



























ANNUAL REPORT (NYSE:FTK)

Dear Fellow Shareholders

From John W. Gibson, Jr.



That was quite a year.

When I consider the unique challenges of 2020, I'm inspired by the ways in which our management team and employees met and rose above them with courage, ingenuity and skill. And I owe a debt of gratitude to the customers who entrusted us to be part of their response to this unprecedented year.

It was a difficult year not just in economic terms, but in human terms. As I write this, the global COVID-19 pandemic that began in the first quarter of 2020 has taken more than 550,000 lives in the United States alone. That so many of the deaths occurred alone, without loved ones able to be present in those last moments, deepens the tragedy.

The lesson that was reinforced for so many of us, on both personal and business levels, is that the only real choice in the face of a crisis is to see your way through it, endure it and emerge stronger.

RESULTS

As a company, I feel we have done that. While we set our ambitions for the year to achieve break-even results for 2020, we could not have fathomed the events that would lie ahead when we made that commitment.

We ended the year improving our adjusted EBITDA by more than \$7 million over 2019 despite revenue declining by more than half.

This result was a minor victory in an environment of reduced oil and gas demand, triggered by both the pandemic and broader economic and political volatility. Reflecting on the full stop that hit the economy in March 2020, our ability to reduce our structural costs and run our business more efficiently gives me confidence in our ability to manage going forward.

One key to our perseverance was that we never lost sight of our values. We never compromised on safety—which, to me, is not about numbers but about lives. Our record was better than the industry, but zero injuries is the only record that will satisfy us. We never compromised our integrity, and we continued to make customer success our focus.

[02]

Our Chemistry Technologies business provides a valued line of energy chemistry products that help upstream onshore operators maximize oil and natural gas production, advance operational efficiency and improve Environmental, Social and Governance (ESG) performance. That focus, however, has inevitably linked our business success to the U.S. domestic rig count and related volatility. When I came on board in January 2020, I realized changing that dynamic meant not leaving those customers behind but adapting our business to expand our opportunities. And our strongest path was to capitalize on our core chemistry expertise and our "green" heritage of plant-based products.

STRATEGIC GOALS

We established three strategic goals:

[1]

To change our risk profile long term by improving revenue predictability;

[2]

To shift our business portfolio away from dependence on U.S. unconventional oil and natural gas production by expanding both across the energy spectrum and into international markets (which tend to have less volatility);

[3]

And to enable the digital and sustainable transformation of the energy industry.

FLOTEK + JP3

Our acquisition of JP3 Measurement, LLC, in May addressed all our strategic goals. The customers of what has become our Data Analytics segment span the entire energy market, including upstream, midstream, refineries and distribution networks. JP3's technology combines hardware and cloud-based software to automate real-time analysis of flowing products, helping our customers generate additional profit by enhancing blending, optimizing transmix within pipelines carrying multiple refined products, and ensuring product quality. The technology also enables fluid handling to be automated, reducing safety and environmental risks, and has future potential as a platform for measuring greenhouse gases to enable our customers to achieve and quantify ESG performance goals. The Data Analytics segment is focused on generating recurring revenue as we transform the business model, creating greater predictability in volatile markets. We also undertook an initiative in 2020 to expand the platform to international markets, believing that the largest market opportunity for this service is beyond the U.S.

Some have asked whether our acquisition was the right move in the middle of a pandemic. In hindsight, it was certainly a challenge, but the strategic fit was undeniable, and we knew that it would take a one- to two-year runway to begin reaping the benefits of the new market—particularly its international potential. By seizing the moment when we did, we advanced Flotek into the digital transformation space and believe we will see the benefits that much sooner.

As evidence of this progress, in the first quarter of 2021, we have gained approval for a pilot with a major national oil company based in the Middle East.

RESPONSIVENESS

A second strategic move shows our ability to respond quickly to market needs while staying true to our core strengths. At the outset of the pandemic, we used excess manufacturing capacity to produce 12,000 gallons of alcohol-based hand sanitizers to donate to first responders, hospitals, schools, homeless shelters and senior residential communities. As a result of this community support effort, we added to our Chemistry Technologies business a new line of EPA-approved and FDAcompliant surface cleaners, degreasers, disinfectants and sanitizers for commercial and personal consumer use. These made-in-the-USA products are based on our core chemical expertise in alcohols, surfactants and performance chemistries. They are a natural fit within our Chemistry Technologies

business and use the same infrastructure, personnel, competencies, supply chain and research. **This meant** we were able to launch the new products with a minimal capital investment.

Incremental revenues from these professional chemistry products were a small component of our Chemistry Technologies business in 2020, but the promise is exciting. We have identified a long-term market need for these products extending beyond the pandemic-generated demand—focused on large commercial customers. We are now building out our channels-to-market. In the year ahead and beyond, we hope to grow this revenue into a meaningful part of our overall story.



Houston Mayor Sylvester Turner (center) recognized Flotek for its donations of hand sanitizer to first responders in the early days of the pandemic.

[SYNERGY]

Flotek's core chemistry expertise ties together both elements of our Chemistry Technologies business and is at the heart of our Data Analytics business as well. Our people, supply chain and operations are able to support all three markets efficiently.

[RESEARCH]

The R&D capabilities embodied in our world-class laboratory not only support our customers today, but also are focused on building next-generation technologies across our businesses.

[CAPITAL]

We entered 2020 with a strong balance sheet and no debt to weather the storm of 2020, and we will fiercely protect our liquidity to continue to drive growth. We are focused on sustaining and rebuilding our financial strength during the coming 12 months.

[ESG]

Environmental sustainability has long been a key differentiator for Flotek, as well as a core value. Our heritage of green chemistry, based on naturally sustainable and non-toxic citrus oils, is a strong foundation to build upon as our customers look for ways to meet their own sustainability goals.

[PEOPLE]

Our human capital is at the center of our mission, and our team stepped up in multiple ways during 2020 to keep us moving forward and to reduce our cost structure. To preserve cash, I and the other members of the leadership team took reduced salaries for 2020 in exchange for equity. This is a strong measure of management's commitment to the future of the company. We consolidated our office space by relocating our Houston-based employees into our Global Research & Innovation Center, and we decreased discretionary spending across all business operations. The hardest part of cost reduction is the human impact-letting people go during the pandemic was gut-wrenching. We wish all of our former employees the best, and have been fortunate to welcome several employees back to the team. And we appreciate our employees who stepped up to fill the gaps.





The results we achieved show the resilience of our underlying business model and our forward strategy. We continued to support our energy customers' focus on free cash flow by providing cost-effective solutions, including production-enhancing chemistries that improve efficiency and data analytics that provide cost benefits from reservoir development through pipeline monitoring and product transfers. We moved forward on our strategy in driving the digital transformation of the energy industry, decoupling our own business results from rig count dependency, and expanding our international business. We also found a serendipitous opportunity to diversify our business while meeting a real market need by developing the surface cleaning and disinfectant business.

I am an optimist by nature. I came to Flotek with an over-the-top enthusiasm to turn the company around. The confluence of challenges presented by COVID-19, the oil price collapse, and loss of face-to-face contact with our internal team and our champions and buyers within customer companies—all these together could shatter anyone's optimism. But our core strengths shone through in 2020 and are driving us forward in 2021. Our people continue to inspire me.

While we expect the current economic situation to negatively impact the energy sector for an extended period of time, with oil demand recovering during 2021 but not returning to the pre-COVID-19 level, our emphasis in 2021 will be executing our strategy to recover from the varied impacts of the pandemic and grow our businesses. Key to this will be expanding both markets and market share.

The **Chemistry Technologies** segment will focus on opportunities created by the growing energy industry demand for greener chemistry solutions, while expanding our professional chemistries line.

The **Data Analytics** segment will maintain its domestic sales effort while advancing international pursuits and market into greenhouse gas measurement.

Clearly, we will continue our relentless focus on safety, sustainability and the responsible management of products and services.

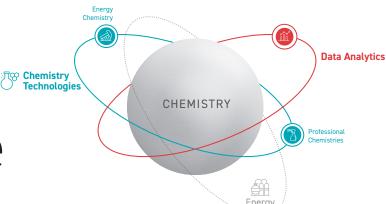
Last year, I shared with you that I would only take a bonus in 2020 if the company achieved breakeven or better. We did not. The market conditions outside of our control did not change the ambitious goals we set for the company, nor my commitment to our shareholders. As a result, I declined any bonus for 2020, in keeping with my promise. I am pleased with what we did accomplish in 2020—and I am very grateful to have the encouragement and support of all of our stakeholders, and especially you, my fellow shareholders, to manage through these challenging times.

We will continue to make a difference for our customers and our environment in 2021.

–John W. Gibson, Jr. Chairman, CEO and President

FLOTEK INDUSTRIES

Who We Are



Flotek is a technology-driven specialty chemistry and data company that serves customers across industrial, commercial and consumer markets. Chemistry is our core expertise and lies at the heart of our two business segments: **Chemistry Technologies and Data Analytics.**

[OUR MISSION]

Apply our knowledge and passion for chemistry and the environment to create value for all our stakeholders.

At the center of our mission is our Human Capital:

We are focused on attracting, retaining and developing highpotential talent, who make a positive impact and create a strong culture where innovation and value thrives. As of December 31, 2020, the company had 147 employees based in the United States, Canada and the United Arab Emirates.

Our culture is built around the following core values:

Creating customer success

Prioritizing safety

Driving value for all Flotek stakeholders

Conducting ourselves with humility

Maintaining integrity

Taking personal accountability

Leading through environmental, social and governance matters

Having fun

Quality Is Our Cornerstone



Since 2006, Flotek has been ISO 9001 certified for our manufacturing processes. Our Quality Management System is focused on delivering superior products and services, safely, to our customers. This global framework also ensures we have a focus on sustainable systems and processes across our business. As a part of our ISO certification process, we participate an annual audit and review to measure progress against established goals and set future goals for continuous improvement.

Flotek Quality Management Principles

- **⊘** Customer focus

[07]

FLOTEK INDUSTRIES

Chemistry Technologies

A History of Performance

Our Chemistry Technologies segment has served the oil and gas industry for more than 20 years with a robust product portfolio of specialty chemicals and logistics solutions that improve asset performance and economics.



Our energy chemistries reduce costs, improve water management and reduce greenhouse gas (GHG) emissions for oil and gas producers.

[80]

In today's market, our energy chemistries provide a unique and valuable solution to oil and gas producers: a cost-effective and environmentally preferred portfolio of products and services that can increase production at a lower cost per barrel, enable water management and reduce GHG emissions.

[2020 HIGHLIGHTS]

This has been a transformative year for our energy chemistries as we responded to pressures in the oil and gas sector by driving down our operational costs, renegotiating logistics and supplier contracts, and accelerating efficiencies in our business processes. At the same time, we ensured that our customers continued to receive the service and quality that have been our underlying strength.

[LOOKING AHEAD]

By maintaining our strong relationships with customers during a difficult time, we have positioned ourselves well to expand our market share outside the United States. During 2020, our Middle East business grew by more than 25 percent, where a national oil company recently named Flotek the chemical partner of choice for coiled tubing stimulation. We intend to build upon this growth in 2021.

PRODUCTS AND AREAS OF EXPERT SERVICES







Production uplift chemistry



Capillary pressure reducers



Viscosifying fluid systems







Cement chemistry



Acid-centric chemistry

An Environmentally Sustainable Chemistry Portfolio



Sustainability has been integral to our operations from the outset. Our patented chemistries are built upon highly effective, plant-based solvents offering safer, greener alternatives to toxic chemicals made from products containing benzene, toluene, ethylbenzene or xylene—commonly referred to as "BTEX" compounds. These compounds are very harmful to people, soil and groundwaterand our greener chemistry solutions mean a safer environment for our employees, customers, and the community.

We help our customers operate more sustainably not only by supplying greener chemicals, but by making their production operations more efficient, reducing water usage and energy intensity and contributing to lower greenhouse gas emissions.

Since 2011, we have used our Green Check Chemistry Scorecard to evaluate, track and report the environmental, health and safety profile and impacts of our products. We also measure and monitor our manufacturing carbon footprint, waste management and air emissions, making Flotek a responsible component in our customers' supply chain sustainability.

We also adhere to ISO 9001:2015 standards for responsible management of products and services.

Our safety program and protocols enabled us to deliver 15,189,587 gallons of product

through 2019 and 2020 without any recordable spills.

FLOTEK INDUSTRIES

Chemistry Technologies

Leveraging into New Applications

What began in early 2020 as a community support initiative grew by year-end into a full-fledged professional chemistries product portfolio.



Our professional chemistries portfolio applies our chemistry technology to new uses in sanitation and cleaning.

[10]

In response to the COVID-19 pandemic, Flotek produced and donated sanitizers for local communities, leveraging the same chemistries and capabilities as our energy chemistries, and using excess capacity in our production facilities.

Recognizing and seizing the market opportunity, we initially launched a line of high-quality surface and hand sanitizers for industrial and consumer applications. This enabled us to diversify our revenue stream into a rejuvenated, high-growth potential market that was a natural extension of our specialty chemistry experience.

[2020 HIGHLIGHTS]

We were able to enter this market quickly because of our existing specialty chemistry expertise and have expanded and solidified our position by adding surface cleaners, degreasers, wipes and disinfectants and installing a packaging line for greater efficiency, lower costs and faster order fulfillment. With increased awareness and scrutiny surrounding product safety and quality, our ISO certification and FDA and EPA product registrations give us an attractive market edge. In addition, our products are made, bottled and blended in the USA.

Among other highlights, we are honored that our products are trusted by a major retailer to keep their stores clean and one of the world's largest tech companies to protect their employees throughout the U.S.

[LOOKING AHEAD]



With the capability to blend more than 3 million gallons per month between our two manufacturing facilities in Marlow, Oklahoma and Waller, Texas, there is significant opportunity to advance Flotek's position in the professional chemistries markets.

In early 2021, the company launched the Flotek Protekol™ product line including more than 12 high-performing products—and growing. In addition to our branded product line, we utilize our manufacturing capabilities and capacity to blend products on behalf of suppliers in a contracted capacity.

END MARKETS FOR PROFESSIONAL CHEMISTRIES







Travel and hospitality



Food service and restaurants



Sports and entertainment venues



Consumers (via e-commerce and retail channels)

Responding to a Social Need



Demand for hand sanitizer skyrocketed in the first weeks after COVID-19 was identified in the United States. In response, Flotek dedicated excess manufacturing capacity to manufacturing hand sanitizer for donation to our local communities in Texas and Oklahoma.

More than 12,000 gallons of sanitizer were blended, and donations were made

to first responders, hospitals, schools, homeless shelters and senior residential communities.



The Star of Hope, which serves the homeless, was one recipient of donated hand sanitizer.

FLOTEK INDUSTRIES

Data Analytics

Our Data Analytics segment was established in May through the acquisition of JP3 and its unique technology that provides real-time optical hydrocarbon analysis for process control and custody transfer.

This digital technology combines the energy industry's only field-deployable, inline optical analyzer with proprietary cloud visualization and analytics to improve processing efficiencies and more accurately value natural gas, crude oil and refined fuels.

For Flotek, JP3 expands our energy customer base from almost purely upstream to encompass midstream, downstream and distribution. For customers, the Verax optical technology provides readings in seconds, enabling operators to know the composition of hydrocarbons more accurately for valuation, plant balancing, blending feedstocks and reducing "transmix." Transmix is the natural mixing between adjacent batches of different fuels being shipped in a common pipeline. This mixed product cannot be sold as gasoline, jet fuel or diesel and must be routed to a special tank where it is sold at a significantly reduced price and then transported for reprocessing, which is costly.



JP3's optical hydrocarbon analysis technology puts Flotek at the intersection of chemistry and the digital cloud.

[12]

[2020 HIGHLIGHTS]

Since the acquisition, we have built relationships with refined fuel producers, transporters and distribution terminal operations. We are also leveraging a Joint Data Service Solution collaborative agreement with Phillips 66 focused on reducing losses from transmix. By combining JP3's revolutionary real-time analysis capabilities and data systems with Phillips 66's midstream process knowledge, customers who implement our technology could potentially save millions through this reduction in transmix.

Additionally, we hired a business development executive to lead our international market expansion, focused on the Middle East. Asia and Africa.

[LOOKING AHEAD]

With a strong focus on international markets, we are deploying our first international pilot with a leading oil and gas company in the Middle East. While international sales require longer lead times, penetration in these markets is an important component to our growth strategy. We are pleased with the achievement of an important milestone and optimistic about our opportunities over the mid- to long-term.

We will further streamline our sampling process to improve our operational efficiencies, reduce costs to our customers and accelerate commissioning of our systems. Over the past years, JP3 has built a robust library with more than 30,0000 hydrocarbon samples, which are essential to the accuracy of our real-time hydrocarbon analysis. We are now sampling as needed, rather than sampling to build up our library. The result is higher profitably and greater speed to commissioning.

We will also focus on software development enhancements by accelerating our Artificial Intelligence and machine learning capabilities. We intend to launch machine learning algorithms to determine the exact interface between batches of refined products. Using these new algorithms, we are able to further improve on the time it takes to cut batches and hence further reduce transmix.

Making Energy Production More Efficient

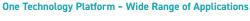
By enabling energy producers, transporters, refiners and distributors to know more accurately and more quickly what is flowing through their pipes and processes, Flotek's data analytics not only improves cost and operational efficiencies, but also reduces wasted energy used to transport and rework mixed hydrocarbons.

ADVANCING DIGITAL TRANSFORMATION ACROSS THE HYDROCARBON VALUE CHAIN



UPSTREAM

Low-cost, real-time analysis of subsurface production flow. Enables evaluation of crude's value at the wellhead; enables new contract pricing structures between producer and refiner based on actual composition rather than outdated API Gravity proxy





MIDSTREAM

Gas process plants running Automated Process Control systems require real-time liquids composition for plant balancing and giveaway reduction



DOWNSTREAM

Refineries can custom-blend crudes from multiple day tanks or supply pipelines to craft optimized feedstock in real time instead of running blind



DISTRIBUTION

Refined fuel terminals and pipelines can be optimized to reduce or eliminate transmix of fuels in common pipelines and significantly increase profits

Strengthening Governance

Throughout 2020, Flotek took steps to strengthen its leadership and governance practices. These steps included new executive leaders and board members as well as adoption of best practices in several governance areas.

Board Changes

David Nierenberg, who served as Chairman of the Board of Flotek from May 2019 until John Gibson's appointment, was named the Board's Independent Lead Director.

Harsha V. Agadi joined the Flotek Board of Directors in August 2020. He is a seasoned board member and has held CEO positions for Crawford & Company, the world's largest publicly listed independent claims management company, and for classic American brands including Friendly's Ice Cream Corporation, Church's Chicken, Inc. and Little Caesar's Enterprises.

Michael Fucci joined the Flotek Board of Directors in November 2020, expanding the board to a total of eight directors. Mike Fucci is the Former Chairman of Deloitte U.S. LLP and is a thought leader on human capital, diversity and inclusion and business transformation.

Governance Enhancements

In December, Flotek created a non-voting board observer role, to be filled by **Brian Miller,** President of North Sound, the largest shareholder of Flotek stock. By creating this role, we believe we enhance our ability to align with shareholders and receive meaningful, real-time feedback.

Leadership Changes

John W. Gibson, Jr. joined Flotek in January 2020 as Chairman of the Board of Directors, Chief Executive Officer and President. John is a recognized leader with more than 35 years of global experience in the energy technology, oil and gas services and exploration and production sectors of the energy industry.

Nicholas J. Bigney joined the organization in February 2020 as Senior Vice President, General Counsel and Corporate Secretary. He is an experienced legal advisor for the oil and gas, chemicals and energy sectors.

TengBeng Koid joined the company in June 2020 in a newly created role as President of Global Business, where he oversees domestic and international business development strategy for both the Chemistry Technologies and Data Analytics segments of Flotek. Since then, he has expanded his role with the company to lead the Data Analytics segment.

Michael E. Borton joined Flotek in August 2020 as Chief Financial Officer, bringing 35 years of experience in financial and operational leadership roles for high-growth, big data, analytics and technology companies in a wide range of industries.

Ryan Ezell, Ph. D, was promoted to the newly created role of President of Chemistry Technologies. Previously, he was Senior Vice President of Operations of Flotek.

[14]

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

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2020

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 1-13270



FLOTEK INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State of other jurisdiction of incorporation or organization)

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

8846 N. Sam Houston Parkway W. Houston, TX

77064

(Address of principal executive offices)

(Zip Code)

(713) 849-9911 (Registrant's telephone number, including area code)

Title of each class

Trading Symbol(s)

Name of each exchange on which registered

Common Stock, \$0.0001 par value

FTK

New York Stock Exchange

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 \square No \boxtimes
- if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes \square No \square
- 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 🗆
- whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 🗷 No 🗆
- whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Act.

Large accelerated filer □ Accelerated filer ▼ Non-accelerated filer □

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. \Box Indicate by check mark

- whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.
- $\bullet \quad \text{whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes \ \square \quad \text{No} \ \boxtimes$

The aggregate market value of common stock held by non-affiliates of the registrant as of June 30, 2020 (based on the closing market price on the New York Stock Exchange on June 30, 2020) was approximately \$87,800,063. At March 12, 2021, there were 72,548,297 outstanding shares of the registrant's common stock, \$0.0001 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's definitive proxy statement in connection with the 2021 Annual Meeting of Stockholders to be filed with the Commission pursuant to Regulation 14A are incorporated by reference into Part III of this Annual Report on Form 10-K.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Annual Report"), and in particular, Part II, Item 7 — "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains "forward-looking statements" within the meaning of the safe harbor provisions, 15 U.S.C. § 78u-5, of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not historical facts, but instead represent the current assumptions and beliefs regarding future events of Flotek Industries, Inc. ("Flotek" or the "Company"), many of which, by their nature, are inherently uncertain and outside the Company's control. Such statements include estimates, projections, and statements related to the Company's business plan, objectives, expected operating results, and assumptions upon which those statements are based. The forward-looking statements contained in this Annual Report are based on information available as of the date of this Annual Report.

The forward-looking statements relate to future industry trends and economic conditions, forecast performance or results of current and future initiatives and the outcome of contingencies and other uncertainties that may have a significant impact on the Company's business, future operating results and liquidity. These forward-looking statements generally are identified by words including but not limited to, "anticipate," "believe," "estimate," "commit," "budget," "aim," "potential," "schedule," "continue," "intend," "expect," "plan," "forecast," "project" and similar expressions, or future-tense or conditional constructions such as "will," "may," "should," "could" and "would," or the negative thereof or other variations thereon or comparable terminology. The Company cautions that these statements are merely predictions and are not to be considered guarantees of future performance. Forward-looking statements are based upon current expectations and assumptions that are subject to risks and uncertainties that can cause actual results to differ materially from those projected, anticipated or implied.

A detailed discussion of potential risks and uncertainties that could cause actual results and events to differ materially from forward-looking statements include, but are not limited to, those discussed in Part I, Item 1A — "Risk Factors" of this Annual Report and periodically in subsequent reports filed with the Securities and Exchange Commission ("SEC"). The Company has no obligation, and we disclaim any obligation, to publicly update or revise any forward-looking statements, whether as a result of new information or future events, except as required by law.

Item 1. Business.

General

Flotek Industries, Inc. is a technology-driven chemistry and data company that serves customers in industrial, commercial and consumer markets.

The Company's Chemistry Technologies ("CT") segment develops, manufactures, packages, distributes, delivers and markets specialty chemicals that enhance the profitability of hydrocarbon producers and cleans surfaces in both commercial and personal settings to help reduce the spread of bacteria, viruses and germs.

The Company's Data Analytics ("DA") segment enables users to maximize the value of their processes by providing analytics associated with their hydrocarbon streams in seconds rather than minutes or days. The real-time access to information prevents waste, reduces reprocessing and allows users to pursue automation of their hydrocarbon streams to maximize their profitability.

The Company was initially incorporated under the laws of the Province of British Columbia in 1985. In October 2001, the Company changed its corporate domicile to the State of Delaware. In December 2007, the Company's common stock began trading on the New York Stock Exchange ("NYSE") under the stock ticker symbol "FTK." Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") are posted to the Company's website, www.flotekind.com, as soon as practicable subsequent to electronically filing or furnishing to the SEC. Information contained in the Company's website is not to be considered as part of any regulatory filing.

As used herein, "Flotek," the "Company," "we," "our" and "us" refers to Flotek Industries, Inc. and/or the Company's whollyowned subsidiaries. The use of these terms is not intended to connote any particular corporate status or relationship.

Recent Developments

During the second quarter of 2020, the Company acquired 100% ownership of JP3 Measurement, LLC ("JP3"), a privately-held data and analytics technology company, in a cash-and-stock transaction. JP3's real-time data platforms combine the energy industry's only field-deployable, inline optical analyzer with proprietary cloud visualization and analytics, which targets an increase of processing efficiencies and valuation of natural gas, crude oil and refined fuels. In conjunction with the acquisition of JP3, the Company created the DA segment.

The Company was impacted by the outbreak of the novel coronavirus ("COVID-19"), a global pandemic that spread throughout the U.S. and the world during 2020. For a discussion of the impacts of COVID-19, see "COVID-19 Effects and Actions" in this Item 7 of this Form 10-K. For a discussion of the risks related to COVID-19, see Item 1A, "Risk Factors."

Description of Operations and Segments

The Company's continuing operations has two business segments, CT and DA, which are both supported by the Company's continuing Research & Innovation ("R&I") advanced laboratory capabilities. Financial information about the Company's operating segments and geographic concentration is provided in Note 22, "Business Segment, Geographic and Major Customer Information" in Part II, Item 8 – "Financial Statements and Supplementary Data" of this Annual Report.

Chemistry Technologies

The Company's CT segment includes an energy-focused product line that is comprised of proprietary green chemistries, specialty chemistries, logistics and technology services. The Company designs, develops, manufactures, packages, distributes, delivers and markets reservoir-centric fluid systems, including specialty and conventional chemistries, for use in oil and gas well drilling, cementing, completion, remediation and stimulation activities designed to maximize recovery in both new and mature fields, as well as to reduce health and environmental risk by using greener chemicals. Customers of this product line of

the CT business segment include major integrated oil and gas companies, oilfield services companies, independent oil and gas companies, national and state-owned oil companies and international supply chain management companies.

In 2020, the Company leveraged historical expertise, existing infrastructure, personnel, supply chain, research and resident consumer market experience to address the emerging demand for sanitizers, surface cleaners and disinfectants for both commercial and personal use. Rather than operating under relaxed pandemic-related guidelines, the Company sought to produce Food and Drug Administration ("FDA") and Environmental Protection Agency ("EPA") compliant products by completing all necessary upgrades to its ISO 9001:2015 certified facility in Marlow, Oklahoma. Today the Company has a portfolio of U.S. manufactured specialty chemical products to address the long-term challenges created by the current COVID-19 pandemic and in preparation for future outbreaks. To restore large public gatherings, it is believed that both vaccinations, behavioral changes, sanitizers, surface cleaners, and disinfectants are needed. The Company has made a commitment of being in this market for the long-term.

Data Analytics

Customers of the DA segment span across the entire oil and gas market, including upstream producers, midstream companies, refineries and distribution networks. The segment is continuing its transition to a revenue subscription model from selling its line of Verax analyzers, deployed in the field across the oil and gas sector, to support contracts and software services via its cloud-based Viper software platform.

In 2020, the DA segment began preparing for international deployments, including export control classification, international certifications and product design modifications to meet the demands of overseas installations. Also in 2020, the Company hired a business development executive who is developing sales opportunities in the international market.

Research & Innovation

R&I supports both segments through green chemistry formulation, specialty chemical formulations, FDA and EPA regulatory guidance, technical support, basin and reservoir studies, data analytics and new technology projects. The purpose of R&I is to supply the Company's segments with enhanced products and services that generate current and future revenues, while advising Company management on opportunities concerning technology, environmental and industry trends. The R&I facilities support advances in chemistry performance, detection, optimization and manufacturing. For the years ended December 31, 2020 and 2019, the Company incurred \$7.2 million and \$8.9 million, respectively, of research and development expense. In 2020, research and development expense were approximately 13.6% of consolidated revenue. The Company expects that its 2021 research and development investment will continue to support new product development, especially in support of enhanced environmental, social and governance ("ESG") standards, increased adoption of green chemistry and conventional customization initiatives for its clients.

Discontinued Operations

Previously, the Company's Consumer and Industrial Chemistry Technologies ("CICT") segment supplied high value compounds to companies that make food and beverages, cleaning products, cosmetics and other products sold in consumer and industrial markets. The Company classified the assets, liabilities and results of operations for this segment as discontinued operations at December 31, 2018. Effective February 2019, the Company sold the CICT segment.

Seasonality

Overall, operations are not significantly affected by seasonality; however, weather conditions can pose delays in clients' activity levels. Certain working capital components build and recede throughout the year in conjunction with established purchasing and selling cycles that can impact operations and financial position. The performance of the Company's services can be susceptible to both weather and naturally occurring phenomena, including, but not limited to, the following:

• the severity and duration of winter temperatures in North America, which impacts natural gas storage levels, drilling activity, commodity prices and operations at the Company's facilities;

- material deviations from normal seasonality for an extended period can impact access to operations, reduced
 performance at manufacturing facilities, inability to deploy required personnel, supply chain interruptions, facility
 damage and customer activity levels;
- the timing and duration of the Canadian spring thaw and resulting restrictions that impact activity levels;
- the timing and impact of hurricanes upon coastal and offshore operations; and
- the COVID-19 pandemic or other pandemics or similar phenomena, which may impact seasonal purchasing and selling cycles.

Product Demand and Marketing

Demand for the Company's energy-focused products and services in both the CT and DA segments is driven by energy supply and demand, as well as operator desire to deploy improved ESG solutions. Demand for the Company's energy chemistry products and services is dependent on levels of conventional and unconventional oil and natural gas well drilling and completion activity, both domestically and internationally. Demand for the Company's U.S. manufactured sanitizing, surface cleaning and disinfecting products in the CT segment is driven by hygiene and cleaning trends and related purchasing behaviors among the commercial, governmental and consumer markets for sanitizing, surface cleaning and disinfecting products and services.

The Company's products are marketed directly to customers through the Company's own sales force and through certain contractual agency arrangements. In 2020, the Company participated in industry trade shows, some of which were virtual shows due to COVID-19 pandemic impacts. The Company also publishes technical papers and case studies examining the performance of its chemistries and methodologies for evaluating chemistries more effectively. While the Company's primary marketing efforts remain focused in North America, a growing amount of resources and effort are focused on emerging international markets, especially in the Middle East. In addition to direct marketing and relationship development, the Company also markets products and services through the use of third-party agents, primarily in international markets.

Backlog

Due to the Company's contractual customer relationships and their transactional nature, the Company has historically not had significant backlog order activity.

Intellectual Property

The Company endeavors to protect its intellectual property, both within and outside of the U.S. The Company considers patent protection for all products and methods deemed to have commercial significance and that may qualify for patent protection. The decision to pursue patent protection is dependent upon several factors, including whether patent protection can be obtained, cost effectiveness, and alignment with operational and commercial interests. The Company believes its patent and trademark portfolio, combined with confidentiality agreements, FDA and EPA registrations and licensing, trade secrets, proprietary designs, and manufacturing and operational expertise, are sufficient to protect its intellectual property and provide continued strategic advantage. As of December 31, 2020, the Company had 115 granted patents, consisting of 93 patents in our CT segment and 22 patents in our DA segment. In addition, the Company also had 44 pending patent applications filed in the U.S. and abroad, including 32 for the CT segment and 12 for the DA segment. The patents of the CT segment cover various chemical compositions and methods of use. The patents of the DA segment cover various systems and methods of use for online determination of chemical composition and data analysis. In addition, the Company had 60 registered trademarks in the U.S. and abroad, covering a variety of its goods and services.

Competition

The ability to compete is dependent upon the Company's ability to differentiate its products and services, provide superior quality and service, and maintain a competitive cost structure with sufficient raw material supplies. Activity levels in the oilfield goods and services industry are impacted by current and expected oil and natural gas prices, oil and natural gas drilling activity, production levels, customer drilling and completion-designated capital spending, and customer commitment to improved ESG performance. The unpredictability of the energy industry and commodity price fluctuations creates both

increased risk and opportunity for the products and services of both the Company and its competitors. The Company's CT segment also competes with established companies and brands in the sanitizers, surface cleaners and disinfectants market. The DA segment faces competition from other providers of equipment and services for real-time information in the upstream, midstream, refining and distribution market.

Raw Materials

Materials and components used in the Company's servicing and manufacturing operations, as well as those purchased for sale, are generally available on the open market from multiple sources. When able, the Company uses multiple suppliers, both domestically and internationally, to purchase raw materials on the open market. The prices paid for raw materials vary based on availability, weather, other commodity price fluctuations, contractual obligations, tariffs, duties on imported materials, foreign currency exchange rates, business cycle position and global demand. Higher prices for chemistries and certain raw materials could adversely impact future sales, contract fulfillment and product margins. The Company is diligent in its efforts to identify alternate suppliers in its contingency planning by reducing the number of contractually obligated volumes and utilizing competitive bidding practices to proactively reduce costs and potential supply shortages.

The DA segment currently sources spectrometers from a single supplier. Sufficient inventory exists to meet the expected 2021 needs without additional purchases. Supply chain disruption could adversely impact the results of the segment in the years 2022 and beyond.

Government Regulations

The Company is subject to federal, state, and local laws and regulations, including laws related to the environment, occupational safety, health, transportation and trade within the U.S. and other countries in which the Company does business. These laws and regulations strictly govern the manufacture, storage, transportation, sale, use and disposal of chemistry products. The Company strives to ensure full compliance with all regulatory requirements.

The Company continually evaluates the environmental impact of its operations and attempts to identify potential liabilities and costs of any environmental remediation, litigation or associated claims. Several products of the CT segment are considered hazardous materials. In the event of a leak or spill in association with Company operations, the Company could be exposed to risk of material cost, net of insurance proceeds, if any, to remediate any contamination. No environmental claims are currently being litigated or investigated, and the Company does not expect that costs related to remediation requirements will have a significant adverse effect on the Company's consolidated financial position or results of operations.

Human Capital

Objectives & Culture

The Company's vision is to be the collaborative partner of choice for chemistry and data technologies that transform businesses. Chemistry is our common platform across the Company's business segments, and we apply our knowledge and passion for chemistry to empower value creation for all our stakeholders. At the center of our mission is our Human Capital. We are focused on attracting, retaining and developing high-potential talent, who make a positive impact and create a strong culture where innovation and value thrives.

Our culture is built around the following core values:

- Prioritizing safety;
- Leading through ESG;
- Creating customer success;
- Driving value for all Flotek stakeholders;
- Maintaining integrity;
- Conducting ourselves with humility;
- Taking personal accountability; and
- · Having fun.

Employee Overview

As of December 31, 2020, the Company had 147 employees, exclusive of existing worldwide agency relationships.

None of the Company's employees are covered by a collective bargaining agreement and labor relations are generally positive.

Employees & Health, Safety & Environment

The Company is committed to acting with care to protect the health and safety of people, resources and the environment. We will stop operations to avoid putting persons or property in harm's way as we operate. Each of us owns health, safety and environment ("HSE"), as it is not isolated to certain individuals or roles. We aim to hold each other accountable to a high standard. Thus, every employee is empowered and expected to stop any activity, big or small, that could jeopardize people, the environment or assets.

As a result, safety is woven into the fabric of the Company, from our robust training programs to our ESG moments that begin team meetings, to our Hazardous Observation Card program.

Our safety, health and environmental goals are designed to sustain our drive to zero incidents, both relentlessly and responsibly. We constantly emphasize the importance of monitoring the safety, security and environmental impact of our job sites. Through our day-to-day due diligence, the Company strives to be recognized as one of the industry's best performers. Company operations worldwide endeavor to comply with, or exceed, all local requirements to protect the environment, health, safety and security of our operations.

Our training program is fundamental to operating safely and protecting people and the environment. The Company maintains a robust health, safety and environmental training program that includes both classroom and online curriculum. We assign specific trainings to employees based on their role and function within the Company. Additionally, the Company's field and plant personnel complete more than 24 hours of training annually. We continuously monitor all operational activities and update the training programs as needed to ensure that the curriculum remains relevant and effective for minimizing risk and protecting our employees and the environment.

Our safety, health and environmental goals are designed to sustain our drive to zero incidents. In 2020, our company-wide Total Recordable Incident Rate, a key safety performance metric which calculates the number of recordable incidents per full-time workers during a one-year period, was 0.80. When comparing to the safety record of the chemical manufacturing sector, Flotek's safety performance leads the industry.

Employee Safety and COVID-19

In 2020, the Company established a COVID-19 task force comprised of the executive team and key functional leaders who created and introduced a COVID-19 preparedness and response plan to protect our employees and business partners through the global pandemic. Across the organization, the Company implemented new protocols and standards to guide workplace behaviors and facilitate remote work productivity.

The task force frequently communicated with employees regarding the impacts of the COVID-19 pandemic, as well as health and safety protocols and procedures. Key actions taken include:

- Adopted remote work procedures and modified work shifts for employees;
- Required employees to stay-at-home when exhibiting any of the following symptoms: fever, chills, headache, sore throat, loss of taste or smell and muscle pain;
- Upon return-to-work, provided face masks, hand sanitizer and access to cleaning supplies for all employees;
- Increased cleaning protocols across all locations;
- Implemented social distancing for in-person engagements, requiring face coverings for in-person meeting attendance, contactless greetings and limited sizes of group meetings;
- Modified travel policy to reduce or eliminate non-essential business travel, prohibiting international travel;
- Created isolation areas at all locations for employees who became ill during work hours;

- Performed contact tracing in cases of potential exposure to COVID-19; and
- Continued our policy to treat all medical information as a confidential medical record in accordance with employee privacy rights under the Americans with Disabilities Act and Health Insurance Portability and Accountability Act.

Compensation: Wages & Benefits

The Company's compensation programs are designed to provide employee wages that are competitive and consistent with employee positions, skill levels, experience, knowledge and geographic location. We align our programs to attract, retain and motivate employees to achieve high-impact results that create value for all of our stakeholders. In addition to competitive base wages, all employees are eligible for a discretionary bonus, which is based upon individual and company performance.

A key component of our compensation program is benefits. We engage an outside benefits consulting firm to independently evaluate the effectiveness and competitiveness of our employee benefits program, as well as to tailor our program to the unique needs of the Company's employee base.

All full-time Company employees are eligible for comprehensive health insurance, including medical insurance, prescription drug benefits, dental insurance and vision insurance. Additionally, the Company offers flexible spending and health savings accounts, life and disability/accident coverage, telemedicine programs, critical illness insurance and paid and unpaid leave. Eligible employees may elect to participate in the Company's employee stock purchase plan and retirement plans, including its 401(k) plan in the U.S. and its Registered Retirement Savings Plan in Canada. The Company also offers access to online and personalized financial planning services as a component of its retirement plan benefit.

In 2020, the Company prioritized the mental health and wellness needs of its employees, maintaining an ongoing dialogue with employees and providing resources through its employee assistance program, which is available to all employees and their families.

Available Information and Website

The Company's website is <u>www.flotekind.com</u>. Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available (see the "Investor Relations" section of the Company's website), as soon as reasonably practicable, subsequent to electronically filing or otherwise providing reports to the SEC. Corporate governance materials, guidelines, by laws, and code of business conduct and ethics are also available on the website. A copy of corporate governance materials is available upon written request to the Company.

The SEC maintains the <u>www.sec.gov</u> website, which contains reports, proxy and information statements, and other registrant information filed electronically with the SEC.

The Company filed all principal executive officer and financial officer certifications as required under Sections 302 and 906 of the Sarbanes-Oxley Act of 2002 with this Annual Report. Information with respect to the Company's executive officers and directors is incorporated herein by reference to information to be included in the proxy statement for the Company's 2021 Annual Meeting of Stockholders.

The Company has disclosed and will continue to disclose any changes or amendments to the Company's code of business conduct and ethics as well as waivers to the code of ethics applicable to executive management by posting such changes or waivers on the Company's website or in filings with the SEC.

Item 1A. Risk Factors.

The Company's business, financial condition, results of operations, cash flows and liquidity are subject to various risks and uncertainties. Readers of this Annual Report should not consider any descriptions of these risk factors to be a complete set of all potential risks that could affect the Company. These factors should be carefully considered together with the other information contained in this Annual Report and the other reports and materials filed by the Company with the SEC. Further,

many of these risks are interrelated and, as a result, the occurrence of certain risks could trigger and/or exacerbate other risks. Such a combination could materially increase the severity of the impact of these risks on the Company's business, results of operations, financial condition, cash flows or liquidity.

This Annual Report contains "forward-looking statements," as defined in the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. Forward-looking statements discuss Company prospects, expected revenue, expenses and profits, strategic and operational initiatives, and other activities. Forward-looking statements also contain suppositions regarding future oil and natural gas industry and other conditions, both domestically and internationally. The Company's results could differ materially from those anticipated in the forward-looking statements as a result of a variety of factors, including risks described below and elsewhere. See "Forward-Looking Statements" at the beginning of this Annual Report.

Risks Related to the Company's Business

The Company's business is largely dependent upon its customers' spending, both in the oil and gas industry and in the sanitizer, surface cleaner and disinfectant sector. Spending could be adversely affected by industry conditions or by new or increased governmental regulations; global economic conditions; spending on sanitizer, surface cleaner and disinfectant products; sentiment surrounding the COVID-19 pandemic; the availability of credit; and oil and natural gas prices.

The Company's CT and DA segments are dependent upon customers' willingness to make operating and capital expenditures and purchasing decisions related to the Company's products. Expectations of a decline in future oil and natural gas market prices or lessened focus on sanitation chemicals could reduce demand for the Company's products and services. Industry conditions are influenced by numerous factors over which the Company has no control, including the supply of and demand for oil and natural gas, domestic and international economic conditions, availability and effectiveness of a COVID-19 vaccine, general focus on sanitization and cleansing, and mergers and divestitures among the Company's target customer base.

Demand for and prices of the Company's products are subject to a variety of factors, including, but not limited to:

- global demand for energy as a result of population growth, economic development, and general economic and business conditions;
- the timing and rate of economic recovery from the effects of COVID-19;
- the need for sanitization products related to concern over COVID-19 and similar diseases and related consumer behavior;
- the ability of the Organization of Petroleum Exporting Countries ("OPEC") to set and maintain production levels and the impact of non-OPEC producers on global supply;
- availability and quantity of natural gas storage;
- import and export volumes and pricing of liquefied natural gas;
- domestic and international refining activity;
- availability of vaccines and other therapeutic treatments for COVID-19;
- pipeline capacity to critical markets and out of producing regions;
- political and economic uncertainty and sociopolitical unrest;
- cost of exploration, production and transport of oil and natural gas;
- technological advances impacting energy production and consumption; and
- weather conditions.

The volatility of commodity prices and the consequential effect on the activities of the Company's target customer base could adversely impact the activity levels of the Company's customers.

Volatile economic conditions could weaken customer expenditures, causing reduced demand for the Company's products and services and a significant adverse effect on the Company's operating results. It is difficult to predict the pace of industry growth, the direction of oil and natural gas prices, the direction and magnitude of economic activity, the effects or duration of the COVID-19 pandemic, the demand for sanitizer, surface cleaner and disinfectant products, and to what extent these conditions could affect the Company. However, reduced cash flow and capital availability could adversely impact the financial condition of the Company's customers, which could result in customer project modifications, delays or cancellations, general business disruptions, and delay in, or nonpayment of, amounts that are owed to the Company. This could cause a negative impact on the Company's results of operations and cash flows.

Furthermore, if certain of the Company's suppliers were to experience significant cash flow constraints or become insolvent as a result of such conditions, a reduction or interruption in supplies or a significant increase in the price of supplies could occur, adversely impacting the Company's results of operations and cash flows.

The COVID-19 pandemic has significantly reduced demand for our services and may continue to have a prolonged material adverse impact on our financial condition, results of operations and cash flows.

The effects of the COVID-19 pandemic, including actions taken by businesses and governments, have resulted in a significant and continued reduction in international and U.S. economic activity. These effects have materially and adversely affected, and may continue to materially and adversely affect, the demand for oil and natural gas, as well as for our oil and gas related services and products. The decline in our customers' demand for our oil and gas related services and products has had a material adverse impact on our financial condition, results of operations and cash flows. In addition, we have adopted social distancing and work-from-home procedures, which have had and may continue to have an impact on the ability of employees and management of the Company to communicate and work efficiently. We expect such impact will continue to have certain negative effects on the Company's business.

The timing of the effectiveness of vaccines, economic uncertainty, and future developments and effects are highly uncertain and cannot be predicted. The uncertain future development of this crisis could materially and adversely affect our business, operations, operating results, financial condition, liquidity and/or capital levels.

Reduced unconventional oil production could lessen the positive effects of a general recovery of the oil and gas industry.

The majority of the Company's product offerings in its CT segment, other than sanitizer, surface cleaner and disinfectant products, are used in unconventional oil and gas operations. The Company has little to no exposure to conventional or offshore sectors. In the event that an industry recovery is disproportionately driven by conventional and offshore oil and gas operations, the Company may not have a resulting increase in its operational results.

The Company's inability to develop and/or introduce new products or differentiate existing products could have an adverse effect on its ability to be responsive to customers' needs and could result in a loss of customers, as well as adversely affecting the Company's future success and profitability.

The industries in which the Company does business are characterized by technological advancements that have historically resulted in, and will likely continue to result in, substantial improvements in the scope and quality of specialty chemistries and analytical services. Consequently, the Company's future success is dependent, in part, upon the Company's continued ability to timely develop innovative products and services. Successful introduction of new technology requires time and resources, and there is no assurance that the Company will be able to commercialize new technology in a timely manner. If the Company fails to successfully develop and introduce innovative products and services that appeal to customers, or if existing or new market competitors develop superior products and services, the Company's revenue and profitability could deteriorate. The Company develops, markets and produces certain green alternatives to many existing products. If these green alternatives do not perform as well as existing conventional products, the Company's revenue and profitability could be adversely affected.

Increased competition could exert downward pressure on prices charged for the Company's products and services.

The Company operates in a competitive environment characterized by large and small competitors. Competitors with greater resources and lower cost structures or who are trying to gain market share may be successful in providing competing products and services to the Company's customers at lower prices than the Company currently charges. Employees of the Company may leave and compete directly with the Company. This may require the Company to lower its prices, resulting in an adverse impact on revenues, margins, and operating results. Thus, competition could have a detrimental impact on the Company's business.

If the Company is unable to adequately protect intellectual property rights or is found to infringe upon the intellectual property rights of others, or is unable to maintain the registrations and certifications of its products and facilities, the Company's business is likely to be adversely affected.

The Company relies on a combination of patents, trademarks, copyrights, trade secrets, non-disclosure agreements and other methods to access markets and create a competitive advantage. Although the Company believes that existing measures are reasonably adequate to protect intellectual property rights, there is no assurance that the measures taken will prevent misappropriation of proprietary information or dissuade others from independent development of similar products or services. Moreover, there is no assurance that the Company will be able to prevent competitors from copying, reverse engineering, modifying or otherwise obtaining and/or using the Company's technology and proprietary rights to create competitive products or services. The Company may not be able to enforce intellectual property rights outside of the U.S. Additionally, the laws of certain countries in which the Company's products and services are manufactured or marketed may not protect the Company's proprietary rights to the same extent as do the laws of the U.S. Furthermore, other third parties may infringe, challenge, invalidate or circumvent the Company's patents, trademarks, copyrights and trade secrets. In each case, the Company's ability to compete could be significantly impaired.

A portion of the Company's products and services are without patent protection. The issuance of a patent does not guarantee validity or enforceability. The Company's patents may not necessarily be valid or enforceable against third parties. The issuance of a patent does not guarantee that the Company has the right to use the patented invention. Third parties may have blocking patents that could be used to prevent the Company from marketing the Company's own patented products and services and utilizing the Company's patented technology.

The Company is exposed and, in the future, may be exposed to allegations of patent and other intellectual property infringement from others. The Company may allege infringement of its patents and other intellectual property rights against others. Under either scenario, the Company could become involved in costly litigation or other legal proceedings regarding its patent or other intellectual property rights, from both an enforcement and defensive standpoint. Even if the Company chooses to enforce its patent or other intellectual property rights against a third party, there may be risk that the Company's patent or other intellectual property rights become invalidated or otherwise unenforceable through legal proceedings. If intellectual property infringement claims are asserted against the Company, the Company could defend itself from such assertions or could seek to obtain a license under the third party's intellectual property rights in order to mitigate exposure. In the event the Company cannot obtain a license, third parties could file lawsuits or other legal proceedings against the Company, seeking damages (including treble damages) or an injunction against the manufacture, use, sale, offer for sale, or importation of the Company's products and services. These could result in the Company having to discontinue the use, manufacture and sale of certain products and services, increase the cost of selling certain products and services, or result in damage to the Company's reputation. An award of damages, including material royalty payments, or the entry of an injunction order against the use, manufacture and sale of any of the Company's products and services found to be infringing, could have an adverse effect on the Company's results of operations and ability to compete.

Certain of the Company's products and facilities, especially those related to the sanitizer, surface cleaner and disinfectant business, have been registered with the EPA and/or FDA. The failure of the Company to maintain such EPA and FDA registrations could result in the inability of the Company to market or sell its products. In the event that the Company cannot maintain its registrations or licenses or is unable to procure new licenses or registrations for new products or in response to changes to regulatory requirements, the ability of the Company to sell its products and obtain revenue may be adversely affected.

The loss of key customers could have an adverse impact on the Company's results of operations and could result in a decline in the Company's revenue.

In the CT segment, in the aggregate, revenue derived from the Company's three largest customers as a percentage of consolidated revenue for the years ended December 31, 2020 and 2019, totaled 50% and 40%, respectively. Customer relationships are historically governed by purchase orders or other short-term contractual obligations as opposed to long-term contracts. Losses of customers also may occur due to product, service or pricing issues, as well as industry consolidation. The Company competes in a highly competitive environment and must work diligently to create and maintain productive customer relationships, and the failure to maintain those relationships could result in the loss of one or more key customers. The loss of one or more key customers could have an adverse effect on the Company's results of operations and could result in a decline in the Company's revenue.

Loss of key suppliers, the inability to secure raw materials on a timely basis, or the Company's inability to pass commodity price increases on to its customers could have a material adverse effect on the Company's ability to service its customers' needs and could result in a significant loss of customers.

Materials used in servicing and manufacturing operations, as well as those purchased for sale, are generally available on the open market from multiple sources. Acquisition costs and transportation of raw materials to the Company's facilities have historically been impacted by extreme weather conditions. Certain raw materials used by the Company's CT segment are available only from limited sources; accordingly, any disruptions to critical suppliers' operations could materially and adversely impact the Company's operations. Prices paid for raw materials could be affected by energy products and other commodity prices; weather and disease associated with our crop dependent raw materials; tariffs and duties on imported materials; foreign currency exchange rates; and phases of the general business cycle and global demand. The Company's CT segment secures short- and long-term supply agreements for most of its critical raw materials from both domestic and international vendors.

Certain of the Company's products use citrus terpene as a raw material. While the Company believes that its existing supply and contractual arrangements are sufficient for its current usage, a loss of current supply may require the Company to find alternative raw materials or alternative sources of citrus terpene, each of which could have an adverse effect on the cost of the Company to produce its products.

The prices of key raw materials are subject to market fluctuations, which at times can be significant and unpredictable. Availability of key raw materials, weather events, natural disasters, and health epidemics in countries from which the Company sources raw materials may significantly impact prices. The Company may be unable to pass along price increases to its customers, which could result in a materially adverse impact on margins and operating profits. The Company currently uses purchasing strategies designed, where possible, to align the timing of customer demand with the Company's supply commitments. However, the Company currently does not hedge commodity prices, but may consider such strategies in the future, and there is no guarantee that the Company's purchasing strategies will prevent cost increases from resulting in materially adverse impacts on margins and operating profits.

The Company's DA segment is dependent on its ability to source appropriate technical components for its Verax measurement system, certain of which are specialty products that are sole-sourced and are not easily replaceable with other sources. Any inability to source appropriate components in the future could result in significant difficulty supplying equipment or services to the Company's customers.

Removal of members of management or directors may be difficult or costly.

The Company's management, employees and directors may have retention, employment or severance agreements in place. In the event that our employees, management or directors do not have the proper skills for management or operation of the Company, or the Company otherwise wishes to remove them from their position(s), the Company may be required to pay severance or similar payments. Removal of some management and employees by the Company may also be difficult and require negotiations by the Company.

Failure to maintain effective disclosure controls and procedures and internal controls over financial reporting could have an adverse effect on the Company's operations and the trading price of the Company's common stock.

Effective internal controls are necessary for the Company to provide reliable financial reports, effectively prevent fraud and operate successfully as a public company. If the Company cannot provide reliable financial reports or effectively prevent fraud, the Company's reputation and operating results could be harmed. If the Company is unable to maintain effective disclosure controls and procedures and internal controls over financial reporting, the Company may not be able to provide reliable financial reports, which in turn could affect the Company's operating results or cause the Company to fail to meet its reporting obligations. Ineffective internal controls could also cause investors to lose confidence in reported financial information, which could negatively affect the trading price of the Company's common stock, limit the ability of the Company to access capital markets in the future, and require additional costs to improve internal control systems and procedures. The Company disclosed material weaknesses in internal controls during 2020. The failure to properly remediate each of the material weaknesses, or the discovery of additional material weaknesses, could affect the Company's operating results or cause the Company to be unable to meet its reporting obligations.

Network disruptions, security threats and activity related to global cyber-crime pose risks to the Company's key operational, reporting and communication systems.

The Company relies on access to information systems for its operations. Failures of, or interference with, access to these systems, such as network communications disruptions, could have an adverse effect on our ability to conduct operations and could directly impact consolidated reporting. Phishing attacks could result in sensitive or confidential information being released by the Company. Security breaches pose a risk to confidential data and intellectual property, which could result in damages to our competitiveness and reputation. The Company's policies and procedures, system monitoring and data back-up processes may not prevent or mitigate the effects of these potential disruptions or breaches. There can be no assurance that existing or emerging threats will not have an adverse impact on our systems or communications networks. While the Company does carry cybersecurity insurance, the coverage and amount of such insurance may not be sufficient to adequately compensate the Company for cybersecurity loss.

The Company may pursue strategic acquisitions, joint ventures and strategic divestitures, which could have an adverse impact on the Company's business.

The Company's past and potential future acquisitions, joint ventures, and divestitures involve risks that could adversely affect the Company's business. Negotiations of potential acquisitions, joint ventures, or other strategic relationships, integration of newly acquired businesses, and/or sales of existing businesses could be time consuming and divert management's attention from other business concerns. Acquisitions and joint ventures could also expose the Company to unforeseen liabilities or risks associated with new markets or businesses. Unforeseen operational difficulties related to acquisitions and joint ventures could result in diminished financial performance or require a disproportionate amount of the Company's management's attention and resources. Additionally, acquisitions could result in the commitment of capital resources without the realization of anticipated returns. Divestitures could result in the loss of future earnings without adequate compensation and the loss of unrealized strategic opportunities.

If the Company does not manage the potential difficulties associated with expansion successfully, the Company's operating results could be adversely affected.

The Company believes future success will depend, in part, on the Company's ability to adapt to market opportunities and changes, to successfully integrate the operations of any businesses acquired, expansion of existing product and service lines, and potentially expand into new product and service areas in which the Company may not have prior experience. Factors that could result in strategic business difficulties include, but are not limited to:

- failure to effectively integrate acquisitions, joint ventures or strategic alliances;
- failure to effectively plan for risks associated with expansion into areas in which management lacks prior experience;
- lack of experienced management personnel;
- increased administrative burdens;

- lack of customer retention;
- technological obsolescence; and
- infrastructure, technological, communication and logistical problems associated with large, expansive operations.

If the Company fails to manage potential difficulties successfully, the Company's operating results could be adversely impacted.

The Company's ability to grow and compete could be adversely affected if adequate capital is not available.

The ability of the Company to grow and be competitive in the marketplace is dependent on the availability of adequate capital. Access to capital is dependent, in large part, on the Company's cash flows and the availability of and access to equity and debt financing. The Company cannot guarantee that internally generated cash flows will be sufficient, or that the Company will to be able to obtain equity or debt financing on acceptable terms, or at all. As a result, the Company may not be able to finance strategic growth plans, take advantage of business opportunities, or to respond to competitive pressures. The Company's existing shelf registration statement does not have extra capacity for equity offerings, and there is no guarantee that the Company will file a new shelf registration statement. The Company's ability to procure debt financing, is dependent on, among other things, the willingness of banks and other financial institutions to lend into the Company's industry and on their evaluation of the Company's credit risk. There is no guarantee that the Company will be able to procure debt financing or, in the event that it is able to procure debt financing, that the financing will be on favorable terms and conditions or at favorable rates of interest.

Failure to adapt to changing buying habits at the Company's potential and existing customers could have a negative effect on the Company's ability to attract and retain business.

The demographics and habits of the purchasing departments of many of the Company's customers and potential customers is changing. Key decision makers are less experienced and show different buying habits and approaches. Customers are increasingly using advanced analytics to make purchasing decisions. If the Company does not adapt to these changing purchasing trends, the Company may not be able to attract or retain business.

Failure to collect for goods and services sold to key customers could have an adverse effect on the Company's financial results, liquidity and cash flows.

The Company performs credit analyses on potential customers; however, credit analysis does not provide full assurance that customers will be willing and/or able to pay for goods and services purchased from the Company. Furthermore, collectability of international sales can be subject to the laws of foreign countries, which may provide more limited protection to the Company in the event of a dispute over payment. Because sales to domestic and international customers are generally made on an unsecured basis, there can be no assurance of collectability. If one or more major customers are unwilling or unable to pay its debts to the Company, it could have an adverse effect of the Company's financial results, liquidity and cash flows.

Unforeseen contingencies such as litigation could adversely affect the Company's financial condition.

The Company is, and from time to time may become, a party to legal proceedings incidental to the Company's business involving alleged injuries arising from the use of Company products, exposure to hazardous substances, patent infringement, employment matters, commercial disputes, claims related to adverse physical reactions to the Company's products such as rashes or allergic reactions and shareholder lawsuits. The defense of these lawsuits may require significant expenses, divert management's attention, and may require the Company to pay damages that could adversely affect the Company's financial condition. In addition, any insurance or indemnification rights that the Company may have may be insufficient or unavailable to protect against potential loss exposures.

The Company's current insurance policies may not adequately protect the Company's business from all potential risks.

The Company's operations are subject to risks inherent in the specialty chemical industry, such as, but not limited to, accidents, explosions, fires, severe weather, oil and chemical spills, and other hazards. These conditions can result in personal injury or loss of life, damage to property, equipment and the environment, as well as suspension of customers' oil and gas operations.

These events could result in damages requiring costly repairs, the interruption of Company business, including the loss of revenue and profits, and/or the Company being named as a defendant in lawsuits asserting large claims. The Company does not have insurance against all foreseeable risks. Consequently, losses and liabilities arising from uninsured or underinsured events could have an adverse effect on the Company's business, financial condition and results of operations.

Regulatory pressures, environmental activism, and legislation could result in reduced demand for the Company's products and services, increase the Company's costs, and adversely affect the Company's business, financial condition and results of operations.

Regulations restricting volatile organic compounds ("VOC") exist in many states and/or communities which limit demand for certain products. Although citrus oil is considered a VOC, its health, safety, and environmental profile is preferred over other solvents (e.g., benzene, toluene, ethylbenzene and xylene), which is currently creating new market opportunities around the world. Changes in the perception of citrus oils as a preferred VOC, increased consumer activism against hydraulic fracturing or other regulatory or legislative actions by governments could potentially result in materially reduced demand for the Company's products and services and could adversely affect the Company's business, financial condition, and results of operations.

The Company is subject to complex foreign, federal, state and local environmental, health, and safety laws and regulations, which expose the Company to liabilities that could adversely affect the Company's business, financial condition, and results of operations.

The Company's operations are subject to foreign, federal, state, and local laws and regulations related to, among other things, the protection of natural resources, injury, health and safety considerations, chemical exposure assessment, waste management, and transportation of waste and other hazardous materials. The Company's operations expose the Company to risks of environmental liability that could result in fines, penalties, remediation, property damage, and personal injury liability. In order to remain compliant with laws and regulations, the Company maintains permits, authorizations, registrations, and certificates as required from regulatory authorities. Sanctions for noncompliance with such laws and regulations could include assessment of administrative, civil and criminal penalties, revocation of permits, and issuance of corrective action orders.

The Company could incur substantial costs to ensure compliance with existing and future laws and regulations. Laws protecting the environment have generally become more stringent and are expected to continue to evolve and become more complex and restrictive into the future. Failure to comply with applicable laws and regulations could result in material expense associated with future environmental compliance and remediation. The Company's costs of compliance could also increase if existing laws and regulations are amended or reinterpreted. Such amendments or reinterpretations of existing laws or regulations, or the adoption of new laws or regulations, could curtail exploratory or developmental drilling for, and production of, oil and natural gas which, in turn, could limit demand for the Company's products and services. Some environmental laws and regulations could also impose joint and strict liability, meaning that the Company could be exposed in certain situations to increased liabilities as a result of the Company's conduct that was lawful at the time it occurred or conduct of, or conditions caused by, prior operators or other third parties. Remediation expense and other damages arising as a result of such laws and regulations could be substantial and have a material adverse effect on the Company's financial condition and results of operations.

Changes in law and regulation relating to hydraulic fracturing may have a negative effect on the Company's operations.

Much of the Company's revenue in its CT segment is derived from customers engaged in hydraulic fracturing services, a process that creates fractures extending from the well bore through the rock formation to enable natural gas or oil to flow more easily through the rock pores to a production well. Some states have adopted regulations which require operators to publicly disclose certain non-proprietary information. These regulations could require the reporting and public disclosure of the Company's proprietary chemistry formulas. In addition, the Biden administration has proposed additional restrictions on hydraulic fracturing. The adoption of any future federal or state laws or local requirements, or the implementation of regulations imposing reporting obligations on, or otherwise limiting, the hydraulic fracturing process, could increase the difficulty of oil and natural gas well production activity and could have an adverse effect on the Company's future results of operations.

Regulation of greenhouse gases and/or climate change could have a negative impact on the Company's business.

Certain scientific studies have suggested that emissions of certain gases, commonly referred to as "greenhouse gases," which include carbon dioxide, methane, and other volatile organic compounds, may be contributory to the warming effect of the Earth's atmosphere and other climatic changes. In response to such studies, the issue of climate change and the effect of greenhouse gas emissions, in particular emissions from fossil fuels, is attracting increasing worldwide attention.

Existing or future laws, regulations, treaties, or international agreements related to greenhouse gases, climate change, and indoor air quality, including energy conservation or alternative energy incentives, could have a negative impact on the Company's operations, if regulations resulted in a reduction in worldwide demand for oil and natural gas. Other results could be increased compliance costs and additional operating restrictions, each of which could have a negative impact on the Company's operations.

The Company and the Company's customers are subject to risks associated with doing business outside of the U.S., including political risk, foreign exchange risk, and other uncertainties.

The Company and its customers are subject to risks inherent in doing business outside of the U.S., including, but not limited to:

- governmental instability;
- corruption;
- war and other international conflicts:
- civil and labor disturbances;
- requirements of local ownership;
- cartel behavior;
- partial or total expropriation or nationalization;
- · currency devaluation; and
- foreign laws and policies, each of which can limit the movement of assets or funds or result in the deprivation of contractual rights or appropriation of property without fair compensation.

Collections from international customers and agents could also prove difficult due to inherent uncertainties in foreign law and judicial procedures. The Company could experience significant difficulty with collections or recovery due to the political or judicial climate in foreign countries where Company operations occur or in which the Company's products are used.

The Company's international operations must be compliant with the Foreign Corrupt Practices Act and other applicable U.S. laws. The Company could become liable under these laws for actions taken by employees or agents. Compliance with international laws and regulations could become more complex and expensive thereby creating increased risk as the Company's international business portfolio grows. Further, the U.S. periodically enacts laws and imposes regulations prohibiting or restricting trade with certain nations. The U.S. government could also change these laws or enact new laws that could restrict or prohibit the Company from doing business in identified foreign countries. The Company conducts, and will continue to conduct, business in currencies other than the U.S. dollar. Historically, the Company has not hedged against foreign currency fluctuations. Accordingly, the Company's profitability could be affected by fluctuations in foreign exchange rates.

The Company has no control over and can provide no assurances that future laws and regulations will not materially impact the Company's ability to conduct international business.

The Company's ability to use net operating loss and tax attribute carryforwards to offset future taxable income may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an "ownership change" is subject to limitations on the Company's ability to utilize pre-change net operating losses ("NOLs"), and certain other tax attributes to offset future taxable income. In general, an ownership change occurs if the aggregate stock ownership of certain stockholders increases by more than 50 percentage points over such stockholders' lowest percentage ownership during the testing period (generally three years). An ownership change could limit the Company's ability to utilize existing NOLs and tax attribute carryforwards for taxable years including or following an identified "ownership change." Transactions involving the

Company's common stock, even those outside the Company's control, such as purchases or sales by investors, within the testing period could result in an "ownership change."

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Act ("CARES Act") was enacted in response to the COVID-19 pandemic. Among other things, the CARES Act provided the ability for taxpayers to carryback NOLs arising in a taxable year beginning after December 31, 2017 and before January 1, 2021 to each of the five years preceding the year of the loss. In addition, under the 2017 Tax Act, the ability to carry back NOLs to prior taxable years is generally eliminated, and while NOLs arising in tax years beginning after 2017 may be carried forward indefinitely, these post-2017 NOLs may only reduce 80% of the Company's taxable income in a tax year. Limitations imposed on the ability to use NOLs and tax credits to offset future taxable income could reduce or eliminate the benefit of the NOLs and tax attributes and could require the Company to pay U.S. federal income taxes in excess of that which would otherwise be required if such limitations were not in effect. Similar rules and limitations may apply for state income tax purposes.

Risks Related to the Company's Industry

General economic declines or recessions, limits to credit availability, and industry specific factors could have an adverse effect on energy industry activity resulting in lower demand for the Company's products and services.

Worldwide economic uncertainty can reduce the availability of liquidity and credit markets to fund the continuation and expansion of industrial business operations worldwide. The shortage of liquidity and credit combined with pressure on worldwide equity markets could continue to impact the worldwide economic climate. Geopolitical unrest around the world may also impact demand for the Company's products and services both domestically and internationally.

Demand for many of the Company's products and services is dependent on oil and natural gas industry activity and expenditure levels that are directly affected by trends in oil and natural gas prices. Demand for the Company's products and services is particularly sensitive to levels of activity in the upstream, downstream and midstream sectors, and the corresponding capital spending by, oil and natural gas companies, including national oil companies. One indication of drilling and completion activity and spending is rig count, which the Company monitors to gauge market conditions. In addition, the U.S. Energy Information Administration and other industry data sources report completion activity, which is utilized by the Company. Any prolonged reduction in oil and natural gas prices or drop in rig and/or completion count could depress current levels of exploration, development, and production activity. Perceptions of longer-term lower oil and natural gas prices by oil and natural gas companies could similarly reduce or defer major expenditures given the long-term nature of many large-scale development projects. Lower levels of activity could result in a corresponding decline in the demand for the Company's oil and natural gas related products and services, which could have a material adverse effect on the Company's revenue and profitability.

The demand for our sanitizer products is dependent on many factors, including human behavior in response to COVID-19 and market participants in the sanitizer, surface cleaner and disinfectant space. A change in general behavior in response to widespread vaccine availability, relaxed attitudes towards sanitization, consumer reception of our products, or entrants into the sanitizer, surface cleaner and disinfectant space, may materially and adversely affect the demand for our products.

Events in global credit markets can significantly impact the availability of credit and associated financing costs for many of the Company's customers. Many of the Company's upstream customers finance their drilling and completion programs through third-party lenders or public debt offerings. Lack of available credit or increased costs of borrowing could cause customers to reduce spending on drilling programs, thereby reducing demand and potentially resulting in lower prices for the Company's products and services. Also, the credit and economic environment could significantly impact the financial condition of some customers over a prolonged period, leading to business disruptions and restricted ability to pay for the Company's products and services.

A continuing period of depressed oil and natural gas prices could result in further reductions in demand for the Company's products and services and adversely affect the Company's business, financial condition, and results of operations.

The markets for the Company's products, especially oil and gas markets, have historically been volatile. Such volatility in oil and natural gas prices, or the perception by the Company's customers of unpredictability in oil and natural gas prices, could adversely affect spending levels. The oil and natural gas markets may be volatile in the future. The demand for the Company's

products and services is, in large part, driven by general levels of exploration and production spending and drilling activity by its customers. Future declines in oil or gas prices could adversely affect the Company's business, financial condition, and results of operations.

New and existing competitors within the Company's industries could have an adverse effect on results of operations.

The industries in which the Company competes are highly competitive. The Company's principal competitors include numerous small companies capable of competing effectively in the Company's markets on a local basis, as well as a number of large companies that possess substantially greater financial and other resources than does the Company. Larger competitors may be able to devote greater resources to developing, promoting, and selling products and services. The Company may also face increased competition due to the entry of new competitors including current suppliers that decide to sell their products and services directly to the Company's customers. As a result of this competition, the Company could experience lower sales or greater operating costs, which could have an adverse effect on the Company's margins and results of operations.

The Company's industry has a high rate of employee turnover. Difficulty attracting or retaining personnel or agents could adversely affect the Company's business.

The Company operates in an industry that has historically been highly competitive in securing qualified personnel with the required technical skills and experience. The Company's services require skilled personnel able to perform physically demanding work. Due to industry volatility, the demanding nature of the work, and the need for industry specific knowledge and technical skills, current employees could choose to pursue employment opportunities outside the Company that offer a more desirable work environment and/or higher compensation than is offered by the Company. As a result of these competitive labor conditions, the Company may not be able to find qualified labor, which could limit the Company's growth. In addition, the cost of attracting and retaining qualified personnel has increased over the past several years due to competitive pressures. In order to attract and retain qualified personnel, the Company may be required to offer increased wages and benefits. If the Company is unable to increase the prices of products and services to compensate for increases in compensation, or is unable to attract and retain qualified personnel, operating results could be adversely affected.

Severe weather could have an adverse impact on the Company's business.

The Company's business could be materially and adversely affected by severe weather conditions. Hurricanes, tropical storms, flash floods, blizzards, cold weather, and other severe weather conditions could result in curtailment of services, damage to equipment and facilities, interruption in transportation of products and materials, and loss of productivity. If the Company's customers are unable to operate or are required to reduce operations due to severe weather conditions, and as a result curtail purchases of the Company's products and services, the Company's business could be adversely affected.

A terrorist attack or armed conflict could harm the Company's business.

Terrorist activities, anti-terrorist efforts, and other armed conflicts involving the U.S. could adversely affect the U.S. and global economies and could prevent the Company from meeting financial and other obligations. The Company could experience loss of business, delays or defaults in payments from payors, or disruptions of fuel supplies and markets if pipelines, production facilities, processing plants, or refineries are direct targets or indirect casualties of an act of terror or war. Such activities could reduce the overall demand for oil and natural gas which, in turn, could also reduce the demand for the Company's products and services. Terrorist activities and the threat of potential terrorist activities and any resulting economic downturn could adversely affect the Company's results of operations, impair the ability to raise capital, or otherwise adversely impact the Company's ability to realize certain business strategies.

Our DA segment may be materially and negatively affected by government regulations and/or facility disruptions.

The demand for our equipment and services offerings in our DA segment could be materially affected by additional regulations on the upstream, midstream, and downstream portions of the oil and gas sectors. Additional regulation on oil and gas production, transportation, or processing of hydrocarbons may result in significantly reduced demand for our offerings, either individually or as a result of a decline in the overall oil and gas markets in the United States and abroad. In addition, our products are subject to export control laws and regulations, and changes to those laws and regulations may negatively impact

our ability to pursue international opportunities. Disruptions to pipelines and refineries, whether due to regulation, weather, demand, or other factors, may also have a materially adverse effect on our ability to derive revenue from our DA segment. Adjustments to our DA segment's commercial strategy, with a shift towards subscription revenue and away from equipment sales, and the market's response to that strategy, may materially and adversely affect revenues in the near term, even if the strategic shift is successful, due to longer payback periods on subscription models.

Risks Related to the Company's Securities

The market price of the Company's common stock has been and may continue to be volatile.

The market price of the Company's common stock has historically been subject to significant fluctuations. The following factors, among others, could cause the price of the Company's common stock to fluctuate due to:

- variations in the Company's quarterly results of operations;
- changes in market valuations of companies in the Company's industry;
- fluctuations in stock market prices and volume;
- fluctuations in oil and natural gas prices;
- issuances of common stock or other securities in the future;
- additions or departures of key personnel;
- announcements by the Company or the Company's competitors of new business, acquisitions, or joint ventures; and
- negative statements made by external parties about the Company's business in public forums.

The stock market has experienced significant price and volume fluctuations in recent years that have affected the price of common stock of companies within many industries including the oil and natural gas industry. The price of the Company's common stock could fluctuate based upon factors that have little to do with the Company's operational performance, and these fluctuations could materially reduce the Company's stock price. The Company could be a defendant in a legal case related to a significant loss of value for the shareholders. This could be expensive and divert management's attention and Company resources, as well as have an adverse effect on the Company's business, operating results, cash flows, financial condition or securities.

If the Company cannot meet the New York Stock Exchange continued listing requirements, the NYSE may delist the Company's common stock.

The Company's common stock is currently listed on the NYSE. In the future, if it is not able to meet the continued listing requirements of the NYSE, which require, among other things, that the average closing price of our common stock be above \$1.00 over 30 consecutive trading days, the Company's common stock may be delisted. If the Company is unable to satisfy the NYSE criteria for continued listing, its common stock would be subject to delisting. A delisting of its common stock could negatively impact the Company by, among other things, reducing the liquidity and market price of the its common stock; reducing the number of investors willing to hold or acquire the Company's common stock, which could negatively impact its ability to raise equity financing; decreasing the amount of news and analyst coverage of the Company; and limiting the Company's ability to issue additional securities or obtain additional financing in the future. In addition, delisting from the NYSE might negatively impact the Company's reputation and, as a consequence, its business, operating results, cash flows, financial condition or securities.

An active market for the Company's common stock may not continue to exist or may not continue to exist at current trading levels.

Trading volume for the Company's common stock historically has been very volatile when compared to companies with larger market capitalization. The Company cannot presume that an active trading market for the Company's common stock will continue or be sustained. Sales of a significant number of shares of the Company's common stock in the public market could lower the market price of the Company's stock.

If securities or industry analysts do not publish research or reports about the Company's business or publish negative reports, the Company's securities prices and trading volumes could decline and affect the price at which investors could sell securities.

The trading market for the Company's securities may be affected by the research and reports that industry or securities analysts publish about the Company or its business. The Company does not have any control over these analysts. If analysts do not cover the Company on a regular basis or if one or more analysts cease coverage of the Company or fail to regularly publish reports about the Company, the Company could lose visibility in the financial markets, which in turn could cause the Company's securities prices or trading volumes to decline. If one or more of such analysts publish negative reports about the Company, the Company's securities prices would likely decline. These occurrences could affect the price investors could receive from the sale of the Company's securities.

The Company has no plans to pay dividends on the Company's common stock, and, therefore, investors will have to look to stock appreciation for return on investments.

The Company does not anticipate paying any cash dividends on the Company's common stock within the foreseeable future. Any payment of future dividends will be at the discretion of the Company's board of directors and will depend, among other things, on the Company's earnings, financial condition, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends, and other considerations deemed relevant by the board of directors. Investors must rely on sales of common stock held after price appreciation, which may never occur, in order to realize a return on their investment. The lack of plans for dividends may make the common stock of the Company an unattractive investment for investors who are seeking dividends.

Certain anti-takeover provisions of the Company's certificate of incorporation and applicable Delaware law could discourage or prevent others from acquiring the Company, which may adversely affect the market price of the Company's common stock.

The Company's certificate of incorporation and bylaws contain provisions that, among other things:

- permit the Company to issue, without stockholder approval, shares of preferred stock, in one or more series and, with respect to each series, to fix the designation, powers, preferences, and rights of the shares of the series;
- prohibit stockholders from calling special meetings;
- limit the ability of stockholders to act by written consent;
- prohibit cumulative voting; and
- require advance notice for stockholder proposals and nominations for election to the board of directors to be acted upon at meetings of stockholders.

In addition, Section 203 of the Delaware General Corporation Law limits business combinations with owners of more than 15% of the Company's voting stock without the approval of the board of directors. Aforementioned provisions and other similar provisions make it more difficult for a third party to acquire the Company exclusive of negotiation. The Company's board of directors could choose not to negotiate with an acquirer deemed not beneficial to or synergistic with the Company's strategic outlook. If an acquirer were discouraged from offering to acquire the Company or prevented from successfully completing a hostile acquisition by these anti-takeover measures, stockholders could lose the opportunity to sell their shares at a favorable price.

Future issuance of additional shares of common stock could cause dilution of ownership interests and adversely affect the Company's common stock price.

The Company is currently authorized to issue up to 140,000,000 shares of common stock. The Company may, in the future, issue previously authorized and unissued shares of common stock, which would result in the dilution of current stockholders' ownership interests. Additional shares are subject to issuance through various equity compensation plans or through the exercise of currently outstanding equity awards. The potential issuance of additional shares of common stock may create downward pressure on the trading price of the Company's common stock. The Company may also issue additional shares of common stock or other securities that are convertible into or exercisable for common stock in order to raise capital or effectuate

other business purposes. Future sales of substantial amounts of common stock, or the perception that sales could occur, could have an adverse effect on the price of the Company's common stock.

The Company may issue a substantial amount of securities in connection with future acquisitions, and the sale of those securities could adversely affect the trading price of our common stock or other securities.

As part of our growth strategy, we may issue additional securities, or securities that have rights, preferences, and privileges senior to our other securities. We may file future shelf registration statements with the SEC that we may use to sell securities from time to time in connection with acquisitions. To the extent that we are able to grow through acquisitions and are able to pay for such acquisitions with shares of our common stock or other securities, the number of outstanding shares of common stock or other securities that will be eligible for sale in the future is likely to increase substantially. Persons receiving shares of our common stock or other securities in connection with these acquisitions may be more likely to sell large quantities of their common stock or other securities, which may influence the price of our common stock or other securities. In addition, the potential issuance of additional shares of common stock or other securities in connection with anticipated acquisitions could lessen demand for our common stock or other securities and result in a lower price than would otherwise be obtained.

The Company may issue shares of preferred stock or debt securities with greater rights than the Company's common stock.

Subject to the rules of the NYSE, the Company's certificate of incorporation authorizes the board of directors to issue one or more additional series of preferred stock and to set the terms of the issuance without seeking approval from holders of common stock. Currently, there are 100,000 preferred shares authorized, with no shares currently outstanding. Any preferred stock that is issued may rank senior to common stock in terms of dividends, priority and liquidation premiums, and may have greater voting rights than holders of common stock.

General Risk Factors

If the Company loses the services of key members of management, the Company may not be able to manage operations and implement growth strategies.

The Company depends on the continued service of the Chief Executive Officer and President, the Chief Financial Officer and other key members of the executive management team, who possess significant expertise and knowledge of the Company's business and industry. Furthermore, the Chief Executive Officer and President serves as Chairman of the Board of Directors. The Company has entered into employment agreements with certain of these key members. Any loss or interruption of the services of key members of the Company's management could significantly reduce the Company's ability to manage operations effectively and implement strategic business initiatives. During 2020, the Company replaced its Chief Executive Officer, Chief Financial Officer, General Counsel and lead sales executive. The failure of the new executives to effectively provide services to the Company and build experience and knowledge of the Company could have an adverse effect on the Company's results of operations and ability to compete.

The Company's tax returns are subject to audit by tax authorities. Taxing authorities may make claims for back taxes, interest and penalties. Changes in U.S. tax legislation may adversely affect our business, results of operations, financial condition and cash flows.

The Company is subject to income, property, excise, employment, and other taxes in the U.S. and a variety of other jurisdictions around the world. Tax rules and regulations in the U.S. and around the world are complex and subject to interpretation. From time to time, taxing authorities conduct audits of the Company's tax filings and may make claims for increased taxes and, in some cases, assess interest and penalties. The assessments for back taxes, interest, and penalties could be significant. If the Company is unsuccessful in contesting these claims, the resulting payments could result in a drain on the Company's capital resources and liquidity. In addition, there may be material adverse effects resulting from new or future U.S. tax reforms that have not been identified and that could have an adverse effect on the Company's business, results of operations, financial condition and cash flows.

Disclaimer of Obligation to Update

Except as required by applicable law or regulation, the Company assumes no obligation (and specifically disclaims any such obligation) to update these risk factors or any other forward-looking statement contained in this Annual Report to reflect actual results, changes in assumptions, or other factors affecting such forward-looking statements.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

As of December 31, 2020, the Company operates four manufacturing, warehouse and research facilities in the U.S. Internationally, the Company has a warehouse and research facility in Calgary, Alberta, Canada and a warehouse in Dubai, United Arab Emirates. The Company also has sales offices in Oklahoma City, Oklahoma; Dubai, United Arab Emirates; and Calgary, Alberta, Canada. The Company owns four of these facilities and the remainder are leased with lease terms that expire from 2021 through 2030. In addition, the Company's corporate office is a leased facility located in Houston, Texas. The following table sets forth facility locations:

Segment	Owned/ Leased	Location
Chemistry Technologies	Owned	Marlow, Oklahoma
	Owned	Monahans, Texas
	Owned	Raceland, Louisiana
	Owned	Waller, Texas
	Leased	Dubai, United Arab Emirates
	Leased	Calgary, Alberta
	Leased	Oklahoma City, Oklahoma
	Leased	Raceland, Louisiana
	Leased	Houston, Texas
Data Analytics	Leased	Austin, Texas

Item 3. Legal Proceedings.

See Note 16, "Commitments and Contingencies" in Part II, Item 8 – "Financial Statements and Supplementary Data" of this Annual Report for information regarding our legal proceedings.

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.

The Company's common stock began trading on the NYSE on December 27, 2007, under the stock ticker symbol "FTK." As of the close of business on March 11, 2021, there were approximately 7,800 holders of record. The Company's closing sale price of the common stock on the NYSE on March 1, 2021 was \$2.25. The Company has never declared or paid cash dividends on common stock. While the Company regularly assesses the dividend policy, the Company has no current plans to declare dividends on its common stock.

Securities Authorized for Issuance Under Equity Compensation Plans

Equity compensation plan information relating to equity securities authorized for issuance under individual compensation agreements at December 31, 2020, is as follows:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights ⁽¹⁾	Weighted- Average Exercise Price of Outstanding Options, Warrants and Rights ⁽²⁾	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders		\$ 1.36	1,839,489

⁽¹⁾ Includes shares for outstanding stock options (3,660,000 shares), restricted stock awards (2,795,100 shares), and restricted stock unit share equivalents (1,227,549 shares).

⁽²⁾ The weighted-average exercise price is for outstanding stock options only and does not include outstanding restricted stock awards. restricted stock unit equivalents, and rights that have no exercise price.

Issuer Purchases of Equity Securities

The Company's stock compensation plans allow employees to elect to have shares withheld to satisfy their tax liabilities related to non-qualified stock options exercised or restricted stock vested or to pay the exercise price of the options. When this settlement method is elected by the employee, the Company repurchases the shares withheld upon vesting of the award.

Repurchases of the Company's equity securities in respect of withholding for tax liabilities during the three months ended December 31, 2020, are as follows:

	Total Number of Shares Purchased ⁽¹⁾	age Price per Share
October 1 to October 31, 2020	2,181	\$ 2.75
November 1 to November 30, 2020	23,711	1.97
December 1 to December 31, 2020	89,524	2.12
Total	115,416	\$ 2.10

⁽¹⁾ The Company purchases shares of its common stock (a) to satisfy tax withholding requirements and payment remittance obligations related to period vesting of restricted shares and exercise of non-qualified stock options and (b) to satisfy payments required for common stock upon the exercise of stock options.

In June 2015, the Company's Board of Directors authorized the repurchase of up to \$50 million of the Company's common stock. Repurchases could be made in the open market or through privately negotiated transactions. No shares were repurchased under this program during 2020.

On June 9, 2020, the board of directors of the Company rescinded the authorization.

Item 6. Selected Financial Data.

Not applicable.

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

The following discussion and analysis should be read in conjunction with the Consolidated Financial Statements and the related Notes to Consolidated Financial Statements included elsewhere in this Annual Report. The following information contains forward-looking statements, which are subject to risks and uncertainties. Should one or more of these risks or uncertainties materialize, actual results could differ from those expressed or implied by the forward-looking statements. See "Forward-Looking Statements" at the beginning of this Annual Report and Item 1A, "Risk Factors."

Executive Summary

Flotek Industries, Inc. is a technology-driven chemistry and data company that serves customers in industrial, commercial and consumer markets. The Company serves specialty chemistry needs that span from downstream, midstream and upstream, both domestic and international, energy markets to applications of U.S. manufactured, sanitizers, surface cleaners and disinfectants for industrial, commercial and consumer use.

The Company's CT segment develops, manufactures, packages, distributes, delivers, and markets specialty chemicals that enhance the profitability of hydrocarbon producers and cleans surfaces in both commercial and personal settings to help reduce the spread of bacteria, viruses and germs.

The Company's DA segment enables users to maximize the value of their hydrocarbon associated processes by providing analytics associated with the streams in seconds rather than minutes or days. The real-time access to information prevents waste, reduces reprocessing, and allows users to pursue automation of their hydrocarbon streams to maximize their profitability.

During the second quarter of 2020, the Company acquired 100% ownership of JP3 in a cash-and-stock transaction. JP3's real-time data platforms combine the energy industry's only field-deployable, inline optical analyzer with proprietary cloud visualization and analytics, targeting an increase of processing efficiencies and valuation of natural gas, crude oil and refined fuels. In conjunction with the acquisition of JP3, the Company created the DA segment.

The Company was impacted as a result of the outbreak of COVID-19 that spread throughout the U.S. and the world during 2020. For a discussion of the impacts of COVID-19, see "COVID-19 Effects and Actions" in this Item 7 of this Annual Report. For a discussion of the risks related to COVID-19, see Item 1A, "Risk Factors."

Continuing Operations

The Company has two operating segments, CT and DA, which are both supported by the Company's continuing R&I advanced laboratory capabilities.

Chemistry Technologies

The Company's CT segment includes an energy-focused product line that is comprised of proprietary green chemistries, specialty chemistries, logistics and technology services. The Company designs, develops, manufactures, packages, distributes, delivers and markets reservoir-centric fluid systems, including specialty and conventional chemistries, for use in oil and gas well drilling, cementing, completion, remediation and stimulation activities designed to maximize recovery in both new and mature fields, as well as to reduce health and environmental risk by using greener chemicals. Customers of this product line of the CT business segment include major integrated oil and gas companies, oilfield services companies, independent oil and gas companies, national and state-owned oil companies and international supply chain management companies.

In 2020, the Company leveraged historical expertise, existing infrastructure, personnel, supply chain, research and resident consumer market experience to address the emerging demand for sanitizers, surface cleaners and disinfectants for both commercial and personal use. Rather than operating under relaxed pandemic-related guidelines, the Company sought to produce FDA and EPA compliant products by completing all necessary upgrades to its already ISO 9001:2015 certified facility in Marlow, Oklahoma. Today the Company has a portfolio of specialty chemical products to address the long-term challenges created by the current COVID-19 pandemic and in preparation for future outbreaks. To restore large public gatherings, it is believed that a variety of approaches will be necessary, including vaccinations, behavioral changes, sanitizers, surface cleaners, and disinfectants are needed. The Company has made a commitment of being in this market for the long-term.

Data Analytics

The Company's DA segment, created in conjunction with the acquisition of JP3, includes the design, development, production, sale and support of equipment and services that create and provide valuable real time information about the composition and properties for customers' oil, natural gas and refined products. The DA segment is continuing its transition to a recurring revenue subscription model of selling its line of Verax analyzers, deployed in the field across the oil and gas sector, support contracts and software services via its cloud-based Viper software platform, as well as selling hardware-related solutions during the transition to a recurring revenue model.

The customers of the DA segment diversify the revenues of the Company and span across the entire oil and gas market, including upstream, midstream, refineries and distribution networks. The segment helps its customers generate additional profit by enhancing blending, optimizing the natural mixing between adjacent batches of different fuels ("transmix"), ensuring product quality while enabling automation of fluid handling. To date, the segment has focused sales solely on North American markets; however, the segment began preparing for international deployments, including export control investigations, certifications and product design modifications to meet the demands of overseas installations. In 2020, the Company hired a business development executive, who is developing sales opportunities in the international market.

Research & Innovation

R&I supports both segments through green chemistry formulation, specialty chemical formulations, FDA and EPA regulatory guidance, technical support, basin and reservoir studies, data analytics and new technology projects. The purpose of R&I is to supply the Company's segments with enhanced products and services that generate current and future revenues, while advising Company management on opportunities concerning technology, environmental and industry trends. The R&I facilities support advances in chemistry performance, detection, optimization and manufacturing.

Discontinued Operations

The Company sold Florida Chemical Company, LLC, a wholly-owned subsidiary, and its CICT segment, effective as of February 28, 2019. As a result, the Company's CICT segment and financial results through the date of sale were classified as discontinued operations.

Market Conditions

The Company's success is sensitive to a number of factors, which include, but are not limited to global energy supply and demand, drilling and well completion activity, customer demand for its advanced technology products, market prices for raw materials and governmental actions.

Drilling and well completion activity levels are influenced by a number of factors, including the number of rigs in operation and the geographical areas of rig activity. Additional factors that influence the level of drilling and well completion activity include:

- Historical, current and anticipated future oil and gas prices;
- Federal, state and local governmental actions that may encourage or discourage drilling activity;
- Customers' strategies relative to capital funds allocations;
- Weather conditions; and
- Technological changes to drilling and completion methods and economics.

Customers' demand for advanced technology products and services provided by the Company are dependent on their recognition of the value of chemistries that:

- Provide differentiation in efficiency and efficacy;
- Address emerging pathogens;
- Improve the economics of operations; and
- Are economically viable, socially responsible and ecologically sound.

Governmental actions may restrict the future use of hazardous chemicals, including, but not limited to, the following industrial applications:

- · Oil and gas drilling and completion operations;
- · Oil and gas production operations;
- · Non-oil and gas industrial solvents; and
- EPA and FDA regulatory changes.

The continued impact of COVID-19 and subsequent modification of social behavior for hygiene and sanitation products create opportunities for product growth in various forms of sanitizing, surface cleaning and disinfecting products.

COVID-19 Effects and Actions

In March 2020, the World Health Organization declared the outbreak of COVID-19 a global pandemic that spread throughout the U.S. and the world. In late 2020, major pharmaceutical companies developed vaccines and received approval for wide-scale distribution in the U.S. and other countries. The vaccination effort is proceeding in the U.S. and the world. However, variant strains of the virus have emerged, which create additional uncertainty on the extent and the duration of the pandemic.

The pandemic negatively impacted the U.S. and global economy, disrupted global supply chains and the domestic and international oil and gas markets, and increased volatility in financial markets. These effects materially and adversely affected, and may continue to materially and adversely affect, the demand for oil and natural gas as well as for the Company's services and products.

The Company's CT segment is energy-focused with product lines comprised of specialty chemistries, logistics and technology services. Customers of the CT segment include major integrated oil and gas companies, oilfield services companies, independent exploration and production companies, national and state-owned oil companies, and international supply chain management companies. Due to customer activity levels in this industry, the Company experienced materially reduced revenues and cash flows during 2020.

Outside the oil and gas sector, the COVID-19 pandemic increased demand for certain specialty chemicals, particularly sanitizers, surface cleaners and disinfectants. In 2020, the Company launched a diversified line of FDA and EPA-compliant sanitizers, surface cleaners and disinfectants for industrial, commercial and consumer use. These products build on the Company's historical expertise in chemistry and leverage its infrastructure, personnel, competencies, supply chain, research and historic consumer market experience. The continued impact of COVID-19 and subsequent modification of social behavior in regard to the heightened attention to hygiene and sanitation provide a sustainable yet challenging market to expand the Company's portfolio.

The DA segment's largest customer base, the oil and gas midstream market, reduced gathering and infrastructure capital spending in 2020. In addition, the pandemic impacted the DA segment due to reduced access to facilities to complete new installations for a portion of the year. As a result, spending for the DA segment's products and services has also been impacted by lower consumer demand. As a result, sales and cash flows were below target for the DA segment.

During 2020, the Company's financial results were impacted due to impairment charges. The provision for excess and obsolete inventory included charges for the CT segment and the DA segment. See Note 6, "Inventories" in Part II, Item 8 – "Financial Statements and Supplementary Data" of this Annual Report. The Company recorded an impairment to property, plant and equipment; intangible assets; and operating right-of-use assets during the first quarter of 2020. The extended impact of COVID-19 contributed to additional impairment charges to goodwill and intangible assets in the third quarter of 2020. See Note 9, "Goodwill;" Note 10, "Other Intangible Assets;" and Note 11, "Impairment of Fixed, Long-lived and Intangible Assets." Due to the continuing uncertainties, additional impairments may occur in the future.

The Company expects the current economic situation to negatively impact the energy sector for an extended period of time, with oil demand recovering during 2021 but not returning to the pre-COVID-19 level. Any further material COVID-19 disruption or significant setback in oil and gas demand arising from a slower economic recovery could negatively impact the

Company. The uncertain future development of the COVID-19 crisis and related implications could materially and adversely affect the Company's business, operations, operating results, financial condition, liquidity and/or capital levels.

While the full impact of the COVID-19 pandemic continues to evolve and the full extent of the impact is not yet known, the Company continues to closely monitor the effects of the pandemic on commodity demands, and on its customers, operations and employees. Any future development and effects are highly uncertain and cannot be predicted, including:

- the scope and duration of the pandemic;
- effectiveness of vaccines:
- emergence of new coronavirus variants;
- further adverse revenue and net income effects; impairments;
- disruptions to the Company's operations;
- third-party providers' ability to support the Company's operations;
- limitations on domestic and international travel for sales, system installations, and support;
- · customer shutdowns of oil and gas exploration and production;
- the effectiveness of work from home arrangements;
- modifications to work schedules, including manufacturing shifts;
- impacts on employees from illness, school closures and other community response measures;
- · any actions taken by governmental authorities and other third parties in response to the pandemic; and
- temporary closures of the Company's facilities or the facilities of its customers and suppliers.

The pandemic caused the Company to alter its business working practices, including work schedules, manufacturing shifts, employee travel, work locations, meetings and participation in events and conferences. In addition, the Company and most of its customers continued the practice of social distancing and work-from-home procedures, which have had, and may continue to have, an impact on the ability of employees and management of the Company to communicate and work efficiently. There is no certainty that these actions will mitigate risks posed by the virus to the Company's workforce.

The Company's CT segment focused on development of competitively priced product lines that are responsive to the current market including well bore protection and damage mitigation products as the domestic market has shifted to shutting in wells. In response to a forecasted reduction in capital available to customers for drilling with a shift to optimizing existing infrastructure, the Company initiated several efforts to use specialty chemicals to improve enhanced oil recovery. The Company has also leveraged its international footprint in the Middle East to include unconventional, conventional, and enhanced oil recovery programs.

The CT segment used its expertise in specialty chemistry, existing chemistry infrastructure and facilities, and historical consumer market experience to launch a product line of sanitizers, surface cleaners and disinfectants, as discussed above. The Company believes these new products slot into the premium market and will be competitive over the long-term. The Company has also made changes to its executive team to align with its growth focus.

The Company has also focused on the continuing needs of customers and the market to diversify its business and accelerate growth through deployment of capital, with an emphasis on digital transformation in the oil and gas markets. On May 18, 2020, the Company closed the acquisition of JP3, which gives the Company access to the midstream and downstream markets and diversifies exposure to volatility in the upstream sector. In addition to increasing market share, the DA segment is pursuing product enhancements that enable growth opportunities with current and prospective customers.

In response to market conditions and anticipating ongoing volatility, the Company reduced its cost structure in 2020 to meet anticipated market activity and reduce the Company's break-even level. Among other cost-cutting and cash preservation initiatives:

• The Company's CEO, John W. Gibson, Jr., reduced his base salary by 20%, and each of the other executive officers reduced his or her salary by 10%, through December 31, 2020, in exchange for restricted stock, effective as of April 1, 2020.

- The board of directors of the Company approved a 20% reduction in the fees to be paid to the directors, effective as of April 1, 2020.
- The Company consolidated office space by moving all employees at its corporate headquarters into its Global Research and Innovation Center in Houston, Texas and buying out the remaining term of the corporate headquarters lease for a significant discount, with the move completed by the end of June 2020.
- The Company reduced overall headcount by 35% on March 30, 2020. Additionally, the Company reduced the headcount of the DA segment by 35% in October 2020.
- The Company decreased discretionary spending across all business operations.

Outlook for 2021

The COVID-19 pandemic negatively impacted the U.S. and global economy, disrupted global supply chains and the domestic and international oil and gas markets, and increased volatility in financial markets. While market prices for West Texas Intermediate and Brent crude oil rebounded from lows during the initial months of the pandemic in 2020 to exceed \$50 per barrel in early 2021, many major integrated oil and gas companies and independent oil and gas companies announced reductions in their 2021 budgets, though such budgets may change if crude oil prices increase. Uncertainty exists about the extent and the duration of the resulting industry contraction and consolidation. In addition, the oilfield services industry remains over supplied and timing on returns to pre-pandemic pricing levels remains uncertain.

Climate change continues to be a focus, as investors are increasingly scrutinizing companies linked to the oil and gas industry through environmental, social and corporate governance factors to promote clean energy and sustainability. In addition, the impact of the actions of the new presidential administration and Congress on the economy and financial markets is uncertain in the current year and longer term. During his first month in office, the President signed many executive orders, including ones with implications for stakeholders in the energy industry, such as canceling the Keystone XL Pipeline and another for the U.S. to rejoin the Paris Agreement on climate change. The Interior Department issued an order in January, placing a 60-day freeze on agency permit approvals and pausing federal oil and gas leasing for a review of all existing leasing and permitting practices related to fossil fuel development on public lands and waters. These and other potential actions by the new administration could have negative and/or positive impacts on the Company's business and customers.

Amid the current environment with increased business commitments related to ESG, the Company's products and services offer a significant value proposition to businesses seeking to improve their ESG performance, including improving the safety, reliability and efficiency of their operations. The Company offers sustainable chemistry solutions, tailoring product selection to enable operational efficiencies, improve water management and reduce greenhouse gas emissions for its customers in the exploration and production sector of the oil and gas industry. Further, our patented line of Complex nano-Fluid® (also known as CnF®) chemistry technologies, are formulated with highly effective, plant-based solvents offering safer, sustainable alternatives to toxic BTEX-based (benzene, toluene, ethylbenzene and xylene) chemicals. Additionally, the Company's real-time sensor technology helps to enable process and operational efficiencies, minimize waste and reduce reprocessing.

The Company believes that an increase in the adoption of specialty chemicals could benefit our business and reduce the impact of the current decrease in drilling and completions activity. The key sales focus of the Company is growing market share by improving returns for current customers, rebuilding relationships with past customers and identifying new customers that could benefit from chemistry solutions. Additionally, the Company is focused on total cost of recovery per barrel of oil equivalent, rather than initial cost, as well as strengthening the publicly available evidence for the efficacy of using advanced CnF® products to materially impact oil and gas recovery and profitability for operators.

The sanitizers, surface cleaners and disinfectants industry is expanding, associated with the continued impact of the COVID-19 pandemic and the need for individuals, businesses, schools and governments to minimize the spread of the coronavirus. Industry growth is also anticipated due to the modification of social behaviors in regard to the heightened attention to hygiene and sanitation. In 2020, the Company launched a diversified line of FDA-compliant sanitizers, surface cleaners and disinfectants for industrial, commercial and consumer use. The Company believes this market provides an opportunity to expand the Company's portfolio of chemistry products to meet the growing demand.

The use of data and analytics is a growing trend in all industries where technology is used to analyze large datasets of operational information to improve performance, as well as predictive maintenance, advanced safety measures and reduced environmental impact of operations. The Company believes that data and analytics is an area for growth. Hence, in 2020, the Company acquired JP3 and formed the DA segment. To date, the segment has focused sales solely on North American markets; however, the segment began preparing for international deployments, including export control investigations, certifications and product design modifications to meet the demands of overseas installations. The Company hired a business development executive, who is developing sales opportunities in the international market.

The Company continues to develop technologies to ensure our ability to provide differentiated products and services to our customers. Partnering closely with our clients to create and implement specialty chemical products and compositional analyzers remains a focus for the organization. Differentiated products and services are the result of the deployment of the organization's capabilities and expertise in alignment with customer success. The continuing search for new ways to help make customers successful positions the Company as a leader in advanced chemicals and technology.

The Company's emphasis in 2021 will be executing the plan established by the executive team to recover from the varied impacts of COVID-19 and grow the Company's businesses. The CT segment will focus on marketing our products and services to new and existing customers, while expanding the sanitizers, surface cleaners and disinfectants product line. The DA segment will maintain its domestic sales effort while pursuing international growth. The Company does not anticipate a material escalation in our maintenance capital spending year-over-year. In 2021, the Company expects to enhance its focus on ESG and the responsible management of products and services through our Quality Assurance and Quality Control Program and Chemical Spill Prevention Program, adhering to ISO 9001:2015 standards.

Consolidated Results of Operations (dollars in thousands):

	Years ended December 31,			
		2020		2019
Revenue	\$	53,141	\$	119,353
Operating expenses (excluding depreciation and amortization)		88,266		148,100
Operating expenses %		166.1 %		124.1 %
Corporate general and administrative costs		16,311		27,975
Corporate general and administrative costs %		30.7 %		23.4 %
Depreciation and amortization		3,412		8,465
Research and development		7,213		8,863
(Gain) loss on disposal of long-lived assets		(94)		1,450
Impairment of fixed assets and long-lived assets		69,975		_
Impairment of goodwill		11,706		_
Loss from operations		(143,648)		(75,500)
Operating margin %		(270.3)%		(63.3)%
Gain on lease termination		576		_
Interest and other income (expense), net		443		(311)
Loss before income taxes		(142,629)		(75,811)
Income tax benefit (expense)		6,179		(262)
Loss from continuing operations		(136,450)		(76,073)
Income from discontinued operations, net of tax		_		42,158
Net loss	\$	(136,450)	\$	(33,915)

Results for 2020 compared to 2019—Consolidated

Consolidated revenue for the year ended December 31, 2020, decreased \$66.2 million, or 55.5%, from 2019. The decrease in revenue was largely a result of reduced demand due to the continued volatile macro-environment for U.S. onshore drilling and completion activity, impacted by political and economic events in foreign markets, and the continued COVID-19 impact on productivity and customers during the year. Partially offsetting the decrease were new revenues in 2020 from the diversification of our chemical product line and our DA segment acquired in May 2020.

Consolidated operating expenses (excluding depreciation and amortization) for the year ended December 31, 2020, decreased \$59.8 million, or 40.4%, from 2019, and as a percentage of revenue, increased to 166.1% for the year ended December 31, 2020, from 124.1% for the comparable period of 2019. Company reduction in force actions in the first quarter of 2020 lowered operational personnel costs along with a significant decrease in logistical costs as part of our overall cost-cutting efforts within supply chain. In 2020, the Company lowered occupancy costs due to our reduced facility footprint and reduction in equipment primarily associated with tank rentals. These savings were partially offset by operating expenses for the DA segment acquired in May 2020, and introduction of the sanitizers, surface cleaners and disinfectants product line in the second quarter of 2020. The provision for excess and obsolete inventory in 2020 included charges of \$8.4 million for the CT segment and \$3.9 million for the DA segment, primarily related to the Company's product rationalization effort. The Company also recognized expense of \$2.7 million in 2020 for the earn-out provisions related to the JP3 acquisition. For the year ended December 31, 2020, the Company recognized a purchase commitment loss of \$9.9 million and carried an accrued liability of \$9.4 million associated with the amended terpene supply agreement. The commitment loss related to lower expected usage from reduced demand for terpene in the oil and gas sector due from capital spending reductions across our customer base and impacts of COVID-19, combined with product mix changes using lower concentrations of terpene. In 2019, the Company recognized a loss of \$15.8 million related to the terpene supply agreement.

Corporate general and administrative ("CG&A") expenses are not directly attributable to products sold or services provided. CG&A costs decreased \$11.7 million, or 41.7%, for the year ended December 31, 2020, compared to 2019. The decrease in CG&A costs for the year ended December 31, 2020, compared to 2019, was primarily due to a decrease of \$8.2 million in personnel costs. This year over year decrease in personnel costs resulted from reduction in force actions in the first quarter of 2020 combined with a decrease in severance costs of \$4.2 million. These reduced personnel costs included a \$2.1 million reduction in stock-based compensation and incentives. Other factors contributing to lower CG&A in 2020 were decreases in legal costs, travel and entertainment, and Company headquarter leasing costs, partially offset by one-time expenses related to the acquisition of JP3 during the second quarter of 2020.

Depreciation and amortization expense for the year ended December 31, 2020, decreased \$5.1 million, or 59.7%, from 2019, primarily due to impairment of fixed and long-lived assets recorded in the first quarter of 2020 combined with limiting capital expenditure spend in 2020 and consolidation of our physical facility footprint.

Research and development expense for the year ended December 31, 2020, decreased \$1.7 million, or 18.6%, from 2019. The decrease in research and development expense is primarily due to lower personnel costs as a result of our company-wide reduction in workforce in the first quarter of 2020.

For the year ended December 31, 2020, the Company recognized a gain of \$0.1 million on disposal of assets. For the year ended December 31, 2019, the Company recognized a loss of \$1.5 million on disposal of long-lived assets, primarily due to the disposal of corporate software.

Impairment of fixed and long-lived assets for the year ended December 31, 2020 was \$70.0 million due to a \$12.5 million write-down in the DA segment in the third quarter combined with the CT segment write-down of \$54.7 million and a corporate-level write-down of \$2.8 million recorded in the first quarter of 2020. Impairment of goodwill was \$11.7 million for the year ended December 31, 2020, due to a third quarter 2020 write-down of the goodwill in our DA segment. See Note 3, "Business Combination;" Note 9, "Goodwill;" Note 10, "Other Intangible Assets;" and Note 11, "Impairment of Fixed, Long-lived and Intangible Assets," for additional information. No similar impairments occurred in 2019.

The Company recognized a gain on lease termination of \$0.6 million during the second quarter of 2020, as a result of terminating the corporate headquarters office lease and making a one-time payment of \$1.0 million.

Interest and other income (expense), net, changed \$0.8 million for the year ended December 31, 2020, compared to 2019. Interest expense decreased \$2.0 million, primarily due to the termination of the PNC Bank Credit Facility in the first quarter of 2019. The Company's interest income for the year ended December 31, 2020, was \$0.5 million compared to \$1.9 million in 2019. The year-over-year decrease in interest income was driven by lower average cash balances and the depressed interest rate environment in 2020 compared to 2019.

The Company recorded an income tax benefit of \$6.2 million for the year ended December 31, 2020, primarily as a result of the extended net operating loss carryback provisions included in the CARES Act initially recorded in the first quarter of 2020, yielding an effective tax benefit rate of 4.3% for the year ended December 31, 2020. The Company determined that it is more likely than not that it will not realize the benefits of certain deferred tax assets and, therefore, recorded a \$20.3 million valuation allowance against the carrying value of net deferred tax assets, except for deferred tax liabilities related to non-amortizable intangible assets and certain state jurisdictions. As of December 31, 2020, the Company is in a full valuation position. See Note 15, "Income Taxes."

Results by Segment

Chemistry Technologies (dollars in thousands)

	_Y	Years ended December 31,			
	2020 201			2019	
Revenue	\$	50,310	\$	119,353	
Loss from operations, including impairment		(88,486)		(45,682)	

Results for 2020 compared to 2019

CT revenue for the year ended December 31, 2020, decreased \$69.0 million, or 57.8% compared to 2019. The decrease in revenue was largely a result of the volatile macro-environment. Contributing to the volatility were OPEC-related actions disrupting market pricing and resulting in oversupply of hydrocarbons, and the COVID-19 impact on productivity and customers during the year. Partially offsetting the decrease were new revenues in 2020 from the introduction of sanitizing, surface cleaning and disinfecting products.

Loss from operations for the CT segment increased \$42.8 million for the year ended December 31, 2020, compared to 2019. The increased loss from operations for 2020 was due to impairment charges of fixed and long-lived assets of \$54.7 million, further impacted by lower revenue related to reduced demand. The provision for excess and obsolete inventory in 2020 included charges of \$8.4 million. In 2020, the Company recognized a loss of \$9.9 million for the amended terpene agreement due to adjustments to the Company's expected usage, combined with product mix changes using lower concentration of terpene. In 2019, the Company recognized a loss of \$15.8 million for the amended terpene agreement.

Data Analytics (dollars in thousands)

	d May 18 to cember 31,
	2020
Revenue	\$ 2,831
Loss from operations, including impairment	(36,407)

On May 18, 2020, the Company purchased JP3 and formed the DA segment. The segment revenue for the period from acquisition to December 31, 2020, was \$2.8 million, which came from existing customers on minor project expansions and new

customers. For the fourth quarter of 2020, revenue was \$1.3 million, an increase of \$0.6 million over the third quarter of 2020, driven primarily by increased equipment sales. Segment revenue for 2020, and the third quarter in particular, was adversely impacted by economic and COVID-19 related factors, as demand in the oil and gas sector declined due to capital spending reductions across our customer base.

The loss from operations for the period May 18 to December 31, 2020, includes write-downs to goodwill of \$11.7 million and \$12.5 million for finite-lived intangible assets in the third quarter. In addition, the third quarter of 2020 included charges for excess and obsolete inventory of \$3.9 million. Results for the period May 18 to December 31, 2020, also include \$2.7 million of expense for the JP3 stock performance earn-out provisions related to the purchase of JP3.

Capital Resources and Liquidity

Overview

The Company's ongoing capital requirements relate to the need to acquire and maintain equipment, fund working capital requirements and when the opportunities arise, to make strategic acquisitions. During the year ended December 31, 2020, the Company funded capital requirements primarily with cash on hand, which included a tax refund received of \$6.1 million, combined with investing and financing cash inflows that included proceeds of \$9.9 million received from escrow in 2020 from the 2019 sale of the CICT segment and proceeds from a Payroll Protection Program loan of \$4.8 million. During the second quarter of 2020, the Company acquired JP3, making payments for the acquisition of \$26.3 million, net of cash acquired. During the third quarter of 2020, the first stock performance target related to the acquisition was achieved and in October 2020, the Company paid \$2.5 million into escrow to settle the liability.

Cash and cash equivalents totaled \$38.7 million at December 31, 2020, as compared to \$100.6 million at December 31, 2019. The Company used \$47.8 million of cash outflows for operating activities (including \$14.8 million expended in working capital) and \$17.7 million for investing activities. Offsetting these cash outflows, financing activities provided the Company \$3.7 million.

Liquidity

The effects of the COVID-19 pandemic and the volatility in oil prices during 2020 materially and adversely affected, and may continue to materially and adversely affect, the demand for oil and natural gas as well as for our services and products. While the full impact and duration of the COVID-19 outbreak is not yet known, we are closely monitoring the effects of the pandemic on commodity demands and on our customers, as well as on our operations and employees. See "COVID-19 Effects and Actions" for developments and possible effects.

The Company currently funds its operations and growth primarily from cash on hand. The ability of the Company to grow and be competitive in the marketplace is dependent on the availability of adequate capital. Access to capital is dependent, in large part, on the Company's cash flows and the availability of and access to equity and debt financing. The Company has a history of losses and negative cash flows from operations and expects to utilize a significant amount of cash in operations in the following year. While we believe that our cash and liquid assets will provide us with sufficient financial resources to fund operations and meet our capital requirements and anticipated obligations as they become due, a prolonged COVID-19 impact, a slower than expected recovery in of oil and gas markets, or reduced spending at our customers could have a negative impact on our liquidity.

Accordingly, while the Company believes that its existing cash will enable it to fund its operations and growth, the Company cannot guarantee the level of cash flows in the future. In the event that the Company's existing cash on hand is not sufficient to fund operations, meet our capital requirements or satisfy the anticipated obligations as they become due, the Company expects to take further action to protect its liquidity position. Such actions may include, but are not limited to:

- Sale of non-core real estate properties;
- Sale-leaseback transactions of facilities;
- Sale of excess inventory and/or raw materials;
- Entry into a borrowing facility with one or more lenders;

- Raising equity either in the public markets or via a private placement offering;
- •Reducing executive salaries and/or board of directors' fees, or making a portion of those fees or salaries in equity instead of cash; and
- Reducing professional advisory fees and headcount.

However, with respect to anticipated transactions, there can be no assurance that such matters can be implemented on acceptable terms. For a further discussion of the risks surrounding the Company's access to capital, please see Item 1A, "Risk Factors" in this Annual Report.

The Company expects capital spending to be less than \$1.0 million in 2021.

Cash Flows

Consolidated cash flows by type of activity are noted below (in thousands):

	Years ended December 31			
		2020		2019
Net cash used in operating activities	\$	(47,838)	\$	(4,545)
Net cash (used in) provided by investing activities		(17,701)		152,713
Net cash provided by (used in) financing activities		3,727		(49,994)
Net cash flows provided by discontinued operations				15
Effect of changes in exchange rates on cash and cash equivalents		(102)		5
Net change in cash, cash equivalents and restricted cash	\$	(61,914)	\$	98,194

Operating Activities

During 2020 and 2019, cash used in operating activities totaled \$47.8 million and \$4.5 million, respectively. Consolidated net loss from continuing operations for 2020 and 2019 totaled \$136.5 million and \$76.1 million, respectively.

During the year ended December 31, 2020, non-cash adjustments to net income totaled \$96.6 million as compared to \$40.8 million in 2019.

- In 2020, contributory non-cash adjustments consisted primarily of \$81.7 million of impairment charges, which include a \$30.2 million impairment of fixed assets, \$32.4 million impairment of intangibles, \$11.7 million impairment of goodwill and \$7.4 million impairment on right-of-use assets. The non-cash adjustment for the provision for excess and obsolete inventory was \$12.3 million. In addition, non-cash charges included \$3.4 million for depreciation and amortization and \$3.0 million for stock compensation expense. Other non-cash adjustments included a \$2.7 million change in fair value of contingent consideration.
- In 2019, the non-cash adjustments to net income consisted primarily of \$8.5 million for depreciation and amortization expense, \$4.2 million for stock compensation expense, \$5.7 million provision for excess and obsolete inventory, \$18.3 million for changes to deferred income taxes and \$1.5 million for net gain on sale of assets.

During the year ended December 31, 2020, changes in working capital used \$14.8 million in cash as compared to providing \$30.7 million in 2019.

- The use of cash in working capital in 2020 primarily resulted from a reduction in accrued liabilities and accounts payable of \$23.6 million, which included two one-time payments made in 2020: one payment of \$15.8 million to amend a long-term supply agreement and one to pay \$4.1 million for the final post-closing working capital adjustment related to the 2019 sale of the CICT segment. Decreases in accounts receivable, inventories and other current assets during 2020 provided cash of \$8.5 million.
- During 2019, changes in working capital provided \$30.7 million in cash, primarily resulting from decreasing accounts receivables by \$21.0 million.

Investing Activities

Net cash used in investing activities was \$17.7 million for the year ended December 31, 2020. The cash used in investing activities is primarily due to \$26.3 million paid for the purchase of JP3, net of cash acquired, during the second quarter of 2020, and \$1.4 million paid for capitalized sanitizer equipment upgrades in 2020. The cash outflows were partially offset by proceeds of \$9.9 million received from escrow in 2020 from the 2019 sale of the CICT segment.

Net cash provided by investing activities was \$152.7 million during 2019. Cash provided by investing activities included \$155.5 million of proceeds received from the sale of revenue generating assets associated with the CICT segment, partially offset by cash paid of \$2.4 million for capital expenditures and \$0.6 million for the purchase of various patents and other intangible assets.

Financing Activities

Net cash provided by financing activities was \$3.7 million for the year ended December 31, 2020. Cash provided by financing activities included \$4.8 million of proceeds from borrowings under the Payroll Protection Program.

Net cash used in financing activities was \$50.0 million during 2019, primarily due to using \$49.7 million for repayments of debt, net of borrowings.

Critical Accounting Policies and Estimates

The Company's consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. Preparation of these statements requires management to make judgments, estimates and assumptions that affect the amounts of assets and liabilities in the financial statements and revenue and expenses during the reporting period. Significant accounting policies are described in Note 2, "Summary of Significant Accounting Policies," in Part II, Item 8 – "Financial Statements and Supplementary Data" of this Annual Report. The Company believes the following accounting policies are critical due to the significant, subjective and complex judgments and estimates required when preparing the consolidated financial statements. The Company regularly reviews judgments, assumptions and estimates related to the critical accounting policies.

Revenue Recognition

The Company recognizes revenue to depict the transfer of control of promised goods or services to its customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. See Note 5, "Revenue from Contracts with Customers," in Part II of this Annual Report for further discussion.

The Company recognizes revenue based on a five-step model when all of the following criteria have been met: (i) a contract with a customer exists, (ii) performance obligations have been identified, (iii) the price to the customer has been determined, (iv) the price to the customer has been allocated to the performance obligations, and (v) performance obligations are satisfied.

Products and services are sold with fixed or determinable prices. Certain sales include right of return provisions, which are considered when recognizing revenue and deferred accordingly. Deposits and other funds received in advance of delivery are deferred until the transfer of control is complete.

The Company primarily sells chemicals and equipment recognized at a point in time based on when control transfers to the customer determined by agreed upon delivery terms. Additionally, the Company offers various services associated to products sold which includes field services, installation, maintenance and other functions. Service revenue is recognized on an over time basis for the CT segment as services are performed as the customer is simultaneously benefiting as the Company performs. For the DA segment, services are recognized upon completion of commissioning and installation due to the short-term nature of the performance obligation. The DA segment has additional performance obligations related to providing ongoing or reoccurring maintenance. Revenue for these types of arrangements is recognized ratably over time throughout the contract period. Additionally, the DA segment may provide subscription-type arrangements with customers in which monthly reoccurring revenue is recognized ratably over time in accordance with agreed upon terms and conditions.

As an accounting policy election, the Company excludes from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by the entity from a customer.

Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of revenues.

Reserve for Excess and Obsolete Inventory

Inventories consist of raw materials and finished goods and are stated at the lower of cost or market, using the weighted-average cost method, or net realizable value. Finished goods inventories include raw materials, direct labor and production overhead. The Company's inventory reserve represents the excess of the inventory carrying amount over the amount expected to be realized from the ultimate sale or other disposal of the inventory.

The Company regularly reviews inventory quantities on hand and records provisions or impairments for excess or obsolete inventory based on the Company's forecast of product demand, historical usage of inventory on hand, market conditions, production and procurement requirements and technological developments. Significant or unanticipated changes in market conditions or Company forecasts could affect the amount and timing of provisions for excess and obsolete inventory and inventory impairments.

Specific assumptions are updated at the date of each evaluation to consider Company experience and current industry trends. Significant judgment is required to predict the potential impact which the current business climate and evolving market conditions could have on the Company's assumptions. Changes which may occur in the energy industry are hard to predict, and they may occur rapidly. To the extent that changes in market conditions result in adjustments to management assumptions, impairment losses could be realized in future periods.

At December 31, 2020 and 2019, the reserve for excess and obsolete inventory was \$11.1 million and \$5.7 million, or 48.3% and 19.7% of inventory, respectively.

Business Combinations

The Company includes the results of operations of its acquisitions in its consolidated results, prospectively from the date of acquisition. Acquisitions are accounted for by applying the acquisition method. The Company allocates the fair value of purchase consideration to the assets acquired, liabilities assumed and any non-controlling interests in the acquired entity generally based on their fair values at the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired, liabilities assumed and any non-controlling interests in the acquired entity is recorded as goodwill. The primary items that generate goodwill include the value of the synergies between the acquired company and Flotek and the value of the acquired assembled workforce. Acquisition-related expenses are recognized separately from the business acquisition and are recognized as expenses as incurred.

Although the Company believes the assumptions and estimates it has made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain.

During the second quarter of 2020, the Company acquired 100% ownership of JP3, a privately-held data and analytics technology company, in a cash-and-stock transaction. See Note 3, "Business Combination," in Part II of this Annual Report for further information.

Goodwill

Goodwill is not subject to amortization but is tested for impairment annually during the fourth quarter, or more frequently if an event occurs or circumstances change that would indicate a potential impairment. These circumstances may include, but are not limited to, a significant adverse change in the business climate, unanticipated competition, or a change in projected operations or results of a reporting unit. Goodwill is tested for impairment at a reporting unit level.

During the annual testing, or when tested upon the occurrence of a triggering event, the Company assesses whether a goodwill impairment exists using both qualitative and quantitative assessments. The qualitative assessment involves determining whether events or circumstances exist that indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If, based on this qualitative assessment, it is determined that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, the Company does not perform a quantitative assessment.

If the qualitative assessment indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount or if the Company elects not to perform a qualitative assessment, a quantitative impairment test is performed to determine whether goodwill impairment exists at the reporting unit.

The quantitative impairment test, used to identify both the existence of impairment and the amount of impairment loss, compares the estimated fair value of each reporting unit with goodwill to its carrying amount, including goodwill. To determine fair value estimates, the Company uses the income approach based on discounted cash flow analyses, combined, when appropriate, with a market-based approach. The market-based approach considers valuation comparisons of recent public sale transactions of similar businesses and earnings multiples of publicly traded businesses operating in industries consistent with the reporting unit. If the carrying amount of a reporting unit, including goodwill, exceeds its fair value, an impairment loss is recognized in an amount equal to that excess, limited to the amount of goodwill allocated to that reporting unit.

During the second quarter of 2020, the Company acquired 100% ownership of JP3, a privately-held data and analytics technology company, in a cash-and-stock transaction and created the DA segment. The Company recorded goodwill of \$17.5 million at the date of acquisition. During the third quarter of 2020, the Company identified a triggering event due to significantly lower than expected results and completed an impairment analysis at the DA reporting unit level, which resulted in a goodwill impairment charge of \$11.7 million. During the fourth quarter of 2020, the Company assessed qualitative factors to determine whether it was necessary to perform the quantitative impairment test. As of the fourth quarter of 2020, the Company concluded it was not more-likely-than-not that there was an impairment of goodwill for the DA reporting unit based on the assessment of qualitative factors.

Long-lived Assets Other than Goodwill

Long-lived assets other than goodwill consist of property and equipment and intangible assets that have determinable and indefinite lives. The Company makes judgments and estimates regarding the carrying amount of these assets, including amounts to be capitalized, depreciation and amortization methods to be applied, estimated useful lives and possible impairments. Property and equipment and intangible assets with determinable lives are tested for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable.

For property and equipment, events or circumstances indicating possible impairment may include a significant decrease in market value or a significant change in the business climate. An impairment loss is recognized when the carrying amount of an asset exceeds the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss is the excess of the asset's carrying amount over its fair value. Fair value is generally determined using an appraisal by an independent valuation firm or by using a discounted cash flow analysis.

For intangible assets with definite lives, events or circumstances indicating possible impairment may include an adverse change in the extent or manner in which the asset is being used or a change in the assessment of future operations. The Company assesses the recoverability of the carrying amount by preparing estimates of future revenue, margins and cash flows. If the sum of expected future cash flows (undiscounted and without interest charges) is less than the carrying amount, an impairment loss is recognized. The impairment loss recognized is the amount by which the carrying amount exceeds the fair value. Fair value of these assets may be determined by a variety of methodologies, including discounted cash flows.

Intangible assets with indefinite lives are not subject to amortization but are tested for impairment annually during the fourth quarter, or more frequently if an event occurs or circumstances change that would indicate a potential impairment. These circumstances may include, but are not limited to, a significant adverse change in the business climate, unanticipated competition, or a change in projected operations or results of a reporting unit.

The Company assesses whether an indefinite lived intangible impairment exists using both qualitative and quantitative assessments. The qualitative assessment involves determining whether events or circumstances exist that indicate it is more likely than not that the fair value of the indefinite lived intangible is less than its carrying amount. If, based on this qualitative assessment, it is determined that it is not more likely than not that the fair value of the indefinite lived intangible is less than its carrying amount, the Company does not perform a quantitative assessment.

If the qualitative assessment indicates that it is more likely than not that the indefinite-lived intangible asset is impaired or if the Company elects to not perform a qualitative assessment, the Company then performs the quantitative impairment test. The quantitative impairment test for an indefinite-lived intangible asset consists of a comparison of the fair value of the asset with its carrying amount. If the carrying amount of an intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. Fair value of these assets may be determined by a variety of methodologies, including discounted cash flows.

The development of future net undiscounted cash flow projections requires management projections of future sales and profitability trends and the estimation of remaining useful lives of assets. These projections are consistent with those projections the Company uses to internally manage operations. When potential impairment is identified, a discounted cash flow valuation model similar to that used to value goodwill at the reporting unit level, incorporating discount rates commensurate with risks associated with each asset, is used to determine the fair value of the asset in order to measure potential impairment. Discount rates are determined by using a weighted average cost of capital ("WACC"). Estimated revenue and WACC assumptions are the most sensitive and susceptible to change in the long-lived asset analysis as they require significant management judgment. The Company believes the assumptions used are reflective of what a market participant would have used in calculating fair value.

Valuation methodologies utilized to evaluate long-lived assets other than goodwill for impairment were consistent with prior periods. Specific assumptions discussed above are updated at each test date to consider current industry and Company-specific risk factors from the perspective of a market participant. The current business climate is subject to evolving market conditions and requires significant management judgment to interpret the potential impact to the Company's assumptions. To the extent that changes in the current business climate result in adjustments to management projections, impairment losses may be recognized in future periods.

There are significant inherent uncertainties and judgments involved in estimating fair value. The Company cannot predict the occurrence of events or circumstances that could adversely affect the fair value of the asset group. Such events may include, but are not limited to, deterioration of the economic environment, increases in the Company's WACC, material negative changes in relationships with significant customers, reductions in valuations of other public companies in the Company's industry, or strategic decisions made in response to economic and competitive conditions. If actual results are not consistent with the Company's current estimates and assumptions, additional impairment of long-lived assets could be required.

During the first quarter of 2020, the Company evaluated and recorded remeasurement and impairment charges on right-of-use assets, fixed assets and intangible assets totaling \$57.5 million as a result of the adverse effect of the COVID-19 pandemic, estimated effect on the economy, and the related negative impact on oil and natural gas prices on projections of future cash flows. During the third quarter of 2020, the Company recorded an impairment write-down to estimated fair market value of \$12.5 million for intangible assets of the JP3 acquisition, which resulted from reduced demand in the oil and gas sector, extended impact of the COVID-19 pandemic and lower performance than expected by the reporting unit. See Note 11, "Impairment of Fixed, Long-lived and Intangible Assets," for additional information.

Income Taxes

The Company's tax provision is subject to judgments and estimates necessitated by the complexity of existing regulatory tax statutes and the effect of these upon the Company due to operations in multiple tax jurisdictions. Income tax expense is based on taxable income, statutory tax rates and tax planning opportunities available in the various jurisdictions in which the Company operates. The Company's income tax expense fluctuates from year to year as the amount of pretax income or loss fluctuates. Changes in tax laws and the Company's profitability within and across the jurisdictions may impact the Company's

tax liability. While the annual tax provision is based on the best information available to the Company at the time of preparation, several years may elapse before the ultimate tax liabilities are determined.

Deferred tax assets and liabilities are recognized for temporary differences between financial statement carrying amounts and the tax bases of assets and liabilities and are measured using the tax rates expected to be in effect when the differences reverse. Deferred tax assets and liabilities are recognized related to the anticipated future tax effects of temporary differences between the financial statement basis and the tax basis of the Company's assets and liabilities using statutory tax rates at the applicable year end. Deferred tax assets are also recognized for operating loss and tax credit carry forwards. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is used to reduce deferred tax assets when uncertainty exists regarding their realization.

A valuation allowance is established when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The establishment of a valuation allowance requires significant judgment and is impacted by various estimates. Both positive and negative evidence, as well as the objectivity and verifiability of that evidence, is considered in determining the appropriateness of recording a valuation allowance on deferred tax assets. Except for a state jurisdiction, the Company maintains a full valuation allowance on its deferred tax assets.

The Company periodically identifies and evaluates uncertain tax positions. This process considers the amounts and probability of various outcomes that could be realized upon final settlement. Liabilities for uncertain tax positions are based on a two-step process. The actual benefits ultimately realized may differ from the Company's estimates. Changes in facts, circumstances, and new information may require a change in recognition and measurement estimates for certain individual tax positions. Any changes in estimates are recorded in results of operations in the period in which the change occurs. At December 31, 2020, the Company performed an evaluation of its various tax positions and concluded that it did not have uncertain tax positions requiring disclosure.

Recent Accounting Pronouncements

Recent accounting pronouncements which may impact the Company are described in Note 2, "Summary of Significant Accounting Policies," in Part II, Item 8 – "Financial Statements and Supplementary Data" of this Annual Report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The Company is primarily exposed to market risk from changes in foreign currency exchange rates and raw material prices. Market risk is measured as the potential negative impact on earnings, cash flows or fair values resulting from a hypothetical change in interest rates, commodity prices or foreign currency exchange rates over the next year. The Company manages exposure to market risks at the corporate level. The portfolio of interest-sensitive assets and liabilities is monitored and adjusted to provide liquidity necessary to satisfy anticipated short-term needs. The Company's risk management policies allow the use of specified financial instruments for hedging purposes only. Speculation on interest rates or foreign currency rates is not permitted. The Company does not consider any of these risk management activities to be material.

Foreign Currency Exchange Risk

The Company's functional currency is primarily the U.S. dollar. The Company operates principally in the United States and has limited exposure to foreign currency risk in its international operations. During 2020, approximately 4% of revenue was denominated in non-U.S. dollar currencies and virtually all assets and liabilities of the Company are denominated in U.S. dollars. However, as the Company expands its international operations, non-U.S. denominated activity is likely to increase. The Company has not historically used swaps or foreign currency hedges. The Company may utilize swaps or foreign currency hedges in the future.

Commodity Risk

The Company, and the CT segment in particular, primarily relies upon long-term strategic supply relationships to meet many of its raw material needs and are expected to remain in place for the foreseeable future. Price increases are passed along to the

consider utilizing forms of hedging from time to time in the future	ire.

Company's customers, where applicable. The Company presently does not have any commodity futures contracts but may

Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors Flotek Industries, Inc. Houston, Texas

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Flotek Industries, Inc. (the "Company") as of December 31, 2020, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for the year then ended, and the related notes (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 at December 31, 2020 and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated March 16, 2021 expressed an adverse opinion thereon.

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 audit. We are a public accounting firm registered with the 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 audit 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 audit 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 audit 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 audit provides a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Impairment of Fixed and Long-lived Assets – CT Reporting Unit

As described in Notes 7, 8 and 10 to the consolidated financial statements, the Company has recorded net property and equipment ("fixed assets") of \$9.1 million, and operating lease right-of-use assets and intangible assets ("long-lived assets") of \$2.3 million and \$0 million, respectively, as of December 31, 2020. As of March 31, 2020, the Company had one reporting unit, ECT, which it considered an asset group for purposes of assessing asset impairment. The Company reviews the asset group for impairment whenever events and changes in circumstances indicate the carrying value of such assets may not be recoverable ("triggering events"). During the quarter ended March 31, 2020, the Company determined there were triggering events, primarily related to the COVID-19 pandemic and the decline in energy prices, and performed an asset impairment test as of March 31, 2020. The asset group is considered impaired when the carrying value exceeds its fair value. The Company determined fair value using the income approach, which requires management to make significant assumptions about expected

future cash flows, including projected revenue and profitability growth rates, discount rates, obsolescence rates, and royalty rates. Management utilized a third-party valuation specialist to assist in the preparation of the valuation of the asset group.

We identified the impairment assessment of the Company's fixed and long-lived assets as a critical audit matter. Auditing the Company's impairment test for the asset group was complex and highly judgmental because (i) there was significant judgment used by management to develop the fair value measurement, which led to a high degree of audit judgment and subjectivity in performing procedures relating to fair value measurement; (ii) there was significant effort in performing procedures to evaluate the reasonableness of the fair value measurement and significant assumptions, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

The primary procedures we performed to address this critical audit matter included:

- Evaluating the appropriateness of the method used by management to determine the fair value of the asset group.
- Evaluating the reasonableness of the assumptions used to estimate expected future cash flows, including revenue and profitability growth rates, by comparing the rates to historical performance and industry data.
- Testing the completeness, accuracy and relevance of underlying data used in the impairment assessment.
- Utilizing professionals with specialized skill and knowledge to assist in evaluating the appropriateness of the Company's impairment assessment and reasonableness of certain significant assumptions described above, including the discount rate, obsolescence rate, and royalty rate.

Business Combination

As described in Note 3 to the consolidated financial statements, the Company completed its acquisition of JP3 Measurement, LLC for consideration of \$36.6 million during the second quarter of 2020. The Company allocated the fair value of the purchase consideration to the assets acquired, liabilities assumed and any noncontrolling interests in the acquired entity generally based on their fair values at the acquisition date. As a result of the acquisition, management was required to estimate fair values of the assets acquired and liabilities assumed, including certain identifiable intangible assets. Management utilized a third-party valuation specialist to assist in the preparation of the valuation of certain identifiable intangible assets.

We identified the determination of fair values of certain identifiable intangible assets, which primarily included customer relationships, as a critical audit matter. Management exercised significant judgment to select the valuation methods and to develop the assumptions used in the measurement of the fair value of the identifiable intangible assets. Significant assumptions included discount rates, customer attrition, and projected revenue growth rates. These assumptions are forward-looking and could be affected by future economic and market conditions. The principal considerations for our determination included the following: (i) changes in the significant assumptions could have a significant impact on the fair value of the assets acquired, (ii) significant unobservable inputs and assumptions utilized by management in determining the fair value of the identifiable intangible assets acquired and liabilities assumed, including the earn-out provision, and (iii) appropriateness of use of various valuation models to determine the fair value of the identifiable intangible assets acquired. Auditing these elements involved especially subjective auditor judgment due to the nature and extent of audit effort required to address these matters, including the extent of specialized skill or knowledge needed.

The primary procedures we performed to address this critical audit matter included:

- Testing the completeness, accuracy and relevance of underlying data used in the analysis.
- Assessing the reasonableness of significant underlying assumptions through: (i) comparing prospective financial information to current industry trends, as well as to historical performance of the acquired business, and (ii) performing analyses to evaluate the potential effect of changes in the significant assumptions.
- Utilizing personnel with specialized knowledge and skill with valuation to assist in: (i) assessing the reasonableness of certain significant assumptions incorporated into the various valuation models, and (ii) assessing the appropriateness of various valuation models utilized by management to determine the fair values of the assets acquired.

Impairment of Goodwill and Long-lived Assets - Data Analytics

As described in Notes 9 and 11 to the consolidated financial statements, during the third quarter of 2020, the Company identified a triggering event related to the Data Analytics operating segment resulting from lower than expected performance and performed a recoverability test of the Data Analytics asset group as of September 30, 2020. As a result of not passing the recoverability test, the Company was required to measure the fair value of the asset group in order to determine the impairment

loss. The fair value of the asset group was estimated based on the discounted future cash flows. The Company also identified a triggering event related to goodwill and performed an impairment analysis. To determine the fair value of the Data Analytics reporting unit, the Company used the discounted cash flow method under the income approach, and the guideline public company method under the market approach. The significant assumptions used to determine the fair value of the asset group and the reporting unit included the projected sales growth rate, discount rate, customer attrition rate, obsolescence rate, and royalty rate.

We identified the impairment assessment of the Company's goodwill and long-lived assets, including customer relationships, trademarks and patents, as a critical audit matter. Auditing the Company's impairment test was complex and highly judgmental because (i) there was significant judgment used by management to develop the fair value measurement, which led to a high degree of audit judgment and subjectivity in performing procedures relating to fair value measurement; (ii) there was significant effort in performing procedures to evaluate the reasonableness of the fair value measurement and significant assumptions, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge to assist in performing these procedures and evaluating the audit evidence obtained.

The primary procedures we performed to address this critical audit matter included:

- Evaluating the appropriateness of the method management used to estimate the fair value of the asset group and reporting unit.
- Evaluating the reasonableness of the projections for revenue growth and profitability by comparing the rates to the current and past performance of the business and evaluating whether these assumptions were consistent with evidence obtained in other areas of the audit and industry data.
- Testing the completeness, accuracy and relevance of underlying data used in the impairment assessment.
- Utilizing professionals with specialized skill and knowledge to assist in evaluating the appropriateness of the Company's impairment assessment and reasonableness of certain significant assumptions described above, including the discount rate.

Reserve for Excess and Obsolete Inventory

As described in Note 6 to the consolidated financial statements, the Company has recorded net inventories of \$11.8 million as of December 31, 2020. The Company regularly reviews inventory quantities on hand and records provisions for excess or obsolete inventory based on the Company's forecast of product demand, historical usage of inventory on hand, market conditions, production and procurement requirements and technological developments. Significant management judgment is required to predict the potential impact that the current business climate and evolving market conditions could have on the Company's assumptions.

We identified the reserve for excess and obsolete inventory as a critical audit matter. The principal considerations for our determination are (i) there was significant judgment by management when developing the reserve for excess and obsolete inventory, which in turn led to a high degree of auditor judgment and subjectivity in performing procedures relating to the reserve for excess and obsolete inventory; and (ii) there was significant audit effort in performing procedures to evaluate management's analysis and significant assumptions, including projections of future demand and risk of technological or competitive obsolescence for products.

The primary procedures we performed to address this critical audit matter included:

- Testing management's process for developing the reserve for excess and obsolete inventory, including evaluating the appropriateness of the method,
- Testing the completeness, accuracy, and relevance of underlying data used in the estimate;
- Evaluating the reasonableness of the projections of future demand for products by evaluating whether the assumption was consistent with the product's historical performance.
- Evaluating the reasonableness of management's assumption related to the risk of technological or competitive obsolescence for products by evaluating whether the assumption was consistent with technological or competitive obsolescence experienced during the product life cycle of existing products.

Sources and Uses of Liquidity

As described in Note 1 to the Company's financial statements, the Company currently funds its operations primarily from cash on hand. The Company has a history of operating losses and expects to utilize material cash flows in operations in the 12 months subsequent to the issuance of the financial statements, and while the Company believes that cash and liquid assets will provide sufficient financial resources, it has identified conditions that could have a negative impact on liquidity. In the event that the Company's cash on hand is not sufficient to fund operations, the Company has identified actions it may take.

We identified the Company's future cash flows and management's plans as a critical audit matter because of the significant judgment involved in estimating cash flows and the evaluation of management's plans. Auditing the Company's forecasted cash flows was especially challenging and required significant auditor judgment because (i) there was significant judgment used by management to develop their forecasts, which led to a high degree of audit judgment and subjectivity in performing procedures relating to projected liquidity, and (ii) there was significant effort in performing procedures to evaluate management's conclusion that the Company's plans will be effectively implemented.

The primary procedures we performed to address the critical audit matter included:

- Assessing the reasonableness of management's key assumptions, including projected revenue, in the forecasted future
 cash flows and evaluating positive and negative evidence that support or contradict the conclusions reached by
 management.
- Evaluating management's plans in the context of other audit evidence obtained during the audit to assess the probability of successfully implementing the plans.
- Evaluating the adequacy of the Company's disclosures in the notes to the financial statements.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2020.

Houston, Texas March 16, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors Flotek Industries, Inc. Houston, Texas

Opinion on Internal Control over Financial Reporting

We have audited Flotek Industries, Inc. (the "Company's") internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria") In our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We do not express an opinion or any other form of assurance on management's statements referring to any corrective actions taken by the Company after the date of management's assessment.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheet of the Company as of December 31, 2020, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for the year then ended, and the related notes (collectively referred to as "the financial statements") and our report dated March 16, 2021, expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Controls and Procedures. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A material weakness is 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 the company's annual or interim financial statements will not be prevented or detected on a timely basis. Material weaknesses have been identified regarding management's failure to design and maintain controls over i) the forecasting process, ii) and nonrecurring transactions, including derecognition of items and cash flow presentation relating to disposal transactions and operating ineffectiveness of controls relating to impairment evaluations, and iii) going concern evaluations, all as described in management's assessment. These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2020 financial statements, and this report does not affect our report dated March 16, 2021 on those financial statements.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

Houston, Texas March 16, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Flotek Industries, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Flotek Industries, Inc. and subsidiaries (the "Company") as of December 31, 2019 and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for the year then ended, and the related notes (collectively referred to as the "consolidated financial statements").

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2019 and the consolidated results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

The Company's management is responsible for these consolidated financial statements and for maintaining effective internal control over financial reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. 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 audit 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 audit of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit 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 audit provides a reasonable basis for our opinion.

/s/ Moss Adams LLP

Houston, Texas March 6, 2020

We served as the Company's auditor from 2017 to 2020.

FLOTEK INDUSTRIES, INC. CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	December 31,			l ,
		2020		2019
ASSETS				
Current assets:				
Cash and cash equivalents	\$	38,660	\$	100,575
Restricted cash		664		663
Accounts receivable, net of allowance for doubtful accounts of \$1,316 and \$1,527 at December 31, 2020 and 2019, respectively		11,764		15,638
Inventories, net		11,837		23,210
Income taxes receivable		403		631
Other current assets		3,127		13,191
Total current assets		66,455		153,908
Property and equipment, net		9,087		39,829
Operating lease right-of-use assets		2,320		16,388
Goodwill		8,092		_
Deferred tax assets, net		223		152
Other intangible assets, net		_		20,323
Other long-term assets		33		_
TOTAL ASSETS	\$	86,210	\$	230,600
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	5,787	\$	16,231
Accrued liabilities	Ψ	18,275	Ψ	24,552
Income taxes payable		21		21,332
Interest payable		34		
Current portion of operating lease liabilities		636		486
Current portion of finance lease liabilities		60		55
Current portion of long-term debt		4,048		
Total current liabilities		28,861		41,324
Deferred revenue, long-term		117		71,327
Long-term operating lease liabilities		8,348		16,973
Long-term finance lease liabilities		96		158
Long-term debt		1,617		130
Deferred tax liabilities, net		1,017		116
TOTAL LIABILITIES		39,039		58,571
Commitments and contingencies (Note 16)		39,039		36,371
Stockholders' Equity:				
Preferred stock, \$0.0001 par value, 100,000 shares authorized; no shares issued and outstanding				
Common stock, \$0.0001 par value, 140,000,000 shares authorized; 78,669,414 shares issued and 73,088,494 shares outstanding at December 31, 2020; 63,656,897 shares issued and 59,511,416		_		
shares outstanding at December 31, 2019		8		247.564
Additional paid-in capital		359,721		347,564
Accumulated other comprehensive (loss) income		(19)		181
Accumulated deficit		(278,688)		(142,238
Treasury stock, at cost; 5,580,920 and 4,145,481 shares at December 31, 2020 and 2019, respectively		(33,851)		(33,484
Total stockholders' equity		47,171		172,029
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	86,210	\$	230,600

FLOTEK INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (in thousands, except per share data)

	Years ended December 31,			
		2020		2019
Revenue	\$	53,141	\$	119,353
Costs and expenses:				
Operating expenses (excluding depreciation and amortization)		88,266		148,100
Corporate general and administrative		16,311		27,975
Depreciation and amortization		3,412		8,465
Research and development		7,213		8,863
(Gain) loss on disposal of long-lived assets		(94)		1,450
Impairment of fixed and long-lived assets		69,975		_
Impairment of goodwill		11,706		_
Total costs and expenses		196,789		194,853
Loss from operations		(143,648)		(75,500)
Other (expense) income:				
Gain on lease termination		576		_
Interest expense		(60)		(2,019)
Other income (expense), net		503		1,708
Total other income (expense)		1,019		(311)
Loss before income taxes		(142,629)		(75,811)
Income tax benefit (expense)		6,179		(262)
Loss from continuing operations		(136,450)		(76,073)
Income from discontinued operations, net of tax		<u> </u>		42,158
Net loss	\$	(136,450)	\$	(33,915)
Basic and diluted earnings (loss) per common share:				
Continuing operations	\$	(2.00)	\$	(1.29)
Discontinued operations, net of tax				0.72
Basic earnings (loss) per common share	\$	(2.00)	\$	(0.57)
Weighted average common shares:				
Weighted average common shares used in computing basic and diluted loss per common share		68,312		58,750

FLOTEK INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (in thousands)

	<u> </u>	Years ended December 3			
		2020		2019	
Loss from continuing operations, net of tax	\$	(136,450)	\$	(76,073)	
Income from discontinued operations, net of tax				42,158	
Net loss		(136,450)		(33,915)	
Other comprehensive (loss) income:					
Foreign currency translation adjustment		(200)		150	
Comprehensive loss	\$	(136,650)	\$	(33,765)	

FLOTEK INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (in thousands)

	Commo	n Stock	Treasu	ıry Stock	Additional	Accumulated Other	Retained Earnings	Total
	Shares Issued	Par Value	Shares	Cost	Paid-in Capital	Comprehensive Income (Loss)	(Accumulated Deficit)	Stockholders' Equity
Balance, December 31, 2018	62,163	\$ 6	3,770	\$ (33,237)	\$ 343,536	\$ 31	\$ (108,323)	\$ 202,013
Net loss	_	_	_	_	_	_	(33,915)	(33,915)
Foreign currency translation adjustment	_	_	_	_	_	150	_	150
Stock issued under employee stock purchase plan	_	_	(18)	_	35	_	_	35
Restricted stock awards granted	924	_	_	_	_	_	_	_
Restricted stock forfeited	_	_	299	_	_	_	_	_
Restricted stock units granted	570	_	_	_	_	_	_	_
Treasury stock purchased	_	_	94	(247)	_	_	_	(247)
Stock compensation expense	_	_	_	_	3,993	_	_	3,993
Balance, December 31, 2019	63,657	\$ 6	4,145	\$ (33,484)	\$ 347,564	\$ 181	\$ (142,238)	\$ 172,029
Net loss	_	_	_	_	_	_	(136,450)	(136,450)
Foreign currency translation adjustment	_	_	_	_	_	(200)	_	(200)
Sale of common stock	200	_	_	_	339	_	_	339
Stock issued under employee stock purchase plan	_	_	(78)	_	123	_	_	123
Restricted stock awards granted	3,115	1	_	_	2,322	_	_	2,323
Restricted stock forfeited	_	_	1,302	_	_	_	_	_
Restricted stock units granted	86	_	_	_	_	_	_	_
Stock surrendered for exercise of stock options	_	_	66	_	_	_	_	_
Treasury stock purchased	_	_	146	(253)	_	_	_	(253)
Stock issued in JP3 acquisition	11,500	1	_	_	8,537	_	_	8,538
Stock options granted	_	_	_	_	722	_	_	722
Stock options exercised	111			(114)	114			
Balance, December 31, 2020	78,669	\$ 8	5,581	\$ (33,851)	\$ 359,721	\$ (19)	\$ (278,688)	\$ 47,171

FLOTEK INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	v			
		ears ended	Decen	
		2020		2019
ash flows from operating activities:	\$	(136,450)	\$	(33,915)
Net loss Income from discontinued operations, net of tax	Ψ	(130,430)	ψ	42,158
Loss from continuing operations	_	(136,450)	_	(76,073)
Adjustments to reconcile loss from continuing operations to net cash used in operating		(130,430)		(70,073)
Change in fair value of contingent consideration		2,716		_
Depreciation and amortization		3,412		8,465
Amortization of deferred financing costs				1,428
Provision for doubtful accounts		652		512
Provision for excess and obsolete inventory		12,261		5,659
Impairment of fixed assets		30,178		_
(Gain) loss on sale of assets		(561)		1,450
Impairment of goodwill		11,706		_
Impairment of right-of-use assets		7,434		_
Impairment of intangible assets		32,363		_
Stock compensation expense		3,044		4,235
Deferred income tax (benefit) provision		(187)		18,307
Reduction in tax benefit related to stock-based awards		_		24
Non-cash lease expense		356		740
Changes in current assets and liabilities:				
Accounts receivable, net		3,556		20,993
Inventories		3,955		(727
Income taxes receivable		182		2,546
Other current assets		1,026		2,579
Other long-term assets		(16)		3,286
Accounts payable		(12,323)		1,131
Accrued liabilities		(11,260)		908
Income taxes payable		84		
Interest payable		34		(8)
Net cash used in operating activities		(47,838)		(4,545)
ash flows from investing activities:		(1.425)		(2.411)
Capital expenditures		(1,425)		(2,411)
Proceeds from sale of businesses		9,907 109		155,498 240
Proceeds from sale of assets				240
Payments for acquisitions, net of cash acquired		(26,284)		(614
Purchase of patents and other intangible assets			_	` `
Net cash (used in) provided by investing activities		(17,701)	_	152,713
ash flows from financing activities:				42,984
Borrowings on revolving credit facility		_		
Repayments on revolving credit facility		(1.200)		(92,715
Payment for contingent consideration		(1,200)		_
Proceeds from Paycheck Protection Program loan		4,788 (70)		(51
Payments for finance leases Purchase of treasury stock		(253)		(247
Proceeds from sale of common stock		462		35
Net cash provided by (used in) financing activities		3,727	_	(49,994
scontinued operations:		3,727	_	(12,221
Net cash used in operating activities				(322)
Net cash provided by investing activities		_		337
Net cash flows provided by discontinued operations			_	15
· · · · · · · · · · · · · · · · · · ·	_	(102)	_	5
fect of changes in exchange rates on cash and cash equivalents		(102)		
et change in cash, cash equivalents and restricted cash		(61,914)		98,194
sh, cash equivalents at beginning of period		100,575		3,044
estricted cash at the beginning of the period		663		663
		101,238		3,707
nsh and cash equivalents and restricted cash at beginning of period				
ash and cash equivalents and restricted cash at beginning of period ash and cash equivalents at end of period		38,660		100,575
nsh and cash equivalents and restricted cash at beginning of period				100,575 663 101,238

Note 1 — Organization and Nature of Operations

General

Flotek Industries, Inc. ("Flotek" or the "Company") is a technology-driven chemistry and data company that serves customers in industrial, commercial and consumer markets.

The Company's Chemistry Technologies ("CT") segment develops, manufactures, packages, distributes, delivers, and markets specialty chemicals that enhance the profitability of hydrocarbon producers and cleans surfaces in both commercial and personal settings to help reduce the spread of bacteria, viruses and germs.

The Company's Data Analytics ("DA") segment enables users to maximize the value of their hydrocarbon associated processes by providing analytics associated with the streams in seconds rather than minutes or days. The real-time access to information prevents waste, reduces reprocessing and allows users to pursue automation of their hydrocarbon streams to maximize their profitability.

The Company formed the DA segment during the second quarter of 2020, after acquiring JP3 Measurement, LLC ("JP3"). The Company's two operating segments, CT and DA, are both supported by its continuing Research & Innovation advanced laboratory capabilities. For further discussion of our operations and segments, see Note 22, "Business Segment, Geographic and Major Customer Information." For further discussion of the JP3 acquisition, see Note 3, "Business Combination."

The Company was initially incorporated under the laws of the Province of British Columbia in 1985. In October 2001, the Company changed its corporate domicile to the state of Delaware.

Impact of COVID-19

In March 2020, the World Health Organization declared the outbreak of the novel coronavirus ("COVID-19") a global pandemic. The pandemic negatively impacted the U.S. and global economy, disrupted domestic and international oil and gas markets, and increased volatility in financial markets. These effects materially and adversely affected, and may continue to materially and adversely affect, the demand for oil and natural gas as well as for our services and products. The Company's primary markets in the U.S. are particularly subject to the impacts on the oil and gas industry. As a result, the Company recorded an impairment to property, plant and equipment; intangible assets; and operating right-of-use assets during the first quarter of 2020. The extended impact of COVID-19 and its effect on the oil and gas industry contributed to additional impairment charges to goodwill and intangible assets in the third quarter of 2020. See Note 11, "Impairment of Fixed, Long-lived and Intangible Assets," and Note 9, "Goodwill." In addition, the Company increased the provision of excess and obsolete inventory as discussed in Note 6, "Inventories." Future developments and effects are highly uncertain and cannot be predicted, including the scope and duration of the pandemic. This uncertainty could have a material impact on accounting estimates and assumptions used in our consolidated financial statements.

Sources and Uses of Liquidity

The Company currently funds its operations and growth primarily from cash on hand. The ability of the Company to grow and be competitive in the marketplace is dependent on the availability of adequate capital. Access to capital is dependent, in large part, on the Company's cash flows and the availability of and access to equity and debt financing. The Company has a history of losses and negative cash flows from operations and expects to utilize a significant amount of cash in operations in the following year. While we believe that our cash and liquid assets will provide us with sufficient financial resources to fund operations and meet our capital requirements and anticipated obligations as they become due, a prolonged COVID-19 impact, a slower than expected recovery in of oil and gas markets, or reduced spending by our customers could have a negative impact on our liquidity.

Accordingly, while the Company believes that its existing cash will enable it to fund its operations and growth, the Company cannot guarantee the level of cash flows in the future. In the event that the Company's existing cash on hand is not sufficient to fund operations, meet our capital requirements or satisfy the anticipated obligations as they become due, the Company expects to take further action to protect its liquidity position. Such actions may include, but are not limited to:

- Sale of non-core real estate properties;
- Sale-leaseback transactions of facilities;
- Sale of excess inventory and/or raw materials;

- Entry into a borrowing facility with one or more lenders;
- Raising equity either in the public markets or via a private placement offering;
- •Reducing executive salaries and/or board of directors' fees, or making a portion of those fees or salaries in equity instead of cash; and
- Reducing professional advisory fees and headcount.

However, with respect to anticipated transactions, there can be no assurance that such matters can be implemented on acceptable terms or at all.

Note 2 — Summary of Significant Accounting Policies

Basis of Presentation

The Company's consolidated financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America ("U.S. GAAP"). The consolidated financial statements include the accounts of Flotek Industries, Inc. and all wholly-owned subsidiaries. Where Flotek owns less than 100% of the share capital of its subsidiaries but is still considered to have sufficient ownership to control the business, results of the business operations are consolidated within the Company's financial statements. The ownership interests held by other parties are shown as noncontrolling interests.

During the fourth quarter of 2018, the Company classified the Consumer and Industrial Chemistry Technologies ("CICT") segment as held for sale based on management's intention to sell this business, which occurred in February 2019. The results of operations of this segment are presented as "Income from discontinued operations" in the consolidated statements of operations, and the related cash flows of this segment have been reclassified to discontinued operations for all periods presented. For further discussion, see Note 4, "Discontinued Operations."

All significant intercompany accounts and transactions have been eliminated in consolidation. The Company does not have investments in any unconsolidated subsidiaries.

Cash Equivalents

Cash equivalents consist of highly liquid investments with maturities of three months or less at the date of purchase.

Cash Management

The Company uses a controlled disbursement account for its main cash account. Under this system, outstanding checks can be in excess of the cash balances at the bank before the disbursement account is funded, creating a book overdraft. Book overdrafts on this account are presented as a current liability in accounts payable in the consolidated balance sheets.

Restricted Cash

The Company's restricted cash consists of cash that the Company is contractually obligated to maintain in accordance with the terms of its credit card program with a financial institution.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable arise from product sales and services and are stated at estimated net realizable value. This value incorporates an allowance for doubtful accounts to reflect any loss anticipated on accounts receivable balances. The Company regularly evaluates its accounts receivable to estimate amounts that will not be collected and records the appropriate provision for doubtful accounts as a charge to operating expenses. The allowance for doubtful accounts is based on a combination of the age of the receivables, individual customer circumstances, credit conditions, and historical write-offs and collections. The Company writes off specific accounts receivable when they are determined to be uncollectible.

The majority of the Company's customers are engaged in the energy industry. The cyclical nature of the energy industry may affect customers' operating performance and cash flows, which directly impact the Company's ability to collect on outstanding obligations. Additionally, certain customers are located in international areas that are inherently subject to risks of economic, political, and civil instability, which can impact the collectability of receivables.

Changes in the allowance for doubtful accounts for continuing operations are as follows (in thousands):

	Years ended December 31,				
		2020		2019	
Balance, beginning of year	\$	1,527	\$	1,190	
Charges to provision for doubtful accounts, net of recoveries		652		512	
Write-offs		(863)		(175)	
Balance, end of year	\$	1,316	\$	1,527	

Inventories

Inventories consist of raw materials and finished goods and are stated at the lower of cost, or market determined using the weighted-average cost method, or net realizable value. Finished goods inventories include raw materials, direct labor and production overhead. The Company reviews inventories on hand and current market conditions to determine if the cost of raw materials and finished goods inventories exceed current market prices and impairs the cost basis of the inventory accordingly. Obsolete inventory or inventory in excess of management's estimated usage requirement is written down to its estimated market value if those amounts are determined to be less than cost. See Note 6 "Inventories" for discussion of the inventory write-down recorded in 2020.

Property and Equipment

Property and equipment are stated at cost. The cost of ordinary maintenance and repair is charged to operating expense, while replacement of critical components and major improvements are capitalized. Depreciation or amortization of property and equipment, including right-of-use assets ("ROU"), is calculated using the straight-line method over the asset's estimated useful life as follows:

Buildings and leasehold improvements	2-30 years
Machinery and equipment	7-10 years
Furniture and fixtures	3 years
Land improvements	20 years
Transportation equipment	2-5 years
Computer equipment and software	3-7 years

Property and equipment, including ROU assets, are reviewed for impairment on a quarterly basis or whenever events or changes in circumstances indicate the carrying amount of an asset or asset group may not be recoverable. Indicative events or circumstances include, but are not limited to, matters such as a significant decline in market value or a significant change in business climate. An impairment loss is recognized when the carrying amount of an asset exceeds the estimated undiscounted future cash flows from the use of the asset and its eventual disposition. The amount of impairment loss recognized is the excess of the asset's carrying amount over its fair value. Assets to be disposed of are reported at the lower of the carrying amount or the fair value less cost to sell. Upon sale or other disposition of an asset, the Company recognizes a gain or loss on disposal measured as the difference between the net carrying amount of the asset and the net proceeds received.

Goodwill

Goodwill is the excess of cost of an acquired entity over the amounts assigned to identifiable assets acquired and liabilities assumed in a business combination. Goodwill is not subject to amortization but is tested for impairment annually during the fourth quarter, or more frequently if an event occurs or circumstances change that would indicate a potential impairment. These circumstances may include an adverse change in the business climate or a change in the assessment of future operations of a reporting unit.

The Company assesses whether a goodwill impairment exists using both qualitative and quantitative assessments. The qualitative assessment involves determining whether events or circumstances exist that indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If, based on this qualitative assessment, it is determined that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, the Company does not perform a quantitative assessment.

If the qualitative assessment indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount or if the Company elects not to perform a qualitative assessment, a quantitative impairment test is performed to determine whether goodwill impairment exists at the reporting unit.

The quantitative impairment test, used to identify both the existence of impairment and the amount of impairment loss, compares the estimated fair value of each reporting unit with goodwill to its carrying amount, including goodwill. To determine fair value estimates, the Company uses the income approach based on discounted cash flow analyses, combined, when appropriate, with a market-based approach. The market-based approach considers valuation comparisons of recent public sale transactions of similar businesses and earnings multiples of publicly traded businesses operating in industries consistent with the reporting unit. If the carrying amount of a reporting unit, including goodwill, exceeds its fair value, an impairment loss is recognized in an amount equal to that excess, limited to the amount of goodwill allocated to that reporting unit.

Other Intangible Assets

The Company's other intangible assets have finite and indefinite lives and included customer relationships, technology and know-how, trademarks, brand names and purchased patents.

The cost of intangible assets with finite lives is amortized using the straight-line method over the estimated period of economic benefit. Asset lives are adjusted whenever there is a change in the estimated period of economic benefit. No residual value has been assigned to these intangible assets.

Intangible assets with finite lives are tested for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. These conditions may include a change in the extent or manner in which the asset is being used or a change in future operations. The Company assesses the recoverability of the carrying amount by preparing estimates of future revenue, margins, and cash flows. If the sum of expected future cash flows (undiscounted and without interest charges) is less than the carrying amount, an impairment loss is recognized. The impairment loss recognized is the amount by which the carrying amount exceeds the fair value. Fair value of these assets may be determined by a variety of methodologies, including discounted cash flow models.

Intangible assets with indefinite lives are not subject to amortization but are tested for impairment annually during the fourth quarter, or more frequently if an event occurs or circumstances change that would indicate a potential impairment. These circumstances may include, but are not limited to, a significant adverse change in the business climate, unanticipated competition, or a change in projected operations or results of a reporting unit.

The Company assesses whether an indefinite lived intangible impairment exists using both qualitative and quantitative assessments. The qualitative assessment involves determining whether events or circumstances exist that indicate it is more likely than not that the fair value of the indefinite lived intangible is less than its carrying amount. If, based on this qualitative assessment, it is determined that it is not more likely than not that the fair value of the indefinite lived intangible is less than its carrying amount, the Company does not perform a quantitative assessment.

If the qualitative assessment indicates that it is more likely than not that the indefinite-lived intangible asset is impaired or if the Company elects to not perform a qualitative assessment, the Company then performs the quantitative impairment test. The quantitative impairment test for an indefinite-lived intangible asset consists of a comparison of the fair value of the asset with its carrying amount. If the carrying amount of an intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. Fair value of these assets may be determined by a variety of methodologies, including discounted cash flows.

Business Combinations

The Company includes the results of operations of its acquisitions in its consolidated results, prospectively from the date of acquisition. The Company allocates the fair value of purchase consideration to the assets acquired, liabilities assumed and any noncontrolling interests in the acquired entity generally based on their fair values at the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired, liabilities assumed and any noncontrolling interests in the acquired entity is recorded as goodwill. The primary items that generate goodwill include the value of the synergies between the acquired company and Flotek and the value of the acquired assembled workforce. Acquisition-related expenses are recognized separately from the business acquisition and are recognized as expenses as incurred.

Fair Value Measurements

The Company categorizes financial assets and liabilities using a three-tier fair value hierarchy, based on the nature of the inputs used to determine fair value. Inputs refer broadly to assumptions that market participants would use to value an asset or liability and may be observable or unobservable. When determining the fair value of assets and liabilities, the Company uses the most reliable measurement available. See Note 14, "Fair Value Measurements."

Revenue Recognition

The Company recognizes revenue to depict the transfer of control of promised goods or services to its customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. See Note 5, "Revenue from Contracts with Customers," for further discussion on revenue.

The Company recognizes revenue based on a five-step model when all of the following criteria have been met: (i) a contract with a customer exists, (ii) performance obligations have been identified, (iii) the price to the customer has been determined, (iv) the price to the customer has been allocated to the performance obligations, and (v) performance obligations are satisfied.

Products and services are sold with fixed or determinable prices. Certain sales include right of return provisions, which are considered when recognizing revenue and deferred accordingly. Deposits and other funds received in advance of delivery are deferred until the transfer of control is complete.

As an accounting policy election, the Company excludes from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected by the entity from a customer.

Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of revenues.

Foreign Currency Translation

Financial statements of foreign subsidiaries are prepared using the currency of the primary economic environment of the foreign subsidiaries as the functional currency. Assets and liabilities of foreign subsidiaries are translated into U.S. dollars at exchange rates in effect as of the end of identified reporting periods. Revenue and expense transactions are translated using the average monthly exchange rate for the reporting period. Resultant translation adjustments are recognized as other comprehensive income (loss) within stockholders' equity.

Comprehensive Income (Loss)

Comprehensive income (loss) encompasses all changes in stockholders' equity, except those arising from investments from and distributions to stockholders. The Company's comprehensive income (loss) includes net income (loss) and foreign currency translation adjustments.

Research and Development Costs

Expenditures for research activities relating to product development and improvement are charged to expense as incurred.

Income Taxes

Deferred tax assets and liabilities are recognized for temporary differences between financial statement carrying amounts and the tax bases of assets and liabilities and are measured using the tax rates expected to be in effect when the differences reverse. Deferred tax assets and liabilities are recognized related to the anticipated future tax effects of temporary differences between the financial statement basis and the tax basis of the Company's assets and liabilities using statutory tax rates at the applicable year end. Deferred tax assets are also recognized for operating loss and tax credit carry forwards. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date.

A valuation allowance is established when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The establishment of a valuation allowance requires significant judgment and is impacted by various estimates. Both positive and negative evidence, as well as the objectivity and verifiability of that evidence, is considered in determining the appropriateness of recording a valuation allowance on deferred tax assets. Except for a state jurisdiction, the Company maintains a full valuation allowance on its deferred tax assets.

The Company has performed an evaluation and concluded that there are no significant uncertain tax positions requiring recognition in the Company's consolidated financial statements.

The Company's policy is to record interest and penalties related to income tax matters as income tax expense.

Stock-Based Compensation

Stock-based compensation expense for stock-based payments, related to stock options, restricted stock awards and restricted stock units, is recognized based on their grant-date fair values. The Company recognizes compensation expense, net of estimated forfeitures, on a straight-line basis over the requisite service period of the award. Estimated forfeitures are based on historical experience.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect reported amounts of assets and liabilities, disclosure of contingent assets and liabilities, and reported amounts of revenue and expenses. Actual results could differ from these estimates.

Significant items subject to estimates and assumptions include application of the carrying amount and useful lives of property and equipment and intangible assets, impairment assessments, business combinations, stock-based compensation expense, and valuation allowances for accounts receivable, inventories, and deferred tax assets.

Discontinued Operations

The results of operations of a component of the Company that can be clearly distinguished, operationally and for financial reporting purposes, that either has been disposed of or is classified as held for sale is reported in discontinued operations, if the disposal represents a strategic shift that has, or will have, a major effect on the Company's operations and financial results.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation. The reclassifications did not impact previously recorded net loss and stockholders' equity.

Recent Accounting Pronouncements

Changes to U.S. GAAP are established by the Financial Accounting Standards Board ("FASB"). We evaluate the applicability and impact of all authoritative guidance issued by the FASB. Guidance not listed below was assessed and determined to be either not applicable, clarifications of items listed below, immaterial or already adopted by the Company.

(a) Recently Adopted Guidance

Effective January 1, 2020, the Company adopted Accounting Standards Update ("ASU") No. 2018-13, "Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement." This standard removes, modifies and adds additional requirements for disclosures related to fair value measurement in the FASB's Accounting Standards Codification ("ASC") 820. The pronouncement is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, with early adoption permitted in any interim period. Implementation of this standard did not have a material effect on the consolidated financial statements and related disclosures.

(b) New Accounting Standards Issued But Not Adopted as of December 31, 2020

The FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." This standard removes specific exceptions to the general principles in Topic 740. The pronouncement is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years, with early adoption permitted for public companies for periods in which financial statements have not yet been issued. The Company is currently evaluating the impact of this standard on the consolidated financial statements and related disclosures.

The FASB issued ASU No. 2016-13, "Measurement of Credit Losses on Financial Instruments." This standard replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects estimates of expected credit losses over their contractual life that are recorded at inception based on historical information, current conditions, and reasonable and supportable forecasts. The pronouncement is effective for smaller reporting companies for fiscal years beginning after December 15, 2022. The Company is currently evaluating the impact of this standard, including subsequent amendments, on the consolidated financial statements and related disclosures.

Note 3 — Business Combination

During the second quarter of 2020, the Company acquired 100% ownership of JP3, a privately-held data and analytics technology company, in a cash-and-stock transaction. JP3's real-time data platforms combine the energy industry's only field-deployable, inline optical analyzer with proprietary cloud visualization and analytics, targeting an increase of processing efficiencies and valuation of natural gas, crude oil and refined fuels. The transaction was valued at approximately \$36.6 million, as of the transaction closing date, comprised of \$25.0 million in cash, subject to certain adjustments and contingent consideration as described below, and 11.5 million shares in Flotek common stock with an estimated fair value of \$8.5 million, net of a discount for marketability due to a lock-up period. The payment of \$25.0 million was subject to certain purchase price adjustments, and the total non-equity consideration at closing was comprised of \$25.0 million plus net working capital in excess of the target net working capital of \$1.9 million. Additionally, the Company was subject to contingent consideration with an estimated fair value of \$1.2 million for two potential earn-out provisions up to \$5.0 million based on certain stock performance targets. The first and second earn-out provisions are payable if the ten-day volume-weighted average share price equals or exceeds \$2 per share and \$3 per share, respectively, before May 18, 2025.

The following table summarizes the fair value of JP3's assets acquired as of the closing date of May 18, 2020 (in thousands):

Tradenames and trademarks	\$ 1,100
Technology and know-how	5,000
Customer lists	6,800
Inventories	7,100
Cash	604
Net working capital, net of cash and inventories	(1,063)
Fixed assets	426
Long-term debt assumed and other assets (liabilities)	(893)
Goodwill	 17,522
Net assets acquired	\$ 36,596

The Company recorded transaction costs of \$0.5 million for professional services including legal, accounting, and other professional or consulting fees in connection with the JP3 acquisition to the Company's operating expenses (excluding depreciation and amortization) in the consolidated statements of operations during the second quarter of 2020.

Pro forma information for JP3 is not provided as the impact is not considered material.

During the third quarter of 2020, the Company made certain measurement period adjustments to inventory, resulting in an increase of goodwill of \$2.3 million. See Note 6, "Inventories."

As discussed in Note 11, "Impairment of Fixed, Long-lived and Intangible Assets," during the third quarter of 2020, the Company identified a triggering event under ASC 350, *Intangibles* — *Goodwill and Other*, and completed an impairment analysis at the DA reporting unit level. During the third quarter of 2020, the Company recognized a finite-lived intangible assets impairment charge of \$12.5 million in the DA reporting unit, which resulted from lower performance than expected by the reporting unit. The extended impact of COVID-19 and subsequent decline in oil and gas demand further contributed to the impairment charge. As a result of these factors, the Company concluded that sufficient indicators existed to require an interim quantitative assessment of goodwill for that reporting unit as of September 30, 2020. The fair value of the reporting unit was estimated based on an analysis of the present value of future discounted cash flows, and the Company recognized a goodwill

impairment charge of \$11.7 million. The significant estimates used in the discounted cash flows model included the Company's weighted average cost of capital, projected cash flows and the long-term rate of growth.

During the third quarter of 2020, the first stock performance target was achieved. In October 2020, the Company paid \$2.5 million into escrow in accordance with the terms of the JP3 Membership Interests Purchase Agreement to partially settle the earn-out payment that had been recorded as an accrued liability at September 30, 2020. At December 31, 2020, the estimated fair value of the second stock performance earn-out provision was \$1.4 million, which was recorded as a contingent liability in accrued liabilities.

As the achievement of earn-out provisions and changes in fair value estimates are not acquisition adjustments, the Company recorded \$2.7 million of expense for achievement of the first stock performance target and the increase in the fair value of the contingent consideration for the second earn-out provision in operating expenses for the year ended December 31, 2020.

Note 4 — Discontinued Operations

During the fourth quarter of 2018, the Company initiated and began executing a strategic plan to sell its CICT segment. The Company met all of the criteria to classify the CICT segment as held for sale in the fourth quarter 2018, and classified the assets, liabilities and results of operations for this segment as "Discontinued Operations" for all periods.

On January 10, 2019, the Company entered into a Share Purchase Agreement with Archer-Daniels-Midland Company ("ADM") for the sale of all of the shares representing membership interests in its wholly-owned subsidiary, Florida Chemical Company, LLC ("FCC"), which represented the CICT segment.

Effective February 28, 2019, the Company completed the sale of FCC to ADM for \$175.0 million in cash consideration, subject to post-closing working capital adjustments and potential indemnification claims by ADM. ADM placed \$17.5 million in escrow for these items, which were released over a period of time through the second quarter of 2020. The escrow balance included in other current assets was zero and \$9.9 million at December 31, 2020 and 2019, respectively. Pursuant to the terms of the Share Purchase Agreement, Flotek Chemistry, LLC ("Flotek Chemistry"), a wholly-owned subsidiary of the Company, entered into a supply agreement in which FCC would supply terpene at specified prices for specified quantities.

As of December 31, 2019, the Company concluded that the original long-term supply agreement met the definition of a loss contract. As such, the Company recognized a current liability and loss of \$15.8 million as of December 31, 2019. The loss was capped by the price paid for the terpene supply agreement amendment, executed in February 2020, which aligned purchase commitments to expected usage for blended products as of December 31, 2019.

Pursuant to the post-closing working capital dispute resolution procedures set forth in the Share Purchase Agreement, the Company and ADM engaged a neutral third-party auditor to help reach agreement on the final post-closing working capital adjustment. In February 2020, the third-party auditor ruled in favor of awarding ADM the entire disputed amount of \$4.1 million. As a result, the working capital adjustment escrow balance was released to ADM and a corresponding reduction was made to the gain on sale of business as of December 31, 2019.

The following summarized financial information has been reported as Discontinued Operations for the years ended December 31 (in thousands):

	Consu	Consumer and Industrial Chemistry Technologies				
	2	020	2019			
Discontinued operations:						
Revenue	\$	— \$	11,031			
Operating expenses		_	(11,572)			
Depreciation and amortization		_	_			
Research and development		<u> </u>	(69)			
(Loss) income from operations		_	(610)			
Other income		_	35			
Gain on sale of businesses			65,417			
Income before income taxes			64,842			
Income tax expense		<u> </u>	(22,684)			
Net income from discontinued operations	\$	<u> </u>	42,158			

Note 5 — Revenue from Contracts with Customers

Revenues are recognized when control of the promised goods or services is transferred to the customer, in an amount that reflects the consideration the Company expects to be entitled in exchange for those goods or services. In recognizing revenue for products and services, the Company determines the transaction price of purchase orders or contracts with customers, which may consist of fixed and variable consideration. Determining the transaction price may require significant judgment by management, which includes identifying performance obligations, estimating variable consideration to include in the transaction price, and determining whether promised goods or services can be distinguished in the context of the contract. Variable consideration typically consists of product returns and is estimated based on the amount of consideration the Company expects to receive. Revenue accruals are recorded on an ongoing basis to reflect updated variable consideration information.

The majority of the products from the CT segment are sold at a point in time and service contracts are short-term in nature. The DA segment recognizes revenue for sales of equipment at the time of sale. Revenue related to service and support is recognized over time. The Company bills sales on a monthly basis with payment terms customarily 30-45 days for domestic and 60 days for international from invoice receipt. In addition, sales taxes are excluded from revenues.

Disaggregation of Revenue

The Company has disaggregated revenues by product sales (point-in-time revenue recognition) and service revenue (over-time revenue recognition). Product sales accounted for 95% or more of total revenue for the years ended December 31, 2020 and 2019.

The Company differentiates revenue and based on whether the source of revenue is attributable to products or services. Revenue disaggregated by revenue source is as follows (in thousands):

	 Years ended December 31,			
	2020		2019	
Revenue:				
Products	\$ 50,478	\$	115,683	
Services	2,663		3,670	
	\$ 53,141	\$	119,353	

Arrangements with Multiple Performance Obligations

The CT and DA segments primarily sell chemicals and equipment recognized at a point in time based on when control transfers to the customer determined by agreed upon delivery terms. Additionally, both segments offer various services associated to products sold which includes field services, installation, maintenance, and other functions. Service revenue is recognized on an over time basis for CT as services are performed as the customer is simultaneously benefiting as the Company performs. For

DA, services are recognized upon completion of commissioning and installation due to the short-term nature of the performance obligation. DA has additional performance obligations related to providing ongoing or reoccurring maintenance. Revenue for these types of arrangements is recognized ratably over time throughout the contract period. Additionally, DA may provide subscription-type arrangements with customers in which monthly reoccurring revenue is recognized ratably over time in accordance with agreed upon terms and conditions. Subscription-type arrangements were not a material revenue stream in 2020.

Contract Balances

Under revenue contracts for both products and services, customers are invoiced once the performance obligations have been satisfied, at which point payment is unconditional. Contract liabilities associated with incomplete performance obligations are not material.

Practical Expedients and Exemptions

The Company applies several practical expedients as discussed below:

- Sales commissions are expensed when incurred because the amortization period would have been one year or less. These costs are recorded within corporate general and administrative expenses.
- The majority of the Company's services are short-term in nature with a contract term of one year or less. For those
 contracts, the Company has utilized the practical expedient in ASC 606-10-50-14, exempting the Company from
 disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of
 a contract that has an original expected duration of one year or less.
- The Company's payment terms are short-term in nature with settlements of one year or less. The Company utilized the practical expedient in ASC 606-10-32-18, exempting the Company from adjusting the promised amount of consideration for the effects of a significant financing component given that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.
- In most service contracts, the Company has the right to consideration from a customer in an amount that corresponds directly with the value to the customer of the Company's performance completed to date. For these contracts, the Company has utilized the practical expedient in ASC 606-10-55-18, allowing the Company to recognize revenue in the amount to which it has a right to invoice.

Accordingly, the Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognizes revenue at the amount to which it has the right to invoice for services performed.

Note 6 — Inventories

Inventories are as follows (in thousands):

	 December 31,		
	2020		2019
Raw materials	\$ 7,190	\$	4,339
Finished goods	 15,705		24,569
Inventories	22,895		28,908
Less reserve for excess and obsolete inventory	 (11,058)		(5,698)
Inventories, net	\$ 11,837	\$	23,210

Changes in the reserve for excess and obsolete inventory are as follows (in thousands):

	2020		2019
Balance, beginning of year	\$	5,698	\$ 2,117
Charged to provisions		12,261	5,659
Deductions for sales and disposals		(6,901)	(2,078)
Balance, end of the year	\$	11,058	\$ 5,698

The Company periodically reviews the value of items in inventory and provides write-downs or write-offs of inventory based on an assessment of market values. Write-downs or write-offs of inventory are charged to cost of goods sold.

The provision for excess and obsolete inventory includes charges of \$8.4 million for the CT segment and \$3.9 million for the DA segment, offset by sales and disposals of \$6.9 million, primarily related to terpene sales in 2020.

At December 31, 2020, the Company recognized an increase in the reserve for excess and obsolete inventory of \$0.4 million due to terpene on hand exceeding anticipated usage. Also see Note 16, "Commitments and Contingencies," for terpene purchase commitments at December 31, 2020. At December 31, 2019, the Company recorded a reserve for excess terpene of \$4.4 million.

Note 7 — Property and Equipment

Property and equipment are as follows (in thousands):

	 December 31,			
	2020		2019	
Land	\$ 2,415	\$	2,415	
Land improvements	867		2,025	
Buildings and leasehold improvements	6,364		38,741	
Machinery and equipment	7,760		27,694	
Furniture and fixtures	649		1,671	
Transportation equipment	1,190		1,440	
Computer equipment and software	1,296		3,348	
Property and equipment	20,541		77,334	
Less accumulated depreciation	(11,454)		(37,505)	
Property and equipment, net	\$ 9,087	\$	39,829	

Depreciation expense totaled \$2.5 million and \$6.5 million for the years ended December 31, 2020 and 2019, respectively.

During the first quarter of 2020, the Company recognized an impairment of property and equipment of \$30.2 million. See Note 11, "Impairment of Fixed, Long-lived and Intangible Assets." During the year ended December 31, 2019, no impairments were recognized related to property and equipment.

Note 8 — Leases

The Company has leases for corporate offices, research and development facilities, warehouses, sales offices and equipment. The leases have remaining lease terms of one to fifteen years, some of which include options to extend the leases for up to ten years. The Company's largest lease is for the Global Research and Innovation Center ("GRIC"). The lease was entered into on July 12, 2015, with a fifteen-year term and an option to renew for an additional seven years. The rent payments on the GRIC lease escalate each year until the end of the term.

Operating lease right-of-use assets and corresponding operating lease liabilities, net of deferred rent, represent the present value of future lease payments under operating leases with terms of greater than twelve months. Leases with an initial expected term of 12 months or less are not recorded on the balance sheet. The Company recognizes lease expense for these leases on a straight-line basis over the expected lease term. The discount rate used upon adoption of ASC 842, "Leases," in the calculation was the incremental borrowing rate on the revolving credit facility in 2019.

During the first quarter of 2020, the Company ceased use of the corporate headquarters leased offices and moved corporate employees to the GRIC during the second quarter of 2020. In addition, the lease liability and corresponding right-of-use assets for the corporate headquarters and GRIC were remeasured to remove the anticipated term extensions as the Company determined it was no longer reasonably certain to utilize the extension at the GRIC. The remeasurement resulted in adjustments to lease liabilities and right-of-use assets totaling of \$6.2 million at March 31, 2020.

In addition, during the first quarter of 2020, the Company recorded an impairment of the right-of-use assets totaling \$7.4 million. See Note 11, "Impairment of Fixed, Long-lived and Intangible Assets."

During the second quarter of 2020, the Company terminated the lease of the corporate headquarters office in exchange for a one-time payment of \$1.0 million and moved all corporate employees to the GRIC facility effective as of June 29, 2020. As a result of terminating the corporate headquarters office lease and making the one-time payment, the Company recorded a gain on lease termination of \$0.6 million.

The components of lease expense and supplemental cash flow information are as follows (in thousands):

	For the years ended			
		.,		
		2020		2019
Operating lease expense	\$	1,370	\$	2,609
Finance lease expense:				
Amortization of right-of-use assets		17		1,237
Interest on lease liabilities		18		10
Total finance lease expense		35		1,247
Short-term lease expense		202		123
Total lease expense	\$	1,607	\$	3,979
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	\$	2,884	\$	2,336
Operating cash flows from finance leases		18		10
Financing cash flows from finance leases		70		51

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

Years ending December 31,	Operati	ng Leases	Financ	e Leases
2021	\$	1,367	\$	69
2022		1,289		46
2023		1,317		39
2024		1,347		23
2025		1,347		_
Thereafter		6,865		
Total lease payments		13,532		177
Less: Interest		(4,548)		(21)
Present value of lease liabilities	\$	8,984	\$	156

Supplemental balance sheet information related to leases is as follows for the years ended December 31 (in thousands):

	2020		2019
Operating Leases			
Operating lease right-of-use assets	\$ 2,320	\$	16,388
Current portion of operating lease liabilities	\$ 636	\$	486
Long-term operating lease liabilities	 8,348		16,973
Total operating lease liabilities	\$ 8,984	\$	17,459
Finance Leases			
Property and equipment	\$ 147	\$	293
Accumulated depreciation	(26)		(28)
Property and equipment, net	\$ 121	\$	265
Current portion of finance lease liabilities	\$ 60	\$	55
Long-term finance lease liabilities	 96		158
Total finance lease liabilities	\$ 156	\$	213
Weighted Average Remaining Lease Term			
Operating leases	9.9 years		16.6 years
Finance leases	3.1 years		4.6 years
Weighted Average Discount Rate			
Operating leases	8.9 %)	8.9 %
Finance leases	9.0 %)	9.0 %

Rent expense under operating leases totaled \$1.6 million for the year ended December 31, 2020, and \$2.9 million for the year ended December 31, 2019.

Note 9— Goodwill

During the second quarter of 2020, the Company acquired 100% ownership of JP3, a privately-held data and analytics technology company, in a cash-and-stock transaction. The Company identified the acquired company as the DA segment, a new operating segment. See Note 3, "Business Combination." The Company recorded goodwill of \$17.5 million at the date of acquisition.

During the third quarter of 2020, the Company identified a triggering event under ASC 350, *Intangibles* — *Goodwill and Other*, and completed an impairment analysis at the DA reporting unit level. During the third quarter of 2020, the Company recognized a goodwill impairment charge of \$11.7 million.

Also, during the third quarter of 2020, the Company made certain measurement period adjustments to inventory obtained in the JP3 acquisition, resulting in an increase of goodwill of \$2.3 million. See Note 6, "Inventories."

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

Activity during the year ended December 31, 2020:	
Acquisition goodwill recognized	\$ 17,522
Measurement period adjustment	2,276
Goodwill impairment recognized	(11,706)
Goodwill balance, net of impairment	\$ 8,092
Balance at December 31, 2020:	
Goodwill	\$ 19,798
Accumulated impairment losses	(11,706)
Goodwill balance, net of impairment	\$ 8,092

Note 10 — Other Intangible Assets

Intangible assets acquired are amortized on a straight-line basis. Amortization of intangible assets acquired totaled \$0.9 million and, \$2.0 million for the years ended December 31, 2020 and 2019, respectively.

Amortization of deferred financing costs totaled \$1.4 million for the year ended December 31, 2019. In March 2019, the Company repaid the outstanding balance of its credit facility. See Note 13, "Debt."

During the year ended December 31, 2020, the Company recorded impairment charges of \$32.4 million for other intangible assets, impairing all finite-lived intangible assets, including those acquired in the May 2020 acquisition of JP3. See Note 11, "Impairment of Fixed, Long-lived and Intangible Assets." During the year ended December 31, 2019, no impairments were recognized related to other intangible assets.

At December 31, 2019, the net carrying value of other intangible assets was \$20.3 million, as follows (in thousands):

	 Cost	Accumulated Amortization		
Finite-lived intangible assets:				
Patents and technology	\$ 17,493	\$	(6,715)	
Customer relationships	15,367		(6,013)	
Trademarks and brand names	1,351		(1,160)	
Total finite-lived intangible assets	\$ 34,211	\$	(13,888)	

Note 11 — Impairment of Fixed, Long-lived and Intangible Assets

The Company recorded impairment charges of fixed, long-lived and intangible assets during the year ended December 31, 2020, as follows (in thousands):

Property and equipment, net	\$ 30,178
Operating lease right-of-use assets	7,434
Other Intangibles:	
Patents and technology	14,733
Customer relationships	15,796
Intangible assets in progress	596
Trademarks and brand names	1,238
Total other intangibles	32,363
Total impairment of fixed, long-lived and intangible assets	\$ 69,975

During the first quarter of 2020, the price of crude oil declined by over 50%, trading below \$25 per barrel, causing a significant disruption across the industry, which began to negatively impact the Company's results of operations. These declines of results of operations were driven by market factors, including an oversupply of oil, insufficient storage and demand destruction resulting from the reaction to COVID-19. Based on these factors, the Company concluded that a triggering event occurred and, accordingly, an interim quantitative impairment test was performed as of March 31, 2020.

Using the income approach, the fair value of the reporting unit was determined based on the present value of future cash flows. The Company utilized internal forecast trends and potential growth rates to estimate future cash flows of the asset group. Based on the results of the quantitative assessment, the Company concluded the carrying value of the asset group exceeded its fair value as of March 31, 2020, and an impairment loss of \$57.5 million was recorded as a result of the adverse effect of the COVID-19 pandemic, estimated effect on the economy, and the related negative impact on oil and natural gas prices on projections of future cash flows.

During the second quarter of 2020, the Company purchased JP3 and formed the DA segment. During the third quarter of 2020, revenue declined due to limited access to worksites, inability to install equipment, changes in the Company's leadership, reduction of capital spending by clients due to COVID-19, inability to present to new customers and difficulty in working on the international marketing of the Verax analyzer. Further, the Company was negatively impacted by reduced demand in the oil and gas sector because of reductions in capital spending across our customer base, lower than anticipated growth in the international market gained from the JP3 acquisition and the delayed start of the Company's global sales business executive.

Although the site lockdowns and extreme caution to prevent the spread of COVID-19 that began in the first half of 2020 began to ease during the third quarter, the segment saw very little of the expected repeat business and almost none from new customers due to frozen budgets. Secondly, COVID-19 restrictions adversely impacted the Company's ability to physically gain on-site access to customers' operations, including laboratory and testing facilities, which is a critical component to JP3's multi-phased sales approach.

In consideration of these events, management reevaluated forecasted sales activity, expected margins and the long-term expectations of the DA segment for the third quarter of 2020. Based on these factors, the Company concluded a triggering event occurred in the DA segment, and accordingly, an interim quantitative impairment test was performed as of September 30, 2020.

Using the income approach, the fair value of the reporting unit was determined based on the present value of future cash flows. The Company utilized internal forecast trends and potential growth rates to estimate future cash flows of the asset group. Based on the results of the quantitative assessment, the Company concluded the carrying value of the asset group exceeded its fair value as of September 30, 2020. The Company recognized an impairment loss of \$12.5 million in the DA reporting unit finite-lived intangible assets, which resulted primarily from lower performance than expected by the reporting unit. The extended

impact of COVID-19 and declines in the oil and gas sector also contributed to the impairment loss. Also see Note 3, "Business Combination." No impairments of fixed, long-lived and intangible assets occurred during the fourth quarter of 2020.

Note 12 — Accrued Liabilities

Current accrued liabilities are as follows (in thousands):

	December 31,			
		2020		2019
Loss on purchase commitments (Note 16)	\$	9,402	\$	15,750
Severance costs		3,558		3,450
Payroll and benefits		1,789		471
Contingent liability for earn-out provision		1,416		_
Taxes other than income taxes		544		1,799
Due to third parties		434		2,509
Legal costs		333		149
Deferred revenue, current		146		_
Other		653		424
Total current accrued liabilities	\$	18,275	\$	24,552

Note 13 — Debt

Long-term debt is as follows (in thousands):

	December 31,				
		2020		2019	
Long-term debt					
Flotek PPP loan	\$	4,788	\$		_
JP3 PPP loan		877			_
Total		5,665			
Less current maturities		(4,048)			
Total long-term debt, net of current portion	\$	1,617	\$		

Payroll Protection Program Loan

In April 2020, the Company received a \$4.8 million loan under the Payroll Protection Program ("PPP"), which was created through the Coronavirus Aid, Relief, and Economic Act ("CARES Act") and is administered by the U.S. Small Business Administration ("SBA"). In connection with the acquisition of JP3 in May 2020, the Company assumed a PPP loan of \$0.9 million obtained by JP3 in April 2020. The PPP loans have a fixed interest rate of 1% and have a two-year term, maturing 2022. No payments of principal or interest were required during the year ended December 31, 2020.

A portion of the loans may be eligible for forgiveness by the SBA depending on the extent of proceeds used for payroll costs and other designated expenses incurred for up to 24 weeks following loan origination, subject to adjustments for headcount reductions and compensation limits and provided that at least 60% of the eligible costs incurred are used for payroll. Receipt of these funds required the Company to, in good faith, certify that the current economic uncertainty made the loan request necessary to support ongoing operations of the Company. This certification further required the Company to take into account current business activity and the ability to access other sources of liquidity sufficient to support ongoing operations in a manner that is not significantly detrimental to the business. As of December 31, 2020, the Company had not applied for or estimated the potential forgiveness on the PPP loans. The receipt of these funds, and the forgiveness of the loans attendant to these funds, is dependent on the Company having initially qualified for the loans and qualifying for the forgiveness of such loans based on our

past and future adherence to the forgiveness criteria. The PPP loans are subject to any new guidance and new requirements released by the Department of the Treasury, which initially indicated that all companies that have received funds in excess of \$2.0 million will be subject to a government audit by the SBA to further ensure PPP loans are limited to eligible borrowers in need.

Bank Credit Facility

Through March 1, 2019, the Company maintained a revolving credit facility with PNC Bank, National Association (the "Credit Facility") with a maximum revolving advance amount of \$75 million. Upon closing the sale of the CICT segment in 2019, the Company repaid the outstanding balance, interest and fees on the Credit Facility on March 1, 2019, and terminated the Credit Facility.

Note 14 — Fair Value Measurements

Fair value is defined as the amount that would be received for selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company categorizes financial assets and liabilities into the three levels of the fair value hierarchy. The hierarchy prioritizes the inputs to valuation techniques used to measure fair value and bases categorization within the hierarchy on the lowest level of input that is available and significant to the fair value measurement.

- Level 1 Quoted prices in active markets for identical assets or liabilities;
- Level 2 Observable inputs other than Level 1, such as quoted prices for similar assets or liabilities, quoted prices in
 markets that are not active, or other inputs that are observable or can be corroborated by observable market data for
 substantially the full term of the assets or liabilities; and
- Level 3 Significant unobservable inputs that are supported by little or no market activity or that are based on the
 reporting entity's assumptions about the inputs.

Fair Value of Other Financial Instruments

The carrying amounts of certain financial instruments, including cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term nature of these accounts. The PPP loans for Flotek and JP3 also approximate fair value due to maturity in less than eighteen months.

Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the Company's assets and liabilities that are measured at fair value on a recurring basis and the level within the fair value hierarchy:

			_1	Balance at December 31,				Balance at December 31,
	Level 1	Level 2	Level 3	2020	Level 1	Level 2	Level 3	2019
Contingent consideration	\$ —	\$ —	\$ 1,416 \$	1,416	s —	\$ —	\$ —	\$ —

During the third quarter of 2020, the first stock performance target of the contingent consideration was achieved, and the Company accrued a liability of \$2.5 million, which was transferred out of Level 3 to a current liability and subsequently settled during the fourth quarter of 2020. No other transfers occurred during the year ended December 31, 2020. At December 31, 2020, the estimated fair value of the remaining stock performance earn-out provision was \$1.4 million, which was recorded as a contingent liability. The estimated fair value of the earn-out provision was valued using the Monte Carlo model analyzing 20,000 simulations performed using Geometric Brownian Motion with inputs such as risk-neutral expected growth and volatility.

There were no transfers in or out of either Level 1, Level 2 or Level 3 fair value measurements during the year ended December 31, 2019. At December 31, 2019, no liabilities were required to be measured at fair value on a recurring basis.

Assets Measured at Fair Value on a Nonrecurring Basis

The Company's non-financial assets, including property and equipment, goodwill and other intangible assets are measured at fair value on a non-recurring basis and are subject to fair value adjustment in certain circumstances. During the first quarter of 2020, the Company recorded an impairment of \$57.5 million for impairment of long-lived assets. Management inputs used in fair value measurements were classified as Level 3.

As disclosed in Note 3, "Business Combination," the Company acquired JP3 in May 2020. The fair values of JP3's long-lived assets and intangibles were determined using the income approach. The fair value of the Company's inventory was determined using the comparative sales method. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement, other than cash and working capital accounts, which carrying amounts were determined to approximate fair value due to their short-term nature.

During the third quarter of 2020, the Company's DA segment recorded an impairment charge on finite-lived intangible assets of \$12.5 million and an impairment charge on goodwill of \$11.7 million. The fair value of the DA reporting unit was estimated based on an analysis of the present value of future discounted cash flows. The significant estimates used in the discounted cash flows model included the Company's weighted average cost of capital, projected cash flows and the long-term rate of growth. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement.

Level 3 Rollforward for Assets and Liabilities Measured at Fair Value on a Recurring Basis

In conjunction with the May 2020 acquisition of JP3, the Company recorded contingent consideration of \$1.2 million. Management inputs used in the fair value measurement were classified as Level 3. During the third quarter of 2020, the first stock performance target for the contingent consideration was achieved, resulting in an accrued liability of \$2.5 million, which was settled during the fourth quarter of 2020. The Company also estimated the fair value of the remaining stock performance earn-out provision at December 31, 2020 and recorded the fair value of the contingent liability of \$1.4 million. The expense for achievement of the first stock performance target and the change in the fair value of the contingent consideration for the second earn-out provision are recorded in operating expenses in continuing operations for the period ended December 31, 2020.

The following table presents the changes in contingent consideration balances classified as Level 3 balances:

	Ye	Years ended December 31,		
		2020		2019
Balance - beginning of period	\$		\$	_
Additions / issuances		1,200		
Change in fair value		2,716		_
Transfer out of Level 3		(2,500)		_
Balance - end of period	\$	1,416	\$	_

Note 15 — Income Taxes

Components of the income tax (benefit) expense are as follows (in thousands):

	Years ended December 31,		
		2020	2019
Current:			
Federal	\$	(6,115) \$	(22,923)
State		144	(2,295)
Foreign		(21)	(238)
Total current		(5,992)	(25,456)
Deferred:			
Federal		(116)	24,373
State		(71)	1,345
Foreign		_	_
Total deferred		(187)	25,718
Income tax (benefit) expense	\$	(6,179) \$	262

The components of loss before income taxes are as follows (in thousands):

	Years ended December 31,			
	2020			2019
United States	\$	(141,864)	\$	(75,633)
Foreign		(765)		(178)
Loss before income taxes	\$	(142,629)	\$	(75,811)

A reconciliation of the U.S. federal statutory tax rate to the effective income tax rate is as follows:

	Years ended December 31,		
	2020	2019	
Federal statutory tax rate	21.0 %	21.0 %	
State income taxes, net of federal benefit	2.1	0.6	
Non-U.S. income taxed at different rates	0.2	0.5	
Increase in valuation allowance	(20.3)	(20.5)	
Reduction in tax benefit related to stock-based awards	(0.2)	(0.1)	
Effect of tax rate differences of NOL carryback	1.5	_	
Research and development credit	_	0.2	
Other	_	(2.0)	
Effective income tax rate	4.3 %	(0.3)%	

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic. Among other things, the CARES Act provided the ability for taxpayers to carryback a net operating loss ("NOL") arising in a taxable year beginning after December 31, 2017 and before January 1, 2021 to each of the five years preceding the year of the loss. Based on analysis of the extended NOL carryback provision, the Company recorded a tax receivable of \$6.1 million as of March 31, 2020, which was received in July 2020.

Fluctuations in effective tax rates have historically been impacted by permanent tax differences with no associated income tax impact, changes in state apportionment factors, including the effect on state deferred tax assets and liabilities, and non-U.S. income taxed at different rates, except for the NOL carryback claim discussed above.

Deferred income taxes reflect the tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the value reported for income tax purposes, at the enacted tax rates expected to be in effect when the differences reverse. The components of deferred tax assets and liabilities are as follows (in thousands):

	December 31,			
		2020		2019
Deferred tax assets:				
Net operating loss carryforwards	\$	23,589	\$	17,248
Allowance for doubtful accounts		1,134		1,037
Inventory valuation reserves		2,093		629
Equity compensation		435		353
Goodwill		4,087		965
Accrued compensation		657		587
Foreign tax credit carryforward		3,802		3,894
Accrued liabilities		2,076		3,530
Lease liability		1,945		3,992
Property and equipment		3,640		_
Intangible assets		6,026		
Other		353		96
Total gross deferred tax assets		49,837		32,331
Valuation allowance		(48,671)		(20,341)
Total deferred tax assets, net		1,166		11,990
Deferred tax liabilities:				
Property and equipment				(3,696)
Intangible assets				(4,134)
ROU asset		(686)		(3,793)
Prepaid insurance and other		(257)		(331)
Total gross deferred tax liabilities		(943)		(11,954)
Net deferred tax assets	\$	223	\$	36

As of December 31, 2020, the Company had U.S. net operating loss carryforwards of \$94.7 million, including \$46.4 million expiring in various amounts in 2035 through 2037 which can offset 100% of taxable income and \$48.3 million that has an indefinite carryforward period which can offset 80% of taxable income per year. The ability to utilize net operating losses and other tax attributes could be subject to a significant limitation if the Company were to undergo an "ownership change" for purposes of Section 382 of the Tax Code.

Net deferred tax assets arise due to the recognition of income and expense items for tax purposes, which differ from those used for financial statement purposes. ASC 740, *Income Taxes*, provides for the recognition of deferred tax assets if realization of such assets is more likely than not. In assessing the need for a valuation allowance, the Company considers all available objective and verifiable evidence, both positive and negative, including historical levels of pre-tax income (loss) both on a consolidated basis and tax reporting entity basis, legislative developments, and expectations and risks associated with estimates of future pre-tax income. As of December 31, 2019, the Company determined that it was more likely than not that it would not realize the benefits of certain deferred tax assets and, therefore, recorded a \$20.3 million valuation allowance against the carrying value of net deferred tax assets, except for deferred tax liabilities related to certain state jurisdictions. At December 31, 2020, the valuation allowance against the net federal and state deferred tax assets was \$48.7 million.

The Company has not calculated U.S. taxes on unremitted earnings of certain non-U.S. subsidiaries due to the Company's intent to reinvest the unremitted earnings of the non-U.S. subsidiaries. At December 31, 2020, the Company had approximately \$5.7 million in unremitted earnings for one of its foreign jurisdictions, which were not included for U.S. tax purposes. Due to the 2017 Tax Act, U.S. federal transition taxes have been recorded for a one-time U.S. tax liability on these earnings which have not previously been repatriated to the U.S. However, certain withholding taxes will need to be paid upon repatriation. It is not practicable to estimate the amount of the deferred tax liability on such unremitted earnings.

The Company performed an evaluation and concluded there are no significant uncertain tax positions requiring recognition in the Company's financial statements. The evaluation was performed for the tax years which remain subject to examination by tax jurisdictions as of December 31, 2020, which are the years ended December 31, 2017 through December 31, 2020 for U.S. federal taxes and the years ended December 31, 2016 through December 31, 2020 for state tax jurisdictions.

During 2020, the Internal Revenue Service ("IRS") notified the Company that a 2018 tax return was selected for examination as a result of a carryback claim. At this time, the Company is not aware of any findings that would have a material impact on the consolidated financial statements.

Note 16 — Commitments and Contingencies

Litigation

The Company is subject to routine litigation and other claims that arise in the normal course of business. Management is not aware of any pending or threatened lawsuits or proceedings that are expected to have a material effect on the Company's financial position, results of operations or liquidity.

Commitments

Terpene Supply Agreement

On February 26, 2020, Flotek Chemistry entered into an amendment to the terpene supply agreement between Flotek Chemistry and FCC. Pursuant to the terms and conditions of the amendment, the terpene supply agreement was amended to, among other things, (a) reduce the minimum quantity of terpene that Flotek Chemistry is required to purchase by approximately 3/4ths in 2020 and by approximately half in each of 2021, 2022 and 2023, (b) provide a fixed per pound price for terpene in 2020, (c) reduce the maximum amount of terpene subject to the terpene supply agreement by approximately 1/3rd, and (d) change the payment terms to net 45 days. In order to make the terms and conditions of the amendment to the terpene supply agreement effective, Flotek Chemistry made a one-time payment in February 2020 of \$15.8 million to ADM. The expense associated with the terpene supply agreement amendment payment was recorded as a loss on contract purchase commitments, reported in operating expenses in continuing operations in December 2019.

For the year ended December 31, 2020, the Company recognized a loss of \$9.9 million and an accrued liability of \$9.4 million at December 31, 2020, associated with the amended terpene supply agreement due to the Company's expected usage of terpene in blended products being less than the minimum quantities of terpene required to be purchased and expected selling prices of the excess terpene as such loss is not considered recoverable. The reductions in expected usage resulted from reduced demand for terpene in the oil and gas sector due of capital spending reductions across our customer base and impacts of COVID-19, combined with product mix changes using lower concentrations of terpene.

Indemnification

The Company agreed to provide indemnification to National Oilwell DHT, L.P. for certain intellectual property-related claims in connection with sale of its Teledrift business unit in 2017. The expenses incurred by the Company were \$0.4 million and \$0.6 million for the years ended December 31, 2020 and 2019, respectively. The Company expects to incur additional costs during 2021, which are uncertain, but could be as much as \$0.5 million or more.

Lease Obligations

See Note 8, "Leases."

Concentrations and Credit Risk

The majority of the Company's revenue is derived from its CT segment, which consists predominantly of customers within the oil and gas industry and the sanitizer, surface cleaner and disinfectant industry to a lesser extent. Customers within the oil and gas industry include oilfield services companies, integrated oil and natural gas companies, independent oil and natural gas companies, and state-owned national oil companies. Customers within the sanitizer, surface cleaner and disinfectant industry typically include industrial and consumer markets, including hospitals, travel and hospitality, food services, e-commerce and retail, sports and entertainment. The concentration in the oil and gas industry increases credit and business risk.

Within the CT segment, the Company had two major customers for the year ended December 31, 2020, which accounted for 24% and 18% of consolidated revenue, and two major customers for the year ended December 31, 2019, which accounted for 20% and 10% of consolidated revenue. The Company's largest three customers collectively accounted for 50% and 40% of consolidated revenue for the years ended December 31, 2020 and 2019, respectively.

No single customer of the DA segment accounted for 10% or more of the Company's consolidated revenue for the year ended December 31, 2020.

The Company is subject to concentrations of credit risk within trade accounts receivable, as the Company does not generally require collateral as support for trade receivables. In addition, the majority of the Company's cash is invested in three major U.S. financial institutions and balances often exceed insurable amounts.

Note 17 —Stockholders' Equity

Common and Preferred Stock

On May 5, 2020, the shareholders of the Company approved an amendment to the Company's Amended and Restated Certificate of Incorporation, as previously amended, to increase the authorized shares of common stock from 80 million shares to 140 million shares of common stock, par value \$0.0001 per share, and 100,000 shares of one or more series of preferred stock, par value \$0.0001 per share. The additional authorized shares are available for corporate purposes, including acquisitions.

A reconciliation of the changes in common shares issued is as follows:

	Years ended December 31,		
	2020	2019	
Shares issued at the beginning of the year	63,656,897	62,162,875	
Issued upon sale of common stock	200,000	_	
Issued upon exercise of stock options	111,298	_	
Issued as restricted stock award grants	3,114,978	924,022	
Issued as restricted stock unit grants	86,241	570,000	
Issued in business combination to acquire JP3	11,500,000	<u> </u>	
Shares issued at the end of the year	78,669,414	63,656,897	

Treasury Stock

The Company accounts for treasury stock using the cost method and includes treasury stock as a component of stockholders' equity. During the years ended December 31, 2020 and 2019, the Company purchased 145,703 shares and 93,977 shares, respectively, of the Company's common stock at market value as payment of income tax withholding owed by employees upon the vesting of restricted shares and the exercise of stock options. Shares issued as restricted stock awards to employees that were forfeited are accounted for as treasury stock. During the year ended December 31, 2020, there were 66,115 shares surrendered for the exercise of stock options. During the year ended December 31, 2019, no shares were surrendered for the exercise of stock options.

Stock Repurchase Program

In June 2015, the Company's Board of Directors authorized the repurchase of up to \$50 million of the Company's common stock. Repurchases could be made in the open market or through privately negotiated transactions. On June 9, 2020, the board of directors of the Company rescinded the authorization to repurchase the Company's stock under this program.

During the year ended December 31, 2019, the Company repurchased \$0.3 million of its common stock under this authorization. No shares were repurchased under this program during the year ended December 31, 2020.

Note 18 — Stock-Based Compensation and Other Benefit Plans

Stock-Based Incentive Plans

Stockholders approved long-term incentive plans in 2019, 2018, 2014, 2010 and 2007 (the "2019 Plan," the "2018 Plan," the "2014 Plan," the "2010 Plan" and the "2007 Plan," respectively) under which the Company may grant equity awards to officers, key employees, non-employee directors and service providers in the form of stock options, restricted stock, and certain other incentive awards. The maximum number of shares that may be issued under the 2019 Plan, 2018 Plan, 2014 Plan, 2010 Plan and 2007 Plan are 1.0 million, 3.0 million, 5.2 million, 6.0 million and 2.2 million, respectively. At December 31, 2020, the Company had a total of 1.8 million shares remaining to be granted under the 2019 Plan and 2018 Plan. Shares may no longer be granted under the 2007, 2010 and 2014 Plans.

Stock Options

All stock options are granted with an exercise price equal to the market value of the Company's common stock on the date of grant. During 2020, 1.3 million stock options were granted, all market-based options. The market-based options are restricted until criteria defined in the agreement are met. Proceeds received from stock option exercises are credited to common stock and additional paid-in capital, as appropriate. The Company uses historical data to estimate pre-vesting option forfeitures. Estimates are adjusted when actual forfeitures differ from the estimate. Stock-based compensation expense is recorded for all equity awards expected to vest. During the year ended December 31, 2020, 0.1 million stock options vested, and 0.6 million stock options were forfeited. No stock options vested or were forfeited during the year ended December 31, 2019.

Stock option activity for the years ended December 31, 2020 and 2019, are as follows

	Shares	Weighted- Average Exercise Price	Weighted- Average Fair Value
Outstanding as of January 1, 2019	_	\$ - :	\$
Granted	3,000,000	1.93	1.25
Exercised	_	_	_
Forfeited	_	_	_
Outstanding as of January 1, 2020	3,000,000		
Granted	1,327,795	1.12	0.62
Exercised	(111,298)	0.92	0.51
Forfeited	(556,497)	0.92	0.51
Outstanding as of			
December 31, 2020	3,660,000		
Vested or expected to vest at			
December 31, 2020	1,111,298		

The following table sets forth significant assumptions used in the Monte Carlo model for market-based options to determine the fair value of the options at the date of grant:

	Year Ended December 31, 2020	Year Ended December 31, 2019
	Market-Based Options	Market-Based Options
Risk-free interest rate	0.12 %	1.84 %
Expected volatility of common stock	103.50 %	71.57 %
Expected life of options in years	2	7
Vesting period in years	2	7

The following table sets forth significant assumptions used in the Black Scholes model for time-vested options to determine the fair value of the options at the date of grant:

		· Ended er 31, 2019
	Time-Ves	sted Options
Initial stock price	\$	1.93
Strike price		1.93
Term (in years)		6.5
Risk-free rate		1.8 %
Volatility rate		73.6 %

The Company had no time-vested options granted in 2020. At December 31, 2020, the unrecognized compensation cost related to stock options was \$3.6 million.

Restricted Stock

The Company grants employees either time-vesting or market-based restricted shares in accordance with terms specified in the Restricted Stock Agreements. During the year ended December 31, 2020, 53% of the restricted shares granted were time-vesting and 47% were performance-based. Grantees of restricted shares retain voting rights for the granted shares.

- Time-vesting restricted shares vest after a stipulated period has elapsed after the date of grant, generally three years. Certain time-vested shares have also been issued with a portion of the shares granted vesting immediately.
- Market-based restricted shares are issued with criteria defined over a designated period and vest only when, and if, the
 outlined criteria are met.

Restricted stock share activity for the years ended December 31, 2020 and 2019, are as follows:

Restricted Stock Shares	Shares	Weighted- Average Fair Value at Date of Grant
Non-vested at January 1, 2019	1,050,372	\$ 3.47
Granted to employees	1,494,022	2.62
Vested	(615,941)	3.72
Forfeited	(299,433)	3.16
Non-vested at January 1, 2020	1,629,020	2.66
Granted to employees	3,114,978	0.83
Vested	(711,988)	2.94
Forfeited	(1,236,910)	1.65
Non-vested at December 31, 2020	2,795,100	\$ 1.00

The total fair value of restricted stock that vested during the years ended December 31, 2020 and 2019 was \$2.1 million and \$6.3 million, respectively.

At December 31, 2020, unrecognized compensation expense related to non-vested restricted stock was \$1.8 million. The unrecognized compensation expense is expected to be recognized over a weighted-average period of 0.8 years.

Restricted Stock Units

During the year ended December 31, 2020, the Company granted 0.9 million market-based restricted stock units ("RSUs"). The performance period for these RSUs continues until December 22, 2024.

During the year ended December 31, 2019, the Company granted 1.1 million RSUs. The period for these RSUs continues until December 31, 2024.

Restricted stock units activity for the years ended December 31, 2020 and 2019, are as follows:

Restricted Stock Units (1)	Units	Weighted- Average Fair Value at Date of Grant
RSUs at January 1, 2019	301,766	\$ 3.94
2018 forfeited	(272,046)	6.39
2019 granted	1,071,530	3.75
2019 forfeited	(62,776)	1.66
RSUs at January 1, 2020	1,038,474	3.24
2020 granted	922,786	1.19
2020 forfeited	(733,711)	3.79
RSUs at December 31, 2020	1,227,549	\$ 1.25

⁽¹⁾ Restricted stock units and performance stock units are disclosed in the preceding table.

At December 31, 2020, unrecognized compensation expense related to restricted stock units was \$2.0 million. The unrecognized compensation expense is expected to be recognized over a weighted-average period of 1.2 years.

Employee Stock Purchase Plan

The Company's Employee Stock Purchase Plan ("ESPP") was approved by stockholders in 2012. The Company registered 500,000 shares of its common stock, currently held as treasury shares, for issuance under the ESPP. The purpose of the ESPP is to provide employees with an opportunity to purchase shares of the Company's common stock through accumulated payroll deductions. The ESPP allows participants to purchase common stock at a purchase price equal to 85% of the fair market value of the common stock on the last business day of a three-month offering period which coincides with calendar quarters. Payroll deductions may not exceed 10% of an employee's compensation and participants may not purchase more than 1,000 shares in any one offering period. In addition, for each calendar year, an employee may not be granted purchase rights for Flotek Stock valued over \$25,000, as determined at the time such purchase right is granted. The fair value of the discount associated with shares purchased under the plan is recognized as stock-based compensation expense and was \$0.1 million for each of the years ended December 31, 2020 and 2019. The total fair value of the shares purchased under the plan during each of the years ended December 31, 2020 and 2019 was \$0.1 million. The employee payment associated with participation in the plan occurs through payroll deductions. Effective after the third quarter 2018 purchase, the Company suspended the ESPP due to lack of shares. Following shareholder approval for additional shares, the Company resumed the ESPP during the second quarter 2019.

Stock-Based Compensation Expense

Non-cash stock-based compensation expense related to restricted stock, restricted stock unit grants and stock purchased under the Company's ESPP was \$3.2 million and \$4.0 million during the years ended December 31, 2020 and 2019, respectively.

401(k) Retirement Plan

The Company maintains a 401(k) retirement plan for the benefit of eligible employees in the U.S. All employees are eligible to participate in the plan upon employment. On January 1, 2015, the Company implemented a new matching program. The Company matches contributions at 100% of up to 2% of an employee's compensation and, if greater, the Company matches contributions at 50% from 5% to 8% of an employee's compensation. In April 2020, the Company suspended its matching contribution to employee accounts.

During the years ended December 31, 2020 and 2019, compensation expense included \$0.2 million and \$0.7 million, respectively, related to the Company's 401(k) match.

Note 19 — Earnings (Loss) Per Share

Basic earnings (loss) per common share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding for the period. Diluted earnings (loss) per common share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding combined with dilutive common share equivalents outstanding, if the

effect is dilutive. Potentially dilutive common share equivalents consist of incremental shares of common stock issuable upon exercise of stock options and settlement of restricted stock units.

Potentially dilutive securities were excluded from the calculation of diluted loss per share for the years ended December 31, 2020 and 2019, since including them would have an anti-dilutive effect on loss per share due to the loss from continuing operations incurred during the period. Securities convertible into shares of common stock that were not considered in the diluted loss per share calculations were 1.8 million restricted stock units and 3.8 million stock options for the year ended December 31, 2020 and 0.1 million restricted stock units for the year ended December 31, 2019.

Note 20 — Supplemental Cash Flow Information

Supplemental cash flow information is as follows (in thousands):

	 Years ended December 31,		
	2020		2019
Supplemental non-cash investing and financing activities:			
Equity issued — acquisition of JP3	\$ 8,538	\$	
Supplemental cash payment information:			
Interest paid	\$ 25	\$	599
Income taxes (received, net of payments) paid	(6,246)		(699)

Note 21 — Related Party Transaction

In January 2017, the IRS notified the Company that it was examining the Company's federal tax returns for the year ended December 31, 2014. As a result of this examination, the IRS informed the Company on May 1, 2019, that certain employment taxes related to the compensation of our former CEO, Mr. Chisholm, were not properly withheld in 2014 and proposed an adjustment. Mr. Chisholm's affiliated companies through which he provided his services have agreed to indemnify the Company for any such taxes, and Mr. Chisholm executed a personal guaranty in favor of the Company, supporting this indemnification.

At June 30, 2019, the Company recorded a liability of \$2.4 million related to the estimated employment tax under-withholding for the years 2014 through 2018. By September 30, 2019, the liability totaled \$1.8 million, after the Company paid \$0.6 million to the IRS for these taxes and made an additional accrual covering the estimated under-withholding tax liability through 2019. In addition, at June 30, 2019, the Company recorded a receivable from the affiliated companies of Mr. Chisholm totaling \$2.4 million. In October 2019, an amendment to the employment agreement was executed, giving the Company the contractual right of offset for any amounts owed to the Company, and giving the Company the right to withhold payments equal to amounts reasonably estimated to potentially become due to the Company by the affiliated companies from, any amounts owed under the employment agreement. The Company netted the related party receivable against the severance payable as of December 31, 2019, the Company recorded \$1.8 million for potential liability to the IRS.

On January 5, 2020, Mr. Chisholm ceased to be an employee of the Company. During 2020, the Company did not make any payments to Mr. Chisholm.

During the first quarter of 2020, an additional accrual was recorded for \$0.2 million related to potential penalties and interest on the IRS obligation. As of December 31, 2020, the receivable from Mr. Chisholm was \$1.4 million, which is equal to the payable to the IRS and was netted with Mr. Chisholm's severance liability. Both the IRS and severance liabilities are recorded in accrued liabilities on the consolidated balance sheet. In September 2020, the Company stopped all payments to Mr. Chisholm pending the completion and results of ongoing IRS audits.

Note 22 — Business Segment, Geographic and Major Customer Information

Segment Information

Operating segments are defined as components of an enterprise for which separate financial information is available that is regularly evaluated by the chief operating decision-maker in deciding how to allocate resources and assess performance. The operations of the Company are categorized into the following reportable segments: CT and DA.

Chemistry Technologies. The CT segment includes specialty chemistries, logistics and technology services, which enable its customers to pursue improved efficiencies in the drilling and completion of their wells. The Company designs, develops, manufactures, packages, distributes, delivers and markets reservoir-centric fluid systems, including specialty and conventional chemistries, for use in oil and gas well drilling, cementing, completion, remediation and stimulation activities designed to maximize recovery in both new and mature fields. Customers of the CT business segment include major integrated oil and gas companies, oilfield services companies, independent oil and gas companies, national and state-owned oil companies, and international supply chain management companies.

In 2020, the Company leveraged historical expertise, existing infrastructure, personnel, supply chain, research and resident consumer market experience to address the emerging demand for sanitizers, surface cleaners and disinfectants for industrial, commercial and consumer use. Rather than operating under relaxed pandemic-related guidelines, the Company sought to produce Food and Drug Administration and Environmental Protection Agency compliant products by completing all necessary upgrades to its already ISO 9001:2015 certified facility in Marlow, Oklahoma. Today the Company has a portfolio of specialty chemical products to address the long-term challenges created by the current COVID-19 pandemic and in preparation for future outbreaks.

Data Analytics. The DA segment, created in the second quarter of 2020 in conjunction with the acquisition of JP3 on May 18, 2020, includes the design, development, production, sale and support of equipment and services that create and provide valuable information about the composition of energy customers' hydrocarbon fluids. The customers of the DA segment span across the entire market, from production upstream to midstream facilities to refineries and distribution networks. To date, the DA segment has focused solely on North American markets. The DA segment provides real-time hydrocarbon composition data that helps its customers generate additional profit by enhancing blending, optimizing transmix, increasing efficiencies of towers, enabling automation of fluid handling, and reducing losses due to give-away (i.e., that portion of a product of higher value than what is specified) using real-time process information.

The Company evaluates performance based upon a variety of criteria. The primary financial measure is segment operating income. Various functions, including certain sales and marketing activities and general and administrative activities, are provided centrally by the corporate office. Costs associated with corporate office functions, other corporate income and expense items, and income taxes are not allocated to the reportable segment.

Summarized financial information of the reportable segments is as follows (in thousands):

As of and for the years ended December 31,	Chemistry Technologies		Data Analytics ⁽¹⁾		Corporate and Other		Total	
<u>2020</u>								
Net revenue from external customers	\$	50,310	\$	2,831	\$	— \$	53,141	
Loss from operations, including impairment		(88,486)		(36,407)		(18,755)	(143,648)	
Depreciation and amortization		2,519		422		471	3,412	
Additions to long-lived assets		1,425		_		_	1,425	
<u>2019</u>								
Net revenue from external customers	\$	119,353	\$	_	\$	— \$	119,353	
Loss from operations, including impairment		(45,682)		_		(29,818)	(75,500)	
Depreciation and amortization		7,439		<u> </u>		1,026	8,465	
Additions to long-lived assets		2,411		_		_	2,411	

⁽¹⁾ The financial information disclosed for the DA segment is for the period May 18, 2020 to December 31, 2020.

Assets of the Company by reportable segment are as follows (in thousands):

	December 31,			
		2020		2019
Chemistry Technologies	\$	43,346	\$	116,110
Data Analytics		13,201		
Corporate and Other		29,663		114,490
Total assets	\$	86,210	\$	230,600

Geographic Information

Revenue by country is based on the location where services are provided and products are used. No individual countries other than the U.S. and the United Arab Emirates ("UAE") accounted for more than 10% of revenue. Revenue by geographic location is as follows (in thousands):

	Y	Years ended December 31,			
		2020	2019		
U.S.	\$	40,632	\$	104,786	
UAE		6,763		3,897	
Other countries		5,746		10,670	
Total revenue	\$	53,141	\$	119,353	

Long-lived assets held in countries other than the U.S. are not considered material to the consolidated financial statements.

Major Customers

Revenue from major customers and as a percentage of consolidated revenue, is as follows:

Year ended December 31, 2020	Chemistry echnologies	% of Total Revenue	Data Analytics	% of Total Revenue
Customer A	\$ 12,891	24.26 %	*	*
Customer B	*	*	*	*
Customer C	\$ 9,394	17.68 %	*	*
Year ended December 31, 2019				
Customer A	\$ 24,386	20.43 %	*	*
Customer B	\$ 12,322	10.32 %	*	*
Customer C	*	*	*	*

^{*}This customer did not account for more than 10% of revenue during this period.

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

Not applicable.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

The Company's disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in reports filed or submitted under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. The Company's disclosure controls and procedures are also designed to ensure such information is accumulated and communicated to management, including the principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosures. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance that control objectives are attained.

Based upon this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and processes were not effective because of the material weaknesses in our internal control over financial reporting described below.

Management's Annual Report on Internal Control over Financial Reporting

The Company's management, including the Chief Executive Officer and the Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) of the Exchange Act. As of December 31, 2020, Company's management has evaluated the effectiveness of its internal control over financial reporting under the Exchange Act. The Company's management used the framework in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to perform this evaluation. Management excluded JP3, which was acquired by the Company in May 2020, from its assessment of the effectiveness of internal control over financial reporting, as the Company may omit an assessment of an acquired business's internal control over financial reporting from its assessment of the registrant's internal control for up to one year from the acquisition date. As of and for the year ended December 31, 2020, JP3 represented 5% of total revenue and 15% of total assets of the consolidated financial statement amounts. Based upon this evaluation, our management concluded as of December 31, 2020, that our internal control over financial reporting was not effective because of the material weaknesses described below. A material weakness is 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 the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

The Company identified deficiencies in its internal control over financial reporting that represented material weaknesses. Specifically, the Company's management determined that the Company did not, as of December 31, 2020, design and maintain effective internal controls over financial reporting. The material weaknesses relate to: (1) ineffective design and operation of controls over nonrecurring transactions, including derecognition of items and cash flow presentation relating to disposal transactions, and operating ineffectiveness of controls relating to impairment evaluations; (2) ineffective design and operating effectiveness over forecasts used in business combinations and impairment evaluations; and (3) the ineffective design and operating effectiveness of the assessment of going concern.

The Company believes that, notwithstanding the material weaknesses mentioned above, the consolidated financial statements contained in this Form 10-K present fairly, in all material respects, the consolidated financial positions, results of operations

and cash flows of the Company and its subsidiaries in conformity with generally accepted accounting principles in the United States as of the dates and for the periods stated therein.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2020, has been audited by BDO USA, LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Remediation Plan and Status

The Company has implemented and continues to implement certain remediation actions and continues to test and evaluate the elements of the remediation plan. These elements include:

- Implementing monitoring controls over the review and validation of both tangible and intangible assets;
- Expanding controls over impairments of goodwill and long-lived assets;
- Enhancing specificity in the design and implementation of controls around nonrecurring, complex accounting activities, with the assistance of technical subject-matter experts;
- Implementing controls for forecasting and budgeting, to include additional process documentation and precision;
- Expanding monthly management review controls; and,
- Enhancing existing control procedures around the quarterly going concern analysis process.

The Company believes that the actions listed above will provide appropriate remediation of the material weaknesses; however, the testing of the effectiveness of the controls has not been completed by the Company. Due to the nature of the remediation process and the need for sufficient time after implementation to evaluate and test the effectiveness of the controls, no assurance can be given as to the timing for completion of remediation. The material weaknesses will be fully remediated when the Company concludes that the controls have been operating for sufficient time and independently validated by management.

Changes in Internal Control over Financial Reporting

During the second quarter of 2020, the Company acquired JP3, a privately-held data and analytics technology company. Due to the timing of the acquisition, management did not include the internal control processes for JP3 in its assessment of the effectiveness of internal control over financial reporting as of December 31, 2020. The acquisition is excluded from the certifications required under the Sarbanes-Oxley Act. We will include all aspects of internal control over financial reporting for this acquisition in our 2021 assessment. Upon acquisition and at December 31, 2020, management has concluded that there have been no changes to JP3's previous structure around internal controls over financial reporting.

Additionally, the Company remediated a previously reported material weakness related to the elimination of intercompany profits in inventory during Q4 2020.

Except for the items described above, there have been no changes in the Company's system of internal control over financial reporting during the fiscal quarter ended December 31, 2020, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item is incorporated by reference to the Company's Definitive Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of year end.

Item 11. Executive Compensation.

The information required by this Item is incorporated by reference to the Company's Definitive Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of year end.

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

The information required by this Item is incorporated by reference to the Company's Definitive Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of year end.

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

The information required by this Item is incorporated by reference to the Company's Definitive Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of year end.

Item 14. Principal Accounting Fees and Services.

The information required by this Item is incorporated by reference to the Company's Definitive Proxy Statement for the 2021 Annual Meeting of Stockholders to be filed with the SEC within 120 days of year end.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

EXHIBIT INDEX

Fehibit Tule Fehi			EARIBIT INDEA
10.2 10.2			Exhibit Title
3.2 Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Form 10-Q for the quarter ended September 30, 2009) 3.3 Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporation by reference to Exhibit 3.1 to the Company's Form 8-K filed on May 7. 2020) 3.4 Second Amended and Restated Bylaws of Flotek Industries, Inc. approved on October 11, 2017 and amended on March 11, 2021. 4.1 Form of Certificate of Common Stock (incorporated by reference to Appendix E to the Company's Definitive Proxy, Statement filed on September 27, 2001) 4.2 Description of Capital Stock of the Company 5. Description of Capital Stock of the Company 5. Description of Form 8-K filed on May 19, 2020 4. Employment Agreement, dated July 29, 2020, between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on July 31, 2020) 4. Employment Agreement dated June 4, 2020 between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on July 22, 2020) 5. Employment Agreement between Flotek Industries, Inc. and Roll Audistries, Inc. and TengBeng Koid (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on June 17, 2021) 6. Employment Agree	2.1	††	JP3 Measurement, LLC, the Sellers party thereto, and John A. Cardwell, as Seller Representative (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on May 19,
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10.15 † Chisholm (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on May 24, 2019) † First Amended and Restated Employment Agreement, dated effective as of April 1, 2019, by and between the Company and Elizabeth T. Wilkinson (incorporated by reference to Exhibit 10.2 to the Company's Form			
the Company and Elizabeth T. Wilkinson (incorporated by reference to Exhibit 10.2 to the Company's Form	10.14	†	Employment Agreement, dated effective as of April 1, 2019, by and between the Company and John W. Chisholm (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on May 24, 2019)
	10.15	†	the Company and Elizabeth T. Wilkinson (incorporated by reference to Exhibit 10.2 to the Company's Form

Exhibit Number		Exhibit Title
10.16	†	Termination and Release Agreement, dated as of May 20, 2019, by and among the Company, John W.
		Chisholm, Protechnics II, Inc. and Chisholm Management, Inc. (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q for the quarter ended June 30, 2019)
10.17	†	Stand-Alone Cash-Settled Restricted Stock Unit Agreement, dated as of May 20, 2019, by and between the Company and John W. Chisholm (incorporated by reference to Exhibit 10.4 to the Company's Form 10-Q for the quarter ended June 30, 2019)
10.18	†	Restricted Stock Agreement, dated as of May 24, 2019, by and between the Company and John W. Chisholm (incorporated by reference to Exhibit 10.5 to the Company's Form 10-Q for the quarter ended June 30, 2019)
10.19	†	Form of Restricted Stock Agreement pursuant to the Company's 2018 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.6 to the Company's Form 10-Q for the quarter ended June 30, 2019)
10.20	†	Form of Restricted Stock Agreement pursuant to the Company's 2019 Non-Employee Director Incentive Plan (incorporated by reference to Exhibit 10.7 to the Company's Form 10-Q for the quarter ended June 30, 2019)
10.21	†	Amendment No. 1 to Employment Agreement, dated October 18, 2019, by and between the Company and John W. Chisholm (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on October 24, 2019)
10.22	†	Guaranty, dated May 8, 2019, by John W. Chisholm in favor of the Company (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on October 24, 2019)
10.23	†	Employment Agreement, dated effective as of December 22, 2019, by and between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on December 27, 2019)
10.24	†	Stand-Alone Restricted Stock Unit Award Agreement, dated as of December 22, 2019, by and between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on December 27, 2019)
10.25	†	Stand-Alone Time-Based Stock Option Award Agreement, dated as of December 22, 2019, by and between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed on December 27, 2019)
10.26	†	Stand-Alone Performance-Based Stock Option Award Agreement, dated as of December 22, 2019, by and between the Company and John W. Gibson, Jr. (incorporated by reference to Exhibit 10.4 to the Company's Form 8-K filed on December 27, 2019)
21.1	*	List of Subsidiaries
23.1	*	Consent of Moss Adams, LLP
23.2	*	Consent of BDO USA, LLP
31.1	*	Rule 13a-14(a) Certification of Principal Executive Officer
31.2	*	Rule 13a-14(a) Certification of Principal Financial Officer
32.1	**	Section 1350 Certification of Principal Executive Officer
32.2	**	Section 1350 Certification of Principal Financial Officer
101.INS	*	Inline XBRL Instance Document.
101.SCH	*	Inline XBRL Schema Document.
101.CAL	*	Inline XBRL Calculation Linkbase Document.
101.LAB	*	Inline XBRL Label Linkbase Document.
101.PRE	*	Inline XBRL Presentation Linkbase Document.
101.DEF	•	Inline XBRL Definition Linkbase Document.
104		Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).
*		Filed with this Form 10-K.
**		Furnished with this Form 10-K, not filed. Portions of this exhibit have been omitted pursuant to Item 601(b)(10) of Regulation S-K in order for them
.		to remain confidential.
† **		Management contracts or compensatory plans or agreements. Purguent to Itam 601(a)(5) of Population S. V. contain schedules and similar attachments have been emitted.
††		Pursuant to Item 601(a)(5) of Regulation S-K, certain schedules and similar attachments have been omitted. The Company hereby agrees to furnish a copy of any omitted schedule or attachment to the Securities and Exchange Commission upon request.

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.

FLOTEK INDUSTRIES, INC.

/s/ John W. Gibson, Jr.
John W. Gibson, Jr. By:

President, Chief Executive Officer and Chairman of the Board

Date: March 16, 2021

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

SIGNATURES	TITLE	DATE
/s/ John W. Gibson Jr. John W. Gibson, Jr.	President, Chief Executive Officer, and Chairman of the Board (Principal Executive Officer)	March 16, 2021
/s/ Michael E. Borton Michael E. Borton	Chief Financial Officer (Principal Financial and Accounting Officer)	March 16, 2021
/s/ Michelle M. Adams Michelle M. Adams	Director	March 16, 2021
/s/ Harsha V. Agadi	Director	March 16, 2021
Harsha V. Agadi		
/s/ Ted D. Brown	Director	March 16, 2021
Ted D. Brown		
/s/ Michael Fucci	Director	March 16, 2021
Michael Fucci		
/s/ Paul W. Hobby	Director	March 16, 2021
Paul W. Hobby		
/s/ David Nierenberg	Director	March 16, 2021
David Nierenberg		

SECOND AMENDED AND RESTATED BYLAWS

OF

FLOTEK INDUSTRIES, INC. A Delaware Corporation

ARTICLE I

REGISTERED OFFICE

The registered office of the Corporation required by the Delaware General Corporation Law to be maintained in the State of Delaware, shall be the registered office named in the original Certificate of Incorporation of the Corporation, or such other office (which need not be a place of business or principal office of the Corporation) as may be designated from time to time by the Board of Directors in the manner provided by law.

ARTICLE II

STOCKHOLDERS

Section 1. Place of Meetings. All meetings of the stockholders shall be held at the principal office of the Corporation, or at such other place within or without the State of Delaware as shall be specified or fixed in the notices (or waivers of notice) thereof. The Board of Directors may, in its sole discretion, determine that a meeting of the stockholders not be held at a place, but instead be held solely by means of remote communication in the manner and to the extent permitted by applicable law

Section 2. Quorum; Required Vote for Shareholder Action; Adjournment of Meetings. Unless otherwise required by law, the Certificate of Incorporation or these Bylaws, the holders of a majority of the stock issued and outstanding and entitled to vote at any meeting of stockholders, present in person or represented by proxy thereat (determined based on the relative number of votes to which each share is entitled with respect to the election of directors), shall constitute a quorum at any such meeting for the transaction of business; the affirmative vote of the holders of a majority of such stock so present or represented at such meeting at which a quorum is present shall constitute the act of the stockholders. The stockholders present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of sufficient stockholders to destroy the quorum. Notwithstanding other provisions of the Certificate of Incorporation or these Bylaws, the chairman of the meeting of stockholders or the holders of a majority of the issued and outstanding stock, present in person or represented by proxy and entitled to vote thereat, whether or not a quorum is present, shall have the power to adjourn such meeting from time to time, without any notice other than announcement at the meeting of the time and place of the holding of the adjourned meeting. If the adjournment is for more than thirty (30) days, or if subsequent to the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at such meeting. At any such adjourned meeting at which a quorum shall be present or represented by proxy, any business may be transacted which might have been transacted at the meeting as originally called. If authorized by the Board of Directors, in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxy holders not physically present at a meeting of stockholders may by means of remote communication, to the fullest extent permitted by applicable law: (a) participate in a meeting of stockholders, and (b) be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication.

Section 3. Annual Meetings. An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly be considered at the meeting,

shall be held at such place, within or without the State of Delaware, or by means of remote communication, on such date, and at such time as the Board of Directors shall fix and set forth in the notice of the meeting. If the Board of Directors has not fixed a place for the holding of the annual meeting of stockholders in accordance with this Article II, Section 3, and has not determined that the annual meeting shall be by means of remote communication, such annual meeting shall be held at the principal place of business of the Corporation. The Corporation may postpone, reschedule or cancel any annual meeting of stockholders previously scheduled by the Board of Directors.

Section 4. Special Meetings. Unless otherwise provided in the Certificate of Incorporation, special meetings of the stockholders for any proper purpose or purposes may be called at any time by the Chairman of the Board (if any), the Board of Directors, or the President. The Corporation may postpone, reschedule or cancel any special meeting of stockholders previously scheduled by the Board of Directors.

Section 5. Record Date. For the purpose of determining stockholders entitled to notice of or to vote at any meeting of stockholders, or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing such record date is adopted by the Board of Directors, and which record shall not be more than sixty (60) nor less than ten (10) days prior to the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination.

If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be the close of business on the day next preceding the day on which notice of such meeting is given or, if notice is waived in accordance with Article VIII, Section 3 of these Bylaws, the close of business on the day next preceding the day on which the meeting of stockholders is held.

If, in accordance with Article II, Section 12 hereof, corporate action without a meeting of stockholders is to be taken, the Board of Directors may fix a record date for determining stockholders entitled to consent in writing to such corporate action, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date is adopted by the Board of Directors.

If no record date has been fixed by the Board of Directors, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Corporation by delivery to its registered office, its principal place of business, or to an officer or to agent of the Corporation having custody of the books in which proceedings of meetings of stockholders are recorded. Delivery made to the Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or the stockholders entitled to exercise any rights in connection with any change, conversion or exchange of stock, or for the purpose of any other lawful action (other than one of the purposes addressed in the first paragraph of this Section 5 of this Article II), the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall not be more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

Section 6. Notice of Meetings. Written notice stating the place, if any, means of remote communication, if any, day and hour of all meetings and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be delivered not less than ten (10) nor more than sixty (60) days prior to the date of the meeting, either personally, by mail, or by electronic transmission in accordance with applicable law, by or at the direction of the President, the Secretary or the officer or person calling the meeting, to each stockholder entitled to vote at such meeting. If mailed, such notice shall be deemed to have been given when addressed to the stockholder, at his address as it appears on the share transfer records of the Corporation, postage prepaid, and deposited in the United States mail. An affidavit of the Secretary, an Assistant Secretary or the transfer agent of the Corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

Section 7. Voting List. The Corporation shall prepare and make, at least ten (10) days prior to each meeting of stockholders, a complete list of the stockholders entitled to vote at such meeting or any adjournment thereof, arranged in alphabetical order, with the address of and the number of shares held by each, which list, for a period often (10) days prior to such meeting, shall be kept on file at the registered office or principal place of business of the Corporation and shall be subject to inspection by any stockholder at any time during usual business hours. Such list shall also be produced and kept open at the time and place of the meeting and shall be subject to inspection by any stockholder during the course of the meeting. If the meeting is held solely by means of remote communication, the list shall also be open to the examination of any stockholder during the whole time of the meeting as provided by applicable law and the information required to access the list shall be provided to stockholders in accordance with applicable law. The original share transfer records shall be prima facie evidence as to the identity of those stockholders entitled to examine such voting list or transfer records or to vote at any meeting of stockholders. Failure to comply with the requirements of this Article II, Section 7 shall not affect the validity of any action taken at such meeting.

Section 8. Proxies. Each stockholder entitled to vote at a meeting of stockholders or to express consent, or dissent to a corporate action in writing without a meeting, may authorize another person or persons to act for him by proxy. Proxies for use at any meeting of stockholders shall be filed with the Secretary, or such other officer as the Board of Directors may from time to time determine by resolution, prior to or at the time of such meeting. All proxies shall be received and taken charge of and all ballots shall be received and canvassed by the secretary of the meeting who shall also decide all questions with respect to the validity of such proxies, the qualification of voters, and the acceptance or rejection of votes, unless an inspector or inspectors shall have been appointed by the chairman of the meeting, in which event such inspector or inspectors shall decide all such questions.

No proxy shall be valid after three (3) years from the date of its execution, unless such proxy provides for a longer period. Each proxy, unless expressly provided therein to be irrevocable and coupled with an interest sufficient in law to support an irrevocable power, shall be revocable.

Should a proxy designate two or more persons to act as proxies, unless such instrument shall expressly provide otherwise, a majority of such persons present at any meeting at which their powers thereunder are to be exercised shall have and may exercise all the powers of voting or consent thereby conferred, or if only one be present, then such powers may be exercised by that one; or, if an even number attend and a majority cannot agree on any particular issue, the Corporation shall not be required to recognize such proxy with respect to such issue, if such proxy does not specify how the shares that are the subject of such proxy are to be voted with respect to such issue in such a contingency.

Section 9. Voting; Inspectors; Elections. Unless otherwise required by law or provided in the Certificate of Incorporation, each stockholder shall, on each matter submitted to a vote at a meeting of stockholders, have one vote for each share of stock entitled to vote thereon, which is registered in his name on the record date for such meeting. Shares registered in the name of another corporation, domestic or foreign, may be voted by such officer, agent or proxy as the Bylaws (or comparable instrument) of such corporation may prescribe, or in the absence of such

provision, as the Board of Directors (or comparable body) of such corporation may determine. Shares registered in the name of a deceased person may be voted by his executor or administrator, either in person or by proxy.

All voting, except as otherwise required by law or the Certificate of Incorporation, may be by a voice vote; provided, however, that upon demand by stockholders holding a majority of the issued and outstanding stock present in person or by proxy at any meeting of stockholders, a stock vote shall be taken. Every stock vote shall be taken by written ballot, each of which shall state the name of the stockholder or proxy voting and such other information as may be required under the procedure established for the meeting. All elections of directors shall be by stock vote, unless otherwise provided in the Certificate of Incorporation.

At any meeting at which a vote is taken by ballot, the chairman of such meeting may appoint one or more inspectors, each of whom shall sign an oath or affirmation to faithfully execute, to the best of his ability and with strict impartiality, the duties of inspector at such meeting. Such inspector shall receive the ballots, count the votes and make and sign a certificate of the results thereof. The chairman of the meeting may appoint any person to serve as inspector, provided, however, that no candidate for the office of director shall be appointed as an inspector.

Except as set forth below in this paragraph, the election of directors at any meetings of the stockholders at which directors are to be elected shall be by ballot and, subject to any rights of the holders of any class or series of stock to elect directors separately, each director shall be elected by a majority of the votes cast with respect to the director by stockholders entitled to vote and present in person or represented by proxy. For purposes of the immediately preceding sentence, a majority of the votes cast means that the number of shares voted "for" a director must exceed 50% of the votes cast "for" or "against" with respect to that director, excluding abstentions. Notwithstanding the foregoing, if the number of eligible nominees standing for election at any meeting of the stockholders exceeds the number of directors to be elected, the directors shall be elected by a plurality of the votes cast at the meeting. If an incumbent director who is nominated for re-election does not receive sufficient votes "for" to be elected, the director shall promptly tender his or her resignation to the Chairman of the Board following certification of the vote. The Corporate Governance and Nominating Committee of the Board shall make a recommendation to the Board of Directors on whether to accept or reject the resignation, or whether other action should be taken. The Board shall act on the tendered resignation, taking into account the Corporate Governance and Nominating Committee's recommendation, and publicly disclose (by a press release, a filing with the Securities and Exchange Commission or other broadly disseminated means of communication) its decision regarding the tendered resignation within 90 days from the date of the certification of the election results. The Corporate Governance and Nominating Committee in making its recommendation, and the Board in making its decision, may each consider any factors or other information that it considers appropriate and relevant. The director who tenders his or her resignation should not participate in the recommendation of the Corporate Governance and Nominating Committee or the decision of the Board with respect to his or her resignation. If such incumbent director's resignation is not accepted by the Board, such director shall continue to serve until the next annual meeting of the stockholders of the Corporation and until his or her successor is duly elected, or his or her earlier resignation or removal. If a director's resignation is accepted by the Board pursuant to this Section, or if a nominee for director is not elected and the nominee is not an incumbent director, then the Board, in its sole discretion, may fill any resulting vacancy pursuant to the provisions of Article III, Section 8 of these Bylaws or may decrease the size of the Board pursuant to the provisions of Article III, Section 1 of these Bylaws.

All other matters shall be determined by a majority of the votes cast.

Unless otherwise provided in the Certificate of Incorporation, cumulative voting for the election of directors shall be prohibited.

Section 10. Conduct of Meetings. All meetings of the stockholders shall be presided over by the chairman of the meeting, who shall be the Chairman of the Board (if any) of the Corporation, or if, he is not present, the President of the Corporation, or if neither the Chairman of the Board (if any) nor President is present, a chairman elected at such meeting. The Secretary of the Corporation, if present, shall act as secretary of such meetings, or if he is not present, an Assistant Secretary (if any) shall so act; if neither the Secretary nor an Assistant Secretary (if any) is present, then a secretary shall be appointed by the chairman of the meeting. The chairman of any meeting of stockholders shall

determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion, as seem to him in order. Unless the chairman of the meeting shall otherwise determine, the order of business shall be as follows:

- (a) Calling of meeting to order.
- (b) Election of a chairman and the appointment of a secretary (if necessary).
- (c) Presentation of proof of the due calling of the meeting.
- (d) Presentation and examination of proxies and determination of a quorum.
- (e) Reading and settlement of minutes of the previous meeting.
- (f) Reports of officers and committees.
- (g) The election of directors, if the meeting is an annual meeting or a meeting called for that purpose.
- (h) Unfinished business.
- (i) New business.
- (j) Adjournment.

Section 11. Treasury Shares. Neither the Corporation nor any other person shall vote, directly or indirectly, at any meeting of stockholders, shares of the Corporation's own stock owned by the Corporation, shares of the Corporation's own stock owned by another corporation the majority of the voting stock of which is owned or controlled by the Corporation, and such shares shall not be counted for quorum purposes or in determining the number of outstanding shares.

Section 12. Action by Written Consent. Unless otherwise provided in the Certificate of Incorporation, any action permitted or required to be taken at a meeting of stockholders by law, the Certificate of Incorporation or these Bylaws, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of all of the outstanding stock entitled to vote on such action and such consent shall be delivered to the Corporation's registered office, its principal place of business; or to an officer or agent of the Corporation having custody of the book in which the proceedings of meetings of stockholders are recorded. Delivery made to a Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. Every written consent shall bear the date of signature thereto and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the first consent delivered to the Corporation in the manner required by this Article II, Section 12, written consents signed by all of the stockholders entitled to vote on such action are delivered to the Corporation.

Prompt notice of the taking of corporate action without a meeting, by less than a unanimous written consent, shall be given by the Secretary to those stockholders who did not consent in writing.

Section 13. Notice of Business to be Brought Before a Meeting.

(a) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (i) specified in a notice of meeting given by or at the direction of the Board of Directors, (ii) if not specified in a notice of meeting, otherwise brought before the meeting by the Board of Directors or the Chairman of the Board or (iii) otherwise properly brought before the meeting by a stockholder present in person who (A) (1) was a beneficial owner of shares of the Corporation both at the time of giving the notice provided for in this Section 13 and at the time of the meeting, (2) is entitled to vote at the meeting, and (3) has complied with this Section 13 in all applicable respects or (B) properly made such proposal in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (as so amended and inclusive of such rules and regulations, the "Exchange Act"). The foregoing clause (iii) shall be the exclusive means for a stockholder to propose business to be brought before an annual meeting of the stockholders. The only matters that may be brought

before a special meeting are the matters specified in the notice of meeting given by or at the direction of the person calling the meeting pursuant to Section 4, and stockholders shall not be permitted to propose business to be brought before a special meeting of the stockholders. For purposes of this Section 13, "present in person" shall mean that the stockholder proposing that the business be brought before the annual meeting of the Corporation, or a qualified representative of such proposing stockholder, appear at such annual meeting. A "qualified representative" of such proposing stockholder shall be a duly authorized officer, manager or partner of such stockholder or any other person authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders. Stockholders seeking to nominate persons for election to the Board of Directors must comply with Section 14 and Section 15 and this Section 13 shall not be applicable to nominations except as expressly provided in Section 14 and Section 15.

- (b) Without qualification, for business to be properly brought before an annual meeting by a stockholder, the stockholder must (i) provide Timely Notice (as defined below) thereof in writing and in proper form to the Secretary of the Corporation and (ii) provide any updates or supplements to such notice at the times and in the forms required by this Section 13. To be timely, a stockholder's notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the one-year anniversary of the preceding year's annual meeting; provided, however, that if the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered, or mailed and received, not later than the ninetieth (90th) day prior to such annual meeting or, if later, the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"). In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of Timely Notice as described above.
- (c) To be in proper form for purposes of this Section 13, a stockholder's notice to the Secretary shall set forth:
 - (i) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, if applicable, the name and address that appear on the Corporation's books and records); and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Person, except that such Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Stockholder Information");
 - As to each Proposing Person, (A) the full notional amount of any securities that, directly or indirectly, underlie any "derivative security" (as such term is defined in Rule 16a-1(c) under the Exchange Act) that constitutes a "call equivalent position" (as such term is defined in Rule 16a-1(b) under the Exchange Act) ("Synthetic Equity Position") and that is, directly or indirectly, held or maintained by such Proposing Person with respect to any shares of any class or series of shares of the Corporation; provided that, for the purposes of the definition of "Synthetic Equity Position," the term "derivative security" shall also include any security or instrument that would not otherwise constitute a "derivative security" as a result of any feature that would make any conversion, exercise or similar right or privilege of such security or instrument becoming determinable only at some future date or upon the happening of a future occurrence, in which case the determination of the amount of securities into which such security or instrument would be convertible or exercisable shall be made assuming that such security or instrument is immediately convertible or exercisable at the time of such determination; and, provided, further, that any Proposing Person satisfying the requirements of Rule 13d-1(b)(1) under the Exchange Act (other than a Proposing Person that so satisfies Rule 13d-1(b)(1) under the Exchange Act solely by reason of Rule 13d-1(b)(1)(ii)(E)) shall not be deemed to hold or maintain the notional amount of any securities that underlie a Synthetic Equity Position held by such Proposing Person as a hedge with respect to a bona fide derivatives trade or position of such Proposing Person

arising in the ordinary course of such Proposing Person's business as a derivatives dealer, (B) any rights to dividends on the shares of any class or series of shares of the Corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, (C) any material pending or threatened legal proceeding in which such Proposing Person is a party or material participant involving the Corporation or any of its officers or directors, or any affiliate of the Corporation, (D) any other material relationship between such Proposing Person, on the one hand, and the Corporation, any affiliate of the Corporation, on the other hand, (E) any direct or indirect material interest in any material contract or agreement of such Proposing Person with the Corporation or any affiliate of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (F) a representation that such Proposing Person intends or is part of a group which intends to deliver a proxy statement or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or otherwise solicit proxies from stockholders in support of such proposal and (G) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the foregoing clauses (A) through (G) are referred to as "Disclosable Interests"); provided, however, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these Bylaws on behalf of a beneficial owner; and

(iii) As to each item of business that the stockholder proposes to bring before the annual meeting, (A) a brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including the text of any resolutions proposed for consideration), and (C) a reasonably detailed description of all agreements, arrangements and understandings (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other person or entity (including their names) in connection with the proposal of such business by such stockholder; and (D) any other information relating to such item of business that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act; provided, however, that the disclosures required by this paragraph (iii) shall not include any disclosures with respect to any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these Bylaws on behalf of a beneficial owner.

For purposes of this Section 13, the term "Proposing Person" shall mean (i) the stockholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, and (iii) any participant (as defined in paragraphs (a)(ii)-(vi) of Instruction 3 to Item 4 of Schedule 14A) with such stockholder in such solicitation.

(d) A Proposing Person shall update and supplement its notice to the Corporation of its intent to propose business at an annual meeting, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 13 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of such record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which

the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

- (e) Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at an annual meeting that is not properly brought before the meeting in accordance with this Section 13. The presiding officer of the meeting shall, if the facts warrant, determine that the business was not properly brought before the meeting in accordance with this Section 13, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.
- (f) This Section 13 is expressly intended to apply to any business proposed to be brought before an annual meeting of stockholders other than any proposal made in accordance with Rule 14a-8 under the Exchange Act and included in the Corporation's proxy statement. In addition to the requirements of this Section 13 with respect to any business proposed to be brought before an annual meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such business. Nothing in this Section 13 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.
- (g) For purposes of these Bylaws, "public disclosure" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

Section 14. Notice of Nominations for Election to the Board of Directors.

- Nominations of any person for election to the Board of Directors at an annual meeting or at a special meeting (but only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (i) by or at the direction of the Board of Directors, including by any committee or persons authorized to do so by the Board of Directors or these bylaws, or (ii) by a stockholder present in person (A) who was a beneficial owner of shares of the Corporation both at the time of giving the notice provided for in this Section 14 and at the time of the meeting, (B) is entitled to vote at the meeting, and (C) has complied with this Section 14 and Section 15 as to such notice and nomination. For purposes of this Section 14, "present in person" shall mean that the stockholder proposing that the business be brought before the meeting of the Corporation, or, if the proposing stockholder is not an individual, a qualified representative of such stockholder, appear at such meeting. A "qualified representative" of such proposing stockholder shall be a duly authorized officer, manager or partner of such stockholder or any other person authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders. The foregoing clause (ii) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board of Directors at an annual meeting or special meeting.
- (b) (i) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board of Directors at an annual meeting, the stockholder must (1) provide Timely Notice (as defined in Section 13) thereof in writing and in proper form to the Secretary of the Corporation, (2) provide the information, agreements and questionnaires with respect to such stockholder and its candidate for nomination as required to be set forth by this Section 14 and Section 15 and (3) provide any updates or supplements to such notice at the times and in the forms required by this Section 14 and Section 15.
 - (ii) Without qualification, if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling a special meeting, then for a stockholder to make any nomination of a person or persons for election to the Board of Directors at a special meeting, the stockholder must (i) provide timely notice thereof in writing and in proper form to the Secretary of the Corporation at the principal executive offices of the Corporation, (ii) provide the information with respect to such stockholder and its candidate for nomination as required by this Section 14 and Section

15 and (iii) provide any updates or supplements to such notice at the times and in the forms required by this Section 14. To be timely, a stockholder's notice for nominations to be made at a special meeting must be delivered to, or mailed and received at, the principal executive offices of the Corporation not earlier than the one hundred twentieth (120th) day prior to such special meeting and not later than the ninetieth (90th) day prior to such special meeting or, if later, the tenth (10th) day following the day on which public disclosure (as defined in Section 13) of the date of such special meeting was first made.

- (iii) In no event shall any adjournment or postponement of an annual meeting or special meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above.
- (c) To be in proper form for purposes of this Section 14, a stockholder's notice to the Secretary shall set forth:
 - (i) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 13(c)(i), except that for purposes of this Section 14 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 13(c)(i));
 - (ii) As to each Nominating Person, any Disclosable Interests (as defined in Section 13(c)(ii), except that for purposes of this Section 14 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 13(c)(ii) and the disclosure with respect to the business to be brought before the meeting in Section 13(c)(ii) shall be made with respect to the election of directors at the meeting); and
 - As to each candidate whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such candidate for nomination that would be required to be set forth in a stockholder's notice pursuant to this Section 14 and Section 15 if such candidate for nomination were a Nominating Person, (B) all information relating to such candidate for nomination that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including such candidate's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (C) a description of any direct or indirect material interest in any material contract or agreement between or among any Nominating Person, on the one hand, and each candidate for nomination or his or her respective associates or any other participants in such solicitation, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the candidate for nomination were a director or executive officer of such registrant (the disclosures to be made pursuant to the foregoing clauses (A) through (C) are referred to as "Nominee Information"), and (D) a completed and signed questionnaire, representation and agreement as provided in Section 15(a).

For purposes of this Section 14, the term "Nominating Person" shall mean (i) the stockholder providing the notice of the nomination proposed to be made at the meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made, and (iii) any other participant in such solicitation.

(d) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 14 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of such record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which

the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(e) In addition to the requirements of this Section 14 with respect to any nomination proposed to be made at a meeting, each Nominating Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

Section 15. Additional Requirements For Valid Nomination of Candidates to Serve as Director and, If Elected, to Be Seated as Directors.

- To be eligible to be a candidate for election as a director of the Corporation at an annual or special meeting, (a) a candidate must be nominated in the manner prescribed in Section 14 and the candidate for nomination, whether nominated by the Board of Directors or by a stockholder of record, must have previously delivered (in accordance with the time period prescribed for delivery in a notice to such candidate given by or on behalf of the Board of Directors), to the Secretary at the principal executive offices of the Corporation, (i) a completed written questionnaire (in a form provided by the Corporation) with respect to the background, qualifications, stock ownership and independence of such proposed nominee and (ii) a written representation and agreement (in form provided by the Corporation) that such candidate for nomination (A) is not and, if elected as a director during his or her term of office, will not become a party to (1) any agreement, arrangement or understanding with, and has not given and will not give any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") or (2) any Voting Commitment that could limit or interfere with such proposed nominee's ability to comply, if elected as a director of the Corporation, with such proposed nominee's fiduciary duties under applicable law, (B) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation or reimbursement for service as a director that has not been disclosed therein and (C) if elected as a director of the Corporation, will comply with all applicable corporate governance, conflict of interest, confidentiality, stock ownership and trading and other policies and guidelines of the Corporation applicable to directors and in effect during such person's term in office as a director (and, if requested by any candidate for nomination, the Secretary of the Corporation shall provide to such candidate for nomination all such policies and guidelines then in effect).
- (b) The Board of Directors may also require any proposed candidate for nomination as a Director to furnish such other information as may reasonably be requested by the Board of Directors in writing prior to the meeting of stockholders at which such candidate's nomination is to be acted upon in order for the Board of Directors to determine the eligibility of such candidate for nomination to be an independent director of the Corporation in accordance with the Corporation's Corporate Governance Guidelines.
- (c) A candidate for nomination as a director shall further update and supplement the materials delivered pursuant to this Section 15, if necessary, so that the information provided or required to be provided pursuant to this Section 15 shall be true and correct as of the record date for stockholders entitled to vote at the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation (or any other office specified by the Corporation in any public announcement) not later than five (5) business days after the record date for stockholders entitled to vote at the meeting (in the case of the update and supplement required to be made as of such record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).
- (d) No candidate shall be eligible for nomination as a director of the Corporation unless such candidate for nomination and the Nominating Person seeking to place such candidate's name in nomination has complied with Section 14 and this Section 15, as applicable. The presiding officer at the meeting shall, if the facts warrant, determine that a nomination was not properly made in accordance with Section 14 and this Section 15, and if he or

she should so determine, he or she shall so declare such determination to the meeting, the defective nomination shall be disregarded and any ballots cast for the candidate in question (but in the case of any form of ballot listing other qualified nominees, only the ballots case for the nominee in question) shall be void and of no force or effect.

(e) Notwithstanding anything in these Bylaws to the contrary, no candidate for nomination shall be eligible to be seated as a director of the Corporation unless nominated and elected in accordance with Section 14 and this Section 15.

ARTICLE III

BOARD OF DIRECTORS

Section 1. Power; Number; Term of Office. The powers of the Corporation shall be exercised by or under the authority of, and the business and affairs of the Corporation shall be managed under, the direction of the Board of Directors.

Unless otherwise provided in the Certificate of Incorporation, the number of directors that shall constitute the Board of Directors shall be determined from time to time by resolution of the Board of Directors (provided that no decrease in the number of directors that would have the effect of shortening the term of any incumbent director may be made by the Board of Directors). If the Board of Directors does not make such a determination, the number of directors shall be that number set forth in the Certificate of Incorporation as the number of directors constituting the initial Board of Directors. Each director shall hold office for the term for which he is elected and thereafter until his successor shall have been elected and qualified, or until his earlier death, resignation or removal.

Unless otherwise provided in the Certificate of Incorporation, directors need not be stockholders or residents of the State of Delaware.

Section 2. Quorum; Required Vote for Director Action. Unless otherwise required by law or provided in the Certificate of Incorporation or these Bylaws, a majority of the total number of directors fixed by or in the manner provided in the Certificate of Incorporation or these Bylaws shall constitute a quorum for the transaction of business at a meeting of the Board of Directors, and the act of a majority of the directors present at such meeting at which a quorum is present shall be the act of the Board of Directors.

Section 3. Meetings; Order of Business. The directors may hold their meetings and may have an office and keep the books of the Corporation, except as otherwise provided by law, in such place or places, within or without the State of Delaware, as the Board of Directors may from time to time determine by resolution. At all meetings of the Board of Directors business shall be transacted in such order as shall from time to time be determined by the Chairman of the Board (if any) or in his absence by the President (if the President is a director) or by resolution of the Board of Directors.

Section 4. First Meeting. In connection with any annual meeting of stockholders at which directors are elected the Board of Directors may, if a quorum is present, hold its first meeting for the transaction of business immediately after and at the place of such annual meeting of the stockholders. Notice of such meeting, at such time and place, shall not be required.

Section 5. Regular Meetings. Regular meetings of the Board of Directors shall be held at such times and places as shall be designated from time to time by resolution of the Board of Directors. Notice of such regular meetings shall not be required.

Section 6. Special Meetings. Special meetings of the Board of Directors may be called by the Chairman of the Board (if any), the President or, upon written request of a majority of the directors then in office, by the Secretary, in each case on at least twenty-four (24) hours personal, written, telegraphic, cable or wireless notice to each director. Such

notice, or any waiver thereof pursuant to Article VIII, Section 3 hereof, need not state this purpose or purposes of such meeting, except as may otherwise be required by law, the Certificate of Incorporation or these Bylaws.

Section 7. Removal. Any one or more directors or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors for the particular directors being removed; provided that, unless the Certificate of Incorporation otherwise provides, if the Board of Directors is classified, then the stockholders may effect such removal only for cause; and provided further that, if the Certificate of Incorporation expressly grants to stockholders the right to cumulate votes for the election of directors and if less than the entire board is to be removed, no director may be removed without cause if the votes cast against his removal would be sufficient to elect him if then cumulatively voted at an election of the entire Board of Directors or, if there be classes of directors, at an election of the class of directors of which such director is a part.

Section 8. Vacancies; Increases in the Number of Directors. Unless otherwise provided in the Certificate of Incorporation or these Bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by the affirmative vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. If the Certificate of Incorporation entitles the holders of any class or classes of stock or series thereof to elect one (1) or more directors, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If the directors of the Corporation are divided into classes, any directors elected to fill vacancies or newly created directorships shall hold office until the next election of the class for which such directors shall have been chosen, and until their successors shall be duly elected and shall qualify.

Section 9. Compensation. Unless otherwise provided in the Certificate of Incorporation, the Board of Directors shall have the authority to fix the compensation, if any, of directors.

Section 10. Action Without a Meeting; Telephone Conference Meeting. Unless otherwise provided in the Certificate of Incorporation, any action required or permitted to be taken at any meeting of the Board of Directors, or any committee designated by the Board of Directors, may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee. Such consent shall have the same force and effect as a unanimous vote at a meeting, and may be stated as such in any document or instrument filed with the Secretary of State of Delaware.

Unless otherwise provided in the Certificate of Incorporation, subject to the requirement for notice of such meetings, members of the Board of Directors, or members of any committee designated by the Board of Directors, may participate in a meeting of such Board of Directors or committee, as the case may be, by means of a conference telephone or similar communications equipment, by means of which all persons participating in the meeting can hear each other, and participation in such meeting shall constitute presence in person at the meeting, except where a person participates in the meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

Section 11. Approval or Ratification of Acts or Contracts by Stockholders. The Board of Directors in its discretion may submit any act or contract for approval or ratification at any annual meeting of the stockholders, or at any special meeting of the stockholders called for the purpose of considering any such act or contract, and any act or contract that shall be approved or ratified by the vote of the stockholders holding a majority of the issued and outstanding shares of stock of the Corporation entitled to vote and present in person or represented by proxy at such meeting (provided that a quorum is present), shall be as valid and as binding upon the Corporation and upon all the stockholders as if it had been approved or ratified by every stockholder of the Corporation. In addition, any such act or contract may be approved or ratified by the written consent of stockholders holding a majority of the issued and outstanding shares of capital stock of the Corporation entitled to vote and such consent shall be as valid and as

binding upon the Corporation and upon all the stockholders as if it had been approved or ratified by every stockholder of the Corporation.

ARTICLE IV

COMMITTEES

Section 1. Designation; Powers. The Board of Directors may, by resolution passed by a majority of the whole board, designate one or more committees, including a Compensation Committee, Audit Committee, and Corporate Governance and Nominating Committee, each such committee consisting of one or more of the directors of the Corporation. Any such designated committee shall have and may exercise such of the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation as may be provided in such resolution, except that no such committee shall have the power or authority of the Board of Directors with regard to amending the Certificate of Incorporation (except that a committee may, to the extent authorized by the Certificate of Incorporation and the Delaware General Corporation Law, fix certain terms of stock to be issued by the Corporation), adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution of the Corporation, or amending, altering or repealing the Bylaws or adopting new Bylaws for the Corporation; unless such resolution or the Certificate of Incorporation expressly so provides, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock or to adopt a certificate of ownership and merger pursuant to the Delaware General Corporation Law. Any such designated committee may authorize the seal of the Corporation to be affixed to all papers which may require it. In addition, such committee or committees shall have such other powers and limitations of authority as may be determined from time to time by resolution adopted by the Board of Directors.

Section 2. Specific Committees.

- (a) The Compensation Committee shall (i) exercise the authority of the full Board of Directors with respect to setting compensation policy for all employees of the Corporation, (ii) make recommendations to the full Board of Directors regarding executive compensation and employee stock option awards, and (iii) have such additional powers and duties as shall be delegated to it by the Board of Directors from time to time.
- (b) The Audit Committee shall (i) exercise the authority of the full Board of Directors with respect to overseeing the performance and reviewing the scope of the audit functions of the Corporation's independent auditors, (ii) review and make recommendations to the full Board of Directors regarding audit plans and procedures, the Corporation's policies with respect to conflicts of interest and the prohibition of the use of corporate funds or assets for improper purposes, changes in the accounting policies, and the use of independent auditors for nonaudit services, and (iii) have such additional powers and duties as shall be delegated to it by the Board of Directors from time to time.
- (c) The Corporate Governance and Nominating Committee shall (i) recommend to the full Board of Directors persons to be considered for election to the Board of Directors, considering, among other things, any nominations submitted by stockholders, and (ii) have such additional powers and duties as shall be delegated to it by the Board of Directors from time to time.
- Section 3. Procedure; Meetings; Quorum. Any committee designated pursuant to Article IV, Section 1 hereof shall choose its own chairman and secretary, shall keep regular minutes of its proceedings and report the same to the Board of Directors when requested, shall fix its own rules and procedures, and shall meet at such times and at such place or places as may be provided by such rules or procedures, or by resolution of such committee or Board of Directors. At every meeting of any such committee, the presence of a majority of all the members thereof shall constitute a quorum, except as provided in Section 3 of this Article IV, and the affirmative vote of a majority of the members present shall be necessary for the adoption of any resolution.

Section 4. Substitution of Members. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not constituting a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

ARTICLE V

OFFICERS

Section 1. Number, Titles and Term of Office. The officers of the Corporation shall be a President, one or more Vice Presidents (any one or more of whom may be designated Executive Vice President or Senior Vice President), a Treasurer, a Secretary and, if the Board of Directors so elects, a Chairman of the Board, a Chief Executive Officer ("CEO"), and such other officers as the Board of Directors may from time to time elect or appoint. Each officer shall hold office until his successor shall be duly elected and shall qualify or until his death or until he shall resign or shall have been removed in the manner hereinafter provided. Any number of offices may be held by the same person, unless the Certificate of Incorporation provides otherwise. Except for the Chairman of the Board, if any, no officer need be a director.

Section 2. Salaries. The salaries or other compensation, if any, of the officers and agents of the Corporation shall be fixed from time to time by the Board of Directors.

Section 3. Removal. Any officer or agent elected or appointed by the Board of Directors may be removed, either with or without cause, by the vote of a majority of the whole Board of Directors at any regular meeting, or at a special meeting called for such purpose, provided the notice for such meeting shall specify that such proposed removal will be considered at the meeting; provided, however, that such removal shall be without prejudice to the contractual rights, if any, of the person so removed. Election or appointment of an officer or agent shall not of itself create contractual rights.

Section 4. Vacancies. Any vacancy occurring in any office of the Corporation may be filled by the Board of Directors.

Section 5. Powers and Duties of the Chief Executive Officer. The CEO, if there is such an officer, shall be the chief executive officer of the Corporation. Subject to the control of the Board of Directors, the CEO shall have general executive charge, management and control of the properties, business and operations of the Corporation with all such powers as may be reasonably incident to such responsibilities; he may agree upon and execute all leases, contracts, evidences of indebtedness and other obligations in the name of the Corporation and may sign all certificates for shares of capital stock of the Corporation; and he shall have such other powers and duties as designated in accordance with these Bylaws and as may be assigned to him from time to time by the Board of Directors. The CEO will preside at all meetings of the stockholders in absence of a Chairman of the Board.

Section 6. Powers and Duties of the Chairman of the Board. The Chairman of the Board (if any) shall preside at all meetings of the stockholders and of the Board of Directors; and he shall have such other powers and duties as designated in accordance with these Bylaws and as may be assigned to him from time to time by the Board of Directors.

Section 7. Powers and Duties of the President. Unless otherwise determined by the Board of Directors or the CEO, if there is such an officer, the President shall have the authority to agree upon and execute all leases, contracts, evidences of indebtedness and other obligations in the name of the Corporation and he shall, in the absence of the Chairman of the Board or the CEO or if there be no Chairman of the Board and CEO, preside at all meetings of the stockholders and (if a director) of the Board of Directors; and the President shall have such other powers and duties as designated in accordance with these Bylaws and as may be assigned to him from time to time by the Board of Directors or the CEO, if there is a CEO.

Section 8. Vice Presidents. Each Vice President shall perform such duties and have such powers as the Board of Directors, the CEO, or President may from time to time prescribe. In addition, in the absence of the President, or in the event of his inability or refusal to act, a Vice President designated by the Board of Directors, the CEO, or President or, in the absence of such designation, the Vice President who is present and who is senior in terms of time as a Vice President of the Corporation, shall perform the duties of the President, as the case may be, and when so acting shall have all the powers of and be subject to all the restrictions upon the President, as the case may be; provided, however, that such Vice President shall not preside at meetings of the Board of Directors unless he is a director.

Section 9. Treasurer. The Treasurer shall have responsibility for the custody and control of all the funds and securities of the Corporation, and he shall have such other powers and duties as designated in accordance with these Bylaws and as may be prescribed from time to time by the Board of Directors. He shall perform all acts incident to the position of Treasurer, subject to the control of the chief executive officer and the Board of Directors; the Treasurer shall, if required by the Board of Directors, give such bond for the faithful discharge of his duties in such form as the Board of Directors may require.

Section 10. Assistant Treasurers. Each Assistant Treasurer (if any) shall have the usual powers and duties pertaining to his office, together with such other powers and duties as designated in accordance with these Bylaws and as may be prescribed from time to time by the Treasurer, the chief executive officer or the Board of Directors. The Assistant Treasurers shall exercise the powers of the Treasurer during the Treasurer's absence or inability or refusal to act.

Section 11. Secretary. The Secretary shall keep the minutes of all meetings of the Board of Directors, committees of directors and of the stockholders in books provided for such purpose; he shall attend to the giving and serving of all notices; he may in the name of the Corporation affix the seal of the Corporation to all contracts of the Corporation and attest thereto; he may sign with the other appointed officers all certificates for shares of capital stock of the Corporation; he shall have charge of the certificate books, transfer books and stock ledgers, and such other books and papers as the Board of Directors may direct, all of which shall at all reasonable times be open to inspection by any director upon application at the office of the Corporation during business hours; he shall have such other powers and duties as designated in accordance with these Bylaws and as may be prescribed from time to time by the Board of Directors; and he shall in general perform all acts incident to the office of Secretary, subject to the control of the chief executive officer and the Board of Directors.

Section 12. Assistant Secretaries. Each Assistant Secretary (if any) shall have the usual powers and duties pertaining to his office, together with such other powers and duties as designated in accordance with these Bylaws and as may be prescribed from time to time by the chief executive officer, the Board of Directors or the Secretary. The Assistant Secretaries shall exercise the powers of the Secretary during the Secretary's absence or inability or refusal to act.

Section 13. Action with Respect to Securities of Other Companies. Unless otherwise determined by the Board of Directors, the CEO, if there is such an officer, shall have the power to vote and to otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of security holders of any other corporation, or with respect to any action of security holders thereof, in which this Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

ARTICLE VI

INDEMNIFICATION OF DIRECTORS OFFICERS, EMPLOYEES AND AGENTS

Section 1. Right to Indemnification. Subject to the limitations and conditions as provided in this Article VI, each person who was or is made a party to or is threatened to be made a party to or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, arbitrative or investigative (hereinafter a "proceeding"), or any appeal in such a proceeding or any inquiry or investigation that could lead to

such a proceeding, by reason of the fact that he, or a person of whom he is the legal representative, is or was a director or officer of the Corporation, or while a director or officer of the Corporation is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, trustee, employee, agent, or similar functionary of another foreign or domestic corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other enterprise, shall be indemnified by the Corporation to the fullest extent permitted by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide greater indemnification rights than said law permitted the Corporation to provide prior to such amendment) against judgments, penalties (including excise and similar taxes and punitive damages), fines, settlements and reasonable expenses (including, without limitation, attorneys' fees) actually incurred by such person in connection with such proceeding, and indemnification under this Article VI shall continue as to a person who has ceased to serve in the capacity which initially entitled such person to indemnity hereunder. The rights granted pursuant to this Article VI shall be deemed contractual rights, and no amendment, modification or repeal of this Article VI shall have the effect of limiting or denying any such rights with respect to actions taken or proceedings arising prior to any such amendment, modification or repeal. It is expressly acknowledged that the indemnification conferred in this Article VI could involve indemnification for negligence of the indemnified party or under theories of strict liability.

Section 2. Advance Payment. The right to indemnification conferred in this Article VI shall include the right to be paid or reimbursed by the Corporation for the reasonable expenses incurred by a person of the type entitled to be indemnified under Section 1 hereof who was, is or is threatened to be made a named defendant or respondent in a proceeding in advance of the final disposition of the proceeding and without any determination as to the person's ultimate entitlement to indemnification; provided, however, that the payment of such expenses incurred by any such person in advance of the final disposition of a proceeding shall be made only upon delivery to the Corporation of a written affirmation by such director or officer of his good faith belief that he has met the standard of conduct necessary for indemnification under this Article VI and a written undertaking, by or on behalf of such person, to repay all amounts so advanced if it shall ultimately be determined that such indemnified person is not entitled to be indemnified under this Article VI or otherwise.

Section 3. Indemnification of Employees and Agents. The Corporation, by adoption of a resolution of the Board of Directors, may indemnify and advance expenses to an employee or agent of the Corporation to the same extent and subject to the same conditions that it is required to indemnify and advance expenses to directors and officers under this Article VI; the Corporation may indemnify and advance expenses to persons who are not or were not directors, officers, employees or agents of the Corporation, but who are or were serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, trustee, employee, agent or similar functionary of another foreign or domestic corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other enterprise against any liability asserted against him and incurred by him in such a capacity or arising out of his status as such a person to the same extent that it may indemnify and advance expenses to directors or officers under this Article VI.

Section 4. Appearance as a Witness. Notwithstanding any other provision of this Article VI, the Corporation may pay or reimburse expenses incurred by a director or officer in connection with his appearance as a witness or other participation in a proceeding at a time when he is not a named defendant or respondent in the proceeding.

Section 5. Nonexclusivity of Rights. The right to indemnification and advancement and payment of expenses conferred in this Article VI shall not be exclusive of any other right which a director or officer or other person indemnified pursuant to Article VI, Section 3 hereof, may have or hereafter acquire under any law, provision of the Certificate of Incorporation, these Bylaws, any agreement, vote of stockholders or disinterested directors otherwise.

Section 6. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any person who is or was serving as a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, trustee, employee, agent or similar functionary of another foreign or domestic corporation, partnership, joint venture, proprietorship, employee benefit plan, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under this Article VI.

Section 7. Savings Clause. If this Article VI or any portion hereof shall be invalidated on any grounds by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify and hold harmless each director, officer or any other person required to be indemnified in accordance with this Article VI as to costs, charges and expenses (including attorneys' fees), judgments, fines and amounts paid in settlement with respect to any proceeding, to the full extent permitted by any applicable and valid portion of this Article VI to the fullest extent permitted by applicable law.

ARTICLE VII

CAPITAL STOCK

Section 1. Certificates of Stock. The shares of the capital stock of the Corporation shall be represented by certificates, provided, however, that the Board of Directors may determine by resolution that some or all of any or all the classes or series of the Corporation's stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and, upon request, every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the name of the Corporation by any two authorized officers of the Corporation, including, without limitation, the Chairman of the Board (if any), the President, any Vice President, the Treasurer, an Assistant Treasurer, the Secretary and an Assistant Secretary, representing the number of shares registered in certificate form. Any or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or registrar before such certificate is issued, such certificate may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

Section 2. Transfer of Shares. The shares of stock of the Corporation shall only be transferable on the books of the Corporation by the holders thereof in person or by their duly authorized attorneys or legal representatives, upon surrender and cancellation of certificates for a like number of shares (or upon compliance with the provisions of Article VII, Section 5, hereof, if applicable). Upon surrender to the Corporation or a transfer agent of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer (or upon compliance with the provisions of Article VII, Section 5 hereof, if applicable) and of compliance with any transfer restrictions applicable thereto contained in any agreement to which the Corporation is a party, or of which the Corporation has knowledge by reason of a legend with respect thereto placed upon any such surrendered stock certificate, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 3. Ownership of Shares. The Corporation shall be entitled to treat the holder of record of any share or shares of capital stock of the Corporation as the owner in fact thereof at that time for purposes of voting such shares, receiving distributions thereon or notices in respect thereof, transferring such shares, exercising rights of dissent, exercising or waiving any preemptive rights, or giving proxies with respect to such shares; and, neither the Corporation nor any of its officers, directors, employees, or agents shall be liable for regarding that person as the owner of those shares at that time for those purposes, regardless of whether or not that person possesses a certificate for those shares.

Section 4. Regulations Regarding Certificates. The Board of Directors shall have the power and authority to make all such rules and regulations as it may deem expedient concerning the issue, transfer and registration or the replacement of certificates for shares of capital stock of the Corporation.

Section 5. Lost, Stolen, Destroyed or Mutilated Certificates. The Board of Directors may determine the conditions upon which a new certificate of stock may be issued in place of any certificate which is alleged to have been lost, stolen, destroyed or mutilated; and may, in its discretion, require the owner of such certificate or his legal representative to give bond, with sufficient surety, to indemnify the Corporation and each transfer agent and registrar

against any and all losses or claims which may arise by reason of the issuance of a new certificate in the place of the one so lost, stolen, destroyed or mutilated.

ARTICLE VIII

MISCELLANEOUS PROVISIONS

Section 1. Fiscal Year. The fiscal year of the Corporation shall be such as established from time to time by the Board of Directors.

Section 2. Corporate Seal. The Board of Directors may provide a suitable seal containing the name of the Corporation. The Secretary shall have charge of the seal (if any). If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by the Assistant Secretary or Assistant Treasurer.

Section 3. Notice and Waiver of Notice. Whenever any notice is required to be given by law, the Certificate of Incorporation or these Bylaws, except with respect to notices of meetings of stockholders (with respect to which the provisions of Article II, Section 6 hereof apply) and except with respect to notices of special meetings of directors (with respect to which the provisions of Article III, Section 6 hereof apply) said notice shall be deemed to be sufficient if given (I) by telegraphic, cable or wireless transmission or (ii) by deposit of such postage prepaid notice, in a post office box addressed to the person entitled thereto at his address as it appears on the records of the Corporation. Such notice shall be deemed to have been given on the day of such transmission or mailing, as the case may be.

Whenever notice is required to be given by law, the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person, including without limitation a director, at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of such meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors, or a committee of directors need be specified in any written waiver of notice, unless so required by the Certificate of Incorporation or these Bylaws.

Section 4. Resignations. Any director, member of a committee or officer may resign at any time. Such resignation shall be made in writing and shall take effect at the time specified therein, or if no time be specified, at the time of its receipt by the chief executive officer or Secretary. The acceptance of such resignation shall not be necessary for its effectiveness, unless expressly so provided in the resignation.

Section 5. Facsimile Signatures. In addition to the provisions for the use of facsimile signatures specifically authorized elsewhere in these Bylaws, facsimile signatures of any officer or officers of the Corporation may be used as determined by the Board of Directors.

Section 6. Reliance upon Books, Reports and Records. A member of the Board of Directors, or a member of any committee thereof, shall be fully protected in relying in good faith upon the records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees, or committees of the Board of Directors, or by any other person as to matters the director reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation, as to the value and amount of the assets, liabilities and/or net profits of the Corporation, or any other facts pertinent to the existence and amount of surplus or other funds from which dividends might properly be declared and paid, or with which the Corporation's stock might properly be purchased or redeemed.

Section 7. Forum Selection. Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery (the "Chancery Court") of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or to the Corporation's stockholders, (c) any action arising pursuant to any provision of the Delaware General Corporate Law or the Certificate of Incorporation or these Bylaws (as either may be amended from time to time), or (d) any action asserting a claim against the Corporation governed by the internal affairs doctrine. If any action the subject matter of which is within the scope of the preceding sentence is filed in a court other than a court located within the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the preceding sentence and (ii) having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

ARTICLE IX

AMENDMENTS

The original or other Bylaws of the Corporation may be adopted, amended or repealed by the incorporators, by the initial directors if they are named in the Certificate of Incorporation, or, before the Corporation has received any payment for any of its stock, by its Board of Directors. After the Corporation has received any payment for any of its stock, the power to adopt, amend or repeal Bylaws shall reside in the stockholders entitled to vote; provided, however, the Corporation may, in the Certificate of Incorporation, confer the power to adopt, amend or repeal Bylaws upon the directors. The fact that such power has been so conferred upon the directors, shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal Bylaws.

Approved: October 11, 2017 Amended: March 11, 2021

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements filed on Form S-8 (Nos. 333-157276, 333-172596, 333-174983, 333-183617, 333-198757, 333-213407, 333-225865, 333-231749, 333-237292 and 333-239244) and on Form S-3 (Nos. 333-161552, 333-166442, 333-166443, 333-173806, 333-174199, 333-189555, 333-212864, 333-219618 and 333-251043) of Flotek Industries, Inc. and subsidiaries (the "Company") of our reports dated March 6, 2020, relating to the consolidated financial statements of Flotek Industries, Inc. appearing in the Annual Report on Form 10-K of Flotek Industries, Inc. and subsidiaries for the year ended December 31, 2020.

We also consent to the reference to our firm under the heading "Experts" in such Registration Statements.

/s/ Moss Adams, LLP

Houston, Texas March 16, 2021

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Flotek Industries, Inc. Houston, Texas

We hereby consent to the incorporation by reference in the Registration Statements filed on Form S-8 (Nos. 333-157276, 333-172596, 333-174983, 333-183617, 333-198757, 333-213407, 333-225865, 333-231749, 333-237292 and 333-239244) and on Form S-3 (Nos. 333-161552, 333-166442, 333-166443, 333-173806, 333-174199, 333-189555, 333-212864, 333-219618 and 333-251043) of Flotek Industries, Inc. (the "Company") of our reports dated March 16, 2021, relating to the consolidated financial statements and the effectiveness of the Company's internal control over financial reporting, which appear in this Annual Report on Form 10-K of Flotek Industries, Inc. and subsidiaries for the year ended December 31, 2020. Our report on the effectiveness of internal control over financial reporting expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2020.

/s/ BDO USA, LLP

Houston, Texas March 16, 2021

CERTIFICATION

- I, John W. Gibson, Jr., certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Flotek Industries, Inc.;
- 2. To the best of my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. To the best of my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ John W. Gibson, Jr.

John W. Gibson, Jr.
resident, Chief Executive Officer and

President, Chief Executive Officer and Chairman of the Board

CERTIFICATION

- I, Michael E. Borton, certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Flotek Industries, Inc.;
- 2. To the best of my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. To the best of my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Michael E. Borton
Michael E. Borton
Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Flotek Industries, Inc. (the "Company") on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certifies, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Michael E. Borton
Michael E. Borton
Chief Financial Officer

FLOTEK INDUSTRIES, INC. LIST OF SUBSIDIARIES

Subsidiary	Jurisdiction of Formation
Flotek Chemistry, LLC	Oklahoma
Flotek Paymaster, Inc.	Texas
JP3 Measurement, LLC	Texas

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Flotek Industries, Inc. (the "Company") on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certifies, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ John W. Gibson, Jr.

John W. Gibson, Jr.
President, Chief Executive Officer and
Chairman of the Board

DESCRIPTION OF CAPITAL STOCK

The following description of capital stock of Flotek Industries, Inc. (the "Company," "we" or "us") is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the Company's Amended and Restated Certificate of Incorporation, the Certificate of Amendment to the Amended and Restated Certificate of Incorporation (collectively, the "Certificate of Incorporation") and the Company's Second Amended and Restated Bylaws, as amended (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.2 is a part. We encourage you to read the Certificate of Incorporation, the Bylaws and the applicable provisions of the Delaware General Corporation Law (the "DGCL"), for additional information.

General

Our authorized capital stock consists of:

- 140,000,000 shares of common stock, \$0.0001 par value; and
- 100,000 shares of preferred stock, \$0.0001 par value.

The following summary of the rights, preferences and privileges of our capital stock, our Certificate of Incorporation and our Bylaws does not purport to be complete and is qualified in its entirety by reference to the provisions of applicable law and to our Certificate of Incorporation and Bylaws.

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Because holders of common stock do not have cumulative voting rights, the holders of a majority of the shares of common stock can elect all of the members of the board of directors standing for election. The holders of common stock are entitled to receive dividends as may be declared by the board of directors. Upon our liquidation, dissolution or winding up, and subject to any prior rights of outstanding preferred stock, the holders of our common stock will be entitled to share pro rata in the distribution of all of our assets available for distribution to our stockholders after satisfaction of all of our liabilities and the payment of the liquidation preference of any preferred stock that may be outstanding. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable. The holders of our common stock have no preemptive or other subscription rights to purchase our common stock.

Preferred Stock

Subject to the provisions of the Certificate of Incorporation and limitations prescribed by law, the board of directors has the authority to issue up to 100,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, dividend rates, conversion rates, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of the series, which may be superior to those of the common stock, without further vote or action by the stockholders.

One of the effects of undesignated preferred stock may be to enable the board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a tender offer, proxy contest, merger or otherwise and, as a result, protect the continuity of our management. The issuance of shares of the preferred stock under the board of directors' authority described above may adversely affect the rights of the holders of common stock. For example, preferred stock issued by us may rank prior to the common stock as to dividend rights, liquidation preference or both, may have full or limited voting rights and may be convertible into shares of common stock. Accordingly, the issuance of shares of preferred stock may discourage bids for the common stock or may otherwise adversely affect the market price of the common stock.

Delaware Anti-Takeover Law, Certificate of Incorporation and Bylaw Provisions

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Section 203 defines a "business combination," among other things, as a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholders. Section 203 defines an "interested stockholder" as a person who, together with affiliates and associates, owns, or, in some cases, within three years prior, did own, 15% or more of the corporation's voting stock. Under Section 203, a business combination between us and an interested stockholder is prohibited unless:

- our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder prior to the date the person attained the status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding, for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers and employee stock plans, under which employee participants do not have the right to; or
- the business combination is approved by our board of directors on or subsequent to the date the person became an interested stockholder and authorized at an annual or special meeting of the stockholders by the affirmative vote of the holders of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

This provision has an anti-takeover effect with respect to transactions not approved in advance by our board of directors, including discouraging takeover attempts that might result in a premium over the market price for the shares of our common stock. With approval of our stockholders, we could amend our Certificate of Incorporation or Bylaws in the future to elect not to be governed by the anti-takeover law. This election would generally be effective 12 months after the adoption of the amendment and would not apply to any business combination between us and any person who became an interested stockholder on or before the adoption of the amendment.

Provisions of Our Certificate of Incorporation and Bylaws

Our Certificate of Incorporation and Bylaws provide that any action required or permitted to be taken by our stockholders may be taken at a duly called meeting of stockholders or by written consent of the holders of all of the outstanding stock entitled to vote on such action. Under Delaware law, the power to adopt, amend or repeal Bylaws is conferred upon the stockholders. A corporation may, however, in its Certificate of Incorporation also confer upon the board of directors the power to adopt, amend or repeal its Bylaws. Our Certificate of Incorporation and Bylaws grant our board the power to adopt, amend and repeal our Bylaws on the affirmative vote of a majority of the directors then in office. Our stockholders may adopt, amend or repeal our Bylaws, but only at any regular or special meeting of stockholders by the holders of not less than a majority of the outstanding shares of stock entitled to vote. Also, our Bylaws do not grant our stockholders the ability to call special meetings of stockholders. Advance notice is required for stockholders to nominate directors or to submit proposals for consideration at meetings of stockholders.

The foregoing provisions of our Certificate of Incorporation and Bylaws and the provisions of Section 203 of the DGCL could have the effect of delaying, deferring or preventing a change in control of the Company.

Liability and Indemnification of Officers and Directors

Our Certificate of Incorporation and Bylaws provide that indemnification shall be to the fullest extent permitted by the DGCL for all current or former directors or officers of the Company. As permitted by the DGCL, the Certificate of Incorporation provides that directors of the Company will not be liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director to the fullest extent of the law of the State of Delaware. If the DGCL is amended to authorize the further elimination or limitation of directors' liability, then the liability of our directors will automatically be limited to the fullest extent provided by law.

We have also agreed to obtain and maintain director and officer liability insurance for the benefit of each of our officers and directors. These policies include coverage for losses for wrongful acts. Each of our officers and directors is named as an insured under such policies and provided with the same rights and benefits as are accorded to the most favorably insured of our directors and officers.

Exclusive Forum Provision

Our Bylaws provide that, unless the Company consents in writing to the selection of an alternative forum, the Court of Chancery (the "Chancery Court") of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Company, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or to the Company's stockholders, (c) any action arising pursuant to any provision of the DGCL or the Certificate of Incorporation or the Bylaws (as either may be amended from time to time), or (d) any action asserting a claim against the Company governed by the internal affairs doctrine.

Listing of Common Stock

Our common stock is currently listed on the New York Stock Exchange under the symbol "FTK."

Transfer Agent and Registrar

The transfer agent and registrar for the common stock is American Stock Transfer & Trust Company, LLC.

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FLOTEK INDUSTRIES

Global Headquarters/Global Research & Innovation

8846 North Sam Houston Parkway West Suite 150 Houston, TX 77064

STOCK EXCHANGE LISTING

The company's common stock trades on the New York Stock Exchange, under the symbol "FTK".

EXECUTIVE TEAM



John W. Gibson, Jr. Chairman, President & CEO



Michael E. Borton
Chief Financial Officer



Ryan Ezell, Ph.D.

President, Chemistry
Technologies



TengBeng Koid *President, Global Business*



James Silas, Ph.D. SVP, Research & Innovation



Danielle Allen
SVP, Chief of Staff



Nicholas J. Bigney
General Counsel and
Chief Compliance Officer

BOARD OF DIRECTORS*

John W. Gibson, Jr. Chairman, President & Chief Executive Officer

Harsha V. Agadi Chair: Compensation Committee

Michelle M. Adams**

Ted D. Brown *Chair: Governance &*

Nominating Committee

Michael Fucci

Chair: Risk &
Sustainability
Committee***

Paul W. Hobby

David Nierenberg Independent Lead Director Chair: Audit Committee

^{*}Kevin Brown, a director who joined the Board in June 2020 following the acquisition of JP3, passed away unexpectedly in January 2021.

^{**}Michelle Adams will not stand for re-election at the Annual General Meeting

^{***}established in 2021