



**ANNUAL INFORMATION FORM**

**For the Year Ended December 31, 2018**

**March 12, 2019**

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## IMPORTANT INFORMATION ABOUT THIS DOCUMENT

Throughout this Annual Information Form (**AIF**), the terms we, us, our, CES or the Corporation mean CES Energy Solutions Corp. including all of our business units and consolidated subsidiaries.

Except where specifically noted, all information in this AIF is presented as of December 31, 2018. All references in this AIF to (\$) or (**dollars**) are to Canadian dollars unless otherwise noted. Furthermore, all references to the number of common shares outstanding are presented after giving effect to the three-for-one stock split that occurred on July 13, 2011 and the three-for-one stock split that occurred on July 18, 2014.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

We disclose forward-looking information to help current and prospective investors understand the Corporation's current expectations regarding future events and its operating performance in the context of the current business environment.

Certain statements used in this AIF use words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate" and other similar terminology relating to matters that are not historical facts constitute "forward-looking information" within the meaning of applicable Canadian securities legislation.

Forward-looking information and statements in this AIF include, but are not limited to the following:

- expected effects of acquisitions and investments;
- expected supply and demand for oilfield chemicals and services;
- our market positioning, business plans and opportunities for growth;
- anticipated reductions in our relative exposure to the effects of seasonality in the Western Canadian Sedimentary Basin (**WCSB**) due to the growth of its United States (**US**) operations;
- expectations that the Corporation's US operations will continue to be a larger revenue contributor in 2019 than the Canadian operations;
- expectations regarding expansion of services and increased market share in the drilling fluids business and production and chemicals business;
- expectations regarding the Corporation's competitive status and technologies in its drilling and completion fluid systems;
- expectations regarding planned expansions for the export of liquefied natural gas and crude oil takeaway capacity;
- expectations regarding the impact of the expansion and building of additional PureChem facilities;
- expectations regarding the impact of climate change regulations on the Corporation's customers;
- the Corporation's dividend policy and expectations as to the payment of dividends in the future;
- the intended designation of dividends as "eligible dividends" under the Tax Act;
- results and impact of legal proceedings involving the Corporation; and
- the Corporation's belief it has sufficient funds available to fund its projected capital expenditures.

The Corporation's actual results could differ materially from those anticipated in such forward-looking information as a result of number of factors and risks. Such risks and uncertainties include, but are not limited to:

- volatility in industry activity levels;
- volatility in oil and natural gas commodity prices;
- volatility in foreign exchange rates;
- reliance on significant clients;
- reliance on key personnel;
- reliance on proprietary technology;
- the impact of climate change and climate change regulations;
- the Corporation's ability to obtain insurance on rates it considers reasonable and commercially justifiable;
- the ability to collect on accounts receivable;
- the ability to successfully integrate acquisitions;
- the Corporation's liquidity and access to capital;

- the performance of capital markets;
- impacts of the renegotiation of NAFTA and the ratification of the new Canada-United States-Mexico Agreement (**CUSMA**);
- possible renegotiation of other international trade agreements;
- production curtailment initiatives and regulations;
- pipeline takeaway capacity and the impacts of delays and ability to complete pipeline projects; and
- material changes to fiscal and tax regimes applicable to entities operating in the WCSB and the US.

The foregoing list of risk factors is not exhaustive. Other risks and uncertainties are outlined in this AIF under the heading *Risk Factors*.

This forward-looking information and statement made in this AIF are made at the date hereof and the Corporation assumes no obligation to update or revise such information to reflect new events or circumstances unless otherwise required by applicable securities laws.

### **MARKET AND INDUSTRY DATA**

Unless otherwise indicated, the market and industry data contained in this AIF is based upon independent industry publications and websites or was based on estimates derived from the same along with the knowledge of and experience of management in the markets in which the Corporation operates. Government and industry publications and reports generally indicate that they have obtained their information from sources believed to be reliable, but do not guarantee the accuracy and completeness of their information. None of these sources have provided any form of consultation, advice or counsel regarding any aspect of, or is in any way whatsoever associated with, CES. Actual outcomes may vary materially from those forecasted in such reports or publications, and the prospect for material variation can be expected to increase as the length of the forecast period increases. While the Corporation believes this data can be reasonably relied on, market and industry data is subject to variations and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties inherent in any statistical survey. The Corporation has not independently verified any of the data from third party sources referred to in this AIF or ascertained the underlying assumptions relied upon by such sources.

## ABOUT CES ENERGY SOLUTIONS CORP.

The Corporation's core business is to design, implement, and manufacture technically advanced consumable fluids and specialty chemicals for the North American oil and natural gas industry. The Corporation operates in the WCSB and in several basins throughout the US, with an emphasis on servicing the ongoing major resource plays. In the WCSB, CES operates under the trade names Canadian Energy Services, PureChem Services (**PureChem**), StimWrx Energy Services (**StimWrx**), Sialco Materials Ltd. (**Sialco**), and Clear Environmental Solutions (**Clear**). In the US, CES operates under the trade names AES Drilling Fluids (**AES**), Superior Weighting Products (**Superior Weighting**), JACAM Chemicals (**JACAM**), and Catalyst Oilfield Services (**Catalyst**).

The Corporation is incorporated under the Business Corporations Act (Canada). We previously existed as a publically-traded Canadian limited partnership, known as Canadian Energy Services L.P., and converted to a publically-traded corporation on January 1, 2010, under a statutory plan of arrangement.

On June 20, 2013, CES amended its articles of incorporation to vary the terms of the common shares (**Common Shares**) to permit the payment of stock dividends.

Effective June 15, 2017, CES changed its corporate name from "Canadian Energy Services & Technology Corp." to "CES Energy Solutions Corp.". CES has significantly transformed its business since its initial public offering in March 2006, and has broadened its operational footprint across North America. The new company name avoids geographic reference, while incorporation of the CES acronym helps to maintain brand recognition.

Other than as described above, there have been no other material amendments to the articles of incorporation of CES since the conversion from a listed partnership on January 1, 2010.

Our Common Shares trade on the Toronto Stock Exchange (**TSX**) under the symbol CEU and are quoted on the OTC market in the US under the symbol CESDF. The Corporation is also a member of Nasdaq's International Designation Program which provides CES with access to Nasdaq's investor marketing programs and investor relations services to increase the visibility of CES in the US capital markets.

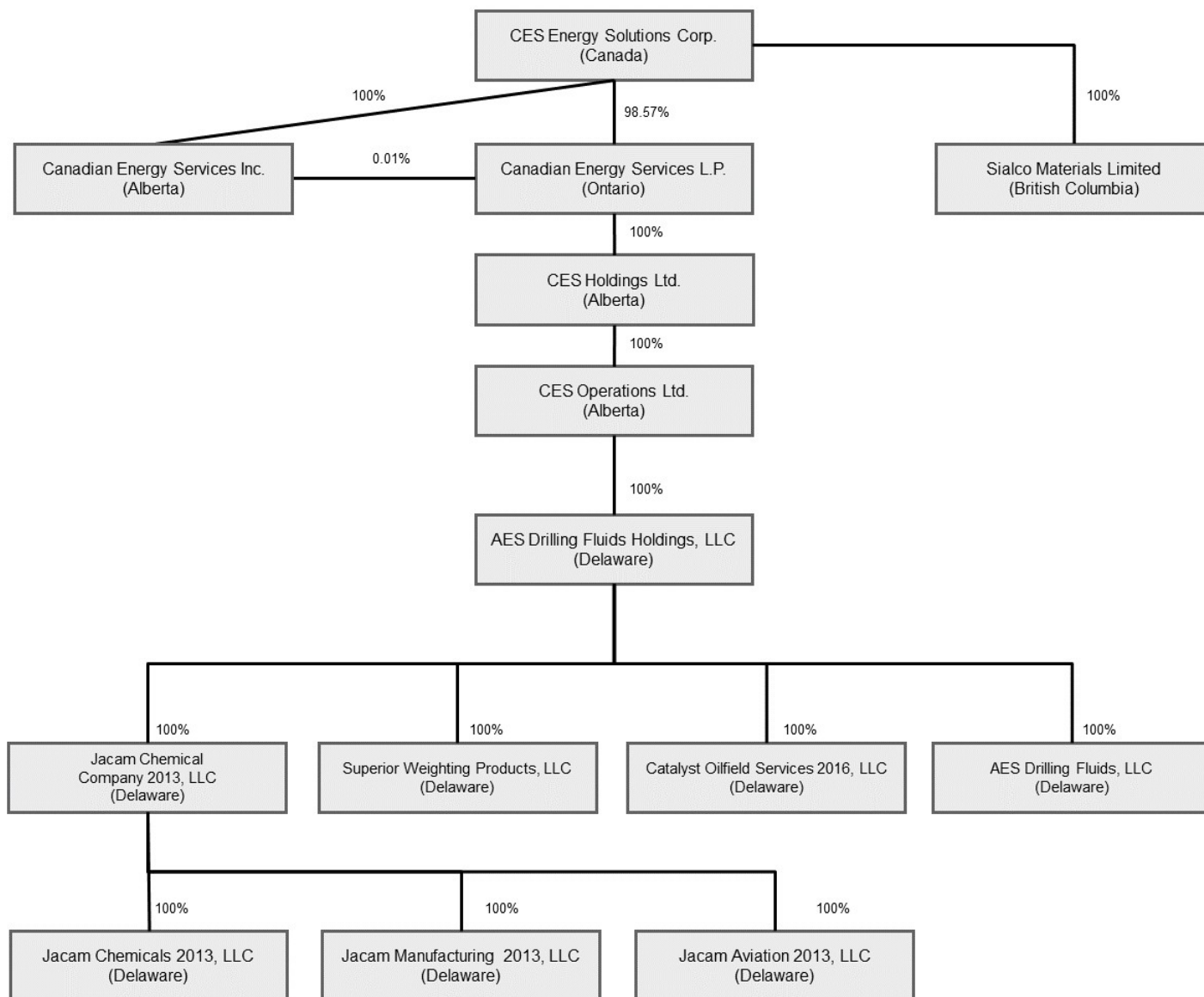
As at the date hereof, the head office of CES is located at 1400, 700 – 4th Avenue S.W., Calgary, Alberta, Canada, T2P 3J4. On or about May 13, 2019, CES will be moving its head office to Suite 1400, 332 6 Avenue SW, Calgary AB T2P 0B2.

For information relating to CES and its subsidiaries, please visit our website at: <http://www.cesenergysolutions.com> or contact us at [cesinfo@ceslp.ca](mailto:cesinfo@ceslp.ca).

CES' registered office is located at 4000, 421 - 7th Avenue S.W., Calgary, Alberta, Canada, T2P 4K9.

## Our Organizational Structure

The following diagram sets forth the corporate organizational structure and material intercorporate relationships of CES at December 31, 2018.



## Three-Year Corporate History

### 2018

#### *Industry Conditions*

In the US, industry conditions in 2018 have generally improved year over year with increased activity levels resulting from positive trends in oil and natural gas pricing and improved economics for producers. The Permian Basin continues to be a hotbed of activity and as a result of a positive price environment and continued innovation relating to the extraction of oil and natural gas from shale or “tight” formations has resulted in the US becoming the world’s largest crude oil producer. In Canada, market conditions have been more muted, largely because of current industry takeaway capacity constraints and the associated oil price differentials. Although trough-pricing levels still exist throughout much of the industry, the increase in activity levels have allowed the Corporation to sell higher volumes of its products across its rationalized cost structure.

#### *Market Share and Activity*

In 2018, US market conditions and activity levels improved over 2017 and CES’ US drilling fluids was also able to grow its market share from 11% to 12% year-over-year. During the same period, CES’ Canadian drilling fluids market share decreased from 39% in 2017 to 36% in 2018, which is reflective of the shift in WCSB activity to shallower, oilier drilling, which is generally simpler to drill and lower revenue work, which historically has not been the main focus of CES’ Canadian drilling fluids business. Also during 2018, the production and specialty chemicals business experienced 8% annual growth in the US and 14% growth in Canada relating to the estimated monthly average number of wells or oilfield sites serviced by the Corporation (**Treatment Points**).

#### *Capital Expenditures*

Expansion capital (**Expansion Capital**) expenditures in 2018 totaled \$79.6 million or 6% of gross revenue and included PureChem’s buildout costs relating to the completion of the Grande Prairie facility for blending and storage of production chemicals, the continued Kermit mud plant expansion in the Permian Basin, initial construction costs relating to the buildout of the northeast US barite grinding facility and increased rolling stock attributed to higher production chemical activity levels and associated headcount.

#### *Dividends*

On June 14, 2018, CES doubled its monthly dividend from \$0.0025 to \$0.005 per Common Share. As a result, in 2018, CES declared dividends in the aggregate amount of \$12.7 million, resulting in a payout ratio of 12%.

#### *Board of Directors*

On December 12, 2018, CES announced the appointment of Spencer D. Armour, III to the Board of Directors. Mr. Armour has over 30 years of executive and entrepreneurial experience in the energy services industry and is based in Midland, Texas. Mr. Armour is currently Chairman of the Board of Directors of ProPetro Holding Corp., where he has been a director since 2013, a board member of Viper Energy Partners, LP since 2017 and also serves as President of PT Petroleum LLC. He has worked with various other oil and gas companies including Basic Energy Services Inc. and Patterson-UTI Energy Inc. and was the co-founder of Sledge Drilling Corp. and the founder of Lone Star Mud, Inc.

#### *Amendments to Senior Facility*

On November 8, 2018, the Corporation amended its existing senior syndicated credit facility (**Senior Facility**) to exercise \$55.0 million of available accordion capacity, increasing the maximum amount available on the Canadian facility from \$125.0 million to \$180.0 million in addition to the US\$40.0 million facility. All other terms and conditions of the Senior Facility remain unchanged. In early 2016, CES took a voluntary reduction in the amount of \$50.0 million on the maximum borrowing amount on its Canadian facility, which provided adequate liquidity during



the downturn as working capital returned to the balance sheet in the form of cash. As activity levels have rebounded and market conditions have improved, this \$55.0 million increase in availability under the Senior Facility addresses the needs of the Corporation's growing business in the recovery.

#### *Appointment of New Chief Financial Officer*

On August 28, 2018, CES announced the appointment of Mr. Anthony (Tony) Aulicino as Chief Financial Officer of the Corporation. Prior to his appointment as CFO, Tony was the Managing Director for Global Investment Banking – Energy at Scotiabank Global Banking and Markets. Tony has over 18 years of experience in finance, capital markets, mergers & acquisitions and North American energy services industry coverage. Mr. Aulicino holds an MBA with a specialization in finance from the University of Toronto, Rotman School of Management and a Bachelor of Applied Science in Mechanical Engineering from the University of Toronto. Tony replaced Mr. Craig Nieboer as Chief Financial Officer who held that position for the previous ten years.

#### *Normal Course Issuer Bid*

On July 17, 2018, the Corporation began a normal course issuer bid (**NCIB**) to repurchase for cancellation up to 24,587,978 Common Shares. The NCIB will terminate on July 16, 2019 or such earlier date as the maximum number of Common Shares are purchased pursuant to the NCIB or the NCIB is completed, or is terminated at the Corporation's election. As at December 31, 2018, the Corporation had repurchased 4,799,900 Common Shares at an average price of \$4.07 per share for an aggregate amount of \$19.5 million.

### **2017**

#### *Industry Conditions*

An improvement in commodity prices over 2017 led to a rebound in activity in the oil and gas industry, which in turn resulted in an improvement in CES' activity levels and financial performance. While trough pricing levels continue to persist in CES' business lines, the increase in activity levels allowed the Corporation to sell higher volumes of its products across its rationalized cost structure.

#### *Market Share and Activity*

During 2017, CES increased its Canadian drilling fluids market share to 39% and maintained its US drilling fluids market share at 11% in a marketplace that continued to experience challenges. During the same period, the production and specialty chemicals business experienced 40% annual growth in the estimated monthly average number of wells or oilfield sites serviced by the Corporation with production and specialty chemicals (**Treatment Points**) as a result of continued organic growth experienced at both JACAM and PureChem and continued contributions from the Catalyst Acquisition (as defined below).

#### *Capital Expenditures*

Expansion Capital expenditures in 2017 totaled \$52.9 million or 5.1% of gross revenue and included the costs of continued expansion at JACAM, PureChem and Catalyst including to acquire land and begin construction on a new field service centre and warehouse facility for PureChem in Grande Prairie, Alberta.

#### *Acquisitions*

Effective January 1, 2017, CES acquired all of outstanding shares of StimWrx Energy Services Ltd. (**StimWrx Acquisition**), a private company based out of Calgary, Alberta that provides near matrix stimulation and remediation of oil, gas, and injection wells in Western Canada.

### *Dividends*

CES maintained its monthly dividend of \$0.0025 per common share since the Corporation's dividend was reduced in February 2016. As a result, CES declared dividends in 2017 of \$8.0 million, resulting in a payout ratio of 7%.

### *Board of Directors*

In September of 2017, CES announced the appointment of Ms. Stella Cosby, M.A., ICD.D, to its Board of Directors. Ms. Cosby is an experienced Human Resources executive and corporate director with more than 25 years of experience working with global growth companies. She currently serves as the Vice President, People for Cervus Equipment Corporation (TSX:CERV).

### *Name Change*

Effective June 15, 2017, CES changed its corporate name from "Canadian Energy Services & Technology Corp." to "CES Energy Solutions Corp.". CES significantly transformed its business since its initial public offering in March 2006, and has broadened its operational footprint across North America. The new company name avoids geographic reference, while incorporation of the CES acronym helps to maintain brand recognition.

### *Nasdaq International Designation*

On June 15, 2017, CES announced that the Corporation was admitted to Nasdaq's International Designation program, a new visibility offering available to international companies. As the Corporation's US operations continue to grow, so has the increase in interest from the US Investment community. The Nasdaq International Designation provides CES with access to Nasdaq's investor marketing programs and investor relations services to increase the visibility of CES in the US capital markets.

The Nasdaq International Designation is not a US regulated public exchange, and there are no additional regulatory or compliance requirements to what is currently in place for the Corporation's OTC quotation. The companies who participate in this program are not subject to the same listing or qualification standards applicable to securities listed on a US public exchange market that is regulated by the US Securities and Exchange Commission. However, Nasdaq International Designation companies are distinguished from other OTC traded companies by having met Nasdaq's high program requirements.

### *Amendments to Senior Credit Facility*

On July 14, 2017, the Corporation completed an amendment and two year extension of its existing syndicated senior facility. All of the amendments took effect July 14, 2017 and will remain in effect until maturity on September 28, 2020, subject to certain terms and conditions, and may be extended by one year upon agreement of the lenders and the Corporation. The principal amendments to the Senior Facility include an increase in the available borrowing amount from a total of \$150.0 to \$165.0 million, which is driven by an increase in the U.S. Operating Facility to address the needs of the Corporation's expanding US business; certain changes to the Corporation's debt covenants; and improved pricing on amounts drawn. The amended Senior Facility is comprised of a Canadian facility of \$125.0 million and a US facility of US\$40.0 million. Other terms and conditions from the amendment remain consistent with those of the previous senior facility.

### *Senior Notes Refinancing*

On October 20, 2017, the Corporation successfully completed the private placement of \$300.0 million aggregate principal amount of 6.375% senior unsecured notes due October 21, 2024 (**6.375% Senior Notes**). The Corporation used the net proceeds from the private placement, along with amounts available under the Senior Facility, to repay its existing \$300.0 million of 7.375% senior unsecured notes (**7.375% Senior Notes**). The redemption date in respect of the repayment of the 7.375% Senior Notes was November 18, 2017, (**Redemption Date**) and the redemption price totaling an aggregate of \$313.0 million, comprised of principal (\$300.0 million), accrued and unpaid interest (\$1.9 million), and applicable redemption premium (\$11.1 million), was paid on the Redemption Date.

The 6.375% Senior Notes contain certain early redemption options, whereby the Corporation can choose to redeem all of or a portion of the 6.375% Senior Notes at various redemption prices, which include the principal amount plus any accrued and unpaid interest to the applicable redemption date. The Corporation has the ability to redeem all of its outstanding 6.375% Senior Notes on or after October 21, 2020. Interest is payable on the 6.375% Senior Notes semi-annually on April 21 and October 21. The 6.375% Senior Notes are unsecured, ranking equal in right of payment to all existing and future unsecured indebtedness, and have been guaranteed by the Corporation's current and future subsidiaries. Certain restrictions exist relating to items such as making restricted payments and incurring additional debt.

## **2016**

### *Industry Conditions*

Benchmark oil and natural gas prices declined to record low levels in early 2016, and as a result, oilfield services activity levels declined from 2015 levels through the first half of 2016. In response to this continued industry downturn, early in the year CES rationalized its fixed cost structure which involved reduced headcounts, reduced compensation levels, and reductions in discretionary spending. As benchmark oil prices improved in the latter half of 2016, so too did the Corporation's activity levels and resultant financial performance.

### *Market Share and Activity*

CES increased its Canadian drilling fluids market share to 36% and its US drilling fluids market share to 11% in 2016 in a very challenging marketplace. The production and specialty chemicals business experienced 39% annual growth in the number of Treatment Points in 2016 as a result of continued organic growth experienced at both JACAM and PureChem and contributions from the Catalyst acquisition.

### *Capital Expenditures*

Expansion Capital expenditures in 2016 totaled \$36.7 million or 6.5% of gross revenue and included the costs to complete the barite grinding facility in Corpus Christi, Texas in Q1 2016, the construction of a new laboratory in Woodlands, Texas and the continued expansion of its JACAM, PureChem and acquisition of Catalyst facilities.

### *Acquisitions*

On August 1, 2016, CES acquired all of the production and specialty chemical business assets of Catalyst Oilfield Services, LLC. (the **Catalyst Acquisition**), a West Texas based company with headquarters just outside of Midland, Texas that provides production and specialty chemical solutions for a number of leading oil and natural gas companies. The Catalyst Acquisition was completed to accelerate the expansion of the Corporation's US production and specialty chemicals business with a particular focus in West Texas and the Permian Basin.

### *Dividends*

In response to the deteriorating industry conditions and in order to preserve balance sheet strength and provide liquidity to fund potential growth initiatives, CES reduced its monthly dividend to \$0.0025 per common share effective February 2016. As a result, CES declared dividends in 2016 of \$10.7 million, resulting in a payout ratio of 70%.

### *Bought-deal Equity Financing*

On June 8, 2016, CES completed a bought deal prospectus offering of 30,670,500 Common Shares of the Corporation for gross proceeds of \$92.0 million. The net proceeds of \$87.9 million were used by CES to partially repay outstanding indebtedness under its credit facility, to fund future acquisitions and growth objectives, which included the Catalyst Acquisition in August 2016, and for general corporate purposes.

*Senior Credit Facility*

On March 29, 2016, CES completed an amendment to its Senior Facility in order to provide CES with the financial flexibility required during this period of low oilfield services activity. The principal amendments to the Amended Senior Facility included a voluntary reduction in the borrowing amount from \$200.0 million to \$150.0 million and certain changes to the Corporation's debt covenants.

## GENERAL DEVELOPMENT OF THE BUSINESS

Since the Corporation's initial public offering in March 2006, through a combination of strategic acquisitions and organic growth, CES has become a leading provider of technically advanced consumable chemical solutions throughout the life-cycle of the oilfield. This includes total solutions at the drill-bit, at the point of completion and stimulation, at the wellhead and pump-jack, and finally through to the pipeline and midstream market. At the drill-bit, our designed drilling fluids encompass the functions of cleaning the hole, stabilizing the rock drilled, controlling subsurface pressures, enhancing drilling rates, and protecting potential production zones while conserving the environment in the surrounding surface and subsurface area. At the point of completion and stimulation, our designed chemicals form a critical component of fracturing solutions or other forms of remedial well stimulation techniques. The shift to horizontal drilling and multi-stage fracturing with long horizontal well completions has been responsible for significant growth in the drilling fluids and completion and stimulation chemicals markets. At the wellhead and pump-jack, the Corporation's designed production and specialty chemicals provide down-hole solutions for production and gathering infrastructure to maximize production and reduce costs of equipment maintenance. Key solutions include corrosion inhibitors, demulsifiers, H<sub>2</sub>S scavengers, paraffin control products, surfactants, scale inhibitors, biocides and other specialty products. Further, specialty chemicals are used throughout the pipeline and midstream industry to aid in hydrocarbon movement and manage transportation and processing challenges including corrosion, wax build-up and H<sub>2</sub>S.



Since the Corporation's initial public offering, and including the conversion transaction in 2010, CES has completed eighteen acquisitions of private companies in both Canada and the US, totaling approximately \$661.8 million, and has invested approximately \$393.0 million in capital expenditures to organically grow its business, representing an average of only 6% of historical revenue. The Corporation has acquired companies that it believes had a leadership position in their local markets, are strategically located, and are like minded in the Corporation's approach to customer service and innovation. The Corporation has further grown its business organically through increased market penetration of cost-effective engineered chemical and consumable solutions to its customers. Innovation is a key component to the success of CES, and with the support of CES' customer focused sales and field staff, and supported by its research and development, new solutions are constantly being developed to meet customer needs. As a result of its strategic growth initiatives and efforts to vertically integrate, CES has evolved from a regional supplier of drilling fluids in the WCSB to a recognized industry name and is fast becoming the third largest manufacturer supplying engineered chemical and consumable solutions to the North American oil and natural gas industry.

## BUSINESS OF THE CORPORATION

The Corporation's integrated business is organized as follows:

### Drilling and Completion Fluids

The Canadian Energy Services and AES brands are focused on the design and implementation of drilling fluids systems and completion solutions for oil and gas producers throughout the North American market. CES earns revenue when it sells a drilling fluid system to an exploration and production entity (**Operator**). In advance of the sale, CES

works collaboratively with the Operator to design a drilling fluid system that will clean the hole, stabilize the formation drilled, control subsurface pressures, enhance drilling rates, and protect potential production zones while conserving the environment in the surrounding surface and subsurface. The Corporation has an extensive product line with several proprietary drilling fluid solutions suitable for all of the onshore and shallow water off shore oil and natural gas drilling currently being done in North America.

### **Production and Specialty Chemicals**

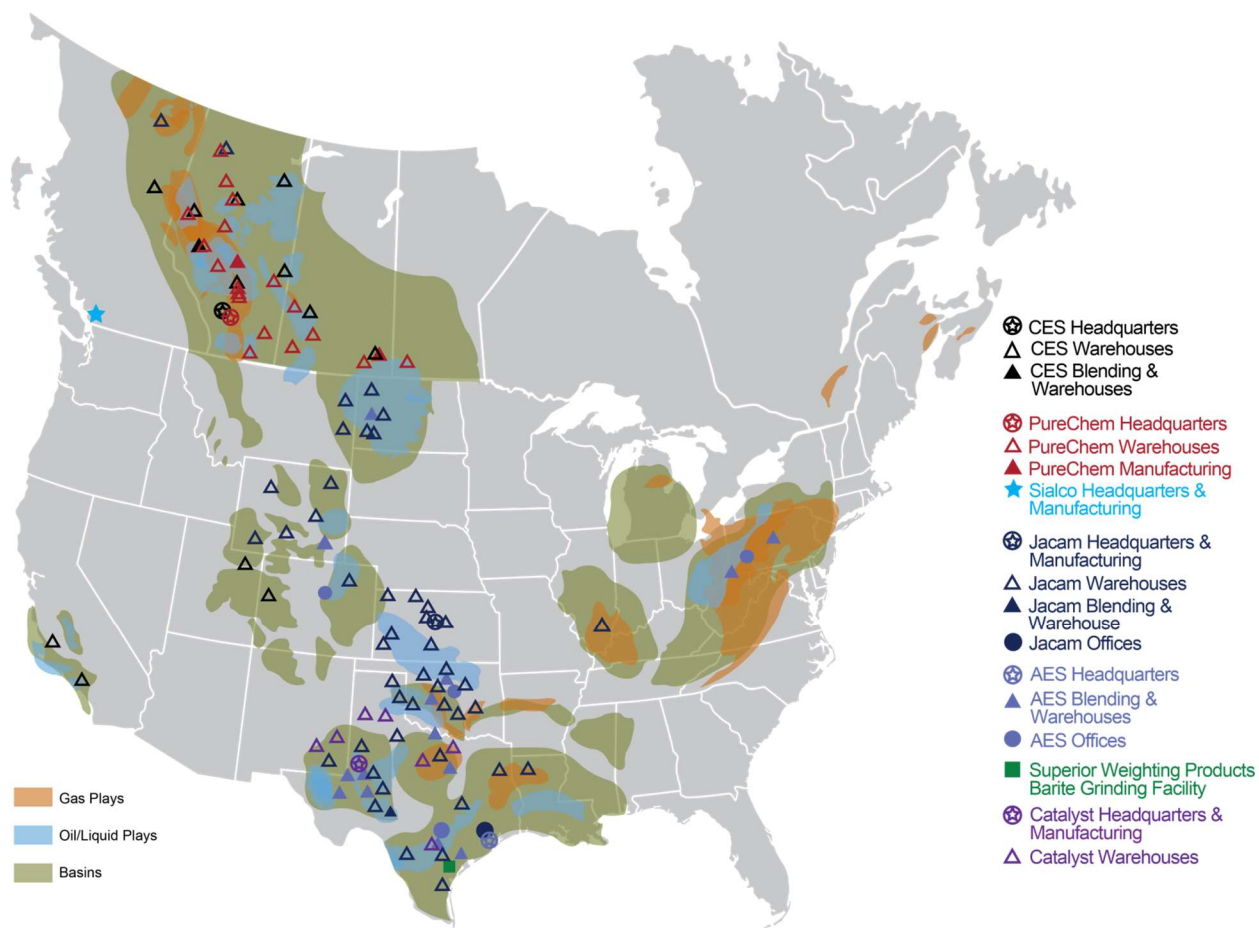
The JACAM and Catalyst divisions operate in the US, while the PureChem and Sialco divisions operate primarily in the Canadian WCSB. All of these brands place an emphasis on servicing the major oil and natural gas liquids resource plays. The JACAM, Catalyst, and PureChem divisions manufacture and sell both to retail and wholesale markets, a complete line of production and specialty chemicals designed for the oil and natural gas production markets, the stimulation and fracturing markets, and the pipeline and midstream markets. The StimWrx brand, operating out of the PureChem division, provides near matrix stimulation and remediation of oil, gas, and injection wells in Western Canada and the US. Sialco is a primary manufacturer that produces oilfield related chemistries that are then sold through PureChem, JACAM and Catalyst. In addition to being basic in the manufacture of oilfield chemicals, JACAM, Catalyst, and PureChem have expanding distribution channels into the oilfield.

### **Other Business Divisions**

Clear is a complimentary business division that supports the Corporation's operations and augments the product offerings in the WCSB. Clear is CES' environmental division, providing environmental consulting, water management services, and drilling fluids waste disposal services primarily to oil and gas producers active in the WCSB.

The Superior Weighting division, based out of the Port of Corpus Christi, Texas, custom grinds minerals including barite, which is the weighting agent utilized in most drilling fluids systems.

Below is a map showing the locations of the Corporation's integrated North American operations.



## Competitive Strengths

Management believes that the following factors provide the Corporation with a competitive advantage in the oilfield consumable chemical business:

### *Proprietary and Patented Solutions*

CES is a leading provider of consumable chemical solutions throughout the life-cycle of the oilfield. The Corporation's technically advanced consumable chemical solutions are designed to meet client-specific objectives. Through a suite of proprietary and patented systems and products, the Corporation provides a fully integrated approach to the design and execution of oilfield related consumable chemical solutions required by our customers. The proprietary systems and tailored solutions are designed in-house with CES' own laboratory facilities and scientists or with the assistance of the chemical laboratories of the Corporation's suppliers and are customized to address specific customer requirements.

As at the date hereof, there are currently 50 patents issued to the Corporation in multiple jurisdictions that serve to maintain and protect our competitive position in the oilfield chemicals marketplace. As at the date hereof, there are also currently 5 patents pending primarily relating to new drilling fluid systems and new production and specialty chemicals products internally developed by CES. CES takes great pride in its proprietary technology, innovations and our employees who work to solve tomorrow's oil field problems. CES will continue to invest in developing new and innovative solutions as well as to protect and defend our patents and intellectual property when necessary.

A detailed summary of some of the Corporation's key suite of technically advanced consumable chemical solutions, many of which are proprietary or patented, consists of the following:

Product	Description of Application	Function
Seal-AX™	<ul style="list-style-type: none"> <li>Medium/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Provides unique method of reducing seepage and fighting total losses of drilling fluids while drilling in oil-based and water-based muds.</li> </ul>
Polarbond™	<ul style="list-style-type: none"> <li>Medium/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Water based shale inhibitor and friction reducing agent.</li> </ul>
ABS40™	<ul style="list-style-type: none"> <li>Vertical/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Specialized environmentally friendly synthetic oil based mud system.</li> </ul>
Cotton Seal™	<ul style="list-style-type: none"> <li>Vertical/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Whole mud loss agent and seepage loss agent for oil based mud systems.</li> </ul>
Enerdrill	<ul style="list-style-type: none"> <li>Deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Ultra-lightweight synthetic oil based fluid.</li> <li>Enhances rate of penetration in deep, highly consolidated formations being drilled horizontally.</li> </ul>
Bond Log Plus	<ul style="list-style-type: none"> <li>SAGD drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Enhances quality and integrity of cement jobs in build interval of well.</li> </ul>
PureStar	<ul style="list-style-type: none"> <li>Deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Environmentally compatible salt free synthetic oil based mud system.</li> </ul>
Envirobond	<ul style="list-style-type: none"> <li>Vertical/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Advanced water-based shale inhibitor.</li> <li>Inhibits hydration and migration of fine solids, clays and shales.</li> <li>Prevents damage to heavy oil production zone.</li> <li>Controls mud density.</li> </ul>
Liquidrill™	<ul style="list-style-type: none"> <li>Horizontal drilling fluid</li> <li>Heavy oil</li> <li>Long reach lateral sections</li> <li>Long interval sections</li> <li>SAGD</li> <li>Multi-lateral horizontal wells</li> <li>Coalbed methane</li> </ul>	<ul style="list-style-type: none"> <li>Clay-free polymer mud system.</li> <li>Controls fluid loss.</li> <li>Proven in many multi-hole projects in high-risk areas for shallow vertical depths and long reach lateral sections.</li> <li>Non-damaging water-based drilling fluid.</li> </ul>
Invert/Ecovert	<ul style="list-style-type: none"> <li>Deep/vertical/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Hydrocarbon based.</li> <li>Maintains stability in highly deviated wellbores.</li> <li>Allows pipe to be tripped without restriction.</li> </ul>
Enerclear	<ul style="list-style-type: none"> <li>Medium and deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Weighted salt based fluid for increased drill bit life and faster rate of penetration.</li> <li>System has inhibitive qualities.</li> </ul>
Liquislide Salt	<ul style="list-style-type: none"> <li>Medium and deep/horizontal drilling fluid</li> <li>SAGD and heavy oil drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Provides enhanced lubricity to oil based mud, salt and water based systems.</li> </ul>
Tarbreak and Tarbreak #2	<ul style="list-style-type: none"> <li>SAGD drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Reduces adhesiveness of bitumen.</li> <li>Enables drilling by reducing viscosity.</li> </ul>



Product	Description of Application	Function
Bitencap	<ul style="list-style-type: none"> <li>SAGD drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Minimizes accretion of heavy oil drill cuttings to downhole and surface drilling equipment.</li> <li>Works synergistically with other SAGD additives.</li> </ul>
Poly-Core	<ul style="list-style-type: none"> <li>SAGD drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Core fluid for bitumen reservoirs.</li> <li>Oilsands delineation drilling.</li> </ul>
EnerSeal	Medium/deep/horizontal drilling fluid	<ul style="list-style-type: none"> <li>Unique rheology profile that mitigates fluid losses in permeable and fractured formations.</li> </ul>
Enerhib C	<ul style="list-style-type: none"> <li>Medium/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Corrosion inhibitor for use in salt based drilling fluid systems.</li> </ul>
Enerscav C	<ul style="list-style-type: none"> <li>Medium/deep/horizontal drilling fluid</li> </ul>	<ul style="list-style-type: none"> <li>Oxygen scavenger for use in salt based drilling fluid systems.</li> </ul>
EnerSeal HDD	<ul style="list-style-type: none"> <li>Pipeline crossings</li> </ul>	<ul style="list-style-type: none"> <li>Unique rheology profile suited to large bore drilling.</li> <li>Losses to surface due to frac out are minimized, clean outs are minimized.</li> </ul>
Fracturing Additives	<ul style="list-style-type: none"> <li>Water based Gellants</li> <li>Breakers</li> <li>PH Control</li> <li>Clay Control</li> <li>Flow Enhancers</li> <li>Biocides</li> <li>Scale Inhibitors</li> <li>Cross Linkers</li> <li>Lubricants</li> <li>Viscoelastic Surfactant Gel</li> </ul>	<ul style="list-style-type: none"> <li>Specific chemical additives to enhance performance / efficacy of well fracturing / completions.</li> </ul>
Friction Reducers	<ul style="list-style-type: none"> <li>Fracturing fluid additive specific for slickwater fracturing</li> </ul>	<ul style="list-style-type: none"> <li>Reduces frictional losses at low doses while pumping allowing for high pump volumes with equivalent HP or less HP to pump equivalent volumes.</li> <li>Enhanced chemistry allowing for treatment of difficult fluids such as formation brines.</li> <li>Combined with pump volumes, allows for effective placement of proppant.</li> </ul>
Production Enhancement	<ul style="list-style-type: none"> <li>Acid packages</li> <li>Surfactants</li> <li>Solvent packages</li> <li>Organic acid packages</li> </ul>	<ul style="list-style-type: none"> <li>Remediates near wellbore damage.</li> <li>Mechanisms to enhance well productivity.</li> </ul>
SuperCorr Corrosion Control	<ul style="list-style-type: none"> <li>Acid gas corrosion protection</li> <li>Waterflood corrosion inhibitor</li> <li>Flowline corrosion inhibitor</li> <li>Pipeline corrosion inhibitor</li> <li>Downhole corrosion inhibitor</li> <li>Combination products</li> </ul>	<ul style="list-style-type: none"> <li>Control of downhole, plant and pipeline corrosion issues.</li> <li>Specialize in severe corrosion environments.</li> </ul>

Product	Description of Application	Function
Paraffin & Asphaltene	<ul style="list-style-type: none"> <li>• Pour point depressants</li> <li>• Crystal modifiers</li> <li>• Dispersants</li> <li>• Solvents</li> <li>• Asphaltene dispersants for natural gas and oil</li> </ul>	<ul style="list-style-type: none"> <li>• Control the many problems associated with paraffin and asphaltene deposition in oil and natural gas production.</li> <li>• Increase the efficiency of the production process.</li> <li>• Reduces operating costs.</li> </ul>
Scale Inhibitors	<ul style="list-style-type: none"> <li>• High calcium tolerant</li> <li>• High barium tolerant</li> <li>• High temperature tolerant</li> </ul>	<ul style="list-style-type: none"> <li>• Controls scale deposition in downhole equipment and production facility.</li> <li>• Controls the deposition of all forms of carbonate and sulfate scale.</li> <li>• Reduces downtime and lost production.</li> <li>• Reduces operating costs.</li> </ul>
Water Treatment	<ul style="list-style-type: none"> <li>• Flocculants</li> <li>• Reverse demulsifiers</li> <li>• Coagulants</li> </ul>	<ul style="list-style-type: none"> <li>• Chemicals for removing hydrocarbon residue from the water treatment process.</li> <li>• Chemicals to remove solids and formation fines from the water treatment process.</li> </ul>
Emulsion Breakers	<ul style="list-style-type: none"> <li>• Resolve oil and water emulsions occurring during crude oil production and processing</li> <li>• Assist in the clarification of produced water</li> </ul>	<ul style="list-style-type: none"> <li>• Separates oil from water.</li> <li>• Clean water from emulsion separation process and ready for disposal.</li> <li>• Reduces operating costs.</li> <li>• Can reduce flowline pressures.</li> </ul>
Foamers & Defoamers	<ul style="list-style-type: none"> <li>• Foamers from removing H<sub>2</sub>O from natural gas wells</li> <li>• Defoamers for alleviating foaming in oil and water systems</li> </ul>	<ul style="list-style-type: none"> <li>• Increase the efficiency of the production process.</li> </ul>
H <sub>2</sub> S Scavengers	<ul style="list-style-type: none"> <li>• Removal of H<sub>2</sub>S from natural gas and hydrocarbon streams and from produced-water</li> </ul>	<ul style="list-style-type: none"> <li>• Ensures pipeline specification natural gas and hydrocarbons.</li> <li>• Ensures rail specification oil.</li> <li>• Safety.</li> </ul>
Salt Inhibitors and Desalters	<ul style="list-style-type: none"> <li>• Reduces formation of salt in the production process</li> <li>• Desalters remove excess salt from oil</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces downtime of wells and lost production.</li> <li>• Protects surface equipment from salt deposition.</li> </ul>
Hydrate Inhibitors Breakers	<ul style="list-style-type: none"> <li>• Kinetic type hydrate inhibitor</li> <li>• Anti-agglomerate type hydrate inhibitor</li> <li>• Hydrate breakers to remove hydrates after formation</li> </ul>	<ul style="list-style-type: none"> <li>• Designed to control the formation of gas hydrates in pipelines.</li> <li>• Reduces downtime of wells and lost production.</li> </ul>
Anti-Foulants	<ul style="list-style-type: none"> <li>• Preventing asphaltene deposition in process equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Efficient facility operation.</li> <li>• Reduces downtime.</li> </ul>

Product	Description of Application	Function
Biocides	<ul style="list-style-type: none"> <li>Control anaerobic and aerobic bacteria for water injection, water used in completions / fracturing , produced-water and cooling-water systems</li> </ul>	<ul style="list-style-type: none"> <li>Water quality maintenance.</li> </ul>
Gas Processing Chemicals	<ul style="list-style-type: none"> <li>Dehydration</li> <li>Heat transfer</li> <li>Defoamers</li> <li>Hydrate control</li> </ul>	<ul style="list-style-type: none"> <li>Natural gas plant processing efficiencies.</li> </ul>
Solid Chemistries	<ul style="list-style-type: none"> <li>Corrosion control</li> <li>Scale inhibitors</li> <li>Paraffin control</li> <li>Foamers</li> <li>Biocides</li> </ul>	<ul style="list-style-type: none"> <li>Effective downhole, tank and pipeline application of solid chemistries.</li> <li>Engineered to distribute the chemical treatment at the specific location.</li> <li>Environmentally safe as product design eliminates potential for any spill in transit or on site.</li> </ul>

### *Strong Reputation and Diversified Client Base*

The Corporation, by its estimated market share, is the largest drilling fluid systems provider in Canada and continues to grow its market share in the US, serving a wide range of Operators and suppliers in both Canada and the US. The Corporation has a growing presence in Canada in the production and specialty chemical business through its PureChem and Sialco divisions and has an expanding footprint in the US as a result of the Catalyst Acquisition and as JACAM expands its US market presence.

The Corporation's client base represents a cross-section of the North American oil and natural gas industry, including large multinational producers, intermediate oil and natural gas Operators, independent juniors, and joint ventures, as well as companies engaged in the pipeline and mid-stream markets. On a smaller scale, the Corporation also wholesales its drilling and completion fluids and its production and specialty chemicals to other oilfield service providers.

The Corporation's business is based in large part on strong client relationships. The Corporation has a well-established client base of approximately 1,900 Operators, Downstream Operators (as defined below), suppliers and industrial customers having operations throughout the US and western Canada. The top five clients of the Corporation accounted for approximately 25% of its revenues for the year ended December 31, 2018, with one large independent Operator accounting for approximately 11%. The Corporation's ability to design and deliver effective oilfield related chemical solutions has historically led to a high retention rate for clients that have recurring and increasing needs for the Corporation's services.

### *Diversified Operations Serving Key North American Oil and Gas Basins*

The Corporation has diversified operations servicing the ongoing major resource plays in North America. In Canada, the Corporation has operations and sells products throughout the WCSB. In the US, the Corporation has a growing presence with significant operations in the Permian, Eagleford, Bakken and Marcellus Basin's.

### *Vertical Integration*

The Corporation continues to take steps to improve its supply chain to efficiently source its input products and to manufacture and blend the products it supplies to its end customers. In 2011, through its PureChem division, CES established a chemical blending facility in Carlyle, Saskatchewan to blend specialty products for drilling fluids and to blend production and specialty chemical products for completions, stimulations, production and infrastructure associated with hydrocarbon production. In 2013, the JACAM Acquisition significantly expanded the Corporation's chemical manufacturing and blending capabilities while further vertically integrating the Corporation's supply chain

through advanced high temperature chemical reacting capabilities. JACAM's manufacturing facilities located in Sterling, Kansas allow the Corporation to react and blend both the basic molecules and end products provided to customers. The Sialco Acquisition in 2015 further expanded the Corporation's chemical manufacturing capabilities and product offerings through advanced chemical reacting capabilities of the facilities located in Delta, British Columbia. The Catalyst Acquisition expanded the Corporation's production and specialty chemical retail presence and manufacturing capability in West Texas and the Permian Basin. Most recently, the StimWrx Acquisition has allowed the Corporation to provide technically advanced solutions for optimal wellbore stimulation.

Other vertical integration initiatives include the 2016 completion of construction of the barite grinding facility at the Port of Corpus Christi, Texas and the 2018 completion of an organo clay plant in Sterling, Kansas. Barite and organo clay are key inputs in invert or oil based drilling fluid systems. PureChem recently expanded its chemical blending facility in Carlyle, Saskatchewan and has completed construction of a new field service centre and warehouse facility in Grande Prairie, Alberta. This new facility will create logistics efficiencies and will include direct rail access to provide products and services to PureChem's customers in the Montney and Duvernay oil and gas plays.

CES' enhanced vertical integration has strengthened the competitive positioning and improved the supply chain economics of its operations. This vertically integrated business model enables design, manufacturing and delivery of tailored chemical solutions to customers in both production and specialty chemicals as well as in drilling fluids.

#### *Experienced and Committed Management and Professional Team*

The Corporation has been successful in attracting and retaining talented professionals. The average experience of management in the oil and gas industry exceeds 25 years. The Board of Directors and management's interests are aligned with those of the Corporation and its shareholders through their holding of approximately 8% of the outstanding Common Shares. See "Escrowed Securities", "Capital Structure" and "Directors and Officers".

#### *Complimentary Environmental Business*

Clear provides vertically integrated consulting services to producers in the WCSB focusing primarily on the supervision of disposing various waste streams and providing comprehensive water management strategies. The business of Clear has evolved to assist customers in the pre-planning of their projects and to provide support through the drilling and completions phases of their programs. The policies and regulations that influence how the exploration businesses operate are becoming increasingly complicated, most recently when it comes to water. There are risks associated with access to water (or alternatives) including lack of availability, over-allocation in an area, drought, and volume constraints. Clear mitigates these risks by establishing water management strategies that are forward-thinking and economical to ensure fluid security for our customers. A collaborative approach is taken with producers from project inception, through physically managing water (including licensing, transmission, storage, usage, recycling and disposal) and culminates with providing the required reporting and documenting that illustrates that the project meets or exceeds regulatory requirements). This business line is complementary to the drilling and completion fluids business and provides the Corporation with an opportunity to provide a more integrated service in certain circumstances.

#### *Warehousing and Trucking*

The Corporation's owned warehouses provide staging facilities in key operating areas for the Corporation to house its own materials and provide trucking support, which allows CES to manage and control inventory of products more efficiently and reduces the reliance on third parties for trucking and warehousing.

### **Competition**

In the drilling and completion fluids business, three large integrated oilfield service companies control a broad majority of the world-wide marketplace. Drilling and completion fluid companies compete by focusing their efforts on the price of materials, quality of product, technological advantages, and the knowledge, technical expertise and service levels of management and field personnel. Management believes that the Corporation's specialty drilling and completion fluids provide significant productivity increases, drilling cost reductions, solutions to environmental issues and

solutions to a wide variety of drilling operations, including conventional and heavy oil drilling, and for downhole problems such as water/oil separation, wellbore ballooning and other production specific problems. Management believes that the Corporation will maintain its competitive status by continuing to offer, what Management believes is, state-of-the-art technology in its drilling and completion fluid systems.

The production and specialty chemicals business is a highly consolidated industry. In North America, the number of production and specialty chemicals companies that offer a suite of proprietary products across the life-cycle of the oilfield is presently dominated by two large conglomerates that control approximately 49% of the market.<sup>1</sup> Similar to the drilling fluids business, the Corporation's production and specialty chemicals divisions compete by focusing their efforts on the price of materials, quality and efficacy of the product, capabilities of its research and development team, and the knowledge and technical expertise of its management and field personnel. Management believes that its production and specialty chemicals business can grow in a competitive and consolidated marketplace by leveraging our technical skills and our state-of-the-art facilities as we constantly develop new and innovative solutions to meet our customers' needs.

### **Target Market**

The Corporation focuses on the provision of consumable chemical solutions to Operators across the US and the WCSB. In particular, with respect to the provision of drilling and completion fluids, the Corporation is putting an emphasis on servicing the ongoing major resource plays. The production and specialty chemicals business has a similar focus, however, given the broader application of its product offering, it can expand its target market across all of North America where either on-going activity is occurring, where legacy hydrocarbon production exists or where an industrial or infrastructure related sales opportunity exists.

### **Marketing and Customer Service**

The Corporation markets its technical expertise and services to its broad client base by emphasizing the historical successes of its products, its technologies, and the technical expertise and experience of its personnel. Larger, sophisticated clients generally tender bids for services or approve prime vendors through sales and technical presentations and base selections on price, technical ability, field experience, area knowledge, health, safety and environmental compliance, and overall size and financial strength of the service provider. Smaller clients, suppliers, and drilling and completion engineering firms tend to rely on continual technical and professional support, as well as track records of the service provider.

### **Equipment and Facilities**

The Corporation's core oilfield consumable chemicals business is generally not very capital intensive in comparison to other oilfield service peers. The Corporation's equipment consists of chemical reacting, manufacturing and blending facilities, oil based drilling fluid storage and mixing facilities, packaged goods warehouses, field trucks, specialty chemical delivery trucks, field testing equipment, information technology equipment, telecommunications equipment, office equipment and facility improvements.

The Corporation's head office and the Canadian drilling fluids and production and specialty chemical businesses headquarters are all located in Calgary, Alberta. AES operates the US drilling fluids business out of the Houston, Texas office, JACAM operates the US production and specialty chemical businesses out of Sterling, Kansas and Catalyst operates its production and specialty chemical operations, focused primarily on the West Texas and the Permian Basin, out of Gardendale, Texas.

CES, in its capacity as operator of the Canadian drilling fluids business, owns two warehouses and truck terminals located in Edson, Alberta, and Carlyle, Saskatchewan. In Canada, CES also rents warehouse space throughout Alberta, British Columbia, Manitoba and Saskatchewan as inventory and stock point locations to facilitate efficient delivery

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<sup>1</sup> *Production and specialty chemical market size data provided by Spears & Associates Inc.*

of its drilling fluid products and services to clients. These warehouses are typically owned by trucking companies or oilfield service providers.

AES has operations in thirteen US states that are serviced with seven oil based mud plants in Texas, five additional mud plants located in Oklahoma, Pennsylvania, North Dakota, West Virginia and Wyoming and several rented warehouses and stockpoints.

CES continues to invest in research and development of new technologies and in top-end scientific talent that can develop and refine these technologies. CES operates eight separate lab facilities across North America: one in Sterling, Kansas; two in Houston, Texas; two in Midland, Texas; and one in each of Carlyle, Saskatchewan; Delta, British Columbia; and Calgary, Alberta. In the US, CES' main chemical manufacturing and reacting facility is located in Sterling, Kansas with low-temperature reacting and chemical blending capabilities in Midland, Texas and additional chemical blending capabilities in Sonora, Texas. In Canada, CES has an additional chemical manufacturing and reacting facility located in Delta, British Columbia with additional chemical blending capabilities located in Carlyle, Saskatchewan and Nisku, Alberta. CES also leverages third party partner relationships to drive innovation in the consumable fluids and chemicals business.

JACAM delivers its products and services in eighteen US states that are serviced through 54 warehouse or stocking points. Eighteen of JACAM's warehouses are owned by the Corporation and are located in Kansas, North Dakota, Colorado, Oklahoma, and Texas. Leased stock point facilities are located in twelve states providing JACAM a presence in almost all of the major US basins. Catalyst is focused on the West Texas and Permian Basin markets in Texas and New Mexico and services its clients through its network of six owned warehouses and two leased stocking points.

In May, 2018, JACAM completed reconstruction of its organoclay plant which was rendered inoperable due to a fire on April 13, 2017. Organoclay is an organically modified phyllosilicate, derived from naturally occurring clay minerals and is used as a viscosifier for CES' oil based and invert drilling fluids. CES was fully insured for the loss, including coverage for any extra expense incurred to source organoclay from third party suppliers.

PureChem services its customers from its locations in Carlyle, Saskatchewan, Nisku, Alberta, its recently completed field service center and warehouse facility in Grande Prairie, Alberta, as well as from twenty four stock point locations located in the provinces of British Columbia, Alberta, Saskatchewan and Manitoba. The new Grande Prairie facility will create logistics efficiencies and will include direct rail access to provide better service to PureChem's customers in the Montney and Duvernay oil plays. Sialco designs and manufactures industry leading fracture stimulation and production chemicals from its state-of-the-art high temperature chemical reacting and manufacturing facility located in Delta BC.

Superior Weighting has a long term lease for its barite grinding facility at the Port of Corpus Christi, Texas. In 2016, Superior Weighting completed the construction of a state of the art barite grinding facility and now supplies custom ground barite to the Corporation's drilling fluids businesses.

## **Our People**

CES takes great pride in its talented and dedicated workforce across Canada and the United States. As at December 31, 2018, we employed 619 employees and retained the services of approximately 72 consultants in Canada. In the US, we employed 1,384 employees and retained the services of approximately 147 consultants.

## **Procurement**

The Corporation has a significant procurement group with specialists located in Calgary, Carlyle, Delta, Sterling, Gardendale and Houston. The Corporation continues to pursue a more focused approach to direct procurement from manufacturers to realize cost savings. Additionally, the Corporation's procurement groups are constantly sourcing more raw materials for use in its manufacturing and blending processes resulting in additional cost savings. These improvements have allowed the Corporation to defend margin integrity in an extremely price conscious environment. As a result of its increasing scale, the Corporation continues to put more emphasis on procurement practices to improve

quality, reliability and cost effectiveness of supply. To this end, the Corporation recently reorganized its Canadian procurement operations to consolidate the procurement practices of its Canadian drilling and completions business and PureChem's production and specialty chemical business in order to drive efficiency and improve best practices throughout the supply chain.

### **Health, Safety and Environment**

The Corporation has very high standards with respect to environmental, health and safety matters. The Corporation employs rigorous safety and training standards aimed at protecting both the environment and its employees. The Corporation employs certified safety professionals to ensure compliance with all necessary safety and regulatory requirements.

CES is committed to and responsible for providing a safe and healthy work environment and protecting its employees, contractors, visitors, property, environment and the public. The Corporation's business units are committed to meeting or exceeding their respective legislative requirements and to ensuring everyone's right and responsibility to refuse unsafe work. Our projects, product and processes are managed in a way that protects the health and safety of people and minimizes environmental impacts on the communities in which we work.

A health, safety and environment team, which includes professionals certified in safety and industrial/occupational hygiene, is responsible for the development and monitoring of our health, safety and environmental programs and along with all levels of employees, ensures successful implementation of these programs. Our Canadian operations successfully participate in the Certificate of Recognition programs in each province in which we work. The health, safety and environment team utilizes a variety of tools with which to monitor the success of its program including both leading and lagging indicators.

The Health, Safety and Environment Committee of CES' Board of Directors (the **HSE Committee**) is responsible for overseeing the Corporation's health, safety and environmental program and related performance. The HSE Committee regularly monitors the health, safety and environmental policies, practices, procedures and planning of the Corporation for compliance with applicable and proposed legislation, conformity with industry standards, implementation of best practices and prevention or mitigation of losses. The HSE Committee also reviews health, safety and environmental metrics, including the Certificate of Recognition program audit results as well as other key areas of focus within the Corporation.

In general, the global oil and natural gas industry and in particular, the Corporation's business, is subject to a complex and increasingly stringent array of laws addressing the actual and potential environmental impacts inherent to the business, including laws governing waste management and the transport, handling, use, deposit or release of potentially hazardous substances into the natural environment. Some of these laws assign potential liability for damages without regard to causation or fault, and provide for joint and several liability for cleanup and other costs in the event of new or historical spills, releases or deposits of hazardous and other substances, including wastes. Other environmental laws provide significant potential penalties for non-compliance, including criminal charges and imprisonment for the most extreme cases. The environmental legal regimes in Canada and the US, which are comprised of a variety of federal, provincial, state and local laws, are among the most stringent in the world, and as a consequence, industry participants incur significant capital and operating costs to maintain compliance.

### **Insurance**

The Corporation maintains third party insurance, which in Management's view, provides coverage that addresses all material insurable risks, is similar to that which would be maintained by a prudent owner and operator of similar businesses and is subject to deductibles, limits and exclusions that are customary and reasonable given the cost of procuring insurance and current operating conditions. In addition, the Corporation insures certain risks through a captive insurance subsidiary CES (Barbados) Indemnity Corp. The Corporation is responsible for obtaining or causing to be obtained a policy of insurance for its directors and officers.

## **INDUSTRY OVERVIEW**

### **Industry Factors Impacting the Oilfield Chemical Business**

The upstream oil and natural gas industry in the US and Canada is largely comprised of two types of entities: (i) Operators; and (ii) suppliers of oilfield services and consumables (**Suppliers**). Operators generally explore for, develop and produce oil and natural gas reserves. Suppliers generally provide services, products and equipment to assist Operators in their efforts to explore, develop and produce oil and natural gas reserves. The Corporation is focused on being a leading provider of technically advanced consumable chemical solutions throughout the life-cycle of the oilfield.

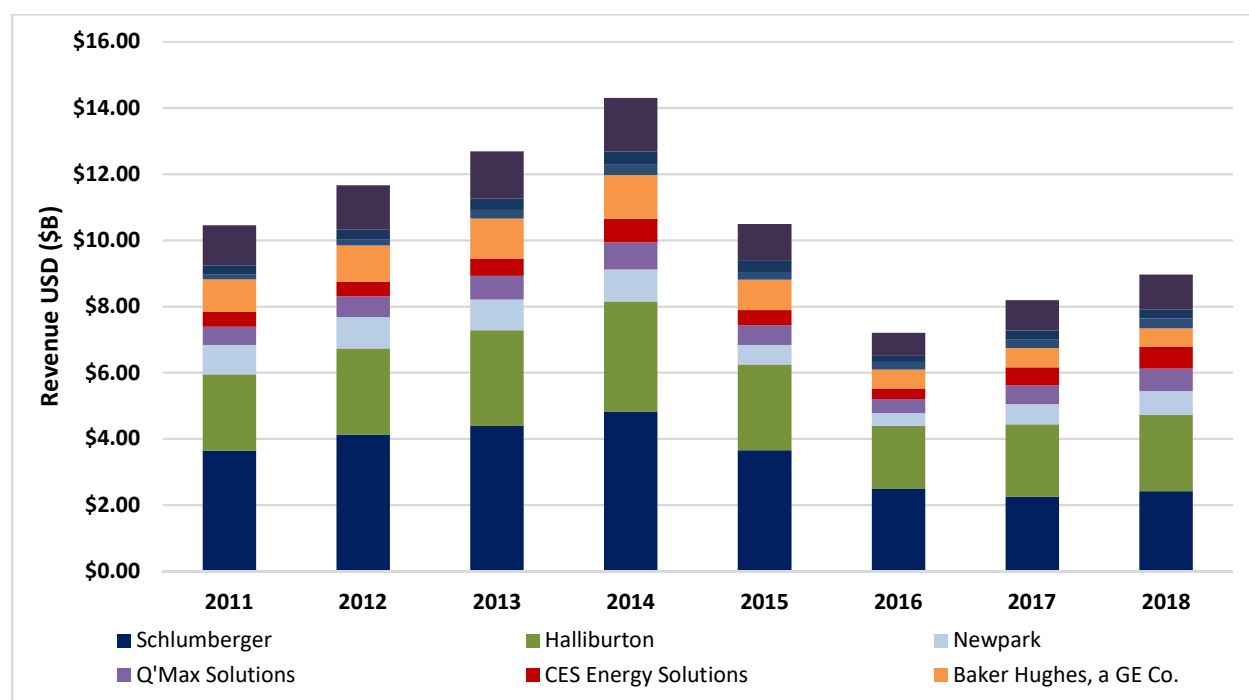
Over the last ten years, the vast majority of Operator's capital and activity in North America has been directed to the previously uneconomic or marginally economic oil, natural gas liquids, and dry natural gas accumulations that have become economically viable through the application of horizontal drilling and multi-stage fracturing. These "resource plays" typically involve large accumulations of oil, natural gas liquids or natural gas either over a large area and/or vertical section which are often characterized as "tight", meaning they have low productivity, low permeability and/or susceptibility to formation damage. Viable resource plays can achieve enhanced profitability if the wells can be drilled and completed cost effectively, and if long-term production can be enhanced through the use of the appropriate application of production chemicals. Suppliers who have experience in developing drilling fluid systems for these types of reservoirs, completion and stimulation chemistries, and production chemicals can assist Operators in minimizing upfront drilling and completion costs and improving long-term reservoir performance. The Corporation has experience working in most of the relevant and active resource plays and provides oilfield chemical solutions to Operators throughout North America. As well, the Corporation constantly monitors the development of new resource plays and endeavours to be an "early mover" into a play once a new resource play becomes established.

### **Industry Factors Impacting the Drilling Fluids Business**

As demonstrated in the chart below, the global drilling and completion fluids' market doubled in the period from 2007 to 2014. As a result of falling oil prices and weak North American natural gas prices experienced in 2015 and 2016, rig counts dropped in both the US and Canada resulting in reduced revenues and therefore a shrinking market environment for demand for drilling and completion fluids services. Since 2016, revenues and industry activity have increased year over year to approximately US\$9 billion by the end of 2018.



*Worldwide Drilling & Completion Fluids Market Size<sup>(1)</sup>*



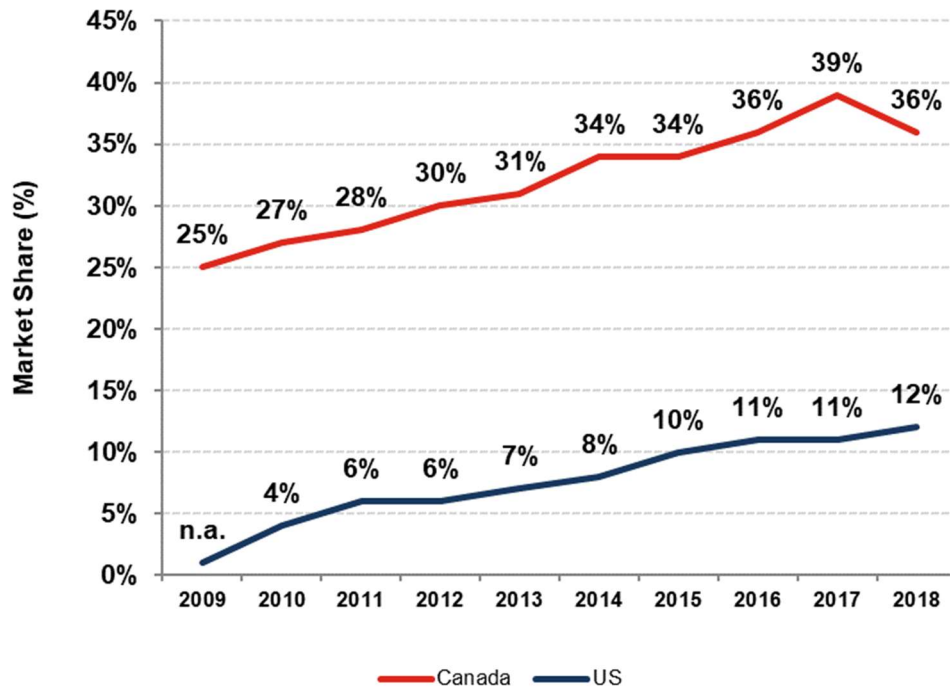
*Source: Internally prepared chart based on underlying data provided by Spears & Associates Inc.*

**Note:**

- (1) Others category includes China Oilfield Services Ltd., Lubrizol Oilfield Solutions, Secure Energy Services, National Oilwell Varco, Inc., Scomi Oiltools Bermuda Limited, AKROS Oilfield Services Company, Superior Energy Services, Anton Oilfield Services Group Ltd., and others not defined explicitly by Spears & Associates Inc.

Since 2009, CES has significantly increased both its US and Canadian market share in the drilling fluids space as depicted in the chart below. In 2018, CES' US business continued to grow market share from 11% to 12% year over year, and in the Permian Basin specifically, CES maintained its market share at 16%. CES' Canadian drilling fluids market share decreased from 39% in 2017 to 36% in 2018. This decline was substantially attributable to CES' reduced share of certain WCSB activity characterized by shallower, oilier drilling, which is generally simpler to drill and represents lower revenue and lower margin work, which historically has not been the main focus of CES' Canadian drilling fluids business.

*CES US and Canadian Drilling Fluids Estimated Market Share*



Source: CES

Operators base their capital expenditure commitments on many factors, including, but not limited to, hydrocarbon commodity prices, costs to compete and produce wells, anticipated economic returns, production levels of their current reserves, exploration and development opportunities, political climates and access to both debt and equity capital. Activity levels within the oil and natural gas industry are ultimately affected by the above factors.

Advanced fluids and chemistries are required during the drilling process for most oil and natural gas wells. An effective drilling fluid system can reduce time to drill, increase wellbore stability and maximize recovery from the reservoir, which ultimately impacts the economic return of the well. Given the significant economic benefits that both drilling and completion fluids can provide, Suppliers that have the technical expertise, the experience and the product offering to provide optimal drilling and completion fluid systems can present a compelling value proposition to exploration and production entities.

*Trends - Drilling Activity*

According to Baker Hughes, a GE Company (Baker Hughes, a GE Company ticker: BHGE:US), the US active on-shore rig count peaked in November 2014 at 1,876 rigs and from this peak, declined in tandem with a drop in oil prices. This drop in oil prices was primarily a result of world supply outpacing demand and OPEC's decision in November 2014 to hold production levels steady in order to defend its global market share. On-shore drilling activity in the US declined steadily through 2015 and reached a trough in May 2016 when the average active rig count bottomed at 380 rigs. Since the bottom, US active on-shore rig count improved steadily and by the end of 2018 the active rig count stood at 1,059. Also during that period, the percentage of wells drilled horizontally and the lengths of respective laterals increased as well.

From 2016 to mid-2018, drilling activity trends in the WCSB have been largely consistent with what occurred in the US. According to the Canadian Association of Oilwell Drilling Contractors, Canada experienced a bottoming of rig count at 35 rigs in May 2016, and then a steady increase to 237 rigs by July 2018 (taking into account seasonal

variations typical to the WCSB). However, drilling activity in Canada at the end of 2018 was more subdued with rig counts in December averaging 140.

In late November 2016, OPEC and certain non-OPEC member states agreed to cut oil production in an attempt to balance the global crude market. As a result, benchmark oil prices rose from their lows in February 2016 to the mid US\$70 per barrel in the fall of 2018. Since then, prices have seen retracement due to oversupply and global growth concerns with prices for West Texas Intermediate (WTI) settling at US\$45 per barrel at the end of 2018. In Canada, differentials between WTI and Western Canadian Select (WCS) widened significantly in 2018 with prices for WCS as low as US\$11 per barrel, largely due to pipeline capacity constraints. For Canadian Operators specifically, low WCS prices have resulted in significant reductions in capital spending for the winter drilling season, as evidenced by the reduced rig count noted above. In the US, Management expects the majority of the incremental US active on-shore rigs to be reactivated in the Permian Basin as it has enormous resource potential, the strongest well economics and significant capital has recently been raised by Operators for the development of the Permian Basin.

While oil prices have improved since the second quarter of 2016, natural gas prices have remained relatively weak since their peak in 2008. Recently there has been some improvement in the US natural gas market with the Nymex Henry Hub spot price averaging US\$3.15 per MMBtu for 2018 and gas storage levels in the US remaining below five-year averages. Canadian hub spot prices have been more challenged with AECO trading between US\$0.58 and US\$1.72 during 2018, and the futures curve for AECO trading below \$2.00 per MMBtu for 2019 and 2020.

Despite the volatility in world crude oil pricing, it is expected that Operators in both the US and the WCSB will continue to direct their capital to resource plays that are typically drilled deeper and horizontally, and have longer life reserves and production. Management believes the increased challenge to find new, substantial oil and natural gas liquids reserves in both the US and the WCSB has led some Operators to focus on more complex and deeper reservoir targets.

Horizontal, longer and deeper wells are faced with a range of drilling, stability, pressure and other issues which generally require a greater volume of drilling fluids, a more sophisticated drilling fluid system and a higher level of technical expertise from drilling fluid personnel. In addition, the complexity associated with horizontal wells also increases the importance of effective drilling fluid systems. Wellbore integrity is increasingly difficult to maintain as operators drill the “elbow” or “build” section of the horizontal leg. Accordingly, horizontal wells generally provide more attractive margins for drilling fluid systems providers as the drilling fluid has to be high-graded and becomes more complex to achieve successful drilling outcomes. The Corporation’s drilling related expertise and solutions are focused primarily at horizontal wells. Management’s experience has been that drilling fluid system profitability increases significantly with the depth, the length of the horizontal section, and complexity of the well drilled.

The success of the Corporation’s drilling fluids business is directly correlated to the strength of the oil and natural gas industry in North America, and in particular, to the level and complexity of drilling activity of Operators in North America. Management believes that volatility in drilling activity can be attributed to a number of key factors, including, but not limited to, hydrocarbon commodity prices, access of Operators to debt and equity capital, availability of appropriately equipped drilling rigs, availability of qualified personnel, expanded use of non-conventional extraction and production techniques, such as SAGD, and activity in new resource plays that are being exploited through the use of multi-stage fracturing techniques applied in horizontal drilling.

#### *Finding and Development Costs*

Management believes the combination of the increased depth, the length of the horizontal section, the complexity of wells being drilled and the challenge of finding and developing oil and natural gas reserves has led to increased finding and development costs. As Operators attempt to control costs in the current low commodity price environment, the use of cost effective oil and natural gas services becomes increasingly important. In particular, the drilling fluid systems, while generally a small proportion of the overall cost of drilling, can significantly reduce costs and improve the Operators economic returns. Effective drilling fluid systems can reduce the time to drill, increase wellbore stability and maximize recovery from the reservoir, which ultimately impacts the economic return of the well. Properly designed drilling fluid systems can also minimize the environmental impact of drilling operations and reduce environmental clean-up costs.

### *Oilsands/Steam Assisted Gravity Drainage*

Steam Assisted Gravity Drainage (**SAGD**) is an extraction process which is used primarily in oilsands development and heavy oil operations and requires specialized drilling fluid solutions. The SAGD process typically involves drilling pairs of horizontal wells into oilsands or heavy oil reservoirs. The upper well injects steam into the deposit in order to heat the bitumen or heavy oil to improve its ability to flow. The oil then drains into the production well and is pumped to the surface. If oilsands development using SAGD as an extraction process grows, SAGD will be a source of increasing revenues for oil and natural gas service companies having expertise in this area. The Corporation currently provides drilling fluid systems to operators drilling wells for SAGD operations, primarily in northeast Alberta, Canada.

### *Seasonality*

Drilling and well completion activity in the WCSB is subject to seasonal fluctuations with peak activity levels often occurring between mid-November to mid-March. The annual WCSB drilling and well completion cycle can generally be separated into four time periods:

1. *Mid-November through mid-March* – winter drilling season; drilling and completion activity is high as this is the period when the majority of drilling activity takes place.
2. *Mid-March through mid-May* – spring break-up; drilling and completion activity is low as the northern drilling locations thaw and southern lands become impractical for travel due to wet road conditions or road bans.
3. *Mid-May through mid-October* – summer and fall drilling season; drilling and completion activity is medium to high in the southern areas that are accessible in the summer.
4. *Mid-October to mid-November* – transitioning to winter drilling season; drilling and completion activity is low to medium as Operators are finishing off their summer and fall drilling programs and preparing for the winter drilling season.

The Corporation's expansion into the US and into the production and specialty chemicals business has helped mitigate some of the historical effects of seasonality on the drilling and completion fluids business as seasonality is not a significant factor to drilling activity in the US. 2012 marked the first year that the majority of the Corporation's revenue came from the US operations. Management anticipates that the US business will continue to be a larger revenue contributor in 2019 than the Canadian business. See "Risk Factors – Seasonality".

### **Industry Factors Impacting the Production and Specialty Chemicals Business**

The Corporation has expanded its chemical consumable offerings into the production and specialty chemicals business through its JACAM, Catalyst, PureChem, StimWrx and Sialco divisions. The Corporation is a supplier of: (i) production and specialty chemicals to Operators and owners of downstream oil and gas infrastructure (**Downstream Operators**); (ii) chemicals and additives to other Suppliers or Operators for use in completion or stimulation operations; and (iii) chemicals and additives to the pipeline and midstream markets.

Overall demand for the Corporation's production and specialty chemicals is generally not as cyclical as the drilling fluids business as production and specialty chemicals are typically sold to Operators, Downstream Operators and other Suppliers to support the continuous production, refining and transport needs of their respective operations.

### *Trends - Production and Specialty Chemicals – Oil and Natural Gas Production*

Production and specialty chemicals are used once a well bore starts to produce in order to maximize production levels and to extend the life and economics of both the wellbore and the related equipment that is required to enable the well to produce. Key products that are sold to the Operator include corrosion inhibitors, demulsifiers, H<sub>2</sub>S scavengers, paraffin control products, surfactants, biocides and scale inhibitors. Production and specialty chemicals are more intensively used in the production of oil or natural gas liquids versus lean or dry natural gas production.

There are a number of trends driving growth in the use of production and specialty chemicals for production applications. The most significant driver of growth is the increasing presence of water in the produced fluids. Water causes numerous complications for Operators including scale, corrosion, bacteria and various other complications all of which require chemical intervention from production stage all the way through to delivery at a refining end-point. Increasing oil production levels have further driven the demand for production and specialty chemicals as, in general, oil wells have significant volumes of associated water and also often have additional challenges such as paraffin that require chemical intervention to treat. With oil production rising in North America, associated water production has increased as well. In addition, generally as oil wells age, the percentage of the produced fluid that is water versus hydrocarbon generally rises often requiring even more chemical treatment.

Furthermore, as the lengths and depths of wells continue to increase through horizontal drilling, the production volume of each well increases, driving demand for more chemicals. Horizontal wells also have more complex production challenges, given their size and structure, and as a result these complex production challenges increase demand for specialty production and specialty chemicals. Secondary (i.e. waterfloods), tertiary (i.e. Alkali Surfactant Polymer flood, CO<sub>2</sub> flooding, etc.) and enhanced recovery techniques (i.e. thermal techniques on heavy oil reservoirs) are also becoming more common, and this trend is resulting in an increased demand for specialty chemicals. Oil wells require more production and specialty chemicals, on average, than natural gas wells, and the North American market is currently developing oil wells at an accelerated rate, further driving demand.

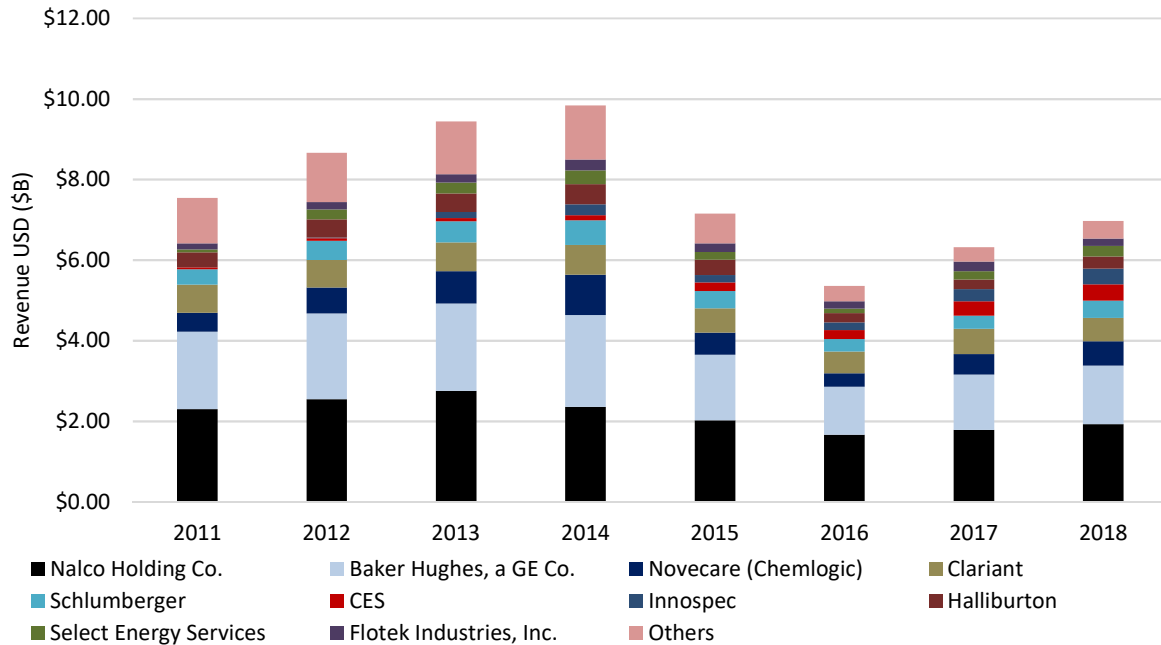
The marked decline in oil prices from 2014 also has the effect of redirecting Operator capital and internal resources away from drilling and completion activities and focusing their attention on production levels from previously drilled wells. This additional attention on production levels typically results in new resources being deployed to operations staff to improve production levels and reduce lifting costs, which often can be achieved with a newly designed production and specialty chemical program or a chemical stimulation treatment for the wellbore. Enacting a new production and specialty chemical program typically can be done in a short time frame and will provide the Operator with critical cash flow during a period of depressed oil prices. Offsetting much of this increased activity and resulting revenue has been intense price discounting on all production and specialty chemicals and an attempt by Operators to optimize the application of chemicals and use less product in the short-term as Operators are increasingly focused on managing near-term cash lifting costs.

The chart on the following page outlines the global market size of the production and specialty chemicals market. Prior to decline in activity due to falling oil prices and weak North American natural gas prices experienced in 2015, this market grew at a cumulative annual growth rate of approximately 12% per year from 2009 to 2014 mainly as a result of the trends noted above. The market is concentrated with Baker Hughes, a GE Company and Ecolab Inc.'s subsidiary Nalco Holdings (Ecolab Inc. ticker: ECL:US, post its acquisition of Champion Technologies in 2013), accounting for approximately 49% of the global market.<sup>2</sup> In North America, CES believes it is in a position to compete with these industry majors as CES believes all of the "other" North American competitors in the marketplace do not have the production and laboratory facilities to be able to design and produce proprietary production and specialty chemicals.

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<sup>2</sup> *Production and specialty chemical market size data provided by Spears & Associates Inc.*

### Global Production and Specialty Chemicals Market Size<sup>(1)</sup>

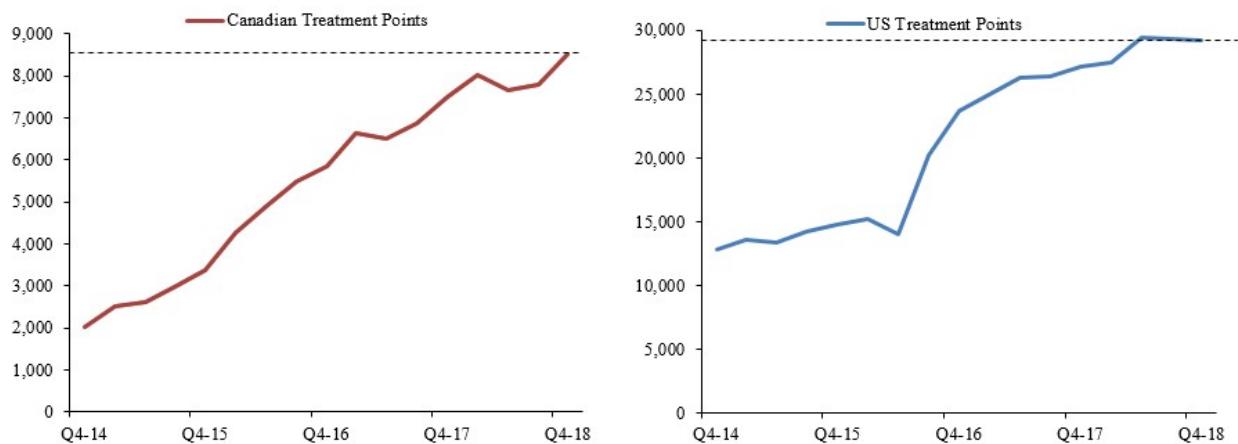


Source: Internally prepared chart which includes revenue for the Corporation's third party competitors provided by Spears & Associates Inc. and internal revenue data for CES.

#### Note:

(1) Others category includes Lubrizol Oilfield Solutions, Secure Energy Services, Brigade Energy Services, and others not defined explicitly by Spears & Associates Inc.

As evidenced by the graphs below, US Treatment Points have historically trended upwards as Catalyst and JACAM have gained market share. Excluding the annual Q2 seasonality effect, Canadian Treatment Points have also trended upwards as PureChem continues to gain market share in the production and specialty chemical market.



Source: CES

### Trends - Production and Specialty Chemicals – Fracturing and Stimulation

Fracturing and stimulation chemicals are pumped down the well, typically with water or oil solutions and proppants, under significant pressure to create cracks (fractures) in the formation. These chemicals are utilized during the completion and production stages of the well to help enhance the well's production.

There are a number of trends driving growth in the use of production and specialty chemicals for fracturing and stimulation applications. The primary driver of growth in these applications has been the shift to multi-stage fracturing of long horizontal wellbores. As Operators increase the intensity and the number of multi-stage fractures they apply in each wellbore, often more chemicals are consumed. Recompletion activity, or well stimulation, focused on maintaining production from previously drilled wells, is also an area of growth as Operators look to optimize production from horizontal wells facing high declines. Given the decline in oil prices from 2014 levels, chemical solutions are often being employed as part of an overall corporate recompletion / optimization strategy.

Continued low oil and natural gas prices, especially in comparison to 2014 levels, has considerably reduced drilling activity in North America. As well, many wells that were drilled in 2015 and 2016 were left as drilled and uncompleted. This trend along with price discounting for frac related chemicals resulted in significantly reduced sales of fracturing and stimulation chemicals and was a main contributor to a shrinking market environment for the broader production and specialty chemicals marketplace.

#### *Trends - Production and Specialty Chemicals – Pipelines and Midstream*

Production and specialty chemicals are used in midstream operations, in refineries and in pipeline segments to aid in hydrocarbon movement and manage hydrocarbon challenges including corrosion, wax build-up, drag reduction, and scaling. Downstream Operators own and manage pipeline systems, processing facilities that extract sulfur and natural gas liquids, storage facilities for end products, and other transportation systems used to move products (rail for example). Key products sold to the Downstream Operator include corrosion inhibitors, demulsifiers, H<sub>2</sub>S scavengers, paraffin control products, biocides and scale inhibitors. Demand for production and specialty chemicals for pipelines and midstream operations is less susceptible to fluctuations and cyclicalities given the infrastructure nature of their application.

Numerous trends are driving growth in the production and specialty chemicals business that address the pipelines and midstream markets. One major trend is that the North American energy infrastructure market is aging and more money and chemicals are required to maintain operations. With the ever-growing corporate, social and environmental focus on infrastructure, the major Downstream Operators are very focused on maintenance in order to avoid spills and the resultant negative publicity. As oil production on the continent continues to increase and plans advance for the export of LNG, significant new infrastructure, requiring chemicals, will be required. Infrastructure is also increasingly being used for oil and other liquids products that are corrosive and cause waxing issues, both of which require the use of specialty chemicals.

## CAPITAL STRUCTURE

### Common Shares

CES is authorized to issue an unlimited number of Common Shares. At December 31, 2018, there were 265,886,609 Common Shares outstanding.

The following table summarizes the trading activity for our Common Shares in 2018. Our Common Shares trade on the TSX under the symbol CEU and are quoted on the OTC market in the US under the symbol CESDF.

2018	TSX (CEU)			OTC (CESDF)		
	High (\$)	Low (\$)	Volume	High (\$US)	Low (\$US)	Volume
January	6.86	5.89	14,809,935	5.42	4.85	66,943
February	6.01	5.16	11,049,750	4.83	4.14	79,738
March	6.05	5.32	10,982,694	4.66	4.15	329,765
April	6.55	5.55	10,051,601	5.10	4.36	106,995
May	6.73	5.13	23,310,297	5.16	3.97	135,468
June	5.33	4.47	26,967,490	4.09	3.25	412,171
July	4.85	4.39	13,466,286	3.70	3.33	482,486
August	5.13	4.26	11,562,449	3.95	3.30	380,211
September	4.92	4.09	13,055,331	3.68	3.20	278,202
October	4.40	3.36	16,319,639	3.30	2.60	123,620
November	3.67	2.91	16,002,544	2.69	2.19	195,577
December	3.40	2.89	11,267,410	2.48	2.15	970,711

### Preferred Shares

CES is authorized to issue an unlimited number of preferred shares (**Preferred Shares**), issuable in series. The Preferred Shares are issuable in series and each class of Preferred Shares have such rights, restrictions, conditions and limitations as the Board of Directors may from time to time determine. The holders of Preferred Shares are entitled, in priority to holders of Common Shares, to be paid ratably with holders of each other series of Common Shares the amount of accumulated dividends, if any, specified to be payable preferentially to the holders of such series and upon liquidation, dissolution or winding up of CES, to be paid ratably with holders of each other series of Preferred Shares the amount, if any, specified as being payable preferentially to holders of such series. As at the date hereof, there were nil Preferred Shares outstanding.

### Senior Notes

On October 20, 2017, the Corporation successfully completed the private placement of \$300.0 million aggregate principal amount of 6.375% Senior Notes due October 21, 2024. The Corporation used the net proceeds from the issuance of the 6.375% Senior Notes, along with amounts available under the Senior Facility, to repay its existing \$300.0 million of 7.375% Senior Notes. The Redemption Date was November 18, 2017 and the Redemption Price totaling an aggregate of \$313.0 million, comprised of principal (\$300.0 million), accrued and unpaid interest (\$1.9 million), and applicable redemption premium (\$11.1 million), was paid on the Redemption Date.

The 6.375% Senior Notes contain certain early redemption options, whereby the Corporation can choose to redeem all of or a portion of the notes at various redemption prices, which include the principal amount plus any accrued and unpaid interest to the applicable redemption date. The Corporation has the ability to redeem all of its outstanding 6.375% Senior Notes on or after October 21, 2020. Interest is payable on the 6.375% Senior Notes semi-annually on April 21 and October 21. The 6.375% Senior Notes are unsecured, ranking equal in right of payment to all existing and future unsecured indebtedness, and have been guaranteed by the Corporation's current and future subsidiaries. Certain restrictions exist relating to items such as making restricted payments and incurring additional debt.



The refinancing of the existing 7.375% Senior Notes will decrease CES' annual interest costs, extend its debt maturity profile, and provide additional financing flexibility.

The 6.375% Senior Notes were issued pursuant to the terms of a trust indenture (**Senior Notes Indenture**) dated October 20, 2017 among Computershare Trust Company of Canada, as trustee, CES and each material subsidiary of CES as a guarantor of CES' obligations thereunder.

The Senior Notes Indenture contains the terms and provisions governing the Senior Notes, including covenants respecting limitations on restricted payments, limitations on additional indebtedness, limitations on liens, limitations on transactions with affiliates, limitations on asset sales, limitations on conduct of business, provision of financial information, limitations on amalgamations, mergers and consolidations and designation of restricted and unrestricted subsidiaries. The Senior Notes Indenture also provides that, in the event of a change of control of CES, each holder of 6.375% Senior Notes will have the right to require that CES purchase all or a portion of such holder's notes at a purchase price in cash equal to 101% of the principal amount of such notes plus accrued and unpaid interest.

As at December 31, 2018, CES was in compliance with terms and covenants of the Senior Notes Indenture.

A complete copy of the Senior Notes Indenture may be found under the Corporation's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### **Senior Facility**

On November 8, 2018, the Company amended its Senior Facility to exercise \$55.0 million of available accordion capacity, increasing the maximum amount available on the Canadian facility from \$125.0 million to \$180.0 million. All other terms and conditions of the Senior Facility remain consistent with those of the previous senior facility, as amended.

Amounts drawn on the amended Senior Facility incur interest at the bank's prime rate or US base rate plus an applicable pricing margin ranging from 0.45% to 1.00% or the Canadian Bankers' Acceptance rate or the LIBOR rate plus an applicable pricing margin ranging from 1.45% to 2.00%. The Senior Facility has a standby fee ranging from 0.29% to 0.40%. The applicable pricing margins are based on a sliding scale of Net Senior Debt to EBITDA ratio. The obligations and indebtedness under the Senior Facility are secured by all of the assets of CES and its subsidiaries.

Under the Senior Facility, CES is subject to the following financial covenants:

- The ratio of Net Senior Debt to trailing EBITDA must not exceed 2.50:1.00 calculated on a rolling four-quarter basis; and
- The ratio of EBITDA to interest expense must be greater than 2.50:1.00, calculated on a rolling four-quarter basis.

The previously restrictive covenant of Total Net Funded Debt to EBITDA has been permanently eliminated.

Additionally, at the option of the Corporation and subject to certain conditions, the Minimum EBITDA to Interest Expense threshold may be reduced to 1.50 for a period not in excess of three consecutive quarters, returning to the requisite 2.50 in the fourth quarter thereafter. This optional interest coverage step-down may only be utilized once prior to September 28, 2020.

The relevant definitions of key ratio terms as set forth in the amended Senior Facility agreement are as follows:

- Net Senior Debt is defined as Total Net Funded Debt, as defined below, minus the principal amount owing on the Corporation's 6.375% Senior Notes, any permitted vendor take-back debt, and all cash and cash equivalents.
- EBITDA is defined as net income before interest, taxes, depreciation and amortization, gains and losses on disposal of assets, amortization of capitalized deferred financing costs, goodwill impairment, unrealized foreign exchange gains and losses, unrealized derivative gains and losses,

stock-based compensation, and other gains and losses not considered reflective of underlying operations. EBITDA attributable to businesses acquired in the period are permitted to be added to EBITDA.

- Total Net Funded Debt is defined as all funded obligations, liabilities, and indebtedness excluding deferred income tax liabilities and deferred tax credits, office leases, other leases characterized as operating leases, and accrued interest not yet due and payable. Total Net Funded Debt is also reduced by any unencumbered cash and securities on deposit or invested with any of the members of the Corporation's banking syndicate.

The above noted definitions are not recognized under IFRS and are provided strictly for the purposes of the Corporation's Senior Facility covenant calculations.

As at December 31, 2018, CES was in compliance with terms and covenants of the Senior Facility.

A complete copy of the Senior Facility may be found under the Corporation's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### **Shareholder Rights Plan**

CES has adopted a shareholder rights plan (**Shareholder Rights Plan**) with an effective date of June 16, 2016. The Shareholder Rights Plan was approved by the Shareholders at the annual general and special meeting of the Shareholders held on June 16, 2016. The Shareholder Rights Plan must be re-approved by the Shareholders at every third annual meeting of the Shareholders following the effective date.

The objectives of the Shareholder Rights Plan are to ensure, to the extent possible, that all Shareholders are treated equally and fairly in connection with any take-over bid or similar proposal to acquire Common Shares of the Corporation. Take-over bids may be structured in such a way as to be coercive or discriminatory in effect, or may be initiated at a time when it would be difficult for the Board of Directors of CES to prepare an adequate response. Such offers may result in our shareholders receiving unequal or unfair treatment, or not realizing the full or maximum value of their investment in the Corporation. The Shareholder Rights Plan, under which Computershare Trust Company of Canada acts as rights agent, generally provides that, following the acquisition by any person or entity of 20% or more of the Corporation's issued and outstanding Common Shares (except pursuant to certain permitted or excepted transactions) and upon the occurrence of certain other events, each holder of Common Shares, other than such acquiring person or entity, shall be entitled to acquire Common Shares at a discounted price. A completed copy of the Shareholder Rights Plan was filed on May 19, 2016 as an "Other Securityholders Document" under the Corporation's SEDAR profile at [www.sedar.com](http://www.sedar.com).

## **DIVIDEND HISTORY**

The Board of Directors has the discretion to determine if and when dividends are declared and the amount that is paid.

Through the course of the year, monthly dividends declared as a proportion of net income and distributable earnings will vary significantly based on the Corporation's financial performance. During periods of relatively strong financial performance, typically associated with higher activity levels, dividends declared as a percentage of net income and cash flow from operations will decrease, and likewise, during periods of relatively weaker financial performance dividends declared as a percentage of net income and cash flow from operations will increase. Dividends are funded by cash provided by operating activities. During periods of insufficient cash availability, due to relatively weaker financial performance or changes in the level of working capital, dividends may be funded by available cash or through CES' credit facilities.

Since the Corporation's initial public offering in 2006, the Corporation has paid over \$317 million in distributions and dividends to shareholders. Management and the Board of Directors review the appropriateness of dividends on a monthly basis taking into account applicable solvency requirements under corporate legislation; current and anticipated industry conditions; and, particularly, growth opportunities requiring Expansion Capital, and management's forecast of Distributable Earnings and the Payout Ratio. Although, at this time, despite the challenging oil price environment which is negatively impacting activity levels and revenue in the near-term, CES intends to continue to pay cash dividends to shareholders, but these dividends are not guaranteed. In addition, future expansion, investments, acquisitions, or future share buy-back programs may be funded internally by allocating a portion of cash flow in conjunction with, or in replacement of, external sources of capital such as debt or the issuance of equity. To the extent that CES deploys cash flow to finance these activities, the amount of cash dividends to shareholders may be affected. Alternatively, to the extent that CES' sustainable operating after tax cash flow improves, the amount of cash dividends to shareholders may be increased. Over the long-term, CES' business model has historically shown it can support a proportion of cash flow from operations being paid out as a dividend as the long-term Expansion Capital investments and Maintenance Capital expenditures required for CES to execute its business plan have not been significant in relation to the total revenue and EBITDAC generated.

The Corporation currently intends to designate all dividends to be "eligible dividends" for the purposes of the Tax Act such that Shareholders who are individuals will benefit from the enhanced gross-up and dividend tax credit mechanism under the Tax Act.

On June 20, 2013, the Shareholders approved a stock settled director fee program. The stock settled director fee program provides directors of the Corporation the opportunity to receive their director fees in the form of Common Shares. The number of Common Shares issued to settle the Corporation's obligations under the stock settled director fee program is calculated using the five day volume weighted average share price prior to the payment date of the director fee.

The following tables set forth the dividends declared by CES on its Common Shares during the years ended December 31, 2016, December 31, 2017, and December 31, 2018:

<b>Dividend Record Date</b>	<b>2016 Monthly Common Share Dividend</b>	<b>Dividend Record Date</b>	<b>2017 Monthly Common Share Dividend</b>	<b>Dividend Record Date</b>	<b>2018 Monthly Common Share Dividend</b>
January 29, 2016	\$0.0180	January 31, 2017	\$0.0025	January 31, 2018	\$0.0025
February 29, 2016	\$0.0025	February 28, 2017	\$0.0025	February 28, 2018	\$0.0025
March 31, 2016	\$0.0025	March 30, 2017	\$0.0025	March 29, 2018	\$0.0025
April 29, 2016	\$0.0025	April 28, 2017	\$0.0025	April 30, 2018	\$0.0025
May 31, 2016	\$0.0025	May 31, 2017	\$0.0025	May 31, 2018	\$0.0025
June 30, 2016	\$0.0025	June 30, 2017	\$0.0025	June 29, 2018	\$0.0025
July 29, 2016	\$0.0025	July 31, 2017	\$0.0025	July 31, 2018	\$0.0025
August 31, 2016	\$0.0025	August 31, 2017	\$0.0025	August 31, 2018	\$0.0025
September 30, 2016	\$0.0025	September 29, 2017	\$0.0025	September 28, 2018	\$0.0025
October 31, 2016	\$0.0025	October 31, 2017	\$0.0025	October 31, 2018	\$0.0025
November 30, 2016	\$0.0025	November 30, 2017	\$0.0025	November 30, 2018	\$0.0025
December 30, 2016	\$0.0025	December 29, 2017	\$0.0025	December 31, 2018	\$0.0025
<b>TOTAL</b>	<b>\$0.0455</b>	<b>TOTAL</b>	<b>\$0.0300</b>	<b>TOTAL</b>	<b>\$0.0475</b>

### CREDIT RATINGS

Credit ratings are intended to provide investors with an independent measure of credit quality of any issue of securities. The credit ratings assigned by the rating agencies are not recommendations to purchase, hold or sell the securities, as such ratings do not comment as to market price or suitability for a particular investor. Any rating may not remain in effect for any given period of time or may be revised or withdrawn entirely by a rating agency in the future if in its judgment circumstances so warrant. A reduction in the Corporation's current corporate credit rating and / or on its senior unsecured notes by its rating agencies or a negative change in the Corporation's ratings outlook could adversely affect the Corporation's cost of financing and its access to sources of liquidity and capital. See "Risk Factors – Risks Relating to Financing, Debt, Access to Capital, Liquidity and Capital Markets – Access to Current and Additional Financing".

The following table outlines the most recent credit ratings received by the Corporation:

	<b>Standard &amp; Poor's Ratings Services (S&amp;P)<sup>(1)</sup></b>	<b>DBRS Limited (DBRS)<sup>(2)</sup></b>
Corporate Credit Rating	B	B (High)
Long-Term Issue Credit Rating (CES Energy Solutions Corp. – 6.375% Senior Notes)	B	B (High)
Outlook/Trend	Stable	Stable

Notes:

- (1) Corporate Credit rating confirmed as of March 10, 2017, 6.375% Senior Notes credit rating confirmed as of October 17, 2017
- (2) Credit rating last confirmed as of December 6, 2018

Both S&P's and DBRS' corporate credit ratings are forward-looking opinions about an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. The corporate credit rating is an opinion of the ability of the issuer to honour long-term senior unsecured financial obligations and contracts. Long-term issue credit ratings are intended to provide an independent measure of the credit quality of the obligor's long-term debt.

S&P's corporate credit ratings and long-term issue credit ratings are on a rating scale that ranges from AAA to D, which represents the range from highest to lowest quality of such obligors or obligations rated. A credit rating of B by S&P is within the sixth highest of ten categories and indicates that the obligor/obligation is more vulnerable than the obligors/obligations in higher-rated categories, but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments. The ratings from AA to CCC may be modified by the addition of a plus (+) or minus (-) sign to show the relative standing within the major rating categories.

The outlook assesses the potential direction of a long-term credit rating over the intermediate term. In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions. The "Stable" rating outlook means that the rating is not likely to change.

DBRS rates long-term debt instruments by rating categories ranging from "AAA" to "C", which represents the range from highest to lowest quality of such securities rated. All rating categories other than AAA and C also contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the rating is in the middle of the category. A rating of B (high) is within the sixth highest of nine categories and is characterized by DBRS to be highly speculative and there is a high level of uncertainty as to the capacity of the obligor to meet financial obligations.

The rating trend indicates the direction in which DBRS considers the rating is headed should present tendencies continue, or in some cases, unless challenges are addressed. In general, the DBRS view is based primarily on an evaluation of the issuing entity, but may also include consideration of the outlook for the industry or industries in which the issuing entity operates. A "Negative" trend is not an indication that a rating change is imminent. Rather, a Positive or Negative Trend represents an indication that there is a greater likelihood that the rating could change in the future than would be the case if a Stable trend was assigned to the security.

The Corporation has paid each of S&P and DBRS their customary fees in connection with the provision of the above credit ratings. CES has not made any payments to S&P and DBRS unrelated to the provision of such ratings.

## ESCROWED SECURITIES

The following table sets forth the class, percentage and number of securities of CES that are subject to escrow or contractual restrictions on transfer as at December 31, 2018.

<u>Designation of Class</u>	<u>Number of securities held in escrow or that are subject to a contractual restriction on transfer</u>	<u>Percentage of Class<sup>(3)</sup></u>
Common Shares	2,386,751 Common Shares <sup>(1)</sup>	0.90%
Common Shares	1,189,165 Common Shares <sup>(2)</sup>	0.45%

**Notes:**

- (1) The 2,386,751 Common Shares are held by the escrow agent in accordance with the terms of the Catalyst escrow agreement pursuant to the Catalyst acquisition. The Catalyst escrow agreement provides that certificates representing 7,160,253 Common Shares held in escrow pursuant to the Catalyst escrow agreement will be released to the former owners of the Catalyst business as to 1/3 on August 1, 2017, 1/3 on August 1, 2018 and 1/3 on August 1, 2019, respectively, subject in each case to certain industry standard escrow release conditions relating to a “change of control” or take-over bid in respect of the Corporation.
- (2) The 1,189,165 Common Shares are held by the escrow agent in accordance with the terms of the StimWrx escrow agreement pursuant to the StimWrx acquisition. The StimWrx escrow agreement provides that certificates representing 1,783,745 Common Shares held in escrow pursuant to the StimWrx escrow agreement will be released to the former owners of the StimWrx business as to 1/3 on January 5, 2018, 1/3 on January 5, 2019 and 1/3 on January 5, 2020, respectively, subject in each case to certain industry standard escrow release conditions relating to a “change of control” or take-over bid in respect of the Corporation.
- (3) Calculated using the number of Common Shares outstanding as at December 31, 2018 of 265,886,609.

## DIRECTORS AND OFFICERS

### Directors and Officers

The following sets out the respective names, municipalities of residence, positions with CES, including its material subsidiaries, and principal occupations of the directors and certain officers of CES and its material subsidiaries for the prior five-year period as at December 31, 2018.

Name and Municipality of Residence	Position with CES	Director or Officer of CES <sup>(1)</sup> Since	Occupation during Last Five Years <sup>(1)</sup>
KYLE D. KITAGAWA, CPA <sup>(2)(3)(5)</sup> ..... Calgary, Alberta, Canada	Director and Chairman of the Board of Directors	December 9, 2005	Independent Businessman and corporate director since March, 2003.
D. MICHAEL G. STEWART <sup>(3)(5)</sup> ..... Calgary, Alberta, Canada	Director	January 5, 2006	Corporate director.
JOHN M. HOOKS <sup>(2)(5)</sup> ..... Calgary, Alberta, Canada	Director	December 9, 2005	President, Chief Executive Officer and a Director of PHX Energy Services Corp.
PHILIP J. SCHERMAN, FCPA, FCA, IC.D <sup>(3)</sup> ..... Calgary, Alberta, Canada	Director	May 14, 2015	Independent Businessman.
RODNEY L. CARPENTER <sup>(4)</sup> ..... Calgary, Alberta, Canada	Director	December 9, 2005	Independent Businessman.
BURTON J. AHRENS <sup>(3)(5)</sup> ..... New York, NY, USA	Director	September 13, 2013	President and Chief Executive Officer of Edgehill Corporation (a diversified venture capital and money management company) since 1992 and former Co-Manager of USIR Capital LLC.
STELLA COSBY <sup>(2)(4)(5)</sup> ..... Calgary, Alberta, Canada	Director	September 14, 2017	Vice President, People of Cervus Equipment Corporation and prior thereto a Senior Director with Agrium Inc.
SPENCER D. ARMOUR, III ..... Midland, Texas, United States	Director	December 12, 2018	Chairman of the Board of Directors of ProPetro Holding Corp, Board Member of Viper Energy Partners, LP and President of PT Petroleum, LLC

<b>Name and Municipality of Residence</b>	<b>Position with CES</b>	<b>Director or Officer of CES<sup>(1)</sup> Since</b>	<b>Occupation during Last Five Years<sup>(1)</sup></b>
THOMAS J. SIMONS ..... Calgary, Alberta, Canada	Director and President and Chief Executive Officer	December 9, 2005	President and Chief Executive Officer since March, 2006 and prior thereto Vice President and principal of Impact Fluid Systems Inc.
ANTHONY AULICINO ..... Calgary, Alberta, Canada	Chief Financial Officer	October 1, 2018	Chief Financial Officer since October 1, 2018 and prior thereto, Managing Director for Global Investment Banking – Energy at Scotiabank Global Banking and Markets.
KENNETH E. ZINGER ..... Calgary, Alberta, Canada	Chief Operating Officer and President, Canadian Drilling Fluids	December 9, 2005	President, Canadian Drilling Fluids since August 9, 2018 and Chief Operating Officer since January, 2006 and prior thereto President of Impact Fluid Systems Inc.
JASON D. WAUGH ..... Calgary, Alberta, Canada	President, Canadian Production Chemicals	March 7, 2013	President, Canadian Production Chemicals CES since August 9, 2018. Prior thereto Vice-President of the CES from March 2013 to March 7, 2013.
KENNETH D. ZANDEE ..... Calgary, Alberta, Canada	Vice President, Sales and Marketing	December 9, 2005	Vice President, Sales and Marketing since March, 2006 and prior thereto, Vice President and Sales Manager of Canadian Fluid Systems Ltd.
RICHARD BAXTER ..... Houston, Texas, USA	President, US Drilling Fluids	January 1, 2014	President, US Drilling Fluids since August 9, 2018. Prior thereto, President of AES Drilling Fluids, LLC since January 1, 2014 and prior thereto Product and Technology Manager at AES Drilling Fluids, LLC
VERN DISNEY ..... Midland, Texas, USA	President, US Production Chemicals	August 1, 2016	President, US Production Chemicals since August 9, 2018. Prior thereto, Chief Operating Officer of Catalyst Oilfield Services 2016, LLC since August 1, 2016 and JACAM Chemical Company 2013, LLC (and its subsidiaries) since June 26, 2014. Prior thereto, Chief Executive Officer of Catalyst Oilfield Services, LLC.



<b>Name and Municipality of Residence</b>	<b>Position with CES</b>	<b>Director or Officer of CES<sup>(1)</sup> Since</b>	<b>Occupation during Last Five Years<sup>(1)</sup></b>
JAMES M. PASIEKA ..... Calgary, Alberta, Canada	Corporate Secretary	January 20, 2014	Partner of the national law firm McCarthy Tetrault LLP since September 2013. Prior thereto, partner of the national law firm Heenan Blaikie LLP from 2001 to August 2013.

**Notes:**

- (1) Certain Directors and Officers of CES listed above were originally employed with Canadian Energy Services Inc., the general partner of Canadian Energy Services L.P. prior to its conversion to a publically-traded corporation on January 1, 2010.
- (2) Member of the Compensation Committee. Mr. Hooks is the Chair of the Compensation Committee
- (3) Member of the Audit Committee. Mr. Scherman is the Chair of the Audit Committee.
- (4) Member of the Health, Safety & Environment Committee. Mr. Carpenter is the Chair of the Health, Safety & Environment Committee
- (5) Member of the Corporate Governance and Nominating Committee. Mr. Stewart is the Chair of the Corporate Governance and Nominating Committee.

**Share Ownership**

As a group, the directors and executive officers of CES beneficially own, control or direct, directly or indirectly, 17,490,502 Common Shares, representing approximately 6.6% of the outstanding Common Shares as at December 31, 2018.

**Corporate Cease Trade Orders or Bankruptcies**

Except as set forth below, no current director or officer of the Corporation and no securityholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation is, or within 10 years prior to the date of this Annual Information Form, has been, a director or officer of any other issuer that, while such person was acting in that capacity: (i) was the subject of a cease trade or similar order, or an order that denied the other issuer access to any statutory exemption for a period of more than 30 consecutive days; or (ii) became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

Mr. Scherman was a director of Parallel Energy Trust (**Parallel**), an oil and gas exploration and production income trust. Parallel filed for bankruptcy protection on March 3, 2016 which proceedings have subsequently been concluded. In 2015, the securities regulators in the Provinces of Alberta, British Columbia, Saskatchewan, Manitoba, Ontario, Quebec, and New Brunswick issued cease trade orders in relation to the securities of Parallel for the failure of Parallel to file financial statements and related management's discussion and analysis, which cease trade orders continue to be in effect. Parallel's trust units and debentures were delisted from the TSX on December 11, 2015.

**Personal Bankruptcies**

No director or officer of the Corporation (or personal holding company of any such person) and no securityholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation has, during the 10 years prior to the date hereof, become bankrupt or, made a proposal under any legislation relating to bankruptcy or insolvency or has been subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold his assets.

**Penalties and Sanctions**

No director or officer of the Corporation (or personal holding company of any such person) and no securityholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation has been subject to any penalties or sanctions imposed by a court relating to Canadian securities legislation or by a Canadian securities regulatory authority, or has entered into a settlement agreement with a Canadian securities regulatory authority or been subject to any other material penalties or sanctions imposed by a court or regulatory body.

## **Conflicts of Interest**

Certain directors of CES are associated with other companies or entities, including entities engaged in the oil and natural gas industry and the oilfield services business, which may give rise to conflicts of interest. In accordance with the CBCA, directors who have a material interest in any person who is a party to a material contract or proposed material contract with CES are required, subject to certain exceptions, to disclose that interest and abstain from voting on any resolution to approve that contract. In addition, the directors are required to act honestly and in good faith with a view to the best interests of CES. See “Risk Factors – Other Risk Factors – Conflicts of Interest”.

## **RISK FACTORS**

The following information is a summary of certain risk factors and is qualified in its entirety by reference to, and must be read in conjunction with, the detailed information appearing elsewhere in this AIF and the Corporation’s other public disclosure documents, including the managements’ discussion and analysis of the financial condition and results of operations for the Corporation for the period ended December 31, 2018. These risks and uncertainties are not the only ones facing the Corporation. Additional risks and uncertainties not currently known to the Corporation, or that the Corporation currently considers remote or immaterial, may also impair the operations of the Corporation and its subsidiaries. If any such risks actually occur, the business, financial condition, or liquidity and results of operations of the Corporation could be materially adversely affected.

### **Risks Relating to the Business of the Corporation**

#### *Volatility of Industry Activity and Oil and Natural Gas Prices*

The success of the Corporation’s business depends on the demand, pricing and terms for oilfield services, including drilling fluid systems, production and specialty chemicals, trucking and transportation services, and environmental waste management. These in turn are dependent upon the level of industry activity for oil and natural gas exploration and development in the markets in which CES operates, including the WCSB and the US.

The level of oil and natural gas industry activity is influenced by numerous factors over which the Corporation has no control. The primary such factor is prevailing oil and natural gas commodity prices. Other factors include expectations about future oil and natural gas prices; levels of consumer demand; the cost of exploring for, producing and delivering oil and natural gas; the expected rates of declining current production; the discovery rates of new oil and natural gas reserves; prevailing royalty rates, fiscal regimes, and regulatory requirements; available pipeline and other oil and natural gas transportation and processing capacity; prevailing weather conditions; global political, military, regulatory and economic conditions; availability of capital for oil and gas exploration and capital budgets; and the ability of oil and natural gas entities to raise equity capital or debt financing.

From mid-2014 to early 2016, oil and natural gas prices fell dramatically, resulting in a significant decrease in the level of industry activity in the WCSB and the US. While oil and natural gas prices have steadily improved from the first quarter of 2016 and throughout most of 2018, a retracement of oil and natural gas prices to levels seen in early 2016 would likely affect oil and natural gas production levels and therefore reduce the demand for drilling and oilfield services by operators which could have a material adverse effect on CES’ business, financial condition, results of operations and cash flows. In addition, in Canada many operators in the WCSB have been challenged by additional crude oil pricing differentials versus world benchmarks such as Brent and WTI. Furthermore, there is ongoing uncertainty around the ability for WCSB producers to reach markets given the status of several proposed pipeline projects, the potential for a change to US trade policies, tax reform, and potential changes to the crude by rail industry in the face of several derailments. A continued decline in the Canadian market could result in adverse changes to the accounting estimates and judgements made with respect to the Company’s assessment of goodwill impairment on its Canadian cost generating units. These additional risks in Canada could adversely affect CES’ Canadian business.

#### *Reliance on Key Personnel*

The successful operation of the Corporation’s business depends upon the relationships, experience, abilities, expertise, judgment, discretion, integrity and good faith of the Corporation’s executive officers, general managers, employees

and consultants. In addition, the ability of the Corporation to expand its services and product offerings will depend upon the ability to attract qualified personnel as needed. The demand for skilled oilfield employees including drilling fluid technicians, chemists, production and specialty chemical experts is high, and the supply is limited. The inability to retain or recruit skilled personnel could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

#### *Reliance on Significant Clients*

Certain of the Corporation's clients account for a potentially significant portion of the Corporation's revenues and income. The top five customers of the Corporation accounted for approximately 25% of its revenue for the year ended December 31, 2018, with one large Operator accounting for approximately 11%. There is no guarantee that the Corporation could find new clients to replace the loss of any of its significant clients. A loss of any one or more of these significant clients could have a significant adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

#### *Competition*

The oilfield service industry is highly competitive and the Corporation competes with a substantial number of companies that have significant technical and financial resources. The Corporation's ability to generate revenue and earnings depends primarily upon its ability to provide drilling fluid systems and production and specialty chemical solutions that meet the specific needs of its clients and its ability to win bids in competitive bidding processes and to perform awarded projects within estimated times and costs. There can be no assurance that the Corporation's competitors will not substantially increase the resources devoted to the development and marketing of products and services that compete with those of the Corporation or substantially reduce the price of its products and services that compete with those of the Corporation. There is also no assurance that new or existing competitors will not enter the various markets in which the Corporation is active. In addition, reduced levels of activity in the oil and natural gas industry can intensify competition and may result in lower revenue to the Corporation.

Given the generally reduced levels of activity in the oil and natural gas industry, future and anticipated consolidation of competitors that provide drilling fluid systems and production and specialty chemical solutions is likely. Industry consolidation, should it happen, could result in additional competition in the competitive bidding processes, increased pressure on margins, and may result in lower revenue to the Corporation.

The principal competitive factors in the oilfield chemistry market include the reliability and performance of the recommended and applied chemistries and programs, service quality delivered, technical knowledge and experience, the price of materials, capabilities of research and development teams, environmental and safety certification and price. Reliability and performance of a drilling fluids program is measured by the program's ability to enhance and improve production and to lower overall drilling time and costs.

#### *Proprietary Technology*

The success and ability of the Corporation to compete depends in part on the proprietary technologies of the Corporation, and the ability of the Corporation to prevent others from copying such proprietary technologies. The Corporation currently relies on industry confidentiality practices, in some cases by a letter agreement, brand recognition by Operators, the discreet manufacture of many of its products internally, and in some cases patents (or patents pending) to protect its proprietary technology. The Corporation may have to engage in litigation in order to protect its intellectual property rights, including patents or patents pending, or to determine the validity or scope of the proprietary rights of itself or others. This kind of litigation can be time-consuming and expensive, regardless of whether or not the Corporation is successful.

Despite the efforts of the Corporation, the intellectual property rights of the Corporation may be invalidated, circumvented, challenged, infringed or required to be licensed to others. It cannot be assured that any steps the Corporation may take to protect its intellectual property rights and other rights to such proprietary technologies that are central to the Corporation's operations will prevent misappropriation or infringement. Such misappropriation or

infringement may directly impact margins and profitability of the infringed products as well as the Corporation's ability to compete with such third party infringers.

#### *Risk of Third-Party Claims for Infringement*

A third party may claim that the Corporation has infringed such third party's intellectual property rights or may challenge the right of the Corporation in their intellectual property. In such event, the Corporation will undertake a review to determine what, if any, actions the Corporation should take with respect to such claim. Any claim, whether or not with merit, could be time consuming to evaluate, result in costly litigation, cause delays in the operations of the Corporation or require the Corporation to enter into licensing agreements that may require the payment of a license fee or royalties to the owner of the intellectual property. Such royalty or licensing agreements, if required, may not be available on terms acceptable to the Corporation.

#### *Potential Replacement or Reduced Use of Products and Services*

Certain of the Corporation's drilling fluid systems and products or production chemical solutions may become obsolete or experience a decrease in demand through the introduction of competing products that are lower in cost, exhibit enhanced performance characteristics or are determined by the market to be more preferable for environmental or other reasons. The Corporation strives to keep current with the changing market for drilling and completion fluids, production and specialty chemical solutions and technological and regulatory changes. If the Corporation fails to do so, this could result in lower revenue to the Corporation.

#### *Performance of Obligations*

The Corporation's success depends in large part on whether it fulfills its obligations with clients and maintains client satisfaction. If the Corporation fails to satisfactorily perform its obligations, or makes professional errors in the services that it provides, its clients could terminate contracts, including master service agreements, exposing the Corporation to loss of its professional reputation, the loss of a project and risk of loss of revenue and reduced profits.

#### *Information Security and Disaster Recovery*

The efficient operation of the Corporation's business is dependent on computer hardware and software systems. Information systems are vulnerable to security breaches by computer hackers and cyberterrorists. In addition, an unforeseen natural or manmade disaster could result in key information technology systems being compromised, damaged or destroyed.

CES has implemented security measures to maintain confidential and proprietary information stored on the Corporation's information systems. However, these measures and technology may not be adequate due to the increasing volume and sophistication of these cyber attacks. The Corporation has also implemented backup and redundancy measures with respect to certain information technology systems. However, there is a risk that these measures may not adequately prevent data loss as a result of a security breach or disaster. This could result in business disruption, decreased performance, or increased costs, and could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

#### *Agreements and Contracts*

The business operations of the Corporation may depend on verbal, performance-based agreements with its client base that are cancellable at any time by either the Corporation or its clients. There can be no assurance that the Corporation's relationship with its clients will continue. A significant reduction or total loss of the business from these clients, if not offset by sales to new or existing clients, could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

### *Vulnerability to Market Changes*

Fixed costs, including leases, labour costs, interest on 6.375% Senior Notes, and depreciation, account for a significant portion of the Corporation's costs and expenses. As a result, reduced productivity resulting from reduced demand, equipment failure, weather or other factors could have a material adverse effect on the Corporation's financial condition, results of operations and cash flows.

### *Seasonality*

Seasonality is not as much of a factor in the US as drilling activity for the most part can continue throughout the calendar year. However, the level of activity in the oilfield services industry within the WCSB is influenced by seasonal weather patterns. The spring thaw during the second quarter leaves many secondary roads temporarily incapable of supporting the weight of heavy equipment, which results in severe restrictions in the level of oilfield services that may be provided. In addition, municipalities and transportation departments enforce road bans during such times that restrict the movement of heavy equipment. The duration of this period may have a direct impact on the level of the Corporation's activities. The spring thaw typically occurs earlier in the year in southern Alberta and Saskatchewan than it does in northern Alberta and British Columbia. The timing and duration of spring thaw is dependent on weather patterns but generally occurs from mid-March to mid-May. In addition, during excessively rainy periods, equipment moves may be delayed, thereby adversely affecting the Corporation's equipment utilization rates and revenues.

There is greater demand within the WCSB for oilfield services, including the drilling fluid systems provided by the Corporation, in the winter season when the occurrence of freezing permits the movement and operation of heavy equipment. Consequently, oilfield service activities tend to increase in the fall and peak in the winter months of November through March. However, if an unseasonably warm winter prevents sufficient freezing, the Corporation may not be able to access well sites, and its operating results and financial condition may therefore be adversely affected. The demand for oilfield services, including the demand for all oilfield chemistries, may also be affected by the severity of the Canadian winters. The volatility in the weather and temperature can therefore create unpredictability in activity, which can have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

### *Government Regulation*

The operations of the Corporation are subject to a variety of federal, provincial and local laws of Canada and federal, state and municipal laws of the US including regulations, and guidelines, including laws and regulations relating to securities health and safety, the conduct of operations, the protection of the environment, the emission of greenhouse gases, the operation of equipment used in its operations, the disposal of fluids and other oilfield chemistries used in its drilling fluid systems and the manufacture, management, transportation, storage and disposal of certain materials and equipment used in the Corporation's operations. The Corporation invests financial and managerial resources to ensure such compliance and will continue to do so in the future. Although such expenditures have not historically been material to the Corporation, such laws or regulations are subject to change. Accordingly, it is impossible for the Corporation to predict the cost or impact of such laws and regulations on its future operations. It is not expected that any changes to these laws, regulations or guidelines would affect the operations of the Corporation in a manner materially different than they would affect other oilfield service companies of a similar size.

### *Climate Change and Climate Change Regulations*

There is increasing evidence that climate change is causing the increased frequency and severity of extreme weather events as well as longer-term changes in climate patterns. As a result, the Corporation may be adversely impacted by extreme weather events such as hurricanes, tornadoes, flooding and rising sea levels, which may cause damage to key corporate assets and could result in operational and supply-chain disruptions. In particular, the Corporation's barite grinding facility in Corpus Christie, Texas, as well as our warehouse and blending facilities located in Texas and Louisiana may be impacted by hurricanes and extreme flooding events. In addition, our chemical manufacturing and blending facilities in Sterling, Kansas, Carlyle, Saskatchewan, and Grande Prairie, Alberta, as well as various warehouses and offices located across the Midwest United States and Canada may be impacted by tornadoes, grassland and forest fires, and overland flooding due to extreme weather fluctuations. The Corporation may also be impacted

due to rising insurance premiums, both on a corporate and industry basis, and in certain circumstances may be unable to place insurance on certain corporate assets due to climate change risk.

At an industry level, government regulations with respect to the control and taxation of greenhouse gas emissions could have a material impact on the nature of oil and natural gas operations of the Corporation's customers. A new climate change policy was announced by the Alberta government in the fall of 2015 that resulted in the implementation of a carbon levy effective January 1, 2017. At the federal level, the Canadian government has implemented its carbon pricing scheme that will backstop any applicable provincial carbon pricing framework, effective as of January 1, 2019. Initial indications are that the Alberta carbon levy is an additional cost for Canadian Operators operating in the province. As an oilfield service company, the Corporation is not a large-scale emitter of greenhouse gases and does not anticipate the impact of these regulations to be material to its operations. However, the carbon levy may have a material impact on Operators, which could result in a material adverse effect on demand for CES' products and services.

Given the evolving nature of the debate related to climate change and increasing government regulation on this issue, it is not possible to predict with certainty the potential impact of the future changes in Alberta and other jurisdictions for other additional royalties, levies, other taxes on the Corporation and its operations, as well as possible divergence in climate change policies between Canada and the US.

#### *Trade Relations*

The US, Canada and Mexico have concluded negotiations on replacing the North American Free Trade Agreement (NAFTA) with the new Canada-United States-Mexico Agreement (CUSMA). CUSMA preserves many of the key elements of NAFTA, including the prohibition on government intervention in the normal operation of the North American energy market, whether in the form of price discrimination through the imposition of export taxes or the direct disruption of supply channels. In addition, CUSMA ensures that North American customers have equal access to oil produced in either country, ensuring a broad demand base for oil and natural gas. While Canada, the United States and Mexico have signed CUSMA, it has yet to be formally ratified and implemented. Recent elections in the United States have cast some uncertainty as to whether the CUSMA as currently drafted will be ratified. As such, it is uncertain whether the outcome of NAFTA renegotiations will result in material changes to the terms of NAFTA, and what effects those changes may have on the Corporation.

In addition, the US is currently involved with several trade disputes with countries outside of North America, particularly China. Tariffs imposed by the US on Chinese products, as well as retaliatory tariffs imposed by China, may result in a trade war which could result in increased prices for key input materials the Corporation's products in the US. Depending on the magnitude of such a trade war, global economic growth may be impacted resulting in decreased demand for oil and gas, and in turn, reduced demand for CES' products and services.

Further, unlegislated proposals from the government of the US have contemplated prohibitive actions against foreign businesses competing in the US economy. It is uncertain whether the government of the US will proceed with any proposed or contemplated actions, or the effects those actions may have on the Corporation. The administration has also taken action with respect to reduction of regulation which may also affect relative competitiveness of other jurisdictions. It is unclear exactly what other actions the administration in the United States will implement, and if implemented, how these actions may impact Canada and in particular the oil and gas industry. Any actions taken by the current United States administration may have a negative impact on the Canadian economy and on the businesses, financial condition, results of operations, prospects and the valuation of Canadian oil and gas companies, including the Corporation.

#### *Regulation and Taxation of the Energy Industry*

Material changes to the regulation and taxation specific to the energy industry in the jurisdictions in which the Corporation operates may reasonably be expected to have an impact on the oilfield services industry. Generally, a significant increase in the regulation or taxation of the energy industry or material uncertainty regarding such issues may be expected to result in a decrease in industry drilling and production activity in the applicable jurisdiction.

Since the 2016 U.S. presidential election, the current U.S. administration has begun taking steps to implement certain campaign promises. The administration has withdrawn the U.S. from the Trans-Pacific Partnership and Congress has passed sweeping tax reform, which, among other things, significantly reduces U.S. corporate tax rates. This may affect competitiveness of other jurisdictions, including Canada.

In early 2018, the Government of Canada introduced Bill C-69 that would overhaul the existing environmental assessment process and replace the National Energy Board (**NEB**) with the Canadian Energy Regulator (**CER**). In addition, the Impact Assessment Agency of Canada (**Agency**) would replace the Canadian Environmental Assessment Agency. The Agency's new process would include, among other things, an early planning phase that would include indigenous and public participation, a broader scope of impact assessment including potential social, health, economic and environmental effects, and expanded follow-up, monitoring and enforcement with increased involvement of indigenous peoples and communities. As to the proposed CER, many of its activities would be similar to the NEB, with the notable exception that the CER would no longer have primary responsibility in the consideration of new major projects. The legislation has now been referred to the Senate, however it is still uncertain when this new regulatory scheme will come into force or whether any further amendments will be made before the regulations are finalized. The impact of the new proposed regulatory scheme on proponents and the timing of receipt of approvals of major projects remains unclear. It is also unclear what effect these new regulations, if implemented, will have on Canadian Operators and Downstream Operators and ultimately, on the demand for the Corporation's products and services.

#### *Provincial Royalty Rate Changes and Production Curtailment*

The provincial governments of Alberta, British Columbia, Manitoba and Saskatchewan collect royalties on the production from Crown lands. These fiscal royalty regimes are reviewed and adjusted from time to time by the respective governments for appropriateness and competitiveness. These changes, as well as the potential for future changes in these and other jurisdictions, add uncertainty to the outlook of the oilfield services sector.

Currently there is generally inadequate pipeline capacity to transport crude and natural gas production out of Alberta and Saskatchewan, which has resulted in low regional commodity prices. In response to significantly reduced prices for WCS in 2018, the Alberta government introduced a temporary oil production curtailment affecting bitumen and conventional oil producers within the Province that produce over 10,000 bpd. While the production cuts have resulted in improved pricing and a reduced differential between WTI and WCS, it is unclear how these measures will impact activity by Operators in Alberta over the long-term. In addition, there is no guarantee of the duration of these production cuts or whether such cuts will be reduced or expanded over time. The uncertainty over future production related regulations as well as the ability for Operators to produce bitumen and conventional oil under such regulations may result in reduced activity levels in Canada. This reduced activity could result in a material adverse effect on demand for CES' products and services, particularly in Canada.

#### *Corporate Income Tax*

The Corporation and its various subsidiaries are subject to corporate income and other taxation in various federal, provincial and state jurisdictions in Canada, the US, and Luxembourg. For the current and historical fiscal years, the Corporation's and its subsidiaries' income tax and other tax returns are subject to audits and reassessments by the various taxation authorities and where applicable, the Corporation adjusts previously recorded tax expense to reflect audit adjustments. The Corporation asserts that it has adequately provided for all income tax obligations. However, changes in facts, circumstances and interpretations as a result of income tax audits, reassessments, litigation with tax authorities or new tax legislation could result in an increase or decrease to the provision for income taxes. In addition, there can be no assurance that the Canada Revenue Agency (**CRA**) (or a provincial tax agency), the US Internal Revenue Service (or a state or local tax agency), or the Luxembourg Tax Authorities (collectively the **Tax Agencies**) will agree with how CES calculates its income for tax purposes or that the various Tax Agencies will not change their income tax policies and administrative practices to the detriment of CES or its Shareholders.

#### *Environmental Liability*

Certain operations of the Corporation routinely deal with natural gas, oil and other petroleum products, as well as chemical additives used in connection with drilling fluid systems, well stimulations or production chemicals. The

Corporation is therefore exposed to potential environmental liability in connection with its business. The Corporation has programs to address compliance with current environmental standards and monitors its practices concerning the handling of environmentally hazardous materials, however, there can be no assurance that the Corporation's procedures will prevent environmental damage occurring from spills of materials handled by the Corporation or that such damage has not already occurred. As a result of its drilling fluid systems and its well stimulation and production chemical solutions, the Corporation will also generate or manage hazardous wastes, such as waste oil and washdown wastes. Although the Corporation enforces a program to identify and address contamination issues before acquiring or leasing properties, and attempts to utilize generally accepted operating and disposal practices, hydrocarbons or other wastes may have been disposed of or released on or under properties owned, leased, or operated by the Corporation prior to the Corporation owning, leasing or operating these properties. These properties and the wastes disposed thereon may be subject to environmental laws that could require the Corporation to remove the wastes or remediate sites where they have been released.

In addition, our manufacturing and processing operations are subject to extensive laws and regulations governing the protection of the environment and worker health and safety. Failure to comply with applicable environmental and health and safety laws and regulations could result in injunctions, fines, suspension or revocation of permits and other penalties. While CES strives to achieve full compliance with all such laws and regulations and with its environmental and health and safety permits, there can be no assurance that CES will at all times be in full compliance with such requirements. Activities required to achieve full compliance can be costly and involve extended timelines. Failure to comply with such laws, regulations and permits can have serious consequences, including damage to the Corporation's reputation; negatively impacting the operation; increasing the costs of manufacturing or production and litigation or regulatory action against CES, and may materially adversely affect our business, results of operations or financial condition. Future changes in applicable environmental and health and safety laws and regulations could substantially increase costs and burdens to achieve compliance or otherwise have an adverse impact on the Corporation's business, results of operations or financial condition.

In addition, laws and regulations relating to the environment, including those relating to the emission of greenhouse gases, and which apply to the business and operations of the Corporation are likely to change and become more stringent in the future. While regulatory developments that may follow in subsequent years could have the effect of reducing industry activity, the Corporation cannot predict the nature of the restrictions that may be imposed. The Corporation may be required to increase operating expenses or capital expenditures in order to comply with any new environmental restrictions or regulations.

#### *Permits*

Our manufacturing and processing operations, including the transportation of products and chemicals and other oilfield activities are subject to extensive permitting requirements. Failure to obtain required permits and/or to maintain compliance with permits once obtained could result in injunctions, fines, suspension or revocation of permits and other penalties. While CES strives to obtain and comply with all of its required permits, there can be no assurance that we will obtain all such permits and/or achieve or maintain full compliance with such permits at all times. Activities required to obtain, achieve or maintain full compliance with such permits can be costly and involve extended timelines. Failure to obtain or comply with required permits can have serious consequences, including damage to our reputation; negatively impacting manufacturing or operations or regulatory action against CES, and may materially adversely affect our business, results of operations or financial condition.

#### *Sources, Pricing and Availability of Products and Third-Party Services*

The Corporation sources its products and third-party services from a variety of suppliers, most of whom are located in North America and increasingly from overseas. Should any suppliers of the Corporation be unable to provide the necessary products or services or otherwise fail to deliver products or services in the quantities required or at acceptable prices, any resulting delays in the provision of services or in the time required to find new suppliers could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows. In addition, the ability of the Corporation to compete and grow will be dependent on the Corporation having access, at a reasonable cost and in a timely manner, to products, equipment, parts and components. Failure of suppliers to deliver such products, equipment, parts and components at a reasonable cost and in a timely manner would be detrimental to the Corporation's ability to maintain and expand its client list. No assurance can be given that the



Corporation will be successful in maintaining the required supply of products, equipment, parts and components. It is also possible that the final costs of the equipment contemplated by the Corporation's capital expenditure program may be greater than anticipated by management, and may be greater than the amount of funds then available to the Corporation, in which circumstance the Corporation may curtail or extend the timeframes for completing its capital expenditure plans.

The Corporation's ability to provide services to its customers is also dependent upon the availability at reasonable prices of raw materials which the Corporation purchases from various suppliers, most of whom are located in North America and increasingly from overseas. The Corporation believes alternate suppliers exist for all major required raw materials. The availability and supply of materials has been consistent in the past; however in periods of high activity, periodic shortages of certain materials have been experienced and costs may be affected. Management maintains relationships with a number of suppliers in an attempt to mitigate this risk. However, if the current suppliers are unable to provide the necessary raw materials, or otherwise fail to deliver products in the quantities required, any resulting delays in the provision of services to our customers could have a material adverse effect on the Corporation's results of operation and cash flows.

### *Operating Risks and Insurance*

The Corporation's operations take place, in part, at well sites and are therefore subject to hazards inherent in the oil and natural gas industry, such as equipment defects, malfunction and failures, and natural disasters which could result in fires, vehicle accidents, explosions and uncontrollable flows of oil, natural gas or well fluids that can cause personal injury, loss of life, suspension of operations, damage to formations, damage to facilities, business interruption and damage to or destruction of property, equipment and the environment. The Corporation's operations also involve the reacting, blending and transporting of volatile and at times toxic chemicals and materials which can result in fires, explosions, burns, respiratory illness and other problems. Although on the drilling and well service side of the business the aforementioned hazards are primarily the responsibility of the Operator who contracts with the Corporation this isn't the situation with the divisions that manufacture production and specialty chemicals and as such these risks could expose the Corporation to substantial liability for personal injury, wrongful death, property damage, loss of oil and natural gas production, pollution and other environmental damages. The frequency and severity of such incidents will affect operating costs, insurability and relationships with clients, employees and regulators.

The Corporation has an insurance and risk management program as well as a health and safety program in place to protect its assets, operations and employees and to address compliance with current safety and regulatory standards. In addition, the Corporation continuously monitors its activities for quality control and safety. However, there are no assurances that our safety programs will always prevent risks and hazards and these risks and hazards could expose the Corporation to substantial liability for personal injury, loss of life, business interruption, property damage or destruction, pollution and other environmental damages.

Additionally, even though the Corporation maintains insurance coverage, which it considers adequate and customary in the oilfield services and chemical manufacturing industries, having benchmarked against similar sized companies with similar risk profiles, such insurance is subject to coverage limits and exclusions and may not be available for all the risks and hazards to which the Corporation is exposed. In addition, there can be no assurance that such insurance will be adequate to cover the Corporation's liabilities or will be generally available in the future. Further, there can be no assurance that the Corporation will be able to maintain adequate insurance in the future at rates it considers reasonable and commercially justifiable. The occurrence of a significant uninsured claim, a claim in excess of the insurance coverage limits maintained by the Corporation, or a claim at a time when it is not able to obtain liability insurance, could have a material adverse effect on the Corporation's ability to conduct normal business operations and on its financial condition, results of operations and cash flows.

The Corporation self-insures certain risks through its wholly-owned captive insurance subsidiary CES (Barbados) Indemnity Corp. The occurrence of a claim in excess of the insurance coverage limits maintained by the Corporation through its captive insurance company, and/or in excess of the capital reserves retained by the captive insurance company could have a material adverse effect on the Corporation's ability to conduct normal business operations and on its financial condition, results of operations and cash flows.

### *Credit Risk*

A concentration of credit risk exists in the Corporation's accounts receivable since they are exclusively from companies in the North American oil and natural gas industry. Significant changes in the oil and natural gas industry, including fluctuations in commodity prices and economic conditions, environmental regulations, government policy, royalty rates and geopolitical factors, may adversely affect the Corporation's ability to realize the full value of its accounts receivable. It is not possible to predict the likelihood or magnitude of this risk. The Corporation attempts to mitigate this risk through its credit, invoicing and collections policies, which include procedures such as performing credit checks as considered necessary and managing the amount and timing of exposure to individual customers. The Corporation reviews these procedures on a regular basis.

### *Foreign Currency Risk*

Foreign currency risk is the risk that the value of future cash flows will fluctuate as a result of changes in foreign currency exchange rates. The Corporation's foreign currency risk arises from its working capital balances denominated in foreign currencies and on the investment in its foreign operations. The Corporation's financial statements are presented in Canadian dollars, however CES uses the US dollar as its functional currency for its operations in the US and those in other foreign jurisdictions, as appropriate. The Corporation attempts to manage its foreign currency risk through the use of forward purchase contracts and financial derivatives. Fluctuations in the exchange rate between the US dollar and the Canadian dollar could negatively impact working capital balances denominated in foreign currencies and on the investment in its foreign operations to the extent that forward purchase contracts and financial derivatives do not fully mitigate the realized changes in foreign currency.

## **Risks Relating to Past and Future Transactions**

### *Acquisition and Development Risks*

The Corporation expects to continue to selectively complete strategic acquisitions. Our ability to consummate and to integrate effectively any future acquisitions on terms that are favourable to it may be limited by the number of attractive acquisition targets, internal demands on the Corporation's resources, and to the extent necessary, the Corporation's ability to obtain financing on satisfactory terms for acquisitions, if at all. Acquisitions may expose the Corporation to additional risks, including: difficulties in integrating administrative, financial reporting, operational and information systems and managing newly-acquired operations and improving their operating efficiency; difficulties in maintaining uniform standards, controls, procedures and policies through all of the Corporation's operations; entry into markets in which the Corporation has little or no direct prior experience; difficulties in retaining key employees of the acquired operations; disruptions to the Corporation's ongoing business; and diversion of management time and resources.

### *Failure to Achieve Benefits of Acquisitions*

The full benefits of any acquisitions completed by the Corporation will require the retention of key personnel; the integration of management, administration and finance functions; and the implementation of appropriate operations, financial and management systems and controls in order to capture the benefits and efficiencies that were anticipated to result from these acquisitions. This will require substantial attention from our management. The diversion of management's attention, as well as any other difficulties that may be encountered in the transition and integration processes, could have an adverse impact on the Corporation's revenues, operating results and cash flows. The Corporation could experience difficulties in effectively integrating the businesses and assets of any acquisitions. If any such difficulties resulted in the Corporation failing to achieve the anticipated benefits resulting from the acquisitions, the Corporation could face higher costs and lower than expected revenue and miss other market opportunities. There can be no assurance that the businesses of any acquisitions will be successfully integrated.

### *Operational and Business Risks Relating to Acquisitions*

The Corporation has conducted business, legal, operational, financial and environmental due diligence on all acquisitions it has completed but there can be no assurance that the Corporation has identified all of the potential

liabilities related to these transactions and any acquired businesses and assets. In particular, if the assets of the aforementioned acquisitions prove to be less valuable than anticipated, the Corporation's financial results could be adversely affected.

In addition, any future acquisitions could result in the incurrence of additional debt, costs, and contingent liabilities. The Corporation may also incur costs for and divert management attention to potential acquisitions that are never consummated. For acquisitions that are consummated, expected synergies may not materialize. The Corporation's failure to effectively address any of these issues could adversely affect its results of operations, financial condition and ability to service debt.

Although the Corporation plans to conduct due diligence for future acquisitions, there may be liabilities of the acquired businesses or assets that the Corporation fails or is unable to uncover during its due diligence investigation and for which the Corporation, as a successor owner, may be responsible. When feasible, the Corporation may seek to minimize the impact of these types of potential liabilities by obtaining indemnities and warranties from the seller. However, these indemnities and warranties, if obtained, may not fully cover the liabilities because of their limited scope, amount or duration, the financial resources of the indemnitor or warrantor or for other reasons.

### **Risks Related to Financing, Debt, Access to Capital, Liquidity and Capital Markets**

#### *Access to Current and Additional Financing*

The Corporation's ability to access its Senior Facility is directly dependent on, among other factors, certain financial ratios and other restrictive covenants. A breach of any of these covenants, which may be affected by events beyond the Corporation's control, could constitute an event of default which, if not cured or waived, could result in the amounts outstanding on the credit facility to become due and payable immediately. In addition, the Corporation's Senior Facility may, from time to time, impose operating and financial restrictions on the Corporation that could include restrictions on, the payment of dividends, repurchase or making of other distributions with respect to the Corporation's securities, incurring of additional indebtedness, provision of guarantees, the assumption of loans, making of capital expenditures, entering into of amalgamations, mergers, or disposition of assets, among others.

While oilfield activity levels have improved since the lows seen in early 2016, there is no certainty these higher activity levels, and resultant cash flows will continue. Accordingly, the Corporation may be subject to operating and financial restrictions pursuant to future amendments to our Senior Facility and possibly have to repay amounts outstanding on the facility.

The Corporation may find it necessary in the future to obtain additional debt or equity to support ongoing operations, to undertake capital expenditures, to repay or refinance existing borrowings or to undertake acquisitions or other business combination transactions. The Corporation may, from time to time, have restricted access to capital and increased borrowing costs. There can be no assurance that additional financing will be available to the Corporation when needed or on terms acceptable to the Corporation. The Corporation's inability to raise financing to support ongoing operations, refinance its 6.375% Senior Notes or to fund capital expenditures or acquisitions could limit the Corporation's growth and could have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows.

#### *Debt Service*

The Corporation is indebted to its lenders under the Senior Facility. Principal and interest payable under the Senior Facility have priority over dividends declared on the Corporation's Common Shares. Accordingly, the Corporation may have to reduce or suspend dividends in order to ensure debt amounts are paid. In addition, the terms of the Senior Facility impose certain restrictive covenants that may affect the ability of the Corporation to pay dividends.

The Senior Notes Indenture contains detailed restrictive covenants setting out the circumstances, including the satisfaction of certain financial ratios, in which the Corporation is permitted to make dividend payments to its Shareholders. The Senior Notes Indenture would prohibit the Corporation from paying any dividend not in compliance

with the provisions of the Senior Notes Indenture and the necessity of complying with such provisions may restrict the Corporation from paying dividends from time to time.

Variations in interest rates and scheduled principal repayments, or the need to refinance all or a portion of the Senior Facility upon expiration, could result in significant changes in the amount required to be applied to service the debt of the Corporation under the Senior Facility before the distribution of any amounts to the Corporation or its shareholders.

There can be no assurance that the amounts available under the Senior Facility will be adequate for the financial obligations of the Corporation. The Corporation may seek other forms of financing which may be dilutive or which may contain restrictions or covenants that could affect the Corporation's ability to pay dividends or which could otherwise adversely affect the rights of our shareholders.

#### *Capital Markets*

The Corporation, along with all participants in the oil and gas and oilfield services industries, may, from time to time, have restricted access to capital and increased borrowing costs. As future capital expenditures will be financed out of cash generated from operations, borrowings and possible future equity sales, the Corporation's ability to do so is dependent on, among other factors, the overall state of capital markets and investor demand for investments in the energy industry and the Corporation's securities in particular.

To the extent that external sources of capital become limited or unavailable or available on onerous terms, the Corporation's ability to make capital investments and maintain existing assets may be impaired, and its assets, liabilities, business, financial condition and results of operations may be materially and adversely affected as a result.

At December 31, 2018, the Corporation had a net draw of approximately \$161.5 million under its Senior Facility.

The ability of the Corporation to fund its growth strategy, including expanding or entering into new lines of business, making selective acquisitions, investing in further inventory or acquiring infrastructure will depend on the Corporation being able to draw on, or increase, its Senior Facility, obtain new credit facilities on reasonable terms or to raise financing through equity and/or debt capital markets. If the Corporation is unable to obtain equity and/or debt financing, either at all or on favourable terms, it may not be able to fund its growth strategy, which could have an adverse effect on the prospects of the Corporation.

Based on current liquidity available and expected cash from operations, the Corporation believes it has sufficient funds available to fund its projected capital expenditures. However, if cash flow from operations is lower than expected or capital costs for these projects exceed current estimates, if the Corporation incurs major unanticipated expenses related to repairs to equipment, or if the Corporation seeks to acquire other business or business assets, it may be required to seek additional capital to maintain its capital expenditures at planned levels. Failure to obtain any financing necessary for the Corporation's capital expenditure plans may have an adverse effect of the Corporation's business and operations, which effect may be material.

#### *Unpredictability and Volatility of Share Price*

The prices at which our Common Shares trade cannot be predicted. The market price of the CES Common Shares could be subject to significant fluctuations in response to variations in quarterly financial and operating results and other factors. The annual yield on our Common Shares as compared to the annual yield on other company's Common Shares or other financial instruments may also influence the price of our common shares in the public trading markets. An increase in prevailing interest rates will result in higher yield on other financial instruments, which could adversely affect the market price of our Common Shares.

In addition, the securities markets have experienced significant market wide and sectoral price and volume fluctuations from time to time that often have been unrelated or disproportionate to the operating performance of particular issuers. Such fluctuations may adversely affect the market price of our common shares.

### *Ability to Achieve Profitability and Manage Growth*

There can be no assurance that the Corporation will be able to achieve profitability in future periods. The Corporation's future operating results will depend on a number of factors, including its ability to continue to successfully execute the Corporation's strategic plan, which includes expanding relationships with existing clients, continuing to attract new clients, improving inventory management and profit margins, developing new products and technologies, acquiring infrastructure to get our products and services to market, developing complimentary business lines, and pursuing selective acquisitions.

There can be no assurance that the Corporation will be successful in achieving the objectives of its strategic plan or that its strategic plan will enable it to maintain its historical revenue growth rates or to sustain profitability. Failure to successfully execute any material part of the Corporation's strategic plan could have a material adverse effect on its business, financial condition, results of operations and cash flows.

There can be no assurance that the Corporation will be able to effectively manage its growth, and any failure to do so could have a material adverse effect on its business, financial condition, results of operations and cash flows.

### **Risks Relating to the Structure of the Corporation**

#### *Cash Dividends to Shareholders are Dependent on the Performance of the Corporation and its Subsidiaries*

There is no assurance regarding the amounts of cash to be generated by CES and its subsidiaries and therefore, funds available for dividends our shareholders. The actual amount of cash available for dividends will depend on a variety of factors, including, without limitation, the performance of our operating businesses, the effect of acquisitions or dispositions on CES, and other factors that may be beyond our control. In the event significant sustaining capital expenditures is required by CES or the profitability of CES declines, there would be a decrease in the amount of cash available for dividends.

Our dividend policy is subject to change at the discretion of our Board of Directors. The Corporation's dividend policy is also limited by contractual agreements including agreements with lenders to the Corporation and its affiliates and restrictive covenants and other provisions contained in the Senior Notes Indenture and the Senior Facility.

#### *Leverage and Restrictive Covenants*

In the event amendments are required to our Senior Facility as a result of a downturn in oilfield services activity levels and cash flows, the degree to which the Corporation is financially leveraged at that point in time could have important consequences to our shareholders, including: (i) a portion of the Corporation's cash flow from operations will be dedicated to the payment of the principal of and interest on its indebtedness, thereby reducing funds available for dividends on our Common Shares; and (ii) certain of the Corporation's borrowings will be at variable rates of interest, which exposes the Corporation to the risk of increased interest rates. The Corporation's ability to make scheduled payments of principal and interest on, or to refinance, its indebtedness will depend on its future operating performance and cash flow, which are subject to prevailing economic conditions, prevailing interest rate levels, and financial, competitive, business and other factors, many of which are beyond our control.

The lenders under the Senior Facility have been provided with security over all of the assets of the Corporation and its guarantors (including the Corporation and the Corporation's other subsidiaries). A failure to comply with the obligations in the agreements in respect of the Senior Facility, including compliance with the financial covenants set out therein, could result in an event of default, which, if not cured or waived, could permit acceleration of the relevant indebtedness. If the indebtedness under the Senior Facility were to be accelerated, there can be no assurance that the Corporation's assets would be sufficient to repay in full that indebtedness or that the Corporation would be able to arrange suitable replacement financing.

The Senior Notes Indenture contains the terms and provisions governing the 6.375% Senior Notes, including covenants respecting limitations on restricted payments, limitations on additional indebtedness, limitations on liens, limitations on transactions with affiliates, limitations on asset sales, limitations on conduct of business, provision of

financial information, limitations on amalgamations, mergers and consolidations and designation of restricted and unrestricted subsidiaries. Any breach of such covenants by the Corporation, in particular, any breach of the financial covenants set out in the Senior Notes Indenture, would constitute an event of default that may accelerate the repayment of the 6.375% Senior Notes. If the repayment of the 6.375% Senior Notes was accelerated, there can be no assurance that the Corporation's assets would be sufficient to repay in full that indebtedness or that the Corporation would be able to arrange suitable financing to facilitate repayment.

#### *Restrictions on Potential Growth*

The payout by the Corporation of a portion of its operating cash flow as dividends will make additional capital and operating expenditures dependent on increased cash flow or additional financing in the future. Lack of those funds could limit the future growth of the Corporation and its cash flow.

#### *Issuance of Additional Common Shares*

The Corporation may issue an unlimited number of additional Common Shares and preferred shares without the approval of the Shareholders such that the holders of Common Shares may be subject to a dilution of their interests. Shareholders have no pre-emptive rights in connection with such additional issuances.

### **Other Risks**

#### *Changes in Laws*

Income tax laws and other laws or government incentive programs relating to the oil and natural gas industry may in the future be changed or interpreted in a manner that adversely affects the Corporation and its shareholders. Tax authorities having jurisdiction over the Corporation or its shareholders may disagree with the manner in which the Corporation calculates its income for tax purposes or could change their administrative practices to the Corporation's detriment or to the detriment of our shareholders.

Expenses incurred by the Corporation are only deductible to the extent they are reasonable. Although the Corporation is of the view that all expenses to be claimed by the Corporation should be reasonable and deductible, there can be no assurance that the applicable tax authorities will agree. If the applicable tax authorities were to successfully challenge the deductibility of such expenses, the return to our shareholders may be adversely affected.

#### *Conflicts of Interest*

Certain directors of the Corporation are associated with other companies or entities, including entities engaged in the oil and natural gas industry and the oilfield services business, which may give rise to conflicts of interest. In accordance with the Business Corporations Act (Canada), directors who have a material interest in any person who is a party to a material contract or proposed material contract with the Corporation are required, subject to certain exceptions, to disclose that interest and abstain from voting on any resolution to approve that contract. In addition, the directors are required to act honestly and in good faith with a view to the best interests of the Corporation.

#### *Risks Associated with Disclosure Controls and Procedures on Internal Control Over Financial Reporting*

The Corporation's business could be adversely impacted if it has deficiencies in its disclosure controls and procedures or internal controls over financial reporting.

The design and effectiveness of the Corporation's disclosure controls and procedures and internal controls over financial reporting may not prevent all errors, misstatements or misrepresentations. While the Corporation's management continues to review the effectiveness of the Corporation's disclosure controls and procedures and internal controls over financial reporting, it cannot assure that the Corporation's disclosure controls and procedures or internal controls over financial reporting will be effective in accomplishing all control objectives all of the time. Deficiencies, particularly material weaknesses, in internal controls over financial reporting which may occur in the future could result in misstatements of our results of operations, restatements of our financial statements, a decline in the

Corporation's common share price, or otherwise materially adversely affect the Corporation's business, reputation, results of operation, financial condition or liquidity.

The design of the Corporation's disclosure controls and procedures and internal controls over financial reporting has been limited to exclude controls, policies and procedures of a business that the Corporation has acquired not more than 365 days before its financial year end.

#### *Legal Proceedings*

The Corporation is involved in litigation and claims arising in the normal course of operations. Management of the Corporation is of the opinion that pending litigation is not material to the Corporation and will not have a material adverse effect on the Corporation's financial position or results of operations. However, results of litigation may differ materially from management's expectations. In addition, future legal proceedings could be filed against the Corporation and no assurance can be given as to the final outcome of any legal proceedings or that the ultimate resolution of any legal proceedings will not have a material adverse effect on the Corporation.

### **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Except as otherwise disclosed in this AIF, none of the directors or senior officers of CES, and no security holder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation, and no associate or affiliate of any of the foregoing has a material interest in any transaction involving the Corporation or in any proposed transaction which has materially affected or is reasonably expected to materially affect the Corporation.

### **AUDIT COMMITTEE INFORMATION**

The disclosure regarding the Corporation's Audit Committee required under National Instrument 52-110, adopted by the Canadian securities regulatory authorities, is contained in Appendix "A" of this AIF. The Charter of the Audit Committee is contained in Appendix "B" of this AIF.

### **LEGAL PROCEEDINGS**

There are no legal proceedings involving claims for damages in an amount exceeding 10% of the Corporation's current assets to which CES is or was a party to or in respect of which any property is or was subject during the year ended December 31, 2018, nor are there any such proceedings known to the Corporation's management to be contemplated.

### **MATERIAL CONTRACTS**

Other than in the ordinary course of the Corporation's business or as set out below, there are no material contracts that have been entered into by the Corporation in the most recently completed financial year, or before the most recently completed financial year, that are still in effect.

On November 8, 2018, the Company amended its Senior Facility to exercise \$55.0 million of available accordion capacity, increasing the maximum amount available on the Canadian facility from \$125.0 million to \$180.0 million. All other terms and conditions of the Senior Facility remain consistent with those of the previous senior facility, as amended. The original Senior Facility was executed on September 5, 2014, was amended on September 30, 2015, March 29, 2016, July 14, 2017, and November 8, 2018 remains in effect and is a material contract to CES. See "Capital Structure – Senior Facility" for further information.

As at December 31, 2018, CES was in compliance with terms and covenants of its lending agreements.

As at December 31, 2018, CES had \$300.0 million of outstanding principal on its unsecured 6.375% Senior Notes due on October 21, 2024. The Senior Notes Indenture remains in effect and is a material contract to CES. See "Capital Structure – Senior Notes" for further information.

### **INTERESTS OF EXPERTS**

Deloitte LLP is the auditor of the Corporation and is independent within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Alberta.

### **TRANSFER AGENT AND REGISTRAR**

The registrar and transfer agent for the Common Shares is Computershare Investor Services Inc. at its principal offices in Calgary, Alberta, and Toronto, Ontario.

### **ADDITIONAL INFORMATION**

Additional information relating to the Corporation is available on the internet on the Corporation's SEDAR profile at [www.sedar.com](http://www.sedar.com).

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's information circular dated May 1, 2018 for the annual general and special meeting of Shareholders held on June 14, 2018. Additional financial information is provided in the Corporation's audited consolidated financial statements for the year ended December 31, 2018, and the accompanying management's discussion and analysis of financial conditions and results of operations for the year ended December 31, 2018. Shareholders who wish to receive printed copies of these documents free of charge should contact the Corporation using the contact information included on the final page of this AIF.



**SCHEDULE “A”  
AUDIT COMMITTEE DISCLOSURE**

**PURSUANT TO NATIONAL INSTRUMENT 52-110**

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**Overview**

The purpose of the Audit Committee is to assist the Board of Directors in fulfilling its responsibilities of oversight and supervision of, among other things:

- the annual audit and quarterly interim review of the financial statements of the Corporation, managing the relationship with the independent auditor and meeting with the independent auditor as required in connection with the audit services provided by the auditor;
- the pre-approval of the non-audit services provided by the independent auditor;
- the accounting and financial reporting practices and procedures of the Corporation;
- the adequacy of the internal controls and accounting procedures of the Corporation;
- the quality and integrity of the financial statements and MD&A of the Corporation; and
- the compliance by the Corporation with legal and regulatory requirements which are not subject to the oversight of another committee of the Board of Directors or the Board of Directors as a whole.

**The Audit Committee Charter**

The Audit and Committee Charter is attached hereto as Schedule “B”.

**Composition of the Audit Committee**

The Audit Committee is comprised of four directors; Messrs. Scherman (Chair), Ahrens, Kitagawa, and Stewart, all of whom are independent in accordance with National Instrument 52-110 and are financially literate within the meaning of National Instrument 52-110. See “Directors and Officers”.

**Relevant Education and Experience**

All members of the Audit Committee possess the work experience and education necessary to understand the accounting principles used by the Corporation to prepare its financial statements, the ability to assess the general application of such accounting principles in connection with the accounting for estimates, accruals and reserves, experience preparing, analyzing or auditing financial statements that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Corporation’s financial statements and an understanding of internal controls and procedures for financial reporting.

Below are brief biographies for the members of the Audit Committee which illustrate the relevant education and experience of each such member.

Name	Principal Occupation and Biography
Philip J. Scherman FCPA, FCA, IC.D	Mr. Scherman is a chartered accountant and currently serves on the board of Mullen Group Ltd. and The Calgary Foundation. Mr. Scherman was an engagement partner at KPMG from 1982 to 2012 for public and private energy and energy service entities. Mr. Scherman also served on the KPMG Canada Board of Directors for six years. Mr. Scherman is a member of the Canadian and Alberta Institutes of Chartered Accountants and was awarded the Fellow of the Chartered Accountants designation.

Name	Principal Occupation and Biography
Burton J. Ahrens	Mr. Ahrens has been the President and Chief Executive Officer of Edgehill Corporation since 1992, is the former Co-Manager of USIR Capital LLC and was formerly a director on the board of Blackbird Energy Inc. Mr. Ahrens was a founder and President of Oil Fields Systems Corp. and was also the Chairman of Perkins Drilling Company. Mr. Ahrens has been a director of several public and private corporations and was the founding Senior Partner of the law firm, Feit & Ahrens. He was an editor of the Yale Law Journal and on the Executive Committee of the Yale Law School.
Kyle D. Kitagawa, CPA	Mr. Kitagawa is an independent businessman and has been a corporate director since March 2003. Mr. Kitagawa currently is Chairman of Zargon Oil & Gas Ltd. and managing director of North River Capital Corp. Prior thereto, Mr. Kitagawa was President and Chief Executive Officer of Enron Canada Corp. Mr. Kitagawa has previously sat on the board of directors for Coral Hill Energy Ltd., Advanced Mobile Power Systems, LLC, Esprit Exploration Ltd., Ferus Trust, Independent Energy Ltd., Invasion Energy Inc., Livingston Energy Ltd., Papier Masson Ltee., ProspEx Resources Ltd. and Wave Energy Ltd. Mr. Kitagawa is a member of the Chartered Professional Accountants of Alberta. He holds a Master of Business Administration degree from Queen's University, a Bachelor of Commerce from the University of Calgary and is a Chartered Professional Accountant.
D. Michael G. Stewart	Mr. Stewart has been a corporate director and principal of Ballinacurra Group since March 2002. Mr. Stewart also serves on the Boards of Directors of TransCanada Corporation and its subsidiary, TransCanada Pipelines Limited and Pengrowth Energy Corporation. Prior thereto, Mr. Stewart held several executive positions with Westcoast Energy Inc. and its affiliates. Before joining Westcoast Energy Inc. in 1993, Mr. Stewart held a number of executive positions with companies involved in the energy, fertilizer and sulphur industries. Mr. Stewart graduated from Queen's University with a Bachelor of Science degree in Geological Sciences. He is a member of the Institute of Corporate Directors and the Association of Professional Engineers and Geoscientists of Alberta (non-practicing).

### External Auditor Service Fees

The following table sets out the aggregate fees billed by the Corporation's external auditor for services relating to the years ended December 31, 2017, and December 31, 2018.

<b>Period Ended</b>	<b>Audit Fees<sup>(1)</sup></b>	<b>Audit-Related Fees<sup>(2)</sup></b>	<b>Tax Fees<sup>(3)</sup></b>	<b>All Other Fees<sup>(4)</sup></b>
<b>December 31, 2017</b>	\$642,621	Nil	\$216,524	Nil
<b>December 31, 2018</b>	\$639,084	Nil	\$18,333	Nil

**Notes:**

- (1) Audit Fees are comprised of the aggregate fees relating to the applicable fiscal year by the Corporation's auditor. The Corporation has been billed for professional services for the audit of the Corporation's annual consolidated financial statements and reviews of the Corporation's quarterly financial statements, as well as services provided in connection with statutory and regulatory filings or engagements.
- (2) Audit-Related Fees are comprised of the aggregate fees relating to the applicable fiscal year for assurance and related services by the Corporation's external auditor that are reasonably related to the performance of the audit review of the Corporation's financial statements and are not reported under note (1) above.
- (3) Tax Fees are comprised of the aggregate fees relating to the applicable fiscal year for professional services rendered by the Corporation's external auditor for tax compliance, tax advice, and tax planning.
- (4) All Other Fees are comprised of the aggregate fees relating to the applicable fiscal year for products and services provided by the Corporation's external auditor, other than the services reported under notes (1), (2), and (3), above.

**SCHEDULE “B”  
AUDIT COMMITTEE CHARTER**

**PART I  
ESTABLISHMENT OF COMMITTEE**

**1. Committee Purpose**

The Audit Committee (the “**Committee**”) is established by the board of directors (the “**Board of Directors**”) of CES Energy Solutions Corp. (the “**Corporation**”) for the purpose of overseeing the accounting and financial reporting processes of the Corporation, including the reviews and audits of the financial statements of the Corporation.

The Committee shall assist the Board of Directors in fulfilling its oversight responsibilities by monitoring, among other things:

- (a) the Corporation’s financial accounting and reporting processes;
- (b) the quality and integrity of the financial statements and related disclosure of the Corporation;
- (c) compliance by the Corporation with legal and regulatory requirements that could have a material effect upon the financial position of the Corporation which are not subject to the oversight of another committee of the Board of Directors or the Board of Directors as a whole;
- (d) the independent auditor’s qualifications and independence; and
- (e) the performance of the Corporation’s independent auditor.

**2. Composition of Committee**

The Committee shall consist of as many members as the Board of Directors shall determine, but in any event not fewer than three directors of the Corporation, provided that each member of the Committee shall be determined by the Board of Directors to be:

- (a) an “unrelated” and “independent” director as defined in, and for the purposes of, any applicable governance guidelines or listing standards of any stock or securities exchange upon which the securities of the Corporation are, from time to time, listed; and
- (b) an “independent” and “financially literate” director for the purposes of any applicable corporate, securities or other legislation or any rule, regulation, instrument, policy, guideline or interpretation under such legislation, including, but not limited to, National Instrument 52-110 – *Audit Committees*, promulgated under the *Securities Act* (Alberta).

**3. Appointment of Committee Members**

The members of the Committee shall be appointed by the Board of Directors. The members of the Committee shall be appointed at the time of each annual meeting of shareholders and shall hold office until the next annual meeting, until they are removed by the Board of Directors or until their successors are earlier appointed, or until they cease to be directors of the Corporation.

## **PART II COMMITTEE PROCEDURE**

### **4. Vacancies**

Where a vacancy occurs at any time in the membership of the Committee, it may be filled by the Board of Directors and shall be filled by the Board of Directors, by resolution, if the membership of the Committee is fewer than three directors. The Board of Directors may remove and replace any member of the Committee.

### **5. Committee Chair**

The Board of Directors shall appoint a chair (the “**Chair**”) for the Committee. The Chair may be removed and replaced by the Board of Directors.

### **6. Absence of Chair**

If the Chair is not present at any meeting of the Committee, one of the other members of the Committee present at the meeting shall be chosen by the Committee to preside at the meeting.

### **7. Secretary of Committee**

The Committee shall appoint a Secretary who need not be a director of the Corporation.

### **8. Regular Meetings**

The Chair, in consultation with the Committee members, shall determine the schedule and frequency of the Committee meetings, provided that the Committee shall meet at least quarterly to review and recommend for approval to the Board of Directors the interim or annual financial statements of the Corporation, as applicable. The Committee at any time may, and at each regularly scheduled Committee meeting shall, meet without management present and shall meet periodically with management and the independent auditor of the Corporation. The Committee shall also meet separately with the independent auditor at every regularly scheduled meeting of the Committee at which the independent auditor is present and shall also meet separately with the Chief Financial Officer at every regularly scheduled meeting of the Committee.

### **9. Special Meetings**

The Chair, any two members of the Committee, the independent auditor or the President and Chief Executive Officer of the Corporation may call a special meeting of the Committee.

### **10. Quorum**

A majority of the members of the Committee, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak to each other, shall constitute a quorum.

### **11. Notice of Meetings**

Notice of the time and place of every meeting shall be given in writing or by e-mail or facsimile communication to each member of the Committee at least 48 hours prior to the time fixed for such meeting; provided, however, that a member may, in any manner, waive notice of a meeting and attendance of a member at a meeting is a waiver of notice of the meeting, except where a member attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called.

**12. Agenda**

The Chair shall develop and set the Committee's agenda, in consultation with other members of the Committee and management of the Corporation. The agenda and information concerning the business to be conducted at each Committee meeting shall, to the extent practicable, be communicated to the members of the Committee sufficiently in advance of each meeting to permit meaningful review.

**13. Delegation**

The Committee shall have the power to delegate its authority and duties to subcommittees or individual members of the Committee as it deems appropriate.

**14. Access**

In discharging its oversight role, the Committee shall have full access to all books, records, facilities and personnel of the Corporation.

**15. Attendance of Others at a Meeting**

At the invitation of the Chair, one or more officers, directors or employees of the Corporation may, and if required by the Committee shall, attend a meeting of the Committee.

**16. Procedure, Records and Reporting**

The Committee shall fix its own procedure at meetings, keep records of its proceedings and report to the Board of Directors when the Committee may deem appropriate (but not later than the next meeting of the Board of Directors).

**17. Outside Consultants or Advisors**

The Committee, when it considers it necessary or advisable, may retain, at the Corporation's expense, outside consultants or advisors (including independent counsel) to assist or advise the Committee independently on any matter within its mandate. The Committee shall have the sole authority to retain or terminate such consultants or advisors, including the sole authority to approve the fees and other retention terms for such persons.

**PART III  
COMMITTEE TERMS OF REFERENCE - AUDIT**

**18. Appointment of the Corporation's Independent Auditor**

Subject to confirmation by the independent auditor of its compliance with regulatory registration requirements, the Committee shall recommend to the Board of Directors the appointment of the independent auditor for the purpose of preparing or issuing any audit report or performing other audit, review or attest services for the Corporation, such appointment to be confirmed by the Corporation's shareholders at each annual meeting. The Committee shall be responsible for the approval of the engagement letter with the independent auditor, the approval of fees to be paid to the independent auditor for audit services and shall pre-approve the retention of the independent auditor for any permitted non-audit service. The Committee shall also be directly responsible for the oversight of the work of the independent auditor (including resolution of disagreements between management and the independent auditor regarding financial reporting) for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for the Corporation. The Committee shall communicate directly with the independent auditor. The independent auditor shall report directly to the Committee.

The Committee shall review the independence of the independent auditor including a written report from the independent auditor delineating all relationships between the independent auditor and the Corporation, considering whether the advisory services performed by the independent auditor during the course of the year have affected its independence, and ensuring that no relationship or service between the independent auditor and the Corporation is in

existence that may affect the objectivity and independence of the auditor, or recommending appropriate action to ensure the independence of the independent auditor.

## 19. Specific Mandates

The Committee, to the extent required by applicable laws or rules, or otherwise considered by the Committee to be necessary or appropriate, shall:

### (a) Oversight in Respect of Financial Disclosure

- (i) review, discuss with management and the independent auditor, and recommend to the Board of Directors for approval:
  - A. the audited annual financial statements;
  - B. the annual information form;
  - C. the annual management's discussion and analysis;
  - D. the portions of the management proxy circular, for any annual or special meeting of shareholders, containing significant financial information respecting the Corporation;
  - E. all financial statements included in prospectuses or other offering documents;
  - F. any significant financial information contained in all prospectuses and all documents which may be incorporated by reference in a prospectus;
  - G. any significant financial information respecting the Corporation contained in a material change report, business acquisition report or press release;
- (ii) review, discuss with management and the independent auditor, and recommend to the Board of Directors for approval:
  - A. the unaudited interim financial statements of the Corporation;
  - B. the quarterly management's discussion and analysis of the Corporation;
  - C. the interim reports of the Corporation;
- (iii) review and discuss with management:
  - A. each press release which contains significant financial information respecting the Corporation (including, without limitation, annual and interim earnings press releases) or contains earnings guidance, prior to public dissemination thereof;
  - B. the use of "pro forma" or "adjusted" non-GAAP information;
  - C. financial information and earnings guidance provided to analysts and rating agencies; provided, however, that such discussion may be done generally (consisting of discussing the types of information to be disclosed and the types of presentations to be made) and in accordance with the Disclosure and Media Policy

of the Corporation, and the Committee need not discuss in advance each instance in which the Corporation may provide earnings guidance or presentations to rating agencies;

- (iv) review with management and the independent auditor the scope of the audit, in particular the independent auditor's view of the Corporation's accounting principles as applied in the financial statements in terms of disclosure quality and evaluation methods, inclusive of the clarity of the Corporation's financial disclosure and reporting, degree of conservatism or aggressiveness of the Corporation's accounting principles and underlying estimates, and other significant decisions made by management in preparing the financial disclosure and reviewed by the independent auditor;
- (v) review with management and the independent auditor major issues regarding accounting and auditing principles and practices as well as the adequacy of internal controls and procedures for financial reporting and management information systems and inquire of management and the independent auditor about significant risks and exposures to the Corporation that could significantly affect the Corporation's financial statements;
- (vi) review with management and the independent auditor, and satisfy itself as to the adequacy of the procedures that are in place for the review of the Corporation's disclosure of financial information extracted or derived from the Corporation's financial statements, and periodically assess the adequacy of those procedures;
- (vii) review with management and the independent auditor (including those of the following that are contained in any report of the independent auditor): (a) all critical accounting policies and practices to be used by the Corporation in preparing its financial statements; (b) all alternative treatments of financial information within generally accepted accounting principles that have been discussed with management, ramifications of the use of these alternative treatments, and the independent auditor's assessment of the alternatives; and (c) other material communications between the independent auditor and management, such as any management letter or schedule of unadjusted differences;
- (viii) review with management and the independent auditor the effect of regulatory and accounting initiatives as well as off-balance sheet transactions on the Corporation's financial statements;
- (ix) review the plans of management and the independent auditor regarding any significant changes in accounting practices or policies and the financial and accounting impact thereof;
- (x) review with management, the independent auditor and, if necessary, legal counsel, any litigation, claim or contingency, including tax assessments, that could have a material effect upon the financial position of the Corporation, and the manner in which these matters have been disclosed in the financial statements;
- (xi) review disclosures by the Corporation's President and Chief Executive Officer and Chief Financial Officer with respect to any required certification for the Corporation's financial statements by such individuals; and
- (xii) discuss with management the Corporation's material financial risk exposures and the steps management has taken to monitor and control such exposures, including the Corporation's financial risk assessment and financial risk management policies and insurance policies.

(b) *Oversight in Respect of Legal and Regulatory Matters*



- (i) review, if necessary, with legal counsel, the Corporation's compliance policies, legal matters and any material reports or inquiries received from regulators or governmental agencies that could have a material effect upon the financial position of the Corporation and which are not subject to the oversight of another committee of the Board of Directors or the Board of Directors as a whole.

(c) *Oversight in Respect of the Chief Financial Officer and Finance Director*

- (ii) consult with management on management's appointment, replacement, reassignment or dismissal of the Chief Financial Officer of the Corporation; and
- (iii) ensure the Chief Financial Officer of the Corporation and the Finance Director of the Corporation have access to the Chair, the Chairman of the Board of Directors and the Chief Executive Officer of the Corporation, and shall meet separately with the Chief Financial Officer of the Corporation and the Finance Director of the Corporation to review any problems or difficulties he or she may have encountered in the performance of his or her responsibilities and report to the Board of Directors on such meetings.

(d) *Oversight in Respect of the Independent Auditor*

- (iv) meet with the independent auditor prior to the annual audit to review the planning and staffing of the audit;
- (v) review annually the independent auditor's formal written statement of independence delineating all relationships between itself and the Corporation and review all such relationships;
- (vi) receive confirmation from the independent auditor as to its standing as a "participating audit firm" and its compliance with any restrictions or sanctions imposed by the Canadian Public Accountability Board as those concepts are set forth in National Instrument 52-108 of the Canadian Securities Administrators;
- (vii) review and evaluate the independent auditor, including the lead partner of the independent auditor team;
- (viii) meet separately with the independent auditor to review with them any problems or difficulties they may have encountered and specifically:
  - A. any difficulties which were encountered in the course of the audit work, including any restrictions on the scope of activities or access to required information, and any disagreements with management; and
  - B. any changes required in the planned scope of the audit;
 and report to the Board of Directors on such meetings;
- (ix) review and approve the engagement letters of the independent auditor for the interim quarterly reviews and annual audit of the financial statements of the Corporation; and
- (x) review and approve the Corporation's hiring policies regarding partners, employees, former partners and former employees of the Corporation's present and former independent auditor.

*(e) Oversight in Respect of Audit and Non-Audit Services*

- (xi) have the sole authority to pre-approve all audit services (which may entail providing comfort letters in connection with securities underwritings) and all permitted non-audit services, other than non-audit services where:
  - A. the aggregate amount of all such non-audit services provided to the Corporation or its subsidiaries constitutes not more than 5% of the total amount of fees paid by the Corporation (and its subsidiaries) to the independent auditor during the fiscal year in which the non-audit services are provided;
  - B. such services were not recognized by the Corporation (or any subsidiary) at the time of the engagement to be non-audit services; and
  - C. such services are promptly brought to the attention of the Committee and approved, prior to the completion of the audit, by the Committee or by one or more members of the Committee to whom authority to grant such approvals has been delegated by the Committee; and
- (xii) delegate to one or more designated members of the Committee the authority to grant pre-approvals required by this section; provided that the decision of any member to whom authority is delegated to pre-approve an activity shall be presented to the Committee at the first scheduled meeting following such decision, and provided further that, if the Committee approves an audit service within the scope of the engagement of the independent auditor, such audit service shall be deemed to have been pre-approved for purposes of this section.

*(f) Oversight in Respect of Certain Policies*

- (xiii) establish procedures for: (a) the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters; and (b) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters; and
- (xiv) periodically review the Corporation's Disclosure and Media Policy, Insider Trading Policy and any other policies the Committee deems appropriate for the performance of its oversight responsibilities.

**20. Oversight Function**

While the Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Committee to plan or conduct audits or to determine that the Corporation's financial statements are complete and accurate or are in accordance with generally accepted accounting principles. These are the responsibilities of management and the independent auditor. The Committee and its Chair are members of the Board of Directors, appointed to the Committee to provide broad oversight of the financial risk and control related activities of the Corporation, and are specifically not accountable nor responsible for the day to day operation or performance of such activities. The role of all Committee members is to oversee the process, not to certify or guarantee the accuracy or completeness of the external audit of the Corporation's financial information or public disclosure.

**PART IV  
GENERAL**

**21. Self-Evaluation**

The Committee shall conduct an annual performance self-evaluation and shall report to the Board of Directors the results of the self-evaluation.

**22. Review of Committee's Charter**

The Committee shall assess the adequacy of this Charter on an annual basis and recommend any changes to the Board of Directors.

**23. Non-Exhaustive List**

The foregoing list of duties is not exhaustive, and the Committee may, in addition, perform such other functions as may be necessary or appropriate for the performance of its oversight responsibilities.



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