 195,079</u>	<u>\$ (58,667)</u>	<u>\$ 136,412</u>

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	Estimated Useful Lives (Years)	December 31, 2016		
		Gross Carrying Amount	Accumulated Amortization	Net Balance
Technology	14	\$ 138,026	\$ (39,956)	\$ 98,070
Trademarks	5	936	(759)	177
In-process research and development	5	35,306	(28,621)	6,685
Customer relationships	15	11,577	(3,128)	8,449
Noncompete agreements	5	28,065	(22,749)	5,316
Total identifiable intangibles		<u>\$ 213,910</u>	<u>\$ (95,213)</u>	<u>\$ 118,697</u>

Total amortization expense for the years ended December 31, 2017, 2016 and 2015 was \$24.5 million, \$23.8 million and \$24.0 million, respectively.

The total weighted average amortization period is 15 years and estimated future amortization expense is as follows (in thousands):

2018	\$ 13,327
2019	13,327
2020	13,327
2021	13,327
2022	13,327
Thereafter	69,777
Total	<u>\$ 136,412</u>

Note 7. Accrued Expenses

Accrued expenses consist of the following as of December 31, 2017 and 2016 (in thousands):

	December 31, 2017	December 31, 2016
Accrued payroll and bonus	\$ 5,167	\$ 850
Property and franchise taxes accrual	390	322
Accrual related to public offering	—	1,153
Accrued acquisition related costs	25	618
Accrued other miscellaneous liabilities	1,091	347
	<u>\$ 6,673</u>	<u>\$ 3,290</u>

Note 8. Debt

Our long-term debt is as follows (in thousands):

	December 31, 2017	December 31, 2016
Term loan under Prior Senior Secured Credit Facility	\$ —	\$ 90,836
Senior Secured Revolving Credit Facility	20,000	—
Promissory note	3,313	—
Equipment notes	1,295	—
Capital leases	2,428	—
Total	27,036	90,836
Less debt issuance costs	—	1,670
Total debt, net	27,036	89,166
Less: current portion	(5,334)	(772)
Long-term debt	<u>\$ 21,702</u>	<u>\$ 88,394</u>

The estimated fair value of total debt for the periods ended December 31, 2017 and December 31, 2016 was \$26.7 million and \$92.8 million, respectively. The carrying value of the Senior Secured Revolving Credit Facility as of December 31, 2017

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approximated the fair value of debt as it can be paid at any time. The fair value 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 prior and new credit agreements and other financing arrangements.

Prior Senior Secured Credit Facility

Effective August 7, 2014, we entered into a credit agreement (the “Prior Credit Agreement”) with a group of financial institutions which was denominated in Canadian dollars (“CAD”) and allowed for a term loan of up to \$197.6 million CAD (\$180.0 million USD), and a \$38.4 million CAD (\$35.0 million USD) revolving line of credit of which \$5.0 million CAD was available for letters of credit and \$5.0 million CAD was available for swingline loans (together, the “Prior Credit Facility”). We entered into Amendment No. 1, effective April 15, 2015, and Amendment No. 2, effective December 22, 2015, which modified the original credit agreement governing the Prior Credit Facility. The modifications changed various defined terms as well as the covenants. These amendments also revised the revolving credit commitment to \$27.8 million CAD (\$20.0 million USD) and evidenced the prepayment of the Prior Term Loan in an amount of \$55.8 million CAD.

The term loan accrued interest at the adjusted base rate or Canadian base rate plus an applicable margin, as defined in the credit agreement governing the Prior Credit Facility, with quarterly interest payments. The term loan was collateralized by certain assets of the Company and guaranteed by certain wholly owned subsidiaries of the Company. The interest on the term loan was payable in quarterly installments. All unpaid principal and interest was scheduled to mature on August 7, 2019. As of December 31, 2016, the term loan had an outstanding balance of \$90.8 million. We incurred interest expense of \$1.7 million and \$5.5 million for the years ended December 31, 2017 and 2016, respectively.

The revolving line of credit was collateralized by certain assets of the Company and guaranteed by certain wholly owned subsidiaries of the Company. Interest on the revolving line of credit was payable quarterly at the adjusted base rate or Canadian base rate plus an applicable margin, as defined in the agreement governing the Prior Credit Facility.

Direct costs incurred in connection with the term loan were capitalized and amortized over the term of the debt using the effective interest method. Net fees attributable to the lenders of \$1.7 million were presented as a discount to the carrying value of debt as of December 31, 2016. As a result of the payment of the loan in full on May 4, 2017, we expensed the remainder of the deferred loan costs of \$1.4 million as a component of interest expense, net in the consolidated statements of operations.

In February 2017, to ensure compliance with non-financial covenants per the Prior Credit Facility, we made a \$3.0 million term loan prepayment. On May 4, 2017, the term loan was paid in full and terminated using a portion of the proceeds from our IPO and we also entered into a new Amended and Restated Credit Agreement (the “Credit Agreement”).

Senior Secured Credit Facility

On May 4, 2017, we entered into an Amended and Restated 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 “Senior Secured Credit Facility”). The Credit Agreement amended and restated the Prior Credit Agreement in its entirety. The Senior Secured Credit Facility will mature on May 4, 2020.

The 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 “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 “Canadian Facility”).

We entered into Amendment No. 1 to the Credit Agreement on August 31, 2017 (the “Amendment”). The Amendment increased the loan commitment available to the U.S. Borrower to \$50.0 million from \$25.0 million under the U.S. Facility. The loan commitment available under the Canadian Facility remained at \$25.0 million. At December 31, 2017, we had \$20.0 million in outstanding indebtedness under the U.S. Facility. We incurred interest expense related to the Senior Secured Credit Facility of \$0.4 million for the year ended December 31, 2017.

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Borrowings under the 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 Credit Agreement), in each case, plus an applicable interest margin as set forth in the Credit Agreement. Borrowings under the 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 Credit Agreement), in each case, plus an applicable interest margin as set forth in the Credit Agreement. The Adjusted Base Rate, Canadian (U.S.) Base Rate and Canadian (Cdn) Base Rate applicable margin will be between 2.25% and 3.00% and Eurocurrency Rate applicable margin will be between 3.25% and 4.00%, in each case, depending on the Company's leverage ratio. The applicable interest rate at December 31, 2017 was 5.50%.

The obligations of the U.S. Borrower under the 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 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 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 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 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. The 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. As of December 31, 2017, we were in compliance with these financial covenants. The 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 U.S. Facility and the 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 U.S. Facility and the 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 U.S. Facility and the 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 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 credit facilities using the straight-line method. Amortization expense of the deferred financing charges of \$0.2 million was included in interest expense, net for the year ended December 31, 2017.

Promissory Note

On February 27, 2017, Repeat Precision entered into a promissory note with Security State Bank & Trust, Fredericksburg, for an aggregate borrowing capacity of \$3.8 million. The promissory note is secured against equipment, inventory and receivables. It bears interest at a variable interest rate based on prime plus 1% and matures on February 27, 2018. Any principal amount not paid by the maturity date bears interest at the lesser of the maximum rate allowed per law or 18% per annum. As of December 31, 2017, the outstanding balance on the promissory note was \$3.3 million.

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%, matures on February 27, 2021 and is collateralized by certain property. Any principal amount not paid by the maturity date bears interest at the lesser of the maximum rate allowed per law or 18% per annum. As of December 31, 2017, the outstanding balance on the equipment note was \$0.6 million.

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In April 2017, Repeat Precision entered into another equipment note in the amount of \$0.8 million with Security State Bank & Trust, Fredericksburg. The equipment note bears interest at prime plus 1%, matures on December 21, 2018 and is collateralized by certain property. Any principal amount not paid by the maturity date bears interest at the lesser of the maximum rate allowed per law or 18% per annum. As of December 31, 2017, the outstanding balance on the equipment note was \$0.7 million.

Future principal payments on the Senior Secured Credit Facility, promissory note and equipment notes for each of the years ending December 31, are as follows (in thousands):

2018	\$	4,184
2019		190
2020		20,200
2021		34
	<u>\$</u>	<u>24,608</u>

Capital Leases

We have entered into various capital lease agreements which expire at various dates through 2021. Total capital lease amortization expense was \$0.4 million for the year ended December 31, 2017 and \$0.2 million for each of the years ended December 31, 2016 and 2015. Future minimum lease payments under capital leases at December 31, 2017, together with the present value of the minimum lease payments, are as follows (in thousands):

2018	\$	1,286
2019		847
2020		332
2021		196
Subtotal		<u>2,661</u>
Less: amount representing interest		(233)
Present value of payments	<u>\$</u>	<u>2,428</u>

Property under capital leases included within property and equipment consisted of the following at December 31, 2017 and 2016 (in thousands):

	December 31, 2017	December 31, 2016
Vehicles	<u>\$ 3,584</u>	<u>\$ 1,025</u>
Assets under capital leases	3,584	1,025
Less: accumulated amortization	(785)	(439)
Net assets under capital leases	<u>\$ 2,799</u>	<u>\$ 586</u>

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 and employee matters.

Our management currently does not expect that the results of any of these legal proceedings, either individually or in the aggregate, would have a material adverse effect on our financial position, results of operations or cash flows.

On March 3, 2017, we received \$0.9 million resulting from an arbitration case that was decided in our favor in February 2017. This was recorded as other income (expense), net in our consolidated statements of operations for the year ended December 31, 2017.

Operating Leases

We have entered into certain operating lease commitments for buildings and office equipment, which expire at various dates through December 2022. Total rental expense charged to consolidated statements of operations was \$2.4 million for the year ended December 31, 2017 and \$2.1 million for each of the years ended December 31, 2016 and 2015.

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Minimum rental payments under non-cancelable operating leases which have terms in excess of one year as of December 31, 2017, are as follows (in thousands):

2018	\$	2,983
2019		1,738
2020		485
2021		298
2022		93
Total payments	\$	<u>5,597</u>

Note 10. Stockholders' Equity

As disclosed in "Note 1. Basis of Presentation", on April 13, 2017 our board of directors ("Board") and stockholders approved an amendment to the amended and restated certificate of incorporation effecting a 3.00 for 1.00 stock split of our issued and outstanding shares of common stock. The stock split was implemented on April 13, 2017. The par value of the common and preferred stock was not adjusted as a result of the stock split. All other issued and outstanding shares and per share amounts included in the accompanying consolidated financial statements have been adjusted to reflect this stock split for all periods presented.

We currently have common stock and preferred stock outstanding. On April 27, 2017, our certificate of incorporation was amended and restated and the number of shares of common stock authorized to be issued by us was increased from 54,000,000 to 225,000,000 and the number of our authorized shares of preferred stock was increased from one share to 10,000,000 shares. As of December 31, 2017 and 2016, 43,913,136 and 34,005,978 shares of common stock were outstanding, respectively. Additionally, one share of preferred stock, designated as the "Special Voting Share" in our amended and restated certificate of incorporation, was issued and outstanding as of December 31, 2017 and December 31, 2016.

The holders of common stock are entitled to one vote for each share of common stock held. The holder of the Special Voting Share shall be entitled to vote on all matters that a holder of common stock is entitled to vote on and shall be entitled to cast a number of votes equal to the number of exchangeable shares of NCS Multistage, Inc. ("NCS Canada"), a subsidiary of the Company, then outstanding that are not owned by us, multiplied by the exchange ratio (as defined in the articles of incorporation of NCS Canada). In connection with our stock split, the exchange ratio was adjusted to three from one. As of December 31, 2016, the number of shares of common stock issuable for the exchangeable shares totaled 1,819,247 and was held by the preferred stockholder. On May 3, 2017, the preferred stockholder sold shares of our common stock in our initial public offering, which reduced the number of shares of common stock issuable for the exchangeable shares. As of December 31, 2017, the number of shares of common stock issuable for the exchangeable shares totaled 1,769,247. The exchangeable shares are convertible upon demand at the stock price on the conversion date. The holders of common stock are entitled to receive dividends as declared from time-to-time by our board of directors. The holder of the Special Voting Share is not entitled to receive dividends. No dividends were declared during the periods ended December 31, 2017 or December 31, 2016.

Note 11. Share-Based Compensation

Equity Incentive Plans

We maintain three equity incentive plans for the benefit of our employees, directors and other service providers: our 2011 Equity Incentive Plan (the "2011 Plan"), our 2012 Equity Incentive Plan (the "2012 Plan") and our 2017 Equity Incentive Plan (the "2017 Plan"). The following is a summary of certain features of the 2011 Plan, 2012 Plan and the 2017 Plan.

2011 Plan

The 2011 Plan provided awards to employees, directors and consultants of NCS Energy Holdings, LLC. In connection with Advent's acquisition on December 20, 2012, we assumed the options under the 2011 Plan and converted them into options to purchase shares of our common stock. There remains 649,047 options outstanding and exercisable that were granted pursuant to the 2011 Plan as of December 31, 2017.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2012 Plan

The 2012 Plan provided awards to our employees, directors and consultants prior to our IPO. We no longer grant awards under the 2012 Plan. The 2012 Plan is administered by the Compensation, Nominating and Governance Committee of our Board. The 2012 Plan has a total of 2,463,501 shares authorized for issuance. Awards granted under the 2012 Plan will remain outstanding until the earlier of exercise, forfeiture, cancellation or expiration. There remains 2,462,001 options outstanding and 934,323 options exercisable that were granted pursuant to the 2012 Plan as of December 31, 2017.

2017 Plan

The 2017 Plan was adopted in connection with our IPO and provides for awards of stock options, stock appreciation rights, restricted stock awards, restricted stock units, stock awards and performance awards. Awards under the 2017 Plan may be granted to any employee, non-employee director, consultant or other personal service provider to us or any of our subsidiaries. The 2017 Plan is administered by a plan administrator, which is the Compensation, Nominating and Governance Committee or such other committee of the Board or the Board as a whole, in each case as determined by the Board. The 2017 Plan was established with the authorization for grants of up to of 4,532,523 shares of authorized but unissued shares of common stock. As of December 31, 2017, the total number of shares available for future issuance under the 2017 Plan is 4,352,382.

Stock Options

Stock options granted under the 2012 Plan and the 2017 Plan generally vest annually in equal increments over three or five years and have a 10-year term. Before our IPO, we issued certain stock options that were to vest only in connection with a change of control (the “Liquidity Options”). In connection with the IPO, the Liquidity Options were amended for 22 employees to provide that such awards will vest in three equal installments on each of the first three anniversaries of the consummation of our IPO, which occurred on May 3, 2017, subject to certain requirements including, as applicable, the recipient’s continued employment on the vesting date. The modified Liquidity Options are still subject to accelerated vesting upon a company sale, as defined in our 2012 Equity Incentive Plan.

We estimate the fair value of each option grant using the Black-Scholes option-pricing model. The Black-Scholes option pricing model requires estimates of key assumptions based on both historical information and management judgment regarding market factors and trends. Determining the appropriate fair value model and calculating the fair value of options requires the input of highly subjective assumptions, including the expected volatility of the price of our stock, the risk-free rate, the expected term of the options and the expected dividend yield of our common stock. Prior to our IPO, we were a private company. Therefore, we estimated our expected stock volatility based on the historical volatility of a publicly traded set of peer companies and expect to continue to do so until such time as we have adequate historical data regarding the volatility of our own traded stock price. These estimates involve inherent uncertainties and the application of management’s judgment. If factors change and different assumptions are used, our share-based compensation expense could be materially different in the future.

The weighted average assumptions used to estimate the fair value of stock options granted in 2017, 2016 and 2015 are as follows:

	Year Ended December 31,		
	2017	2016	2015
Expected volatility	44.4 %	42-44.7%	43.0 %
Average risk free interest rate	2.0 %	1.7 %	2.3 %
Expected term (in years)	6.0	6.5	6.5
Expected dividends	— %	— %	— %

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As a result of the modification of the terms of the Liquidity Options, we estimated the fair value of the Liquidity Options on April 27, 2017, the amendment date, using the Black-Scholes option-pricing model. The total unamortized compensation expense was valued at \$17.2 million at April 27, 2017, the amendment date, compared to \$10.1 million at December 31, 2016. The weighted average assumptions used to estimate the fair value of the Liquidity Options were as follows:

Expected volatility	44.4 %
Average risk free interest rate	1.7 %
Expected term (in years)	4.6
Expected dividends	— %

The following table summarizes stock option activity during the years ended December 31, 2017, 2016, and 2015:

2012 Equity Plan and 2017 Equity Plan	Service Based Options	Liquidity Options	Total Options	Service Based Weighted Average Exercise Price	Liquidity Based Weighted Average Exercise Price	Service Based Weighted Average Remaining Contractual Life (Years)	Liquidity Weighted Average Remaining Contractual Life (Years)
Outstanding at December 31, 2015	973,173	1,436,073	2,409,246	\$ 6.13	\$ 6.35	7.05	7.03
Granted during the year	24,348	46,533	70,881	9.55	9.58		
Exercised during the year	—	—	—	—	—		
Forfeited during the year	(6,651)	(9,975)	(16,626)	5.88	5.88		
Outstanding at December 31, 2016	990,870	1,472,631	2,463,501	\$ 6.01	\$ 6.19	6.19	6.19
Granted during the year	12,647	—	12,647	17.00	—		
Exercised during the year	(1,500)	—	(1,500)	5.88	—		
Forfeited during the year	—	—	—	—	—		
Outstanding at December 31, 2017	1,002,017	1,472,631	2,474,648	\$ 6.15	\$ 6.19	5.24	5.19
Unvested as of December 31, 2017	67,694	1,472,631	1,540,325	10.01	6.19		
Exercisable as of December 31, 2017	934,323	—	934,323	\$ 5.87	\$ —	5.07	—

The weighted average grant-date fair value of service-based option awards granted during the years 2017, 2016, and 2015 was \$7.61, \$4.58 and \$6.62, respectively. The weighted average grant-date fair value of the Liquidity Options at the amendment date of April 27, 2017 was \$11.69. Aggregate intrinsic value represents the difference between our estimated fair value of common stock and the exercise price of outstanding in the money options. As of December 31, 2017, our outstanding, unvested and exercisable aggregate intrinsic values were \$21.2 million, \$12.9 million and \$8.3 million, respectively. The total intrinsic value of options exercised during the years ended December 31, 2017 was \$14 thousand. No shares were exercised during the years ended December 31, 2016 and 2015.

Restricted Stock Units

Upon completion of our IPO and pursuant to the 2017 Plan, we began granting restricted stock units (“RSUs”). We account for RSUs granted to employees at fair value on the date of grant, which we measure as the closing price of our stock on the date of grant, and recognize the compensation expense in the financial statements over the requisite service period. Currently outstanding RSUs generally vest over a period of one or three years from the date of grant.

The following is a summary of RSU activity under the 2017 Plan:

	Number of Awards	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2016	—	\$ —
Granted	167,494	18.78
Non-vested at December 31, 2017	167,494	\$ 18.78

NCS MULTISTAGE HOLDINGS, INC.
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Employee Stock Purchase Plan

On August 3, 2017, our board of directors adopted our Employee Stock Purchase Plan (the “U.S. ESPP”) and an employee stock purchase plan specifically applicable to non-U.S. employees on substantially the same terms as the ESPP (the “Non-U.S. ESPP” and together with the U.S. ESPP, the “ESPP”). There are an aggregate of 2,000,000 shares of our common stock reserved for issuance and sale pursuant to the ESPP. The first offering period under our ESPP began on October 16, 2017 and ends on December 31, 2018. We believe future offering periods will span a calendar year. The ESPP allows eligible employees to contribute, subject to any other plan limitations, up to 18% of their base salary, up to a maximum of \$25 thousand per calendar year (\$50 thousand for the first offering period), toward the purchase of our common stock at a discounted price. The purchase price of the shares on each purchase date is equal to 85% of the lower of the fair market value of our common stock on the first and last trading days of each offering period. The U.S. ESPP is designed to be qualified under Section 423 of the Internal Revenue Code.

The fair value of the ESPP was estimated using the Black-Scholes model with the following assumptions and resulting weighted-average fair value per share:

	Year Ended December 31, 2017
Expected volatility	38.8 %
Average risk free interest rate	1.4 %
Expected dividends	— %
Weighted-average fair value per share	\$ 7.16

Total Share Based Compensation Expense

The following table summarizes share-based compensation expense recognized in selling, general and administrative expense in our consolidated statements of operations for the years ended December 31, 2017, 2016 and 2015, respectively (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Stock options	\$ 5,218	\$ 1,354	\$ 1,313
Restricted stock units	775	-	-
ESPP	115	-	-
	<u>\$ 6,108</u>	<u>\$ 1,354</u>	<u>\$ 1,313</u>

At December 31, 2017, there was \$16.0 million of total unrecognized compensation cost related to options and restricted stock, which we expect to recognize over approximately two years.

Note 12. Employee Benefit Plan

Our U.S. employees are eligible to participate in a 401(k) plan sponsored by us. All eligible employees may contribute a percentage of their compensation subject to a maximum imposed by the Internal Revenue Code. All of our contributions are discretionary. We suspended the matching program on April 30, 2015 but reinitiated it on January 1, 2016. Similarly, our Canadian employees are eligible to participate in the Group Registered Retirement Savings Program. All eligible employees may make tax deferred contributions to the plan. This matching program was also suspended on April 30, 2015 until January 1, 2016. Contributions made on behalf of Canadian employees by NCS are taxable income to the employee and may not exceed the Canadian Revenue Agency’s deduction limit for the given year. Our contributions were \$0.8 million for the year ended December 31, 2017 and \$0.6 million for each of the years ended December 31, 2016 and 2015, respectively.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 13. Income Taxes

The provision (benefit) from income taxes consists of the following for the years ended December 31, 2017, 2016 and 2015 (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Current tax expense (benefit)			
U.S. Federal	\$ 11,786	\$ (505)	\$ (9,047)
State	628	(145)	189
Foreign	7,215	1,098	3,934
Total current	<u>19,629</u>	<u>448</u>	<u>(4,924)</u>
Deferred tax expense (benefit)			
U.S. Federal	\$ (14,389)	\$ (4,190)	\$ (7,608)
State	(299)	(133)	253
Foreign	(4,271)	(4,943)	(3,945)
Total deferred	<u>(18,959)</u>	<u>(9,266)</u>	<u>(11,300)</u>
Total income taxes	<u>\$ 670</u>	<u>\$ (8,818)</u>	<u>\$ (16,224)</u>

The following is the domestic and foreign components of our income (loss) before income taxes for the years ended December 31, 2017, 2016 and 2015 (in thousands):

	Year Ended December 31,		
	2017	2016	2015
U.S. Federal	\$ (6,337)	\$ (15,221)	\$ 18,047
Foreign	8,299	(11,524)	(6,246)
Income (loss) before income tax	<u>\$ 1,962</u>	<u>\$ (26,745)</u>	<u>\$ 11,801</u>

The following is a summary of the items that caused recorded income taxes to differ from income taxes computed using the statutory federal income tax rate for the years ended December 31, 2017, 2016 and 2015:

	Year Ended December 31,		
	2017	2016	2015
Income tax expense at federal statutory rate	35.0%	35.0%	35.0%
Increase (decrease) in income taxes resulting from			
Noncontrolling interest losses	35.5%	0.0%	0.0%
U.S. tax on foreign earnings	200.5%	(3.6)%	20.2%
Deferred tax adjustment for foreign book value and tax basis differences	(197.3)%	1.8%	(99.6)%
Change in tax year for subsidiary	0.0%	0.0%	(105.9)%
Nondeductible expenses	36.6%	(0.2)%	2.1%
Non U.S. income taxed at different rates	(16.9)%	(3.6)%	4.3%
Research and other tax credits	(44.0)%	3.0%	(6.3)%
Effect of rate change on deferred tax	(24.3)%	0.0%	16.2%
Stock-based compensation	22.1%	(0.5)%	1.0%
Manufacturing deduction	(23.8)%	0.3%	(7.6)%
State taxes	8.6%	0.8%	3.1%
Change in valuation allowance	(2.3)%	0.0%	0.0%
Other	4.4%	0.0%	0.0%
Income tax	<u>34.1%</u>	<u>33.0%</u>	<u>(137.5)%</u>

We recorded a tax expense (benefit) of \$0.7 million, \$(8.8) million and \$(16.2) million for the years ended December 31, 2017, 2016 and 2015, respectively. For the years ended December 31, 2017, 2016 and 2015, our effective tax rate was 34.1%, 33.0% and (137.5%). The primary differences between these effective tax rates were due to several offsetting items, including the effects of recording tax expense for the 2017 Tax Act of \$3.9 million, not providing U.S. income taxes on the undistributed earnings of foreign subsidiaries because we intend to permanently reinvest such earnings outside the U.S. and a tax benefit for the reversal of our deferred tax liability due to the change in our foreign unremitted earnings assertion of \$3.9 million. During the first quarter of 2017,

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

we changed our assertion to state that undistributed foreign earnings are indefinitely or permanently reinvested as a result of cash proceeds received from the IPO during May 2017, a portion of which was used to pay off existing debt. The negative effective tax rate in 2015 was primarily due to a tax planning strategy and the effect of an adjustment of our deferred taxes liability on differences between book value and tax basis in our Canadian subsidiary. The tax planning strategy resulted in the Company receiving permission from a foreign tax authority to change the year end to conform to U.S. income tax reporting

The 2017 Tax Act was signed into law on December 22, 2017. The 2017 Tax Act significantly revises 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. We recorded a tax benefit of \$0.5 million for the remeasurement of federal net deferred tax liabilities resulting from the permanent reduction in the U.S. statutory corporate tax rate to 21% from 35% and recorded a mandatory one-time tax on the accumulated earnings of our foreign subsidiaries of \$4.4 million. 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. The final determination of the 2017 Tax Act and the remeasurement of our deferred assets and liabilities will be completed as additional information becomes available, but no later than one year from the enactment of the 2017 Tax Act in accordance with SAB 118. Those adjustments may impact our provision for income taxes in the period in which the adjustments are made.

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and deferred tax liabilities as of December 31, 2017 and 2016 are as follows (in thousands):

	December 31,	
	2017	2016
Deferred tax assets		
Accruals not currently deductible	\$ 3,344	\$ 2,829
Tax credit carryforwards	—	872
Other	871	1,221
	4,215	4,922
Valuation allowance for deferred tax assets	(18)	(63)
Total deferred tax assets	4,197	4,859
Deferred tax liabilities		
Depreciation and amortization	(27,404)	(33,913)
Foreign currency translation	(358)	(6,843)
Foreign unremitted earnings	—	(3,869)
Other	(618)	(813)
Total deferred tax liabilities	(28,380)	(45,438)
Net deferred tax liabilities	\$ (24,183)	\$ (40,579)

The above are included in the accompanying consolidated balance sheet as follows (in thousands):

	December 31,	
	2017	2016
Deferred income tax assets—current	\$ —	\$ 2,116
Deferred income tax liabilities—noncurrent	(24,183)	(42,695)
	\$ (24,183)	\$ (40,579)

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14. Earnings Per Share

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

	Year Ended December 31,		
	2017	2016	2015
Numerator—Basic			
Net income (loss)	\$ 1,292	\$ (17,927)	\$ 28,025
Less: income attributable to participating shares	55	—	1,604
Less: loss attributable to non-controlling interest	(810)	—	—
Net income (loss) attributable to NCS Multistage Holdings, Inc.—Basic	<u>\$ 2,047</u>	<u>\$ (17,927)</u>	<u>\$ 26,421</u>
Numerator—Diluted			
Net income (loss)	\$ 1,292	\$ (17,927)	\$ 28,025
Less: loss attributable to non-controlling interest	(810)	—	—
Net income (loss) attributable to NCS Multistage Holdings, Inc.—Diluted	<u>\$ 2,102</u>	<u>\$ (17,927)</u>	<u>\$ 28,025</u>
Denominator			
Basic weighted average number of shares	40,484	34,008	29,966
Exchangeable shares for common stock	1,786	—	1,819
Dilutive effect of stock options, restricted stock and ESPP	1,313	—	648
Diluted weighted average number of shares	<u>43,583</u>	<u>34,008</u>	<u>32,433</u>
Earnings (loss) per common share			
Basic	<u>\$ 0.05</u>	<u>\$ (0.53)</u>	<u>\$ 0.88</u>
Diluted	<u>\$ 0.05</u>	<u>\$ (0.53)</u>	<u>\$ 0.86</u>
Potentially dilutive securities excluded as anti-dilutive	<u>—</u>	<u>2,601</u>	<u>—</u>

Note 15. Related Party Transactions

As of December 31, 2016, we held a long-term note receivable in the amount of \$0.8 million due from a related party. During the first quarter of 2017, the long-term note receivable was paid in full.

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 16. 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 (see “Note 1. Organization and Basis of Presentation”).

Revenue by country for 2017, 2016 and 2015 is attributed based on the current billing address of the customer. The following table summarizes revenue by geographic area (in thousands):

	Year Ended December 31,		
	2017	2016	2015
United States			
Product Sales	\$ 41,261	\$ 17,595	\$ 24,857
Services	22,659	4,747	8,645
Total United States	63,920	22,342	33,502
Canada			
Product Sales	96,716	53,088	53,108
Services	31,183	16,994	21,801
Total Canada	127,899	70,082	74,909
Other Countries			
Product Sales	6,689	2,537	2,114
Services	3,126	3,518	3,480
Total Other Countries	9,815	6,055	5,594
Total			
Product Sales	144,666	73,220	80,079
Services	56,968	25,259	33,926
Total	<u>\$ 201,634</u>	<u>\$ 98,479</u>	<u>\$ 114,005</u>

The following table summarizes long-lived assets by geographic area (in thousands):

	December 31, 2017	December 31, 2016
United States	\$ 14,714	\$ 2,819
Canada	8,710	6,940
Other Countries	227	—
	<u>\$ 23,651</u>	<u>\$ 9,759</u>

NCS MULTISTAGE HOLDINGS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 17. Quarterly Financial Data (Unaudited)

The table below sets forth unaudited financial information for each quarter of the last two years (in thousands, except per share amounts):

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
2017				
Revenue	\$ 58,636	\$ 36,857	\$ 55,957	\$ 50,184
Cost of sales	29,354	18,885	25,958	24,595
Income (loss) from operations	9,924	(5,609)	5,246	(4,602)
Net income (loss)	6,348	(4,745)	3,541	(3,852)
Net income (loss) attributable to NCS Multistage Holdings, Inc.	6,550	(4,491)	3,386	(3,343)
Earnings (loss) per share:				
Basic (1)	\$ 0.18	\$ (0.11)	\$ 0.07	\$ (0.08)
Diluted (1)	\$ 0.18	\$ (0.11)	\$ 0.07	\$ (0.08)
2016				
Revenue	\$ 23,107	\$ 11,281	\$ 28,650	\$ 35,441
Cost of sales	12,695	6,489	14,713	19,936
Loss from operations	(4,266)	(10,167)	(1,017)	(2,532)
Net loss	(8,126)	(8,590)	(280)	(931)
Net loss attributable to NCS Multistage Holdings, Inc.	(8,126)	(8,590)	(280)	(931)
Loss per share:				
Basic (1)	\$ (0.24)	\$ (0.25)	\$ (0.01)	\$ (0.03)
Diluted (1)	\$ (0.24)	\$ (0.25)	\$ (0.01)	\$ (0.03)

(1) The sum of the individual quarterly earnings per share amounts may not agree with the annual amount reported as each quarterly computation is based on the weighted average number of common shares outstanding during the period.

Note 18. Subsequent Events

On February 14, 2018, we issued 442,312 shares of common stock to Cemblend Systems, Inc. (“Cemblend”) in exchange for shares of one of our wholly-owned subsidiaries.

On February 16, 2018, we entered into Amendment No. 2 to the Credit Agreement. The amendment amends certain negative covenants contained in the Credit Agreement.

SCHEDULE I-CONDENSED FINANCIAL INFORMATION OF REGISTRANT
NCS MULTISTAGE HOLDINGS, INC. (PARENT COMPANY ONLY)
CONDENSED BALANCE SHEETS
(In thousands, except share data)

	December 31, 2017	December 31, 2016
Assets		
Current assets		
Cash and cash equivalents	\$ 1,498	\$ 131
Accounts receivable—trade, net	4	4
Total current assets	1,502	135
Noncurrent assets		
Investment in subsidiaries	187,413	169,889
Loans to subsidiary companies	168,018	6,723
Long term note receivable	—	751
Total noncurrent assets	355,431	177,363
Total assets	<u>\$ 356,933</u>	<u>\$ 177,498</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accrued expenses	\$ 86	\$ 20
Total current liabilities	86	20
Total liabilities	86	20
Stockholders' equity		
Preferred stock, \$0.01 par value, 10,000,000 shares authorized, one share issued and outstanding at December 31, 2017 and one share authorized, issued and outstanding at December 31, 2016	—	—
Common stock, \$0.01 par value, 225,000,000 shares authorized, 43,931,484 shares issued and 43,913,136 shares outstanding at December 31, 2017 and 54,000,000 shares authorized, 34,024,326 shares issued and 34,005,978 shares outstanding at December 31, 2016	439	340
Additional paid-in capital	399,426	237,566
Accumulated other comprehensive loss	(66,707)	(82,015)
Retained earnings	23,864	21,762
Treasury stock, at cost; 18,348 shares at December 31, 2017 and at December 31, 2016	(175)	(175)
Total stockholders' equity	356,847	177,478
Total liabilities and stockholders' equity	<u>\$ 356,933</u>	<u>\$ 177,498</u>

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

SCHEDULE I-CONDENSED FINANCIAL INFORMATION OF REGISTRANT
NCS MULTISTAGE HOLDINGS, INC. (PARENT COMPANY ONLY)
CONDENSED STATEMENTS OF OPERATIONS
(In thousands)

	Year Ended December 31,		
	2017	2016	2015
Equity in net income (loss) of subsidiaries	\$ 2,216	\$ (17,840)	\$ 28,122
Other loss	(114)	(87)	(97)
Net income (loss)	<u>\$ 2,102</u>	<u>\$ (17,927)</u>	<u>\$ 28,025</u>

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

SCHEDULE I-CONDENSED FINANCIAL INFORMATION OF REGISTRANT
NCS MULTISTAGE HOLDINGS, INC. (PARENT COMPANY ONLY)
CONDENSED STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Year Ended December 31,		
	2017	2016	2015
Net income (loss)	\$ 2,102	\$ (17,927)	\$ 28,025
Foreign currency translation adjustments, net of tax of \$0	15,308	6,655	(43,280)
Comprehensive income (loss)	<u>\$ 17,410</u>	<u>\$ (11,272)</u>	<u>\$ (15,255)</u>

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

SCHEDULE I-CONDENSED FINANCIAL INFORMATION OF REGISTRANT
NCS MULTISTAGE HOLDINGS, INC. (PARENT COMPANY ONLY)
CONDENSED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2017	2016	2015
Cash flows from operating activities			
Net income (loss)	\$ 2,102	\$ (17,927)	\$ 28,025
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Equity in net (loss) income of subsidiaries	(2,216)	17,840	(28,122)
Accrued expenses	65	80	97
Net cash used by operating activities	(49)	(7)	—
Cash flows from investing activities			
Investment in subsidiaries	—	—	(40,000)
Issuance of note receivable—related party	—	—	(755)
Loans to affiliated company	(151,196)	—	—
Net cash used by investing activities	(151,196)	—	(40,755)
Cash flows from financing activities			
Contributions from shareholders	—	102	39,999
Proceeds from related party note receivable	752	—	—
Proceeds from issuance of common stock, net of offering costs	151,860	—	—
Net cash provided by financing activities	152,612	102	39,999
Net change in cash and cash equivalents	1,367	95	(756)
Cash and cash equivalents beginning of period	131	36	792
Cash and cash equivalents end of period	\$ 1,498	\$ 131	\$ 36

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

**SCHEDULE I-CONDENSED FINANCIAL INFORMATION OF REGISTRANT
NCS MULTISTAGE HOLDINGS, INC. (PARENT COMPANY ONLY)
NOTES TO CONDENSED FINANCIAL STATEMENTS**

Note 1. Background and basis of presentation

NCS Multistage Holdings, Inc. (the “Parent Company”) is a holding company that conducts substantially all of its business operations through its subsidiaries. The ability of the Parent Company’s subsidiaries to pay dividends is currently restricted by the terms of its credit agreement with a group of financial institutions. Substantially all of the net assets of the Parent Company’s consolidated subsidiaries are restricted.

The accompanying condensed financial information includes the accounts of the Parent Company and, on an equity method basis, its investment in subsidiaries. Accordingly, these condensed financial statements have been presented on a “parent only” basis. These parent only financial statements should be read in conjunction with NCS Multistage Holdings, Inc. consolidated financial statements and related notes thereto included elsewhere herein.

The condensed parent-only financial statements have been prepared in accordance with Rule 12-04, Schedule I of Regulation S-X as the restricted net assets of the subsidiaries of the Parent Company exceeds 25% of the consolidated net assets of the Parent Company. The ability of the Parent Company’s operating subsidiaries to pay dividends may be restricted due to terms of the subsidiaries financing arrangements (see “Note 8. Debt” of our consolidated financial statements).

Note 2. Related Party Transactions

As of December 31, 2016, the Company held a long-term note receivable in the amount of \$0.8 million due from a related party. During the first quarter of 2017, the long-term note receivable was paid in full.

As of December 31, 2017 and 2016, the Parent Company has total subsidiary loans between the subsidiaries and the Parent Company in the amount of \$168.0 million and \$6.7 million, respectively.

Note 3. Commitments and Contingencies

For discussion of the commitments and contingencies of the subsidiaries of the Parent Company see “Note 9. Commitments and Contingencies” of our consolidated financial statements.

NCS MULTISTAGE HOLDINGS, INC.
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2017, 2016, AND 2015
(In thousands)

	Balance at		Charges to		Recoveries and		Balance at
	Beginning of Period		Costs and Expenses		Write-Offs		End of Period
Accrued obsolescence for inventory							
December 31, 2017	\$ 3,992	\$	1,192	\$	(3,884)	\$	1,300
December 31, 2016	1,577		5,082		(2,667)		3,992
December 31, 2015	83		1,494		—		1,577

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. 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 Securities Exchange Act of 1934, as amended (the “Exchange Act”)) as of the end of the period covered by this report. Disclosure controls and procedures are designed to ensure 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.

Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of such date due to the material weaknesses described below.

Material Weaknesses in Internal Control over Financial Reporting

In connection with the audit of our financial statements for the years ended December 31, 2016 and 2015, we and our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting. A material weakness is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis.

We determined that we did not design or maintain an effective control environment with a sufficient number of trained professionals with the appropriate level of accounting knowledge and experience to properly analyze, record and disclose accounting matters commensurate with our financial reporting requirements. This material weakness contributed to the following material weaknesses in our internal control over financial reporting:

- We did not design and maintain sufficient formal accounting policies and controls over income taxes. Specifically, we did not have controls designed to address the accuracy of income tax expense (benefit) and related consolidated balance sheet accounts, including deferred income taxes, as well as adequate procedures and controls to review the work of external experts engaged to assist in income tax matters related to our tax structure or to monitor the presentation and disclosure of income taxes.
- We did not design and maintain sufficient formal accounting policies and controls over the presentation of the statement of cash flows. Specifically, we did not have controls designed to properly classify cash flows related to our foreign exchange gains (losses) associated with our foreign denominated debt and deferred financing costs related to our extinguishment of debt.
- We did not design and maintain adequate controls to address segregation of duties related to journal entries and account reconciliations as certain accounting personnel have the ability to prepare and post journal entries, as well as reconcile accounts, without an independent review by someone other than the preparer. Specifically, our internal controls were not designed or operating effectively to evidence that journal entries were appropriately recorded or were properly reviewed for validity, accuracy and completeness.

These material weaknesses resulted in the need to correct material misstatements in our consolidated financial statements for the years ended December 31, 2014 and 2015 prior to their issuance. Each of the material weaknesses described above or any newly identified material weakness could result in a misstatement of our accounts or disclosures that would result in a material misstatement of our annual or interim consolidated financial statements that would not be prevented or detected.

As of December 31, 2017, we continue to remediate the previously reported material weaknesses in our internal control over financial reporting. The following captures the progress made by management related to each of the previously reported material weaknesses:

Lack of sufficient knowledgeable accounting and financial reporting personnel: We completed a review of required skill sets that would be commensurate with our financial reporting requirements as a public company and identified various gaps in both specific accounting knowledge and expertise and the number of resources required and have now employed those with the appropriate level of knowledge and experience. By adding the appropriate personnel and instituting various programs, we have significantly improved the knowledge base and proficiency of our accounting and financial reporting organization. In order to consider this material

weakness to be fully remediated, we believe additional time is needed to demonstrate sustainability as it relates to our internal control over financial reporting.

Improper accounting for income taxes: We did not design and maintain sufficient formal accounting policies and controls over income taxes. To address this material weakness, we are establishing accounting controls over the tax provisioning process which includes meetings with tax and accounting personnel to discuss items which impact the income tax accounts and disclosures. If we use an expert, a control is in place whereby management reviews the expert's findings. Management is currently designing controls to ensure appropriate review over work is performed by the Director of Tax.

Improper classification within statement of cash flows: We identified a material weakness related to insufficient accounting policies, procedures and controls designed to properly classify cash flows related to foreign exchange gains/losses associated with foreign denominated debt and deferred financing costs. Throughout 2017, we have taken many steps to prevent misclassifications on the statement of cash flows, which includes a quarterly detailed review meeting attended by accounting personnel responsible for financial reporting to ensure each line item classification is properly reflected. However, even with the additional procedures related to these review meetings, management has determined that a sufficient amount of time has not yet passed to fully conclude this material weakness as of December 31, 2017 has been remediated.

Segregation of duties within the accounting and finance organization: This material weakness can be split into two different areas: Journal Entries and Account Reconciliations.

Journal Entries: We identified a material weakness in the design and operating effectiveness of controls over journal entries. Journal entry access and ability to post was removed from those who would be approving the entries with the exception of one individual. Journal entries are now reviewed and approved only by those properly authorized to do so. We utilize a third-party software that assists with the systematic review and approval process for each assigned user. System access controls are in place to ensure compliance and controls are functioning properly. We have designed a monitoring control to review the create and post manual journal entries function by the one individual mentioned above.

Account Reconciliations: We identified a material weakness in the design and operating effectiveness of controls over account reconciliations. During 2017, we began the process of initiating preventive controls to eliminate the possibility of non-compliance. Account reconciliation creation and approval was separated, so that each reconciliation was approved by someone other than the preparer. We purchased and installed a third party software, which is widely used in the market to assist with the workflow and tracking of the account reconciliation creation and approval process. However, even with the enhanced controls and systematic process, management has determined that a sufficient amount of time has not yet passed to fully conclude this material weakness as of December 31, 2017 has been remediated.

We continue to complete the documentation, implementation and testing of the remediation actions described above and as of December 31, 2017, concluded that the steps taken have made significant progress towards the remediation of the previously reported material weaknesses in our internal control over financial reporting. Notwithstanding the material weaknesses described above, management, based upon the substantial work performed, has concluded that the Company's consolidated financial statements for the periods covered by and included in this Annual Report on Form 10-K are fairly stated in all material respects for each of the periods presented herein.

Management's Report on Internal Control Over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established by the SEC for newly public companies.

In addition, because we are an "emerging growth company" under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting for so long as we are an emerging growth company.

Changes in Internal Control Over Financial Reporting

Management has designed a monitoring control to address the review of the create and post manual journal entries function as well as the review of the income tax expert's findings and the work performed by the Director of Tax, during the quarter ended December 31, 2017 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Directors and Executive Officers

The following table sets forth the names and ages, as of December 31, 2017, of the individuals who serve as our executive officers and directors.

Name	Age	Position
Robert Nipper	53	Chief Executive Officer and Director
Marty Stromquist	57	President and Director
Tim Willems	56	Chief Operations Officer
Ryan Hummer	40	Chief Financial Officer
Kevin Trautner	51	Executive Vice President, General Counsel and Secretary
Wade Bitter	54	Chief Accounting Officer and Treasurer
Michael McShane	63	Chairman
John Deane	66	Director
Matthew Fitzgerald	60	Director
Gurinder Grewal	40	Director
David McKenna	50	Director
Franklin Myers	65	Director
W. Matt Ralls	68	Director

Robert Nipper

Mr. Nipper is our Chief Executive Officer, a position he has held since November 2016. He has served as a member of our Board since 2012. He previously served as our Chief Executive Officer from December 2012 until April 2016 and as Executive Chairman from April 2016 until February 2017. Mr. Nipper co-founded NCS in 2006 and has served on our Board since December 2012. He has more than 30 years of industry experience and has invented several patented technologies relating to downhole oil and natural gas and geothermal service equipment. Prior to founding NCS, Mr. Nipper spent 18 years with Tri-State Oil Tools Inc. and Baker Hughes, including various operations and sales management positions. Prior to leaving Baker Hughes, he held the position of North American Marketing Manager. We believe Mr. Nipper's extensive experience as the co-founder of NCS and over 30 years of industry experience provide insight and informational knowledge about our company and qualify him to serve as one of our directors.

Marty Stromquist

Mr. Stromquist is our President, a position he has held since November 2016. He has served as a member of our Board since January 2010. Mr. Stromquist co-founded NCS and served as Chief Operating Officer from January 2010 to June 2015, Chief Technology Officer from June 2015 to March 2016 and Chief Executive Officer from March 2016 to November 2016, before being named to his current position. He has served in technical and management positions in the oil and natural gas industry for more than 35 years, in both service company and producer roles. He co-founded Cemblend Systems, Inc., which provided cementing solutions, and Frac Source, Inc., which specialized in stimulation services for unconventional reservoirs. He also served as operations manager of the well services group for Pioneer Natural Resources USA, Inc., and as technical manager for stimulation services for Halliburton Energy Services Canada. He holds numerous patents for completion-related tools, processes and downhole procedures, and he has authored numerous technical papers and articles. We believe Mr. Stromquist's extensive experience as the co-founder of NCS and over 35 years of industry experience provide insight and informational knowledge about our company and qualify him to serve as one of our directors.

Tim Willems

Mr. Willems is our Chief Operations Officer, a position he has held since May 2015. Mr. Willems previously served as our President of U.S./International Operations from January 2012 to May 2015 and Senior Vice President from April 2010 to January 2012. Mr. Willems has more than 30 years' experience in the oil and natural gas industry, specializing in wellbore construction, completion and remediation. Sixteen of those years were spent in the international arena. He has held diverse positions, including applications engineering, operations, sales and marketing, and he has held vice president positions for a major service company in U.S. and international operations and marketing. Mr. Willems received a B.S. in Petroleum Engineering from Montana College of Mineral Science and Technology.

Ryan Hummer

Mr. Hummer is our Chief Financial Officer, a position he has held since November 2016. Mr. Hummer previously served as Executive Vice President, Corporate Development since August 2015 and as Vice President, Corporate Development from July 2014 until August 2015. Prior to joining us, Mr. Hummer served as Director, Investment Banking at Lazard Freres & Co. from January 2011 to April 2014, during which time he advised clients on a broad range of transactions, including mergers & acquisitions, restructuring and debt and equity capital raises. Mr. Hummer holds a B.S. in Economics from the Wharton School of the University of Pennsylvania.

Kevin Trautner

Mr. Trautner is our Executive Vice President, General Counsel and Secretary, a position he has held since November 2016. Mr. Trautner previously served as Vice President, General Counsel from July 2016 to November 2016. Prior to joining us, Mr. Trautner was a corporate and securities Partner at Andrews Kurth Kenyon LLP from March 2014 to July 2016 and a Partner at Norton Rose Fulbright US LLP from March 2007 to March 2014. Prior to that, Mr. Trautner was engaged in the private practice of law as an associate and then a Partner at other national law firms. Mr. Trautner has more than 20 years of experience in advising energy companies on corporate and securities matters including mergers and acquisitions, SEC filings and corporate governance matters. Mr. Trautner has a J.D. from the University of Virginia School of Law, an M.D. from the Vanderbilt University School of Medicine, and a B.S. from the University of Notre Dame.

Wade Bitter

Mr. Bitter is our Chief Accounting Officer and Treasurer, a position he has held since November 2016. He previously served as our Chief Financial Officer from January 2011 to November 2016. He has more than 25 years of corporate financial experience, including more than 20 years in the oilfield services industry. He has extensive experience with international accounting and reporting, currency and treasury functions, compliance and systems integrations and conversions. Mr. Bitter received an MBA from Utah State University and a B.S. in Finance from Brigham Young University.

Michael McShane

Mr. McShane has served as the Chairman of our Board since February 2017 and as one of our directors since December 2012. Since September 2009, Mr. McShane has been an Operating Partner for Advent in the oil and natural gas services and equipment sector. Prior to his engagement with Advent, Mr. McShane was the Chairman and Chief Executive Officer of Grant Prideco Inc., a manufacturer and supplier of oilfield drill pipe and other drill stem products. Prior to joining Grant Prideco, Mr. McShane was Senior Vice President—Finance and Chief Financial Officer of BJ Services Company, a provider of pressure pumping, cementing, stimulation and coiled tubing services for oil and natural gas operators. Mr. McShane also serves on the board of directors of Superior Energy Services, Inc., Forum Energy Technologies Inc., Enbridge Inc. and Oasis Petroleum Inc. We believe that Mr. McShane's management experience and broad experience in the energy industry qualify him to serve as one of our directors.

John Deane

Mr. Deane has served as one of our directors since December 2012 and served as Chairman of the Board from December 2012 to April 2016. Since October 2009, Mr. Deane has been an Operating Partner for Advent in the oil and natural gas industry, primarily in the services sector, and sits on the board of BOS Solutions Ltd. and RGL Reservoir Management Inc. Prior to his engagement with Advent, Mr. Deane served as President of ReedHycalog, L.P., Vice President of Schlumberger Limited, President of Hycalog and numerous executive and technical positions with Reed Tool Co. and Camco Intl. Mr. Deane has over 40 years of experience in the oil and natural gas industry, specializing in drilling technology. Mr. Deane holds a B.S. in Physics from the Colorado School of Mines. We believe that Mr. Deane's management experience and expertise in the oil and natural gas industry qualify him to serve as one of our directors.

Matthew Fitzgerald

Mr. Fitzgerald has served as one of our directors since February 2017. Mr. Fitzgerald is now a private investor and volunteer instructor and counselor with SCORE (Service Corp of Retired Executives), an affiliate of the Small Business Administration. From 2009 until July 2013, Mr. Fitzgerald served as President of Total Choice Communications LLC, a wireless retailer in Houston, Texas. Mr. Fitzgerald retired from Grant Prideco, Inc. following its merger with National Oilwell Varco in 2008. He had served as Senior Vice President and Chief Financial Officer beginning in January 2004 and as Treasurer beginning in February 2007. Mr. Fitzgerald held the positions of Executive Vice President, Chief Financial Officer, and Treasurer of Veritas DGC from 2001 until January 2004. Mr. Fitzgerald also served as Vice President and Controller for BJ Services Company from 1989 to 2001. Mr. Fitzgerald currently serves on the board of directors, as chairman of the audit committee and the corporate governance and nominating committee of Independence Contract Drilling, Inc. He also currently serves on the board of directors and as chairman of the audit committee of Oasis Midstream Partners LP. He previously served on the board of directors of Rosetta Resources, Inc. and Maverick Oil and Gas, Inc. Mr. Fitzgerald began his career as a certified public accountant with the accounting firm of Ernst & Whinney. He holds a Bachelor of Business Administration in Accounting and a Masters in Accountancy from the University of Florida. We believe that Mr. Fitzgerald's diverse management experience and experience serving as a director qualify him to serve as one of our directors.

Gurinder Grewal

Mr. Grewal has served as one of our directors since December 2012. He is a managing director of Advent, focusing on investments in the energy and industrial sectors. Prior to joining Advent, Mr. Grewal was a vice president at Bain Capital where he was involved in investments in several large companies in the industrial, media and retail sectors. He currently serves on the boards of directors of BOS Solutions Ltd., Oleoducto Central S.A. (Ocensa), Quala and Culligan International Group. Mr. Grewal received an HBA from the Richard Ivey School of Business at the University of Western Ontario and an M.B.A. from Harvard Business School. We believe that Mr. Grewal's experience in the private equity and energy industries qualify him to serve as one of our directors.

David McKenna

Mr. McKenna has served as one of our directors since December 2012. He is a managing partner of Advent and coordinates the firm's investment efforts in the North American industrial sector. Mr. McKenna joined Advent in 1992 and for eight years held various positions, including head of the firm's Hong Kong office. In 2000, he joined Bain Capital, where he spent three years as a senior dealmaker working on large investments in the industrial, retail and consumer sectors before rejoining Advent in 2003. Mr. McKenna currently serves on the boards of directors of BOS Solutions Ltd., RGL Reservoir Management Inc., Serta Simmons Bedding LLC and Culligan International Group and previously served on the boards of ABC Supply Co. Inc., Aspen Technology Inc., Boart Longyear Limited, Bradco Supply and Keystone Automotive Operations Inc. He holds an A.B. in English from Dartmouth College. We believe that Mr. McKenna's experience at Advent and experience as a director of numerous private and public companies qualify him to serve as one of our directors.

Franklin Myers

Mr. Myers has served as one of our directors since February 2017. Mr. Myers serves as Senior Advisor to Quantum Energy Partners, a Houston-based private equity firm. Previously, Mr. Myers served as Senior Advisor to Cameron International Corporation, a publicly traded provider of flow equipment products, from April 2008 through March 2009, prior to which, from 2003 through March 2008, he served as the Senior Vice President and Chief Financial Officer. From 1995 to 2003, he served as Senior Vice President and President of a division within Cooper Cameron Corporation, as well as General Counsel and Secretary. Prior to joining Cooper Cameron Corporation in 1995, Mr. Myers served as Senior Vice President and General Counsel of Baker Hughes, and as attorney and partner at the law firm of Fulbright & Jaworski (now known as Norton Rose Fulbright). Mr. Myers currently serves on the board of directors of ION Geophysical Corporation, Comfort Systems USA, Inc. and HollyFrontier Corporation. Mr. Myers also served as an operating adviser for Paine Partners, a private equity fund, from 2009 through December 2012. We believe that Mr. Myers's management experience and experience serving as a director of numerous public companies qualify him to serve as one of our directors.

W. Matt Ralls

Mr. Ralls has served as one of our directors since March 2017. Mr. Ralls previously served as Executive Chairman of Rowan Companies plc from April 2014 to April 2016, its Chief Executive Officer from January 2009 until April 2014, and its President and Chief Executive Officer from January 2009 to April 2013. Mr. Ralls served as Senior Vice President and Chief Financial Officer from 2001 to 2005 and as Executive Vice President and Chief Operating Officer of GlobalSantaFe Corporation from 2005 until the completion of the merger of GlobalSantaFe with Transocean, Inc. in 2007. Mr. Ralls currently serves on the board of directors Cabot Oil & Gas Corporation and Superior Energy Services, Inc. Mr. Ralls previously served on the boards of several other publicly traded companies as well as the boards of the American Petroleum Institute, the National Oceanic Industries Association and the International Association of Drilling Contractors. We believe that Mr. Ralls' boardroom experience and broad management experience in the oil and gas industry qualify him to serve as one of our directors.

Board of Directors

Our Board has established an Audit Committee and a Compensation, Nominating and Governance Committee. Each committee operates under a charter approved by our Board. Each committee has the composition and primary responsibilities described below. Members serve on these committees until their resignations or until otherwise determined by our Board. The charter of each committee is available on our website.

Audit Committee. The primary purposes of our Audit Committee are to assist the Board in its oversight of our accounting and financial reporting processes and compliance with legal and regulatory requirements, including (i) producing the annual report of the Audit Committee required by the rules of the SEC and (ii) the oversight of:

- audits of our financial statements of the Company;
- the integrity of our financial statements;
- our processes relating to risk management and the conduct and systems of internal control over financial reporting and disclosure controls and procedures;
- the qualifications, engagement, compensation, independence and performance of our independent auditor, and the auditor's conduct of the annual audit of our financial statements and any other services provided to the Company; and
- the performance of our internal audit function.

Our Audit Committee is currently composed of Messrs. Fitzgerald, Myers and Ralls. Mr. Fitzgerald serves as chair of the Audit Committee. Messrs. Fitzgerald, Myers and Ralls each qualifies as an "audit committee financial expert" as such term has been defined by the SEC in Item 407(d)(5) of Regulation S-K. Our Board has affirmatively determined that Messrs. Fitzgerald, Myers and Ralls meet the definition of an "independent director" for the purposes of serving on the Audit Committee under applicable NASDAQ rules and Rule 10A-3 under the Exchange Act. The Audit Committee is governed by a charter that complies with the NASDAQ rules.

The Audit Committee met three times during the year ended December 31, 2017.

Compensation, Nominating and Governance Committee. The primary purposes of our Compensation, Nominating and Governance Committee are to: (i) produce the annual report of the Compensation, Nominating and Governance Committee required by the rules of the SEC, (ii) assist the Board's oversight of the Company's employee compensation policies and practices, including:

- determine and approve the compensation of our Chief Executive Officer and other executive officers;
- review and approve incentive compensation and equity compensation policies and programs; and

(iii) assist the Board's oversight of the Company's governance policies and practices, including:

- identify and screen individuals qualified to serve as directors and recommend to the Board candidates for nomination for election at the annual meeting of stockholders or to fill Board vacancies;
- develop, recommend to the Board and review our Corporate Governance Guidelines;
- coordinate and oversee the annual self-evaluation of the Board and its committees; and
- review on a regular basis our overall corporate governance of the Company and recommend improvements for approval by the Board where appropriate.

Our Compensation, Nominating and Governance Committee is currently composed of Messrs. Deane, McShane, Myers and Ralls. Mr. Deane serves as the chairman. Our Board has affirmatively determined that Messrs. Deane, McShane, Myers and Ralls meet the definition of an “independent director” for the purposes of serving on the committee under applicable NASDAQ rules. The Compensation, Nominating and Governance Committee is governed by a charter that complies with the NASDAQ rules.

The Compensation, Nominating and Governance Committee met three times during the year ended December 31, 2017.

Code of Business Conduct and Ethics

We have a Code of Business Conduct and Ethics that applies to our employees, officers and directors, and all subsidiaries and entities controlled by us. A copy of the code is available in the “Corporate Governance” section of the “Investors” page of our website located at <http://ir.ncsmultistage.com>. Any amendments to or waivers from our code for our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, will be disclosed on our Internet website promptly following the date of such amendment or waiver. Our Internet website and the information contained therein or connected thereto shall not be deemed to be incorporated into this Form 10-K.

Corporate Governance Guidelines

Our Board has adopted Corporate Governance Guidelines in accordance with the NASDAQ corporate governance rules that serve as a flexible framework within which our Board and its committees operate. These guidelines cover a number of areas including: the duties and responsibilities of the Board; director independence; Board leadership structure; executive sessions; Chief Executive Officer evaluations; management development and succession planning; director nomination, qualification and election; director orientation and continuing education; Board agenda, materials, information and presentations; director access to company employees and independent advisers; Board communication with stockholders and others; director compensation; and annual board and committee performance evaluations. A copy of our Corporate Governance Guidelines is posted in the “Corporate Governance” section of the “Investors” page of our website located at <http://ir.ncsmultistage.com>. Our Internet website and the information contained therein or connected thereto shall not be deemed to be incorporated into this Form 10-K.

Family Relationships

There are no family relationships between or among our directors and executive officers.

Section 16(A) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and stockholders who beneficially own more than 10% of any class of our equity securities registered pursuant to Section 12 of the Exchange Act, including our common stock, to file with the SEC initial reports of beneficial ownership and reports of changes in beneficial ownership of our common stock and other equity securities, and to provide us with a copy of those reports.

Based solely upon our review of the copies of such reports furnished to us and written representations received by us that no other reports were required, we are not aware of any instances of noncompliance with the Section 16(a) filing requirements by any director, executive officer or beneficial owner of more than 10% of any class of our equity securities during the year ended December 31, 2017.

Item 11. Executive Compensation

The following discussion and analysis of compensation arrangements should be read with the compensation tables and related disclosures set forth below. This discussion contains forward-looking statements that are based on our current plans and expectations regarding future compensation programs. See “—Cautionary Note Regarding Forward-Looking Statements.” Actual compensation programs that we adopt may differ materially from the programs summarized in this discussion.

Overview

The discussion below includes a review of our compensation decisions with respect to 2017 and 2016 for our “named executive officers,” or “NEOs,” namely our principal executive officer and our two other most highly compensated executive officers. Our NEOs for 2017 were:

Robert Nipper, our Chief Executive Officer;

Marty Stromquist, our President; and

Tim Willems, our Chief Operations Officer.

In 2017 and 2016, we compensated our NEOs through a combination of base salary and annual cash bonuses as well as modifications to existing stock options under the terms of our 2012 Plan. Our executive officers are also eligible to receive certain benefits, which include a 401(k) plan with matching contributions, an automobile allowance, life insurance and group health insurance, including medical, dental and vision insurance.

Summary Compensation Table

The following table sets forth the compensation for 2017 and 2016 of the Company’s NEOs.

Name and principal position	Year	Salary (\$)(1)	Bonus (\$)(2)	Option Awards (\$)(3)	Non-Equity Incentive Plan Compensation (\$)(4)	All Other Compensation (\$)(5)	Total (\$)
Robert Nipper	2017	408,160	—	2,940,132	260,293	52,487	3,661,072
Chief Executive Officer	2016	208,154	2,220	—	—	48,260	258,634
Marty Stromquist (6)	2017	320,067	—	1,784,063	202,304	24,481	2,330,915
President							
Tim Willems	2017	318,800	—	814,189	186,508	46,589	1,366,086
Chief Operations Officer	2016	268,953	2,220	—	—	46,916	318,089

(1) Represents annual salary paid pursuant to the terms of each NEO’s employment agreement then in existence. See “—Employment Agreements” for a description of their current employment agreements.

(2) Represents cash bonus paid pursuant to their employment agreements, which were at the discretion of the Board.

(3) Represents the aggregate incremental fair value of the modification of option awards, computed in accordance with ASC 718. In connection with the IPO, the Liquidity Options were amended to provide that such awards will vest in three equal installments on each of the first three anniversaries of the consummation of our IPO, which occurred on May 3, 2017, subject to certain requirements including, as applicable, the recipient’s continued employment on the vesting date. As a result of the modification, we estimated the fair value of the Liquidity Options on April 27, 2017, the amendment date, using the Black-Scholes option-pricing model, which required estimates of key assumptions based on both historical information and management judgment regarding market factors and trends. The weighted average assumptions used to estimate the fair value of the Liquidity Options were as follows:

Expected term (years)	4.6
Expected volatility	44.4 %
Expected dividend yield	— %
Weighted average risk-free interest rate	1.7 %

- (4) Represents cash incentives earned under our bonus program earned at a level between the minimum level and the target level. See “—Annual Cash Incentive Bonus” section below for more details.” The current target cash bonus for each of Messrs. Nipper, Stromquist and Willems, respectively, are 105%, 85% and 80% of base salary. The target cash bonus for 2017 has been prorated for the base salary and target cash bonus percentage then in effect.
- (5) Includes the following:

Name	Year	Automobile Allowance (\$)	401(k) Matching and Contributions (\$)	Health Insurance Premiums (\$)	Total (\$)
Robert Nipper	2017	22,200	10,800	19,487	52,487
Chief Executive Officer	2016	21,150	9,172	17,938	48,260
Marty Stromquist (6)	2017	13,882	8,329	2,270	24,481
President					
Tim Willems	2017	22,200	10,800	13,589	46,589
Chief Operations Officer	2016	21,150	11,604	14,162	46,916

- (6) Amounts paid to Mr. Stromquist are paid in Canadian dollars. Compensation is stated in United States dollars. Where compensation was provided in Canadian dollars, compensation is based on an exchange rate of 0.7712 U.S. dollars for each 1.00 Canadian dollar during the 2017 fiscal year, computed by averaging the foreign exchange rate for each month of the year.

Outstanding Equity Awards as of December 31, 2017

The following table sets forth certain information about outstanding equity awards held by our NEOs as of December 31, 2017.

Name	Option Grant Date	Option Awards				Option Exercise Price (\$)	Option Expiration Date
		Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)				
Robert Nipper	12/21/2012	165,549	248,322	(1)	5.88	12/21/2022	
Chief Executive Officer							
Marty Stromquist	12/21/2012	100,452	150,681	(1)	5.88	12/21/2022	
President	01/01/2011	242,115	—		1.24	01/01/2019	
Tim Willems	12/21/2012	45,846	68,766	(1)	5.88	12/21/2022	
Chief Operations Officer	01/01/2011	119,235	—	(2)	1.24	01/01/2019	

- (1) These options vest and become exercisable in three equal annual installments beginning on May 3, 2018.
- (2) These securities are held by the Willems Family Limited Partnership, a limited partnership of which the reporting person and his spouse are co-trustees of the sole general partner, Willems Family Management Trust.

Employment Agreements

We are currently party to employment agreements with each of our NEOs. The material provisions of each such agreement are described below.

On August 3, 2017, we entered into amended and restated employment agreements with each of Robert Nipper, our Chief Executive Officer, Marty Stromquist, our President, and Tim Willems, Chief Operations Officer, each of whom we refer to as an Executive. The agreements provide for an initial term of three years which will automatically renew at the end of such period for additional one year-terms. The agreements provide that the Executives will receive an annualized base salary subject to review by our Board (currently \$450,000 for Mr. Nipper, \$463,000 Canadian dollars for Mr. Stromquist and \$330,000 for Mr. Willems). The agreements also provide that the Executives are eligible to receive discretionary annual bonuses each year with target annual bonuses of 105%, 85% and 80% of base salary for each of Messrs. Nipper, Stromquist and Willems, respectively, and up to a maximum bonus of 200% of base salary for each Executive, based on achievement of annual performance targets established by the Board each year.

Either we or the Executive may terminate the agreement at any time upon written notice. We may terminate the Executive's employment for death, disability, for cause, without cause or upon the close of business on the last day of the term of the employment agreement by giving notice of non-renewal of the agreement 90 days prior to the expiration of the term. The Executive may resign following a good reason event or without a good reason event.

If we terminate an Executive's employment without cause, the Executive resigns following a good reason event or we elect not to renew the employment agreement at the end of the term, then, in addition to any accrued but unpaid base salary and accrued but unpaid annual bonus for the year prior to the year of termination, we must provide the Executive with, subject to Executive's execution of a release of claims, such release becoming effective and Executive's continued compliance with the restricted covenants contained in the agreement, (i) one (1) times (two (2) times in the case of Mr. Nipper) the sum of (A) base salary and (B) the Executive's target bonus, payable over the twelve-month period following the date of the termination; (ii) a lump sum payment equal to the pro-rated annual bonus the Executive would have received for the year of termination, based on actual performance for such year; (iii) continued vesting of unvested equity awards in accordance with the applicable existing vesting schedules; and (iv) subject to the Executive's timely election for coverage under COBRA, a cash payment equal to the full premium for actively employed executives for up to 24 months. If such termination of employment occurs within 24 months following a Change of Control (as defined in the employment agreements), in addition to any accrued but unpaid base salary and accrued but unpaid annual bonus for the year prior to the year of termination, in lieu of the benefits described above, we must provide the Executive with, subject to Executive's execution of a release of claims, such release becoming effective and Executive's continued compliance with the restricted covenants contained in the agreement, (i) two (2) times (three (3) times in the case of Mr. Nipper) the sum of (A) base salary and (B) the Executive's target bonus, payable over the twelve-month period following the date of the termination; (ii) a lump sum payment equal to the pro-rated annual bonus the Executive would have received for the year of termination, based on actual performance for such year; (iii) full vesting of unvested equity awards; and (iv) subject to the Executive's timely election for coverage under COBRA, a cash payment equal to the full premium for actively employed executives for up to 24 months.

If an Executive's employment is terminated as a result of death, disability, voluntary resignation other than following a good reason event, or by us for cause, the Executive shall be entitled to receive accrued but unpaid base salary through the date of termination and any accrued but unpaid annual bonus for the year prior to the year of termination. In addition, if the Executive's employment terminates as a result of death or disability, the Executive or Executive's legal representatives shall be entitled to a lump sum amount equal to the pro-rated annual bonus the Executive would have received for the year of termination, based on actual performance.

For purposes of the agreements, good reason event means, without an Executive's consent, (i) any material diminution in Executive's responsibilities, authorities or duties (including title and reporting structure for Messrs. Nipper and Stromquist), (ii) any material reduction in Executive's base salary or target annual bonus opportunity (except in the event of an across the board reduction in base salary or target annual bonus opportunity of up to 10% applicable to substantially all of our senior executives), (iii) a relocation of Executive's principal place of employment by more than 50 miles from the location on the effective date of the agreement and such place is more than 50 miles from Executive's principal residence, or (iv) a material breach by us of any provisions of the agreement; provided that Executive has given us written notice of such event within 60 days following the occurrence of such event and we do not cure the event within 60 days following such notice. For purposes of the agreements, cause means (i) Executive's indictment for, conviction of, or a plea of guilty or no contest to, any indictable criminal offence or any other criminal offence involving fraud, misappropriation or moral turpitude, (ii) Executive's continued failure to materially perform Executive's duties under the employment agreement (for any reason other than illness or physical or mental incapacity) or a material breach of fiduciary duty, (iii) Executive's theft, fraud, or dishonesty with regard to us or any of our affiliates or in connection with Executive's duties, (iv) Executive's material violation of our code of conduct or similar written policies, (v) Executive's willful misconduct unrelated to us or any of our affiliates having, or likely to have, a material negative impact on us or any of our affiliates (economically or its reputation), (vi) an act of gross negligence or willful misconduct by the Executive that relates to our or any of our affiliates affairs, or (vii) material breach by Executive of any provisions of the employment agreement.

The agreements include perpetual confidentiality provisions, a company non-disparagement provision, as well as provisions relating to non-competition and non-solicitation that apply during employment and for one year following a termination of employment.

Potential Payments upon Termination of Employment or Termination Following a Change of Control

Our NEOs are entitled to receive severance payments and acceleration and/or continued vesting of time-based vesting equity awards upon termination of employment by us other than for cause or by the NEO for good reason or a change of control, as provided in "—Employment Agreements."

Nonqualified Deferred Compensation Plan

The Nonqualified Deferred Compensation (“NQDC”) Plan provides an income deferral opportunity for executive officers and certain senior managers of the Company who qualify for participation. The NQDC Plan is unfunded, but the Company may elect to set aside funds in a Rabbi trust to cover the benefits under the plan, though such funds remain subject to the claims of the Company’s creditors.

Participants in the NQDC Plan may make an advance election each year to defer up to 80% of their base salary, bonus and commissions. Participants are immediately 100% vested in their benefits under the NQDC Plan.

Participants may choose from a variety of investment choices to invest their deferrals over the deferral period. Participants earn a rate of return on their NQDC Plan account that approximates the rate of return that would be provided by certain specified mutual funds that participants may designate from a list of available funds selected by the NQDC Plan administrative committee.

Benefits are paid in either a lump-sum or in equal annual installments over a 2- to 5-year period, as elected by the participant. Generally, benefits that are due as a result of a termination of service are paid or commence after termination. However, only participants who with at least 5 years of service at termination will be eligible to receive or continue receiving installment distributions following termination.

Annual Cash Incentive Bonus

We offer our NEOs the opportunity to earn annual cash incentive awards to compensate them for attaining short-term Company goals. Each NEO has an annual target bonus that is expressed as a percentage of his annual base salary, as discussed above in “— Employment Agreements.”

Our annual cash incentive awards are intended to be performance-based and, for 2017, were determined based upon the performance criteria of Adjusted EBITDA and contained a minimum level requirement whereby if the minimum level is not met, there would be no annual cash incentive award payout. The 2017 annual cash incentive bonus program was approved by the Compensation, Nominating and Governance Committee.

Director Compensation

Directors who are employed by us or who are full-time investment professionals of Advent are not eligible to receive compensation for their service on our Board. All other members of our Board received a one-time stock option or restricted stock unit grant upon their election to the Board. All of our directors are also reimbursed for reasonable out-of-pocket travel expenses incurred in connection with attendance at Board and committee meetings and other Board-related activities.

We pay directors who are not employed by us and who are not full-time investment professionals of Advent a quarterly retention fee of \$12,500, and an additional fee of \$2,000 per Board or committee meeting attended. Such directors also receive an annual award of restricted stock units in an amount of \$125,000, which vests on the one year anniversary of the grant date and is subject to delayed settlement. Each such director also receives a one-time grant of restricted stock units upon election to the Board in an amount of \$100,000, which vests in equal increments over a period of three years from the grant date and is subject to delayed settlement. The chair of the Audit Committee and the chair of the Compensation, Nominating and Governance Committee receive an additional annual fee of \$18,000 and \$10,000, respectively. The Chairman of our Board also receives an additional \$12,500 quarterly fee and an additional annual award of restricted stock units in an amount of \$50,000, which vests on the one year anniversary of the grant date and is subject to delayed settlement.

The compensation for our directors who are not employees or full-time investment professionals of Advent for fiscal 2017 was as follows:

Name	Fees Earned or Paid in Cash \$(1)	Stock Awards \$(2)(3)	Option Awards \$(4)	Total \$(5)
Michael McShane	145,500	174,998	3,693,228	4,013,726
John Deane	119,500	124,984	3,693,228	3,937,712
Matthew Fitzgerald	82,000	224,978	—	306,978
Gurinder Grewal	—	—	—	—
David McKenna	—	—	—	—
Franklin Myers	70,000	224,978	—	294,978
W. Matt Ralls	68,000	224,978	—	292,978

- (1) Prior to our IPO, our directors received an annual fee of \$250,000 and the fees earned in cash for 2017 were pro-rated for the fee then in existence.
- (2) For 2017, in connection with our IPO, our directors then serving who were not employees or full-time investment professionals of Advent received the following awards, which was in lieu of the awards described above. On April 27, 2017, such directors received a grant of 7,352 restricted stock units which vest on April 27, 2018. Mr. McShane received a grant of 2,942 additional restricted stock units for a total of 10,294 restricted stock units which vest on such date. Each of Messrs. Fitzgerald, Myers and Ralls also received a grant of 5,882 additional restricted stock units which vest in three equal annual installments beginning on April 27, 2018. The restricted stock units settle for shares of common stock on a one-for-one basis within thirty days following the earliest of (i) one year following the termination of the person's service for any reason other than cause, (ii) a change of control or (iii) the fifth anniversary of the grant date ("delayed settlement").
- (3) Represents the aggregate grant date fair value for restricted stock units granted in 2017, determined in accordance with ASC 718. The grant date fair value of each restricted stock unit was \$17.00.
- (4) Represents the aggregate incremental fair value of the modification of option awards, computed in accordance with ASC 718. See footnote (3) in the "—Summary Compensation Table" for more details regarding this computation.
- (5) Non-employee directors are reimbursed for expenses (including costs of travel, food and lodging) incurred in attending Board, committee and stockholder meetings. No reimbursements for any non-employee director exceeded the \$10,000 threshold in the year ended December 31, 2017.

Equity Incentive Plans

We maintain three equity incentive plans for the benefit of our employees, directors and other service providers: the 2011 Plan, the 2012 Plan and the 2017 Plan. The following is a summary of certain features of the 2011 Plan, 2012 Plan and the 2017 Plan.

2011 Plan

The 2011 Plan provided awards to employees, directors and consultants of NCS Energy Holdings, LLC ("HoldCo"). In connection with Advent's acquisition of HoldCo in 2012, we assumed the outstanding options under the 2011 Plan and converted them into options to purchase shares of our common stock.

2012 Plan

The 2012 Plan provided awards to our employees, directors and consultants prior to our IPO. We no longer grant awards under the 2012 Plan. The 2012 Plan is administered by the Compensation, Nominating and Governance Committee of our Board.

2017 Plan

The 2017 Plan was adopted in connection with our IPO and provides for awards of stock options, stock appreciation rights, restricted stock awards, restricted stock units, stock awards and performance awards. Awards under the 2017 Plan may be granted to any employee, non-employee director, consultant or other personal service provider to us or any of our subsidiaries. The 2017 Plan is administered by a plan administrator, which is the Compensation, Nominating and Governance Committee or such other committee of the Board or the Board as a whole, in each case as determined by the Board.

Employee Stock Purchase Plans

We maintain the ESPP for U.S. and non-U.S. employees. The purpose of the ESPP is to provide employees with an opportunity to acquire a proprietary interest in the Company through the purchase of shares of our common stock. In general, all employees of the Company and certain subsidiaries are eligible to participate in the ESPP applicable to their jurisdiction, subject to certain exceptions for employees who have been employed for less than 30 days, whose customary employment is for less than 20 hours per week or whose customary employment is for not more than five months in a calendar year.

Compensation, Nominating And Governance Committee Interlocks And Insider Participation

The members of our Compensation, Nominating and Governance Committee during 2017 were Messrs. Deane, McShane, Myers and Ralls. During 2017, none of our executive officers served (i) as a member of the compensation, nominating and governance committee or board of directors of another entity, one of whose executive officers served on our compensation, nominating and governance committee, or (ii) as a member of the compensation committee of another entity, one of whose executive officers served on our Board.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table shows information as of December 31, 2017, regarding the beneficial ownership of our common stock by:

- each person or group who is known by us to own beneficially more than 5% of our common stock;
- each member of our Board and each of our named executive officers; and
- all members of our Board and our executive officers as a group.

Beneficial ownership of shares is determined under rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power. Except as noted by footnote, and subject to community property laws where applicable, we believe based on the information provided to us that the persons and entities named in the table below have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them. Percentage of beneficial ownership is based on 43,913,136 shares of common stock outstanding as of December 31, 2017. Shares of common stock subject to options currently exercisable or exercisable within 60 days of December 31, 2017, and shares of common stock underlying restricted stock units subject to vesting and settlement within 60 days of December 31, 2017, are deemed to be outstanding and beneficially owned by the person holding the options or restricted stock units for the purposes of computing the percentage of beneficial ownership of that person and any group of which that person is a member, but are not deemed outstanding for the purpose of computing the percentage of beneficial ownership for any other person. Except as otherwise indicated, the persons named in the table below have sole voting and investment power with respect to all shares of capital stock held by them. Unless otherwise indicated, the address for each holder listed below is c/o NCS Multistage Holdings, Inc., 19450 State Highway 249, Suite 200, Houston, Texas 77070.

Name and Address of Beneficial Owner	Shares of Common Stock Beneficially Owned	
	Number of Shares	Percentage of Shares
5% stockholders:		
Funds managed by Advent (1)	29,568,536	67.3 %
Named executive officers and directors		
Robert Nipper (2)	2,122,725	4.8 %
Marty Stromquist (3)	1,227,191	2.8 %
Tim Willems (4)	614,340	1.4
John Deane (5)	472,586	1.1
Gurinder Grewal (6)	—	—
Matthew Fitzgerald	—	—
David McKenna (7)	—	—
Michael McShane (8)	532,953	1.2
Franklin Myers	—	—
W. Matt Ralls	30,000	*
All Board members and executive officers as a group (13 persons)	5,118,502	11.4 %

* Represents beneficial ownership of less than 1% of our outstanding common stock.

(1) Consists of 3,693,109 shares indirectly owned by Advent International GPE VII Limited Partnership, 3,418,124 shares indirectly owned by Advent International GPE VII-A Limited Partnership, 8,589,659 shares indirectly owned by Advent International GPE VII-B Limited Partnership, 2,729,175 shares indirectly owned by Advent International GPE VII-C Limited Partnership, 2,211,725 shares indirectly owned by Advent International GPE VII-D Limited Partnership, 6,188,694

shares indirectly owned by Advent International GPE VII-E Limited Partnership, 798,351 shares indirectly owned by Advent International GPE VII-F Limited Partnership, 798,351 shares indirectly owned by Advent International GPE VII-G Limited Partnership, 481,968 shares indirectly owned by Advent International GPE VII-H Limited Partnership, 11,828 shares indirectly owned by Advent Partners GPE VII Limited Partnership, 29,570 shares indirectly owned by Advent Partners GPE VII-A Limited Partnership, 289,771 shares indirectly owned by Advent Partners GPE VII-B Cayman Limited Partnership, 260,204 shares indirectly owned by Advent Partners GPE VII Cayman Limited Partnership and 68,007 shares indirectly owned by Advent Partners GPE VII-A Cayman Limited Partnership. Advent-NCS Acquisition L.P. directly owns 29,568,536 shares. The general partner of Advent-NCS Acquisition L.P. is Advent-NCS GP LLC. Advent International GPE VII Limited Partnership, Advent International GPE VII-A Limited Partnership, Advent International GPE VII-B Limited Partnership, Advent International GPE VII-C Limited Partnership, Advent International GPE VII-D Limited Partnership, Advent International GPE VII-E Limited Partnership, Advent International GPE VII-F Limited Partnership, Advent International GPE VII-G Limited Partnership, Advent International GPE VII-H Limited Partnership, Advent Partners GPE VII Limited Partnership, Advent Partners GPE VII-A Limited Partnership, Advent Partners GPE VII-B Cayman Limited Partnership, Advent Partners GPE VII Cayman Limited Partnership and Advent Partners GPE VII-A Cayman Limited Partnership collectively own 100% of Advent-NCS Acquisition L.P. in pro rata proportion to the number of shares above disclosed as owned by each fund.

Advent is the manager of Advent International GPE VII LLC, which is the general partner of Advent Partners GPE VII Limited Partnership, Advent Partners GPE VII-A Limited Partnership, Advent Partners GPE VII Cayman Limited Partnership, Advent Partners GPE VII-A Cayman Limited Partnership, Advent Partners GPE VII-B Cayman Limited Partnership; and, GPE VII GP Limited Partnership, General Partner which in turn is the limited partner of Advent International GPE VII-A Limited Partnership, Advent International GPE VII-E Limited Partnership and Advent International GPE VII-H Limited Partnership; and GPE VII GP (Delaware) Limited Partnership, General Partner which in turn is the general partner of Advent International GPE VII Limited Partnership, Advent International GPE VII-B Limited Partnership, Advent International GPE VII-C Limited Partnership, Advent International GPE VII-D Limited Partnership, Advent International GPE VII-F Limited Partnership and Advent International GPE VII-G Limited Partnership. Advent exercises voting and investment power over the shares held by each of these entities and may be deemed to have beneficial ownership of these shares. With respect to the shares held by the Advent Funds, a number of individuals currently composed of David M. McKenna, David M. Mussafer and Steven M. Tadler, none of whom have individual voting or investment power, exercise voting and investment power over the shares beneficially owned by Advent. The address of Advent and each of the funds and other entities listed above is c/o Advent International Corporation, Prudential Tower, 800 Boylston St., Suite 3300, Boston, MA 02199.

- (2) Consists of 1,771,926 shares held by the Nipper Family Limited Partnership. Mr. Nipper exercises sole voting and investment power over the shares beneficially owned by the Nipper Family Limited Partnership. Also, includes 165,549 shares of common stock that Mr. Nipper has the right to acquire within 60 days upon exercise of stock options.
- (3) Consists of 884,624 shares held by Mr. Stromquist as a 50% owner of Cemblend. Also, includes 342,567 shares of common stock that Mr. Stromquist has the right to acquire within 60 days upon exercise of stock options.
- (4) Consists of 449,259 shares held by the Willems Family Limited Partnership, a limited partnership of which the reporting person and his spouse are co-trustees of the sole general partner, Willems Family Management Trust. Also, includes 119,235 shares of common stock that the Willems Family Limited Partnership has the right to acquire within 60 days upon exercise of stock options and 45,846 shares of common stock that Mr. Willems has the right to acquire within 60 days upon exercise of stock options.
- (5) Consists of 214,632 shares held by the Deane Family Partnership Limited. Mr. Deane holds sole voting and investment power over the shares beneficially owned by the Deane Family Partnership Limited. Also, includes 207,954 shares of common stock that the Deane Family Partnership Limited has the right to acquire within 60 days upon exercise of stock options.
- (6) Mr. Grewal holds no shares directly. Mr. Grewal is a managing director at Advent, which manages funds that collectively own 29,568,536 shares. See footnote (1) above. The address of Mr. Grewal is c/o Advent International Corporation, Prudential Tower, 800 Boylston St., Suite 3300, Boston, MA 02199.
- (7) Mr. McKenna holds no shares directly. Mr. McKenna is a managing partner at Advent, which manages funds that collectively own 29,568,536 shares. See footnote (1) above. Mr. McKenna's address is c/o Advent International Corporation, Prudential Tower, 800 Boylston St., Suite 3300, Boston, MA 02199.
- (8) Includes 207,954 shares of common stock that Mr. McShane has the right to acquire within 60 days upon exercise of stock options.

Securities Authorized for Issuance Under Equity Compensation Plans

See "Item 11. Executive Compensation—Equity Incentive Plans" for a discussion of our equity incentive plans.

The following table shows information relating to the number of shares of common stock authorized for issuance under our equity compensation plans as of December 31, 2017:

December 31, 2017	Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans			
Approved by stockholders	3,291,189	\$ 5.15	4,352,382
Not approved by stockholders (1)	—	\$ —	2,000,000

(1) Reflects 2,000,000 shares of common stock available for future issuance under the ESPP as of December 31, 2017.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Set forth below is a description of certain relationships and related person transactions between us or our subsidiaries, and our directors, executive officers and holders of more than 5% of our common stock:

Registration Rights Agreement

In connection with our IPO, the affiliates of Advent which own our Common Stock, the Company and certain stockholders of the Company entered into a Registration Rights Agreement (the “Registration Rights Agreement”). The Registration Rights Agreement provides for (i) demand registration rights for Advent, subject to a required anticipated aggregate gross proceeds of \$25.0 million; (ii) piggyback registration rights for certain stockholders, subject to a pro rata reduction if the total amount of shares requested to be included exceeds the amount of securities which in the opinion of the underwriters can be sold; and (iii) shelf registration rights that may be requested by Advent to include registrable securities of Advent and certain stockholders, subject to a required anticipated aggregate gross proceeds of \$10.0 million; provided that any such holders that are capable of selling all of their registrable securities pursuant to the Securities Act, without timing or volume limitations will not have these piggyback registration rights. We will be responsible for fees and expenses in connection with the registration rights, other than underwriters’ discounts and brokers’ commissions, if any, relating to any such registration and offering.

Cemblend Transactions

In connection with Advent’s acquisition of HoldCo in 2012, we entered into an exchange agreement with Cemblend, Mr. Stromquist is a 50% owner of Cemblend. HoldCo and NCS Canada, dated December 20, 2012 (the “Exchange Agreement”). Pursuant to the Exchange Agreement, we exchanged Cemblend’s exchangeable shares, which were exchangeable for common units of HoldCo, for shares of NCS Canada which are exchangeable on a one-to-three basis for shares of our common stock. On May 3, 2017, we issued 50,000 shares of common stock to Cemblend in exchange for shares of NCS Canada and Cemblend sold these shares of common stock in our IPO. On February 14, 2018, we issued 442,312 shares of common stock to Cemblend in exchange for shares of NCS Canada.

In connection with a cash dividend we paid to each holder of our common stock on August 7, 2014, we provided a loan in the amount of \$0.8 million to Cemblend for the payment of withholding taxes payable by Cemblend as a result of the dividend. Cemblend repaid the loan in February 2017.

Indemnification Agreements

Our Bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law, subject to certain exceptions contained in our Bylaws. In addition, our Amended and Restated Certificate of Incorporation provides that our directors will not be liable for monetary damages for breach of fiduciary duty.

We have entered into indemnification agreements with each of our directors. The indemnification agreements provide the directors with contractual rights to indemnification, expense advancement and reimbursement, to the fullest extent permitted under the Delaware General Corporation Law, subject to certain exceptions contained in those agreements.

Policies for Approval of Related Person Transactions

Our Board of Directors has adopted a written policy relating to the approval of related person transactions. A “related person transaction” is a transaction or arrangement or series of transactions or arrangements in which we participate (whether or not we are a party) and a related person has a direct or indirect material interest in such transaction. Our Audit Committee will review and approve or ratify all relationships and related person transactions between us and (i) our directors, director nominees or executive officers, (ii) any 5% record or beneficial owner of our common stock or (iii) any immediate family member of any person specified in (i), (ii) and (iii) above. The Audit Committee will review all related person transactions and, where the Audit Committee determines that such transactions are in our best interests, approve such transactions in advance of such transaction being given effect.

As set forth in the related person transaction policy, in the course of its review and approval or ratification of a related person transaction, the Audit Committee will, in its judgment, consider in light of the relevant facts and circumstances whether the transaction is, or is not inconsistent with, our best interests, including consideration of various factors enumerated in the policy.

Any member of the Audit Committee who is a related person with respect to a related person transaction under review or is otherwise not disinterested will not be permitted to participate in the discussions or approval or ratification of the transaction. However, such member of the Audit Committee will provide all material information concerning the transaction to the Audit Committee. Our policy also includes certain exceptions for related person transactions that need not be reported and provides the Audit Committee with the discretion to pre-approve certain related person transactions.

Director Independence and Controlled Company Exemption

Advent beneficially owns common stock representing more than 50% of the voting power of our Voting Stock eligible to vote in the election of directors. As a result, we qualify as a “controlled company” and avail ourselves of certain “controlled company” exemptions under the NASDAQ corporate governance rules. As a controlled company, we are not required to have a majority of “independent directors” on our Board of Directors as defined under the NASDAQ rules, or have a compensation, nominating or governance committee composed entirely of independent directors.

Even though we qualify as a controlled company, we have a majority of independent directors serving on our Board of Directors and our Compensation, Nominating and Governance Committee is composed entirely of independent directors. Our Board has affirmatively determined that Messrs. McShane, Deane, Fitzgerald, Grewal, McKenna, Myers and Ralls are independent directors under the applicable NASDAQ rules. In evaluating and determining the independence of the directors, the Board considered that the Company may have certain relationships with its directors. Specifically, the Board considered that Messrs. McShane, Deane, Grewal and McKenna are affiliated with, or are operating partners of, Advent, which owns approximately 65% of our common stock as of December 31, 2017. The Board determined that this relationship does not impair their independence from us and our management.

We are not required to maintain compliance with NASDAQ’s director independence requirements and may choose to change our Board or committee composition or other arrangements in the future to manage our corporate governance in accordance with the controlled company exemption. If we cease to be a controlled company, we will be required to comply with NASDAQ’s corporate governance requirements applicable to listed companies, subject to a permitted “phase-in” period.

The “controlled company” exemption does not modify the independence requirements for the Audit Committee. NASDAQ and SEC rules require that our Audit Committee be composed of at least three members, subject to certain permitted phase-in rules for newly public companies and a limited NASDAQ exception. Our Audit Committee is composed entirely of independent directors.

Item 14. Principal Accounting Fees and Services

The following table summarizes the fees of PricewaterhouseCoopers LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years for audit services and billed to us in each of the last two fiscal years for other services:

Fee Category	Fiscal 2017	Fiscal 2016
Audit Fees	\$ 1,093,450	\$ 606,762
Audit-Related Fees	83,165	1,161,998
Tax Fees	280,652	44,389
All Other Fees	1,904	—
Total Fees	\$ 1,459,171	\$ 1,813,149

Audit Fees

Audit fees consist of fees for the audit of our consolidated financial statements, the review of the unaudited interim financial statements included in our quarterly reports on Form 10-Q and other professional services provided in connection with regulatory filings or engagements.

Audit-Related Fees

Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit and the review of our financial statements and which are not reported under “Audit Fees.” The amount in 2016 relates primarily to services performed in connection with our IPO.

Tax Fees

Tax fees comprise fees for a variety of permissible services relating to international tax compliance, tax planning and tax advice.

All Other Fees

All other fees were paid for an online technical research tool.

Audit Committee Pre-Approval Policy and Procedures

Our Audit Committee's charter provides that the Audit Committee must consider and, in its discretion, pre-approve any audit or non-audit service provided to us by our independent registered public accounting firm. The Audit Committee may delegate authority to one or more subcommittees of the Audit Committee consistent with law and applicable rules and regulations of the SEC and NASDAQ.

For the year ended December 31, 2017, all fees of PricewaterhouseCoopers LLP were reviewed and pre-approved by the Audit Committee.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report

(1) Financial Statements

See “—Index to Consolidated Financial Statements” in Item 8 of this Annual Report on Form 10-K.

(2) Financial Statement Schedules

Other than the financial statement schedules included on Schedule I – Condensed Financial Information of NCS Multistage Holdings, Inc. and Schedule II – Valuation and Qualifying Accounts, all financial statement schedules have been omitted since the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included on the consolidated financial statements and notes thereto.

(3) Exhibits

See exhibits listed under Part (b) below.

(b) Index of Exhibits

Exhibit No.	Description
2.1	Agreement and Plan of Merger by and among Spectrum Tracer Services, LLC, NCS Multistage Holdings, Inc., Pioneer Investment, Inc., Spartan Merger Sub, LLC and STSR LLC, dated as of August 30, 2017 (incorporated by reference to Exhibit 2.1 to the Company’s Form 8-K filed on August 30, 2017).
3.1	Second Amended and Restated Certificate of Incorporation of NCS Multistage Holdings, Inc. (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K (File No. 001-38071) filed on May 3, 2017).
3.2	Amended and Restated Bylaws of NCS Multistage Holdings, Inc. (incorporated by reference to Exhibit 3.2 to the Company’s Current Report on Form 8-K (File No. 001-38071) filed on May 3, 2017).
4.1	Registration Rights Agreement (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K (File No. 001-38071) filed on May 3, 2017).
10.1	Amended and Restated Credit Agreement, dated as of May 4, 2017, 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 (File No. 001-38071) filed on May 4, 2017).
10.2	Amendment No. 1 to Amended and Restated Credit Agreement, dated as of August 31, 2017, 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 (incorporated by reference to Exhibit 10.2 to the Company’s Form 8-K filed on September 1, 2017).

10.3	Amendment No. 2 to Amended and Restated Credit Agreement, dated as of February 16, 2018, 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 (incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K filed on February 16, 2018).
† 10.4	NCS Multistage Holdings, Inc. 2017 Equity Incentive Plan (“2017 Equity Incentive Plan”) (incorporated by reference to Exhibit 4.3 to the Company’s Registration Statement on Form S-8 (File No. 333-217516) filed on April 27, 2017).
† 10.5	2012 Equity Incentive Plan of NCS Multistage Holdings, Inc. (formerly known as Pioneer Super Holdings, Inc.) (incorporated by reference to Exhibit 4.4 to the Company’s Registration Statement on Form S-8 (File No. 333-217516) filed on April 27, 2017).
† 10.6	NCS Multistage Holdings, Inc. Employee Stock Purchase Plan for U.S. Employees (incorporated by reference to Exhibit 4.1 to the Company’s Registration Statement on Form S-8 (File No. 333-220165) filed on August 25, 2017).
† 10.7	NCS Multistage Holdings, Inc. Employee Stock Purchase Plan for Non-U.S. Employees (incorporated by reference to Exhibit 4.2 to the Company’s Registration Statement on Form S-8 (File No. 333-220165) filed on August 25, 2017).
† 10.8	Form of Director Restricted Stock Unit Award Agreement under the 2017 Equity Incentive Plan (incorporated by reference to Exhibit 10.10 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on April 17, 2017).
†* 10.9	Form of Restricted Stock Unit Award Agreement under the 2017 Equity Incentive Plan for executives.
†* 10.10	Form of Performance Stock Unit Award Agreement under the 2017 Equity Incentive Plan for executives.
†* 10.11	Form of Stock Option Award Agreement under the 2017 Equity Incentive Plan for executives.
† 10.12	Form of Restricted Stock Unit Award Agreement under the 2017 Equity Incentive Plan for non-executive employees (incorporated by reference to Exhibit 10.7 to the Company’s Quarterly Report on Form 10-Q (File No. 001-38071) filed on August 9, 2017).
† 10.13	Form of Stock Option Award Agreement under the 2017 Equity Incentive Plan for non-executive employees (incorporated by reference to Exhibit 10.14 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on April 17, 2017).
† 10.14	Amended and Restated Employment Agreement between NCS Multistage Holdings, Inc. and Robert Nipper, dated as of August 3, 2017 (incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K filed on August 9, 2017).
†* 10.15	Amended and Restated Employment Agreement between NCS Multistage Inc. and Marty Stromquist, dated as of August 3, 2017.
† 10.16	Amended and Restated Employment Agreement between NCS Multistage Holdings, Inc. and Tim Willems, dated as of August 3, 2017 (incorporated by reference to Exhibit 10.2 to the Company’s Form 8-K filed on August 9, 2017).
† 10.17	Form of Director Indemnification Agreement (incorporated by reference to Exhibit 10.6 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on April 17, 2017).
10.18	Exchange Agreement, dated as of December 20, 2012, by and between NCS Energy Holdings, LLC, NCS Multistage Inc. (formerly known as NCS Oilfield Service Canada, Inc.), Cemblend Systems, Inc. and NCS Multistage Holdings, Inc. (formerly known as Pioneer Super Holdings, Inc.) (incorporated by reference to Exhibit 10.15 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on April 17, 2017).
10.19	Call Rights Agreement, dated as of December 20, 2012, by and between NCS Energy Holdings, LLC, NCS Multistage Inc. (formerly known as NCS Oilfield Service Canada, Inc.), Cemblend Systems, Inc. and NCS Multistage Holdings, Inc. (formerly known as Pioneer Super Holdings, Inc.) (incorporated by reference to Exhibit 10.16 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on April 17, 2017).
10.20	Subscription Agreement, dated as of December 22, 2015, by and between NCS Multistage Holdings, Inc. (formerly known as Pioneer Super Holdings, Inc.) and Advent-NCS Acquisition Limited Partnership (incorporated by reference to Exhibit 10.2 to the Company’s Registration Statement on Form S-1 (File No. 333-216580) filed on March 9, 2017).
10.21	Contribution Agreement by and among NCS Multistage Holdings, Inc. and certain unitholders of Spectrum Tracer Services, LLC, as identified therein, dated as of August 31, 2017 (incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K filed on September 1, 2017).

* 21.1	List of subsidiaries of the Company.
* 23.1	Consent of PricewaterhouseCoopers LLP.
* 24.1	Power of Attorney (included on the signature pages herein).
* 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

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

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 9, 2018

NCS Multistage Holdings, Inc.

By: /s/ Robert Nipper

Robert Nipper

Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kevin Trautner and Ryan Hummer, each or any one of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the United States Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 9, 2018.

<u>Signature</u>	<u>Title</u>
<hr/> /s/ Robert Nipper Robert Nipper	Chief Executive Officer and Director (Principal Executive Officer)
<hr/> /s/ Marty Stromquist Marty Stromquist	President and Director
<hr/> /s/ Ryan Hummer Ryan Hummer	Chief Financial Officer (Principal Financial Officer)
<hr/> /s/ Wade Bitter Wade Bitter	Chief Accounting Officer and Treasurer (Principal Accounting Officer)
<hr/> /s/ Michael McShane Michael McShane	Chairman
<hr/> /s/ John Deane John Deane	Director
<hr/> /s/ Matthew Fitzgerald Matthew Fitzgerald	Director
<hr/> /s/ Gurinder Grewal Gurinder Grewal	Director
<hr/> /s/ David McKenna David McKenna	Director
<hr/> /s/ Franklin Myers Franklin Myers	Director
<hr/> /s/ W. Matt Ralls W. Matt Ralls	Director

THE PROMISE

EMPLOYEES

We will invest in our employees, our most important resource, by providing coaching and training that enables them to learn and grow to their full potential. Together, we will maintain a culture that promotes teamwork and an environment that is challenging, rewarding, and fun. We will listen to our employees, treat them with respect, and support them when they make decisions that are aligned with The Promise.

HEALTH, SAFETY, AND THE ENVIRONMENT

We will provide leadership, tools, and training to empower our employees, customers, and vendors to remain healthy and safe. We will integrate environmental stewardship into our business activities and respect the communities in which we operate.

CUSTOMERS

We will treat our customers as partners and operate in a fair and honest manner. We will listen to our customers, set clear, common expectations, and respond with execution excellence.

TECHNOLOGY

We will deliver reservoir analysis, insights and technologies that support our customers' development strategies and resource recovery objectives. We will develop technology and processes to drive improvement in our products and services.

QUALITY

We will continuously improve our processes and systems in order to strive to meet or exceed all applicable quality requirements.

VENDORS

We will treat our vendors as partners, stand by our commitments to them, and expect the same from them.

STAKEHOLDERS

We will ethically and responsibly increase stakeholder value by focusing on innovation, sustainable growth, and strong financial performance.





Times Square, April 28, 2017

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