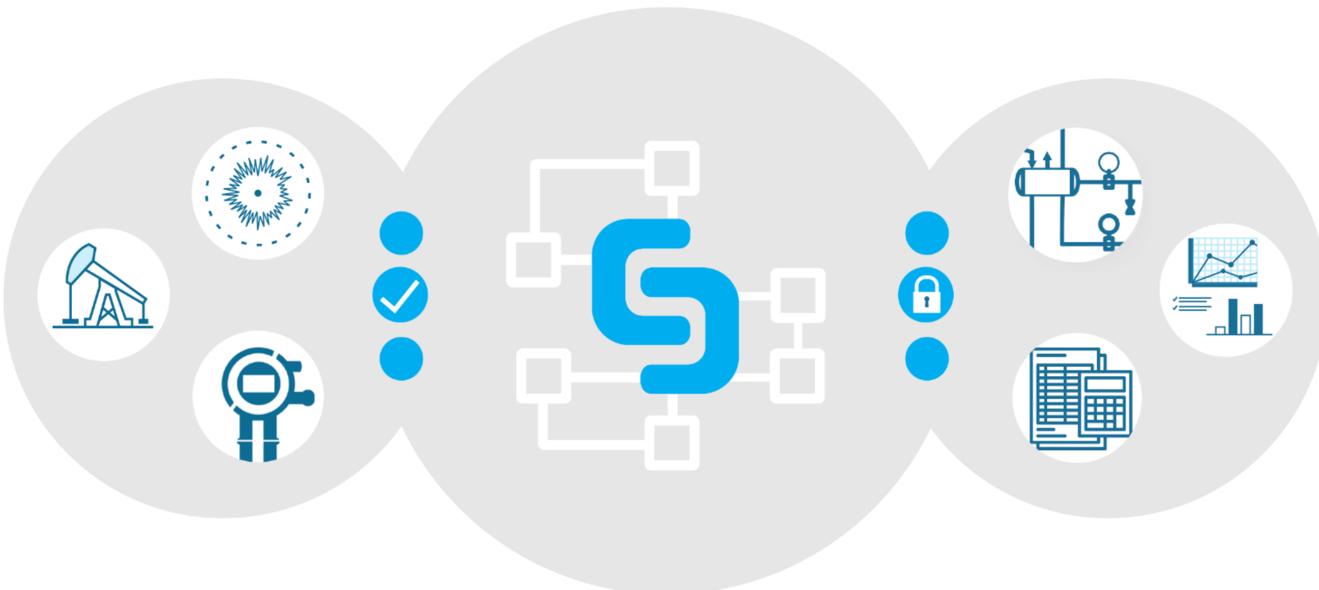

2018

Annual Consolidated Financial Statements

Critical Control Energy Services Corp.

December 31, 2018

KPMG LLP
205 5th Avenue SW
Suite 3100
Calgary AB T2P 4B9
Telephone 403-691-8000
Fax 403-691-8008
www.kpmg.ca

INDEPENDENT AUDITORS' REPORT

To the Shareholders of Critical Control Energy Services Corp.

Opinion

We have audited the consolidated financial statements of Critical Control Energy Services Corp. (the "Entity"), which comprise the consolidated statements of financial position as at December 31, 2018 and December 31, 2017, the consolidated statements of operation and comprehensive loss, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information (hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2018 and December 31, 2017, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards ("IFRS").

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *"Auditors' Responsibilities for the Audit of the Financial Statements"* section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. Other information comprises Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

The engagement partner on the audit resulting in this auditors' report is Lee Bardwell.

KPMG LLP

Chartered Professional Accountants

March 27, 2019

Calgary, Canada

CRITICAL CONTROL

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION As at December 31, ($ thousands)	Note	2018	2017
Assets			
Current assets			
Cash and cash equivalents		**630**	287
Accounts receivable	5	**4,737**	5,938
Inventory	6	**1,379**	2,357
Prepaid expenses and deposits	7	**1,079**	253
		7,825	8,835
Deposits	7	**343**	81
Tax credit recoverable	11	**-**	293
Deferred income taxes	11	**-**	3,188
Property and equipment	8	**2,353**	2,899
Intangible assets and goodwill	9	**6,228**	19,248
		16,749	34,544
Liabilities			
Current liabilities			
Bank indebtedness	10	**-**	4,743
Accounts payable and accrued liabilities		**3,727**	2,963
Deferred revenue		**873**	827
Factoring facility	10	**2,801**	-
Current portion of long-term debt	10	**-**	661
Current portion of deferred lease inducements		**12**	12
		7,413	9,206
Long-term debt	10	**6,825**	2,712
Deferred lease inducements		**29**	41
		14,267	11,959
Shareholders' Equity			
Common shares	13	**29,815**	29,685
Preferred shares and warrants	13	**4,105**	4,105
Contributed surplus	13	**1,487**	1,645
Accumulated other comprehensive income	13	**1,221**	1,885
Deficit		**(34,146)**	(14,735)
		2,482	22,585
		16,749	34,544
Commitments and contingencies	23		
Subsequent events	25		

(See Notes to the Consolidated Financial Statements)

Approved on behalf of the Board:

“signed” Gary Bentham
Audit Committee Chairman

“signed” Alykhan Mamdani
President & CEO, Director

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

For the years ended December 31,

($ thousands, except per share amounts)	Note	**2018**	2017
Revenue	18	**26,869**	29,122
Expenses			
Operating expense	20	**15,801**	16,073
General and administrative	20	**7,942**	9,046
Research and development		**1,458**	1,471
Foreign exchange	20	**(1,514)**	1,158
Depreciation and amortization		**5,716**	2,882
Impairment of intangible assets and goodwill	9	**10,500**	-
Gain on sale of property and equipment		**(8)**	(27)
Other expenses	19	**1,746**	248
		(14,772)	(1,729)
Finance costs	20	**878**	972
Loss before income taxes		**(15,650)**	(2,701)
Income taxes	11	**3,588**	556
Net loss		**(19,238)**	(3,257)
Other comprehensive income (loss)			
Foreign currency translation adjustment, net of tax		**(664)**	61
		(664)	61
Total comprehensive loss		**(19,902)**	(3,196)
Loss per share			
Net earnings			
Basic / Diluted		**(0.43)**	(0.06)

(See Notes to the Consolidated Financial Statements)

CONSOLIDED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2018 and 2017

($ thousands)

	Common shares	Preferred shares and warrants	Contributed surplus	Accumulated other comprehensive income	Deficit	Total equity
Balance at December 31, 2017	**29,685**	**4,105**	**1,645**	**1,885**	**(14,735)**	**22,585**
Comprehensive loss	-	-	-	**(664)**	**(19,238)**	**(19,902)**
Preferred share dividend	-	-	-	-	**(173)**	**(173)**
Employee share purchase plan proceeds	-	-	**9**	-	-	**9**
Shares issued from treasury under employee share purchase plan	**24**	-	**(24)**	-	-	-
Shares issued from treasury under deferred common shares	**106**	-	**(106)**	-	-	-
Share-based payments	-	-	**(37)**	-	-	**(37)**
Balance at December 31, 2018	**29,815**	**4,105**	**1,487**	**1,221**	**(34,146)**	**2,482**
Balance at December 31, 2016	31,888	-	1,607	1,824	(11,312)	24,007
Comprehensive income (loss)	-	-	-	61	(3,257)	(3,196)
Preferred share issuance, net of costs	-	1,743	-	-	-	1,743
Warrants issuance	-	90	-	-	-	90
Common share converted to preferred shares	(2,272)	2,272	-	-	-	-
Preferred share dividend	-	-	-	-	(166)	(166)
Employee share purchase plan proceeds	-	-	19	-	-	19
Shares issued from treasury under employee share purchase plan	31	-	(31)	-	-	-
Shares issued from treasury under deferred common shares	38	-	(38)	-	-	-
Share-based payments	-	-	88	-	-	88
Balance at December 31, 2017	29,685	4,105	1,645	1,885	(14,735)	22,585

(See Notes to the Consolidated Financial Statements)

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31,

($ thousands)	**Note**	**2018**	2017
Cash provided by (used in)			
Operating activities			
Net loss		**(19,238)**	(3,257)
Adjustments for:			
Depreciation and amortization		**5,716**	2,882
Gain on sale of property and equipment		**(8)**	(27)
Foreign exchange	20	**(1,514)**	1,158
Finance costs	20	**878**	972
Income taxes	11	**3,588**	556
Impairment of intangible assets and goodwill	9	**10,500**	-
Share-based payments	20	**(37)**	88
Income taxes paid		**(18)**	(18)
Interest paid		**(82)**	(515)
Cash provided by (used in) operations before change in non-cash working capital balances		**(215)**	1,839
Change in non-cash working capital balances	24	**615**	734
		400	2,573
Investing activities			
Purchases of property and equipment	8	**(118)**	(685)
Purchases of software	9	**(8)**	(18)
Additions to product development costs	9	**(1,190)**	(1,587)
Proceeds on sale of property and equipment		**48**	46
		(1,268)	(2,244)
Financing activities			
Proceeds from employee share purchase plan		**9**	19
Proceeds from preferred share issuance, net of issuance costs	13	**-**	1,833
Proceeds from bank indebtedness		**343**	49,092
Repayment of bank indebtedness		**-**	(50,455)
Proceeds from Factoring Facility		**2,864**	-
Repayment of Factoring Facility		**(3,032)**	-
Proceeds from long-term debt		**1,791**	499
Repayment of long-term debt		**(631)**	(1,456)
Preferred share dividends		**(173)**	(166)
		1,171	(634)
Effect of translation of foreign currency cash		**40**	40
Net increase (decrease) in cash		**343**	(265)
Cash and cash equivalents, beginning of year		**287**	552
Cash and cash equivalents, end of year		**630**	287

(See Notes to the Consolidated Financial Statements)

1. STRUCTURE OF CORPORATION

Organization

Critical Control Energy Services Corp. (the "Corporation" or "Critical Control") is incorporated in Alberta and domiciled in Canada. The registered address of the Corporation is 1400, 350 – 7 Avenue SW, Calgary, Alberta T2P 3N9. Prior to voluntary delisting on February 28, 2019, Critical Control was a publicly-traded company listed on the Toronto Stock Exchange ("TSX") under symbol "CCZ".

Operations

Critical Control provides solutions for the collection, control, and analysis of measurement and operational data related to oil and gas wells across North America. The Corporation provide services to capture data, cloud-based software to visualize and manage it, and business intelligence to make quicker and more informed operational decisions.

In assessing performance of the segments and the allocation of resources to the segments, executive management evaluates gross margin, operating income, and earnings (loss) before tax directly attributable to each segment. All of the Corporation's identifiable assets are located in Canada and the United States ("US").

The reportable segments are managed separately because of the unique characteristics and requirements of each business.

The Software business provides cloud based software and software based services to its upstream and midstream oil and gas clients:

- ***Measurement Data Management***: Gas chart integration and reporting; web-based monitoring and control of electronic devices at the well site; and cost-efficient data validation.
- ***Regulatory Compliance and Risk Management***: Integrated pipeline and asset profiles management; intelligent fluid analysis management; and streamlined, auditable meter calibration.
- ***Production and Financial Accounting***: Production accounting; financial and joint interest accounting; capital projects management; land and contracts management; production asset management; and facility processing contract management.

The Field Services business provides the following services to its upstream and midstream oil and gas clients:

- ***Gas Measurement Field Services***: Inclusive of natural gas meter installation, calibration, and monitoring.
- ***Gas and Liquid Laboratory Services***: Gas composition management services including gas sample analysis and data management tools.
- ***Certification and Proving***: Calibration and certification of measurement meters and gas measurement equipment.
- ***Distribution of Measurement Equipment****:* Sale of gas measurement related equipment.
- ***Fabrication***: Assembly and sale of gas measurement related equipment.

2. BASIS OF PREPARATION

Statement of compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the interpretations of the IFRS Interpretations Committee ("Interpretations Committee") in effect as at January 1, 2018.

The consolidated financial statements were authorized for issue by the Board of Directors on March 27, 2019.

Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the revaluation of certain financial instruments to fair value.

Functional and presentation currency

The consolidated financial statements are presented in Canadian dollars, which is the Corporation's functional currency. All financial information presented in dollars has been rounded to the nearest thousand except for share and per share amounts.

Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgements, estimates, and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues, and expenses. Actual results may differ from these estimates.

The key judgements identified in applying accounting policies that have a significant effect on the amounts recognized in the consolidated financial statements include the following:

- The determination of whether it is probable that sufficient taxable earnings will be generated in future periods to utilize tax losses and tax credits for the purpose of recognizing related tax assets. If sufficient taxable earnings are not generated, or estimates change, the Corporation does not recognize the related tax assets.
- The determination of research and development costs that are capitalized to deferred development costs are subject to management's estimates to the future economic value of the projects.
- The determination of cash generating units ("CGU"s) and reportable segments that are managed separately because of the unique characteristics and requirements of each business.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are as follows:

- ***Impairment calculations for intangible assets and goodwill.*** Key estimates and assumptions include future cash flows and discount rates used for calculating the recoverable amount of CGUs.
- ***Measuring deferred income taxes.*** Key estimates and assumptions include the availability of future taxable, timing of reversals for temporary differences, and future enacted tax rates.
- ***Fair value of consideration provided and assets acquired in business combinations.*** Key estimates and assumptions include future cash flows and discount rates used for valuing contingent consideration, customer relationship assets, and other intangible assets.
- ***Depreciation and amortization.*** The key estimate and assumption is the useful life of each asset.
- ***Provisions, including onerous lease contracts.*** Key estimates include future cash flows and discount rates.
- ***Bad debts.*** The Corporation estimates potential bad debts based on an analysis of historical collection activity and specific identification of overdue accounts. Actual bad debts may differ from estimates made.

Change in estimate

Effective January 1, 2018, the Corporation made a change to its depreciation and amortization rates which was accounted for on a prospective basis as a result of a review of the useful lives of its property and equipment and intangible assets and expected pattern of consumption. All property and equipment and intangibles are now depreciated or amortized on a straight-line basis at rates ranging from two to seven years. The Corporation has determined that the change in estimate better reflects changes in the industry, competition, and technology.

The change in estimate resulted in $0.3 million more depreciation expense on property and equipment and $2.5 million more amortization on intangible assets during the year ended December 31, 2018 than if the change in estimate had not been completed.

Measurement of fair values

A number of the Corporation's accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values have been determined for measurement and/or disclosure purposes based on the following methods. When applicable, further information about the assumptions made in determining fair values are disclosed in the notes specific to that asset or liability.

Property and equipment

The fair value of property and equipment recognized as a result of a business combination is based on market values. The market value of property is the estimated amount for which a property could be exchanged on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably and willingly.

Intangible assets

The fair value of intangible assets is based on the discounted cash flows expected to be derived from the use and eventual sale of the assets.

Inventory

The fair value of inventories acquired is determined based on the estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.

Accounts receivable

Accounts receivable are initially measured at fair value on transaction date, and when such assets are acquired in a business combination, and are subsequently measured at fair value.

Non-derivative financial liabilities

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date.

Share-based payment transactions

The fair value of deferred common shares, employee share purchase plan shares, restricted common shares and common shares are measured based on the grant date share price.

Fair value hierarchy

When measuring the fair value of an asset or liability, the Corporation uses market observable data to the extent possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: unobservable inputs for the asset or liability.

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Corporation recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

3. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out in this note have been applied consistently to all periods presented in these consolidated financial statements.

Basis of Consolidation

The consolidated financial statements include the accounts of Critical Control and its subsidiaries, all of which are wholly-owned. Any reference to Critical Control or the Corporation throughout these consolidated financial statements refers to Critical Control and its subsidiaries.

Business combinations

The Corporation measures goodwill as the fair value of the consideration transferred less the fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. When the excess is negative, a bargain purchase gain is recognized immediately in earnings. Transaction costs, other than those associated with the issue of debt or equity securities, that the Corporation incurs in connection with a business combination are expensed as incurred. Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not re-measured and settlement is accounted for within equity. Otherwise, subsequent changes in the estimate of the contingent consideration to be paid are recognized in earnings.

Subsidiaries

Subsidiaries are entities controlled by the Corporation. The Corporation controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial results of subsidiaries are included in the consolidated financial statements from the date that control commenced until the date that control ceases. The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Corporation.

Transactions eliminated on consolidation

Intercompany balances and transactions, and any unrealized income and expenses arising from intercompany transactions, are eliminated in preparing the consolidated financial statements.

Foreign currency

Foreign currency transactions

Transactions denominated in foreign currencies are translated into the functional currency of the applicable entity at the exchange rate in effect at the time of the transaction. Monetary items are then re-translated into the entity's functional currency at each reporting period at the exchange rates in effect at the statements of financial position date. Non-monetary items are not re-translated. Gains and losses on foreign currency transactions are included as a separate line item in the consolidated statements of operations and comprehensive income loss.

Foreign currency translation

The Corporation's non-Canadian operations have functional currencies that differ from the Canadian dollar and, therefore, assets and liabilities are translated into Canadian dollars at the exchange rates in effect at the statements of financial position date and revenues and expenses are translated at the average exchange rates for the relevant period. Translation gains or losses are included in other comprehensive income (loss). When the settlement of an intercompany receivable from or intercompany payable to a foreign operation is neither planned nor likely foreseeable in the future, foreign exchange gains or losses arising on the translation of those intercompany balances is considered a part of the net investment in the foreign operation and are recognized in other comprehensive income (loss).

Cash and cash equivalents

Cash and cash equivalents are comprised of cash at bank and cash in hand, including offsetting bank overdrafts, short-term investments, and similar instruments that have a maturity of three months or less at the date of acquisition. In reporting periods where bank overdrafts exceed cash and cash equivalents, the balance will be referred to as bank indebtedness.

Inventory

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is calculated on a specific identification or first-in first-out basis and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

Property and equipment

Recognition and measurement

Items of property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditures that are directly attributable to the acquisition of the asset. When parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment. Gains and losses on disposal of an item of property and equipment are determined by comparing the proceeds from disposal with the carrying amount of property and equipment and are recognized net on a separate line item in the statements of operations and comprehensive loss.

Subsequent costs

The cost of replacing a part of an item of property and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Corporation and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property and equipment (repairs and maintenance) are charged to earnings as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset less its residual value. Depreciation is charged to earnings, from the date assets are installed and ready for use, on a straight-line basis, over the estimated useful lives of each part of an item of property and equipment. The rates of depreciation are as follows:

Leasehold improvements	term of lease
Computer hardware	five years
Office and operating equipment	five years
Vehicles	five years

Depreciation methods, useful lives, and residual values are reviewed at each financial year-end and adjusted if appropriate.

Leased assets

Leases where the Corporation assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition, each leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset.

Other leases are operating leases, and the leased assets are not recognized in the Corporation’s consolidated statement of financial position.

Intangible assets and goodwill

Goodwill

Goodwill that arises upon the acquisition of a business is included in intangible assets. Goodwill is measured at cost less accumulated impairment losses and is not amortized.

Software, non-compete agreements and customer relationships and contracts

Software, non-compete agreements and customer relationships and contracts are measured at cost less accumulated amortization and accumulated impairment losses.

Product development costs

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are charged to earnings as incurred. Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Corporation intends to and has sufficient resources to complete development and to use or sell the asset.

Subsequent expenditures

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific intangible asset to which they relate. All other expenditures, including expenditures on internally generated goodwill and brands, are charged to earnings as incurred.

Amortization

Amortization is calculated based on the cost of an asset less its residual value. Amortization is charged to earnings, from the date assets qualify for recognition and are ready for use, on a straight-line basis, over the estimated useful lives of the asset. The rates of amortization are as follows:

Product development costs	five years
Customer relationships and contracts	two to seven years
Software	two years
Non-compete agreements	five to seven years

Amortization methods, useful lives, and residual values are reviewed at each financial year-end and adjusted if appropriate.

Impairment

Accounts receivable

Impairment of accounts receivable are recognized based on the lifetime expected credit losses expected to occur. Loss allowances for accounts receivable are recognized in earnings and reflected in an allowance account against accounts receivable. When an accounts receivable is uncollectible, it is written off against the allowance for doubtful accounts. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through earnings.

Non-financial assets

The carrying amounts of the Corporation's non-financial assets, other than current assets and tax related assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the recoverable amount of the asset or CGU is estimated. For goodwill, the recoverable amount is estimated each year at December 31 or earlier when there are indicators of impairment.

The recoverable amount of an asset or CGU is the greater of its value-in-use and its fair value less costs to sell. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGU. Goodwill acquired in a business combination is allocated to the group of CGUs that is expected to benefit from the synergies of the combination. This allocation is subject to an operating segment ceiling test and reflects the lowest level that goodwill is monitored for internal reporting purposes.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in earnings. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit (or group of units) on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Provisions

A provision is recognized if, as a result of a past event, the Corporation has a present legal or constructive obligation that can be estimated reliably and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as a finance cost. A provision for an onerous contract is recognized when the expected benefits to be derived by the Corporation from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract.

Common shares

Common shares are classified as equity. Costs directly attributable to the issue of common shares are recognized as a reduction of equity, net of any tax effects.

Preferred shares

Preferred shares that are redeemable at the Corporation's option only, bear discretionary dividends and do not contain any obligations to deliver cash are classified as equity. Discretionary dividends thereon are recognized as equity distributions upon approval by the Corporation's Board of Directors.

If preferred shares are redeemable in cash at the option of the holder or bear non-discretionary dividends they are classified as a financial liability. Non-discretionary dividends thereon are recognized as interest expense in profit or loss.

Earnings per share

The Corporation presents basic and diluted earnings per share ("EPS") data for its common shares. Basic EPS is calculated by dividing the earnings attributable to common shareholders by the weighted average number of common shares outstanding during the period. Diluted EPS is determined by adjusting the earnings attributable to common shareholders and the weighted average number of common shares outstanding for the effects of all dilutive potential common shares.

Revenue Recognition

Initial application

On May 28, 2014 the IASB issued IFRS 15, "Revenue from contracts with customers". IFRS 15 replaced existing standards and interpretations on revenue recognition. The standard is effective for annual periods beginning on or after January 1, 2018 and was adopted by the Corporation on January 1, 2018. The standard outlines a single comprehensive model for entities for revenue recognition arising from contracts with customers.

The Corporation has completed its evaluation of the impact of IFRS 15 on its consolidated financial statements. The Corporation's practices of revenue recognition are unchanged upon adoption of this standard, therefore, the adoption of IFRS 15 did not result in a material impact to the consolidated financial statements. The Corporation has elected to apply the standard on a modified retrospective basis. Under this approach, the December 31, 2017 comparative period was not restated. There was no cumulative transitional adjustment to the opening retained earnings balance required.

Recognition

The Corporation derives revenues primarily from providing solutions to clients in the energy sector. The Corporation's solutions for each sector are comprised of services, maintenance and support, third party hardware, software application and equipment sales, and the fabrication and assembly of gas measurement and related equipment. Each component of the Corporation's solutions has specific revenue recognition policies, and revenue is only recognized based on fixed or agreed upon priced purchase orders or contracts with the customer when it is probable that the payment will be received, the revenue can be measured reliably, and the costs are identifiable and can be measured reliably.

Services include data entry, technology solutions, and outsourcing as well as the Corporation's solutions to the energy sector, some of which are dependent on the Corporation's proprietary applications and data sets. Revenue related to Services is recognized as the services are performed. Amounts invoiced in advance of work performed are recorded as unearned revenue, and revenue recognized in advance of being invoiced is recorded as unbilled revenue.

Revenue related to agreements for maintenance and support is recognized on a straight-line basis over the term of the agreement.

Sales of third-party hardware, software application and equipment sales and revenue from the fabrication, assembly, and sale of gas measurement and related equipment are generally recognized upon delivery, provided the following criteria are met:

- there is no continuing management involvement over the goods to the degree usually associated with ownership; and
- the significant risks and rewards of ownership have been transferred to the customer and there is no effective control over the goods.

The Corporation does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. Consequently, the Corporation does not adjust any of the transaction prices for the time value of money.

Lease payments

Payments made under operating leases are recognized in earnings on a straight-line basis over the term of the lease. Lease incentives/inducements received are recognized as an integral part of the total lease expense over the term of the lease. Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Employee benefits

Termination benefits

Termination benefits are recognized as an expense when the Corporation's can no longer withdraw the offer of these benefits. The termination benefits may be recognized earlier when the Corporation recognizes costs for restructuring that are within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related services are provided. A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if there is a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Share-based payment transactions

The measurement date fair value of equity-settled share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in equity, over the period that the employees become entitled to the awards (vesting period). The amount recognized as an expense is adjusted to reflect the number of awards for which the related service vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service conditions at the vesting date.

Income taxes

Income tax expense is comprised of current and future tax. Tax is recognized in the consolidated statements of operations and comprehensive loss except to the extent that it relates to items recognized in other comprehensive income (loss) or equity on the statements of financial position.

Current tax

Current tax is calculated using tax rates which are enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulations are subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to taxation authorities.

Deferred tax

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax is determined using tax rates which are enacted or substantively enacted at the end of the reporting period and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred tax liabilities are generally recognized for all taxable temporary differences, except for temporary differences that arise from goodwill, which is not deductible for tax purposes. Deferred tax liabilities are also recognized for taxable temporary differences arising on investments in subsidiaries except where the reversal of the temporary difference can be controlled and it is probable that the difference will not reverse in the foreseeable future.

Deferred tax assets are recognized to the extent it is probable that taxable profits will be available against which the deductible balances can be utilized. All deferred tax assets are analyzed at each reporting period and reduced to the extent that it is no longer probable that the asset will be recovered. Deferred tax assets and liabilities are not recognized with respect to temporary differences that arise on initial recognition of assets and liabilities acquired other than in a business combination.

Uncertain tax positions

The Corporation is subject to taxation in two jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Corporation maintains provisions for uncertain tax positions that it believes appropriately reflect its risks with respect to tax matters under active discussion, audit, dispute, or appeal with tax authorities or which are otherwise considered to involve uncertainty. These provisions are made using the best estimate of the amount expected to be paid based on a qualitative assessment of all relevant factors. The Corporation reviews the adequacy of these provisions at the end of the reporting period. However, it is possible that at some future date an additional liability could result from audits by taxing authorities. Where the final outcome of these tax-related matters is different from the amounts that were initially recorded, such differences will affect the tax provisions in the period in which such determination is made.

Financial instruments

The Corporation's financial instruments consist of cash and cash equivalents, accounts receivable, bank indebtedness, accounts payable and accrued liabilities, Factoring Facility, and long-term debt.

Initial application

The International Accounting Standards Board issued IFRS 9 – Financial Instruments that introduces new requirements for classifying and measuring financial instruments. The standard is effective for fiscal years beginning on or after January 1, 2018 and was adopted by the Corporation on January 1, 2018. IFRS 9 affects the classification and measurement of financial assets and financial liabilities and the recognition of expected credit losses. The Corporation adopted IFRS 9 effective January 1, 2018 on a retrospective basis. The prior year comparative information has not been adjusted with respect to the adoption of IFRS 9's classification and measurement requirements as the adoption of IFRS 9 did not result in material changes to the determination of the Corporation's anticipated credit losses and associated allowance for doubtful accounts.

There were no adjustments to the carrying amounts of financial instruments as a result of the measurement classification category changes from IAS 39 to IFRS 9.

Consistent with the requirements of IFRS 9, the Corporation assesses the lifetime expected credit losses on an ongoing basis and updates its assumptions, if and when required.

The following table summarizes the classification impacts of the adoption of IFRS 9:

Financial instrument	**Previous classification under IAS 39**	**New Classification under IFRS 9**
Financial assets:		
Cash and cash equivalents	Loans and receivables	Amortized cost
Accounts receivable	Loans and receivables	FV OCI
Financial liabilities:		
Bank indebtedness	Other liabilities	Amortized cost
Accounts payable and accrued liabilities	Other liabilities	Amortized cost
Long-term debt	Other liabilities	Amortized cost

Financial assets

The Corporation recognizes financial assets when it becomes party to the contractual provisions of the instrument. Financial assets are measured initially at their fair value plus, in the case of financial assets not subsequently measured at fair value through profit or loss, transaction costs that are directly attributable to their acquisition. Transaction costs attributable to the acquisition of financial assets subsequently measured at fair value through profit or loss are expensed in profit or loss when incurred.

Pursuant to IFRS 9, the classification of financial assets is based on the Corporation's assessment of its business model for holding financial assets. The classification categories are as follows:

- Financial assets measured at amortized cost: assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- Financial assets at fair value through other comprehensive income: assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- Financial assets at fair value through profit or loss: assets that do not meet the criteria for amortized cost or fair value through other comprehensive income.

Financial assets measured at amortized cost are measured at cost using the effective interest method. Impairment of financial assets are recognized in accordance with IFRS 9's three stage process and credit losses expected to occur over the first 12 months of the life of the instrument are recognized immediately. The life time credit losses are recognized when the credit risk has increased significantly since the initial recognition. Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amounts of the assets and the loss is recognized in the Consolidated Statements of Operations and Comprehensive Loss. When a trade receivable is uncollectible, it is written off against the allowance for doubtful accounts.

The Company reclassifies financial assets only when its business model for managing those financial assets has changed. Reclassifications are applied prospectively from the reclassification date and any previously recognized gains, losses or interest are not restated. Upon entering into the Factoring Facility in December 31, 2018, the Corporation's accounts receivable were reclassified from amortized cost to fair value through other comprehensive income. There was no change in the carrying amount at the date of reclassification.

Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire or when the contractual rights to those assets are transferred.

Financial liabilities

The Corporation recognizes a financial liability when it becomes party to the contractual provisions of the instrument. At initial recognition, the Company measures financial liabilities at their fair value plus transaction costs that are directly attributable to their issuance, with the exception of financial liabilities subsequently measured at fair value through profit or loss for which transaction costs are immediately recorded in profit or loss.

The classification of financial liabilities is determined by the Corporation at initial recognition. The classification categories are as follows:

- Financial liabilities measured at amortized cost: financial liabilities initially measured at fair value less directly attributable transaction costs and are subsequently measured at amortized cost using the effective interest method. Interest expense is recognized in the Consolidated Statements of Operations and Comprehensive Income Loss.
- Financial liabilities measured at fair value through profit or loss: financial liabilities measured at fair value with changes in fair value and interest expense recognized in the Consolidated Statements of Operations and Comprehensive Loss.

Financial liabilities are derecognized when the obligation is discharged, cancelled or expired

Segment reporting

An operating segment is a component of the Corporation that engages in business activities from which it may earn revenues and incur expenses. The operating results of all operating segments for which discrete financial information is available are reviewed regularly by executive management to make decisions about resources to be allocated to the segments and assess their performance. Segment results that are important to executive management generally include items directly attributable to a segment. Unallocated items include corporate assets, head office expenses, public company costs, interest, unrealized foreign exchange, and other expenses not directly attributable to operating segments.

4. NEW STANDARDS AND INTERPRETATIONS NOT YET ADOPTED

A number of new standards and amendments to existing standards have been issued by the IASB that are effective after December 31, 2018, and, therefore, have not been applied to the consolidated financial statements. These new standards and amendments have been reviewed and those that are anticipated to have an impact on Critical Control's consolidated financial statements are as follows:

IFRS 16 – Leases

IFRS 16 replaces the previous guidance on lease recognition and establishes principles for recognition, measurement, presentation and disclosure of leases, with the objective of ensuring that lessees and lessors provide relevant information that faithfully represents those transactions. The new standard brings most leases onto the statements of financial position for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting, however, will remain largely unchanged.

The amendments are effective for annual periods beginning on or after January 1, 2019, with early application permitted if IFRS 15 – Revenue from Contracts with Customers, has also been applied. The Corporation is currently evaluating the impact of the adoption of this standard on its consolidated financial statements and will apply the IFRS on January 1, 2019.

5. ACCOUNTS RECEIVABLE

As at December 31, ($ thousands)	2018	2017
Accounts receivable	**4,737**	5,938

The following is a reconciliation of the change in the allowance for doubtful accounts:

As at December 31, ($ thousands)	2018	2017
Balance at beginning of year	**1,203**	1,447
Net change in the reserve recorded in the statement of operation	**204**	120
Write-offs charged against the reserve	**(1,099)**	(364)
Balance at end of year	**308**	1,203

6. INVENTORY

As at December 31, ($ thousands)	2018	2017
Inventory	**1,379**	2,357

During the year ended December 31, 2018, the Corporation sold inventory with a cost of $1.3 million at auction for gross proceeds of $0.1 million of which $0.6 million was applied against the allowance for inventory obsolescence. During the year ended December 31, 2017, there were no inventory write-downs or reversals of previously written-down amounts. As at December 31, 2018, the allowance for inventory obsolescence was $0.1 million (2017 – $0.7 million).

The amount of inventory used during the year was $2.9 million (2017 – $3.1 million). The amount was recognised as operating expense in the consolidated statements of operations and comprehensive loss during the year.

7. PREPAID EXPENSES AND DEPOSITS

As at December 31, ($ thousands)	Note	2018	2017
Interest reserve	10	**787**	-
Default reserve	10	**263**	-
Rent deposits		**80**	81
Prepaid commissions		**50**	68
Other prepaid expenses and deposits		**242**	185
		1,422	334
Current portion		**1,079**	253
Long-term portion		**343**	**81**

8. PROPERTY AND EQUIPMENT

Property and equipment as at and for the years ended December 31, 2018 and December 31, 2017 were as follows:

($ thousands)	Leasehold improvements	Computer hardware	Office and operating equipment	Vehicles	Total
Costs					
Balance at December 31, 2016	532	2,262	5,715	2,262	10,771
Additions	58	75	552	-	685
Disposals	-	(54)	(2)	(157)	(213)
Effect of foreign exchange	(31)	(22)	(301)	(207)	(561)
Balance at December 31, 2017	559	2,261	5,964	1,898	10,682
Additions	**8**	**39**	**812**	**-**	**859**
Disposals	**-**	**(2)**	**(7)**	**(149)**	**(158)**
Effect of foreign exchange	**44**	**27**	**429**	**159**	**659**
Balance at December 31, 2018	**611**	**2,325**	**7,198**	**1,908**	**12,042**
Accumulated depreciation					
Balance at December 31, 2016	419	1,799	3,258	1,681	7,157
Depreciation	15	184	802	167	1,168
Disposals	-	(22)	(2)	(116)	(140)
Effect of foreign exchange	(27)	(17)	(181)	(177)	(402)
Balance at December 31, 2017	407	1,944	3,877	1,555	7,783
Depreciation	**43**	**231**	**992**	**267**	**1,533**
Disposals	**-**	**(2)**	**(3)**	**(114)**	**(119)**
Effect of foreign exchange	**36**	**25**	**284**	**147**	**492**
Balance at December 31, 2018	**486**	**2,198**	**5,150**	**1,855**	**9,689**
Carrying amount					
Balance at December 31, 2018	**125**	**127**	**2,048**	**53**	**2,353**
Balance at December 31, 2017	152	317	2,087	343	2,899

Additions

Purchases of property and equipment in the amount of $0.7 million (2017 - $nil) are excluded from investing activities on the consolidated statements of cash flows as they were transferred from inventory during the year.

Leased equipment

The Corporation leases certain equipment under finance lease agreements. The leased equipment is secured by the underlying assets. As at December 31, 2018, the net carrying amount of leased equipment was $nil (2017 – less than $0.1 million).

Security

At December 31, 2018 and December 31, 2017, all property and equipment of the Corporation was provided as security for long-term debt.

9. INTANGIBLE ASSETS AND GOODWILL

Intangible assets and goodwill as at and for the periods ended December 31, 2018 and December 31, 2017 were as follows:

($ thousands)	Product development costs	Customer relationships and contracts	Software	Non-compete agreements	Goodwill	Total
Costs						
Balance at December 31, 2016	2,855	12,201	9,278	739	12,396	37,469
Additions	1,587	-	18	-	-	1,605
Effect of foreign exchange	-	(396)	-	(40)	(524)	(960)
Balance at December 31, 2017	4,442	11,805	9,296	699	11,872	38,114
Additions	**1,190**	**-**	**8**	**-**	**-**	**1,198**
Effect of foreign exchange	**-**	**494**	**-**	**50**	**652**	**1,196**
Balance at December 31, 2018	**5,632**	**12,299**	**9,304**	**749**	**12,524**	**40,508**
Accumulated depreciation						
Balance at December 31, 2016	891	7,120	8,668	701	-	17,380
Amortization	534	911	240	29	-	1,714
Effect of foreign exchange	-	(190)	-	(38)	-	(228)
Balance at December 31, 2017	1,425	7,841	8,908	692	-	18,866
Amortization	**285**	**3,506**	**388**	**7**	**-**	**4,186**
Impairment	**2,959**	**-**	**-**	**-**	**7,541**	**10,500**
Effect of foreign exchange	**-**	**356**	**-**	**50**	**322**	**728**
Balance at December 31, 2018	**4,669**	**11,703**	**9,296**	**749**	**7,863**	**34,280**
Carrying amount						
Balance at December 31, 2018	**963**	**596**	**8**	**-**	**4,661**	**6,228**
Balance at December 31, 2017	3,017	3,964	388	7	11,872	19,248

Intangible assets

Product development costs are internally generated from capitalized development projects which are amortized over the expected life of the developed product line.

Customer relationships and contracts, certain software and non-compete agreements are a result of a number of previous business combinations.

Goodwill

Goodwill is a result of a number of previous business combinations and is generally attributable to anticipated synergies expected from those acquisitions. Goodwill, by definition, has no useful life, and is, therefore, not amortized. However, goodwill is subject to impairment tests at least annually. For purposes of impairment testing, Critical Control assesses goodwill at the operating segment level. As at December 31, 2018 and December 31, 2017, the entire balance included in goodwill was allocated to the Software operating segment.

Impairment

For the purpose of impairment testing, goodwill acquired in each business combination is allocated to the Corporation's CGUs that are expected to benefit from the synergies of the combination. Each CGU represents the lowest level within the Corporation at which goodwill is monitored for internal management purposes and is not larger than an operating segment.

The Corporation reviews the carrying value of its long term non-financial assets at each reporting period for indicators of impairment. During the period ended September 30, 2018, the Corporation identified that the product development costs included in the Software CGU related to one of its product lines were impaired due to a change in focus making its commercialization unlikely. An impairment charge of $3.0 million was recorded against product development costs.

Also as a result of current forecasts, trading value, and financing, it was determined there were indicators of impairment for the Software CGU and therefore, the Corporation performed impairment tests to assess the recoverable amount during the period ended September 30, 2018. The recoverable amount at September 30, 2018 was determined based on value in use, which was calculated using discounted pre-tax cash flow projections for the Software CGU using the following key assumptions:

- Cash flows were projected based on past experience, actual operating results, relevant annual budgets and growth expectations. Cash flows beyond five years were extrapolated using a constant growth rate of 3%, which does not exceed the long-term average growth rate for the industry.
- The first year of cash flows was based on the annual operating budgets.
- The anticipated annual revenue included in the cash flow projections for the next four years was based on average compound growth rates of 4%.
- The anticipated earnings before income taxes, depreciation, and amortization ("EBITDA") in the next four years was based on rates as a percentage of sales averaging 25%.
- A pre-tax discount rate of 25% resulting in the recognition of $5.5 million recorded as impairment.

The values assigned to the key assumptions represented management's assessment of future trends in the relevant industries and were based on both external and internal sources (e.g. historical data).

As a result of further declines in forecasts, the Corporation performed impairment tests to assess the recoverable amount of the Software CGU at December 31, 2018. The recoverable amount was determined based on value in use, which was calculated using discounted pre-tax cash flow projections for the Software CGU using the following key assumptions:

- Cash flows were projected based on past experience, actual operating results, relevant annual budgets and growth expectations. Cash flows beyond five years were extrapolated using a constant growth rate of 3% (2017 – 3%), which does not exceed the long-term average growth rate for the industry.
- The first year of cash flows was based on the annual operating budgets.
- The anticipated annual revenue included in the cash flow projections for the next four years was based on average compound growth rates of 2% (2017 – 5%).
- The anticipated EBITDA in the next four years was based on rates as a percentage of sales averaging 22% (2017 – 16%).
- A pre-tax discount rate of 27% resulting in the recognition of a further $2.0 million recorded as impairment.

The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and are based on both external and internal sources (e.g. historical data).

The Company recorded a total asset impairment of $10.5 million for the year ended December 31, 2018. An impairment test was performed for the Software CGU at December 31, 2017 and the CGU was not determined to be impaired.

The most sensitive inputs to the value in use model are the growth and discount rates. All else being equal:

- A 1% increase in the discount rate would have resulted in additional impairment recognized of $0.5 million.
- A 1% decrease in growth rate would have resulted in additional impairment recognized of $0.3 million.

10. BANK INDEBTEDNESS, FACTORING FACILITY AND LONG-TERM DEBT

As at December 31, ($ thousands)	Note	2018	2017
Secured bank term loan (CAD $3.0 million)	b	**-**	2,874
Secured bank term loan (CAD $2.0 million)	c	**-**	499
Term Loan	e	**6,825**	-
Factoring Facility	f	**2,801**	-
		9,626	3,373
Factoring Facility		**2,801**	-
Current portion		**-**	661
Long-term portion		**6,825**	**2,712**

On December 1, 2017, the Corporation executed an amendment to the credit facility agreement with its lender. Significant details of the facility are summarized below.

(a) A revolving demand operating credit up to $8.5 million to support working capital requirements in Canada and the US. The operating line interest rate was prime plus 1.25%.

The revolving demand operating credit was limited by standard margining of trade receivables and inventories, reduced by priority claims and other adjustments. As at December 31, 2017, the margining limit was estimated to be $5.7 million, leaving $0.9 million of the operating credit available for future working capital needs. Access to this facility was limited by the impact of debt levels on financial covenants.

(b) During 2016, a previous demand term loan was repaid and replaced with a $3.0 million committed term loan. This committed term loan was set to mature on April 30, 2019. The Corporation made interest only payments until September 2017. Beginning in September 2017, the Corporation started making monthly principal payments, based on a five year amortization period. The loan interest rate was prime plus 1.75% per year. Repayment of this loan was guaranteed by Export Development Canada ("EDC").

(c) On December 1, 2017, the banking facility agreement was amended to include a credit limit of $2.0 million to fund equipment required under contracts with customers where the subscription of the Corporation's software is bundled with the provision of oil and gas measurement and communication equipment. As at December 31, 2017, $0.5 million of the line of credit had been used. The loan interest rate was prime plus 1.25% per year. Interest only payments were required for the first six months starting immediately after the first draw. After which, monthly payments of principal and interest were payable over a 36 month term not including the interest only period. Repayment of 75% of this loan was guaranteed by EDC.

(d) A committed term loan of US$0.8 million to fund repayment of the Corporation's previous bank term loan and unsecured promissory note. This committed term loan was repaid July 31, 2017.

The credit facility was secured by the following:

- A general security agreement creating a first-priority security interest in all present and future undertaking and personal property of the Corporation;
- Upstream guarantees from all material subsidiaries of the Corporation, secured by general security agreements and uniform commercial code filings as considered appropriate; and
- A guarantee from EDC with respect to the $3.0 million and $2.0 million committed term loans.

The credit facility agreement required adherence to certain financial covenants, including a debt to capitalization ratio not to exceed 0.38 to 1.00 and an adjusted debt service ratio to exceed 1.10 to 1.00. As at December 31, 2017, the Corporation was in compliance with its financial covenants.

On November 14, 2018, the Corporation closed a credit facility agreement with a new lender to replace the previous credit facility discussed above. Significant details of the facility are summarized below.

(e) A $7.0 million non-revolving term loan ("Term Loan") maturing three years after the closing date. The Term Loan is interest only until December 31, 2019 at which time principal payments thereafter will be calculated based on 80% of free cash flow reported for the second preceding month, the first payment which is due in March 2020. The Term Loan bears interest at a rate of 15% and is payable on the last day of each month. The interest rate is reduced to 13.5% if the debt to EBITDA ratio, calculated on a trailing twelve month basis, is less than 2.75 to 1.00 at the end of a fiscal quarter, and is increased by 3% if amounts are not paid when due.

An interest reserve equal to nine months of interest and a default reserve equal to three months of interest were withheld from the amount advanced and have been included in prepaid expenses and deposits (Note 7). Interest payments for the first nine months will be applied against the interest reserve and the default reserve is returned upon repayment of the Term Loan.

After considering the timing of repayments and transaction costs of $0.3 million incurred to finance the Term Loan, the effective interest rate is 18.29%. The breakdown of the Term Loan balance at December 31, 2018 is as follows:

As at December 31, **($ thousands)**	**2018**
Term Loan	**7,000**
Transaction costs	**(347)**
Carrying value at closing date	**6,653**
Interest expense	**172**
	6,825

(f) An accounts receivable factoring agreement ("Factoring Facility") up to a maximum of $4.9 million which is the total of the Corporation's trade accounts receivable at December 31, 2018. The fees charged under the factoring agreement are (i) an initial discount fee of 1.50%; (ii) a further daily discount fee of 0.05% on any unpaid amounts in which more than 30 days have elapsed from the factoring of the individual accounts receivable; (iii) monthly monitoring fee of $4 thousand. Under the factoring agreement, a reserve is withheld from the factoring purchase price in the amount of 10% for the individual accounts receivable 0-121 days based on the face value and is returned to the Corporation upon collection of the individual accounts receivable.

Under the terms of the factoring agreement, the Corporation is not permitted to amend payment terms relating to any trade accounts receivable or the lender may require immediate repayment of the accounts receivable or charge a further discount of 5% for every 30 days in which payment terms were extended. Should any customer dispute occur, or a customer fail to pay within 120 days from the invoice date, the individual accounts receivable must be repurchased from the factoring corporation at their request for a price equal to the outstanding amount. When the Corporation is obliged to re-purchase an individual accounts receivable, a daily discount fee of 0.05% will be incurred for each day that any portion of the individual accounts receivable remains unpaid.

The amounts owing under the agreement are secured by the Corporation's trade accounts receivable and the lender has a first priority lien. As at December 31, 2018, the amounts advanced under this facility totaled $2.8 million. This arrangement is recorded as a financing from the lender and factoring costs are charged to operations as incurred.

The Term Loan and Factoring Facility funds are used first to refinance existing indebtedness under the old credit facility and subsequently for working capital needs. The breakdown of funds drawn are as follows:

At Closing Date **($ thousands)**	
Term Loan	**7,000**
Factoring Facility	**2,969**
	9,969
Interest and default reserve	**(1,050)**
Advanced proceeds	**8,919**
Closing costs and fees	**(94)**
Net proceeds	**8,825**
Payout existing credit facility	**(8,261)**
Addition to working capital	**564**

After a period of one year from the closing date, the amounts may be repaid on 90 days' notice without penalty. The prepayment option represents an embedded derivative which should be separated from the host Term Loan, however had no value at December 31, 2018.

The Term Loan and Factoring Facility are secured by the following:

- A general security agreement creating a first-priority security interest in all present and future undertaking and personal property of the Corporation; and
- Upstream guarantees from all material subsidiaries of the Corporation.

The Term Loan and Factoring Facility require adherence to the following financial covenants:

- Current ratio to exceed 0.90 to 1.00 each quarter up to and including the quarter ended June 30, 2019 and exceed 1.00 to 1.00 thereafter;
- Commencing January 1, 2019, debt to EBITDA ratio not to exceed 4.00 to 1.00 each quarter up to and including the quarter ended December 31, 2019 and not to exceed 2.75 to 1.00 thereafter;
- Commencing January 1, 2019, debt service coverage ratio to exceed 1.00 to 1.00 each quarter; and
- Commencing January 1, 2019, interest coverage ratio to exceed 1.25 to 1.00 each quarter up to and including the quarter ended December 31, 2019 and exceed 1.75 to 1.00 thereafter.

As at December 31, 2018, the Corporation was in compliance with its financial covenants.

11. INCOME TAXES

The components of income tax (recovery) for the years ended December 31, 2018 and December 31, 2017 were are follows:

For year ended December 31, ($ thousands)	2018	2017
Income tax - current	**(49)**	460
Income tax - deferred	**3,637**	96
Income tax (recovery)	**3,588**	556

The Corporation is subject to Canadian federal and provincial taxes and US federal and state taxes. For the year ended December 31, 2018, the Corporation had an expense of $2.2 million (2017 –$0.8 million) which relates to the Canadian entities, and an expense of $1.4 million (2017 – recovery of $0.2 million) pertains to US entities.

Factors affecting tax expense (recovery) for the year:

For year ended December 31, ($ thousands)	2018	2017
Net loss before tax	**(15,650)**	(2,701)
Corporate statutory tax rate	**27.0%**	27.0%
Tax recovery at statutory rate	**(4,226)**	(729)
Non-deductible amounts	**2,036**	47
Statutory and other rate differences	**-**	438
Change in Unrecognized Temporary Differences	**5,607**	693
Other	**171**	107
	3,588	556

As at December 31, 2018, the consolidated statements of financial position included current taxes receivable of $nil (2017 – $0.1 million), and tax credit recoverable of $nil (2017 – $0.3 million).

Deferred assets are recognized for tax loss carry-forwards to the extent that the realization of the related tax benefit through future taxable profits is probable. The ability to realize the tax benefits of these losses is dependent upon a number of factors, including future profitability of operations in the jurisdictions in which the tax losses arose. At December 31, 2017, the Corporation did not recognize $0.7 million of deferred tax assets relating to tax loss carry-forwards of $2.5 million which will expire in 2035.

During the year ended December 31, 2018, the Corporation derecognized deferred tax assets of $3.6 million that were recognized at December 31, 2017. At December 31, 2018 the Corporation has $13.3 million and $8.7 million of Canadian Federal and Provincial non-capital losses respectively, as well as $10.1 million of US non-capital losses. These losses will expire between 2026 and 2036. The Corporation also has other deductible temporary differences in the amount of $9.6 million. It is uncertain whether future taxable profit will be available against which the Corporation can use the benefits of the deferred tax assets and therefore the benefits of these tax attributes have not been recognized.

The movement of deferred tax assets and liabilities are shown below:

($ thousands)	Balance December 31, 2017	Recognized in profit or loss	Effect of movement in exchange rates	**Balance December 31, 2018**
Accounts receivable and accounts payable	105	(110)	5	-
Tax credits recoverable	(153)	160	(7)	-
Property and equipment and software	(325)	341	(16)	-
Intangible assets other than software	(1,534)	1,609	(75)	-
Other	281	(295)	14	-
Tax loss carry-forward	3,593	(3,769)	176	-
Intercompany interest	1,447	(1,518)	71	-
Foreign exchange	(226)	237	(11)	-
Deferred income tax	3,188	(3,345)	157	-

($ thousands)	Balance December 31, 2016	Recognized in profit or loss	Effect of movement in exchange rates	**Balance December 31, 2017**	**Unrealized December 31, 2017**
Accounts receivable, and accounts payable	343	(218)	(20)	**105**	-
Tax credits recoverable	(205)	52	-	**(153)**	-
Property and equipment and software	(598)	241	32	**(325)**	-
Intangible assets other than software	(1,860)	247	79	**(1,534)**	-
Provisions	54	(54)	-	**-**	-
Other	409	(109)	(19)	**281**	-
Tax loss carry-forward	4,274	(563)	(118)	**3,593**	693
Intercompany interest	1,932	(358)	(127)	**1,447**	-
Foreign exchange	(916)	666	24	**(226)**	-
Deferred income tax	3,433	(96)	(149)	**3,188**	693
Deferred income tax - asset	3,433			**3,188**	

12. PROVISIONS

($ thousands)	**Onerous Leases**
Balance as at December 31, 2016	191
Provision used during the year	(191)
Balance as at December 31, 2017	-

The onerous leases provision related to discontinued operations, specifically, excess space in Edmonton, Alberta which expired on August 31, 2017. In 2016, the lease located in Fort Lupton, Colorado was added to onerous leases and the lease located in Muncy, Pennsylvania was settled and deducted from onerous leases, as changes in estimate.

The Corporation did not utilize the leased locations due to underdeveloped market opportunities, and thus recognized an onerous leases provision. The net obligation of the onerous leases was estimated based on sublease agreements expected to be in place. The provision was based on management's best estimate of the sublease rates that will be negotiated, the timing, and the discount rates.

13. SHARE CAPITAL

(a) Common shares

As at December 31,	**2018**		2017	
($ thousands)	**#**	**$**	#	$
Outstanding, beginning of year	**44,045,462**	**29,685**	58,459,856	31,888
Converted common shares	**-**	**-**	(14,728,860)	(2,272)
Shares issued under Employee Share Purchase Plan	**142,148**	**24**	114,466	31
Shares issued under Deferred Annual Bonus and Share Purchase Plan	**289,981**	**106**	200,000	38
Outstanding, end of year	**44,477,591**	**29,815**	44,045,462	29,685

The Corporation is authorized to issue an unlimited number of common shares without par value. The holders of common shares are entitled to one vote per share and all shares rank equally with regard to the Corporation's residual assets.

In July 2017, the shareholders converted 14,728,860 common shares for 1,136,245 preferred shares pursuant to the plan of arrangement approved by shareholders on June 29, 2017.

(b) Preferred shares and warrants

As at December 31,	**2018**		2017	
($ thousands)	**#**	**$**	#	$
Outstanding, beginning of year	**2,149,245**	**4,105**	-	-
Converted common shares	**-**	**-**	1,136,245	2,272
Private placement with warrants	**-**	**-**	1,013,000	1,833
Outstanding, end of year	**2,149,245**	**4,105**	2,149,245	4,105

In July 2017, the Corporation issued 1,013,000 series A preferred shares ("preferred shares") in exchange for proceeds of $2.0 million and converted 14,728,860 common shares for 1,136,245 preferred shares pursuant to the plan of arrangement approved by shareholders on June 29, 2017. The total cost of issuing the preferred shares was $0.1 million.

The 2,149,245 preferred shares are entitled to receive a cumulative quarterly fixed dividend for the five-year period following their issuance at an annual rate of 8.00%, payable on the last day of March, June, September, and December, as and when declared by the Board of Directors of the Corporation. The first of such dividends was paid September 30, 2017 and second dividend was paid December 31, 2017. In the third quarter of 2018, the Corporation suspended payment of cash dividends on the preferred shares. Total dividend paid in the year was $0.2 million (2017 - $0.2 million) and the cumulative unpaid dividend as at December 31, 2018 was $0.2 million (2017 – $nil).

After five years, the annual dividend rate will be adjusted to a rate equal to the sum of the then five-year Government of Canada bond yield plus 5.00%, provided that, in any event, such rate will not be less than 8.00% per annum.

At any time after the five-year anniversary of their issuance, all or a portion of the preferred shares may be redeemed by the Corporation for an amount equal to the sum of the deemed purchase price for the preferred shares plus any declared, accrued, and unpaid dividends.

With the issuance of the preferred shares, the Corporation issued 1,013,000 warrants which entitles the subscriber to purchase one common share of the Corporation at a purchase price of $0.20 per warrant before June 30, 2019.

(c) Contributed surplus

The contributed surplus reserve comprises all share-based payment transactions that do not involve the issuance of shares, private placement proceeds allocated to unexercised share purchase warrants, and Employee Share Purchase Plan proceeds for unissued common shares.

(d) Accumulated other comprehensive income

Accumulated other comprehensive income ("AOCI") is comprised of the cumulative translation account, which includes all foreign currency differences arising from the translation of the financial statements of foreign operations.

14. SHARE-BASED PAYMENTS

The total number of common shares that may be reserved for issuance to directors, officers, employees, or other insiders under any share-based compensation arrangement, in aggregate during any one year period, cannot exceed 10% of the Corporation's total issued and outstanding common shares. If any share-based award expires without having been exercised or is terminated/forfeited for any reason under any share-based compensation arrangement then, subject to the terms of that particular share-based compensation arrangement, the common shares underlying such award shall again be available for issuance in connection with any future awards that the Corporation may grant.

(a) Deferred annual bonus and share purchase plan

The Corporation adopted a Deferred Annual Bonus and Share Purchase Plan ("DSP") in 2006. The DSP enables employees to elect to receive up to 10% of their annual base salary and up to 100% of any annual bonus to which they become entitled in the form of deferred common shares ("DCS"). Each DCS may be redeemed by the holder for one common share of the Corporation for no additional payment on death or termination of the holder's service to the Corporation.

During 2018, 500,000 DCS were issued to executives, line managers, and key contributors of the Corporation. 200,000 DCS vest if earnings growth targets are met within a four-year period and 300,000 vest one-third each year. If the earnings growth targets are not met, or if the employee leaves the Corporation before they are met, the DCS are forfeited. The measurement date fair value of the DCS was less than $0.1 million.

As at December 31,	**2018**		2017	
	Issued	**Vested**	Issued	Vested
Outstanding, beginning of year	**1,576,635**	**551,635**	1,876,635	551,635
Granted	**500,000**	**-**	-	-
Vested	**-**	**233,334**	-	200,000
Exercised	**(289,981)**	**(289,981)**	(200,000)	(200,000)
Forfeited	**(766,666)**	**-**	(100,000)	-
Outstanding, end of year	**1,019,988**	**494,988**	1,576,635	551,635

(b) Employee share purchase plan

The Corporation adopted an Employee Share Purchase Plan (“ESPP”) in 2014 where 3,000,000 common shares may be issued to directors, officers, and employees. The ESPP was subject to the 10% limitation of the Corporation’s total issued and outstanding common shares, thereby reducing the number of common shares for issuance under the ESPP to 1,886,351. In May 2018, the Board passed a resolution which prohibits the Corporation from issuing more than 1,386,351 common shares under the ESPP to allow for the increase in the number of common shares issuable under the DSP.

Each participant in the ESPP is permitted to contribute a portion of his or her salary to the ESPP. The Corporation issues the purchased shares from treasury upon the earlier of a written request from the participant and the one year anniversary of the end of the month in which the contribution was made. In addition to the purchased shares, the Corporation matches the participant's contribution, to an annual maximum of the lesser of five thousand dollars or 5 % of the participant’s annual base salary. The matched shares are subject to a one-year vesting period and are issued from treasury during the quarter following two years from the end of the month in which the contribution was made.

During the year end December 31, 2018, proceeds net of refunds from purchased shares are credited to contributed surplus and totaled less than $0.1 million (2017 – less than $0.1 million). This amount is transferred to share capital when the shares are issued from treasury, and less than $$0.1 million (2017 – less than $0.1 million) was transferred during the year. The measurement date fair value of the matched shares during the year was less than $0.1 million (2017 – less than $0.1 million) and is being expensed over the one year vesting period, with an offsetting credit to contributed surplus.

As at December 31, 2018, 113,502 (2017 – 122,466) shares were reserved for issuance in relation to purchased shares and 225,876 (2017 – 152,240) shares were reserved for issuance in relation to matched shares. A total of 1,072,560 (2017 – 865,740) common shares have been issued and reserved as at December 31, 2018, leaving 313,791 (2017 – 1,020,611) available for issuance in subsequent periods.

15. LOSS PER SHARE

Basic loss per share for the year ended December 31, 2018 and December 31, 2017 is based on the net loss attributable to shareholders, as reported in the consolidated statements of operations and comprehensive loss, and the weighted average number of common shares outstanding in the year.

Diluted loss per share for the year ended December 31, 2018 and December 31, 2017 is based on the net loss attributable to shareholders as reported in the consolidated statements of operations and comprehensive loss and basic weighted average number of common shares outstanding in the year:

For the year ended December 31,	**2018**	2017
Weighted average number of common shares		
Basic	**44,258,991**	54,974,900
Diluted	**44,258,991**	54,974,900

The average market value of the Corporation’s shares for purposes of calculating the dilutive effect of deferred common shares is based on quoted market prices for the period during which the deferred common shares were outstanding. The following potential common shares were excluded from the diluted weighted average number of common shares outstanding because they were antidilutive:

- 1,019,988 deferred common shares (2017 – 1,576,635);
- 1,013,000 preferred shares warrants (2017 – 1,013,000); and
- 339,378 shares reserved under the Employee Share Purchase Plan (2017 – 274,706).

16. CAPITAL MANAGEMENT

The Board of Directors policy is to maintain a strong capital base so as to maintain investor, creditor, and market confidence and to sustain future development of the business. Management and the Board of Directors monitor capital using a debt to equity ratio. The target ratio is 0.5 to 1 and is calculated as loans and borrowings (excluding secured bank term loans), net of cash and cash equivalents, divided by shareholders' equity. The Board of Directors seeks to maintain a balance between the higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position. The Corporation's debt to equity ratio at the end of the reporting year was as follows:

As at December 31, **($ thousands)**	Note	**2018**	2017
Bank indebtedness	10	**-**	4,743
Term Loan	10	**6,825**	-
Factoring Facility	10	**2,801**	3,373
		9,626	8,116
Less: secured bank term loans	10	**-**	3,373
Less: cash and cash equivalents		**630**	287
Net debt		**8,996**	4,456
Total shareholders' equity		**2,482**	22,585
Net debt to equity		**3.62:1**	0.2:1

As a result of the significant intangible asset impairment charge recorded in 2018 (Note 9), the Corporation's debt to equity ratio substantially exceeds its .5 to 1 target at December 31, 2018. Management and the Board of Directors are addressing initiatives that over the longer term will strengthen the Corporation's capital base and bring the target ratio back in to line.

17. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The following shows the fair value and carrying values of the financial instruments:

As at December 31,	**2018**		2017	
($ thousands)	**Fair Value**	**Carrying Value**	Fair Value	Carrying Value
Financial asset:				
Cash and cash equivalents	**630**	**630**	287	287
Accounts receivable	**4,737**	**4,737**	5,938	5,938
Financial liabilities:				
Bank indebtedness (1)	**-**	**-**	4,743	4,743
Accounts payable and accrued liabilities	**3,727**	**3,727**	2,963	2,963
Long-term debt:				
Secured bank term loan - CAD	**-**	**-**	499	499
Secured bank term loan - CAD	**-**	**-**	2,874	2,874
Factoring Facility	**2,801**	**2,801**	-	-
Term Loan	**7,000**	**6,825**	-	-

(1) Total value of outstanding at December 31, 2018 of $nil (December 31, 2017 – CDN$2.6 million, US$0.2 million, and LIBOR US$1.5 million)

Critical Control has estimated the fair value amounts using appropriate valuation methodologies and information available to management as of the valuation dates. The following methods and assumptions were used to estimate the fair value of each class of financial instrument for which it was practicable to estimate that value:

- **Cash and cash equivalents, accounts receivable, and accounts payable and accrued liabilities**. The carrying amounts approximate fair value because of the short maturity of these instruments.
- **Bank indebtedness and long-term debt**. The fair value of the various components of bank indebtedness and long-term debt are based on the values owed to third-party financial institutions using current market price indicators. Long-term debt is measured at level 2 in the fair value hierarchy.

Nature and extent of risks arising from financial instruments

Critical Control is exposed to a number of market risks arising through the use of financial instruments in the ordinary course of business. Specifically, Critical Control is subject to credit risk, liquidity risk, currency risk, and interest rate risk.

The Board of Directors has overall responsibility for the establishment and oversight of the Corporation's risk management framework. Critical Control's management team identifies and analyzes the risks faced by the Corporation and manages/monitors these risks, including the impact of changes in market conditions and changes in the Corporation's activities.

	Risk			
			Market risks	
	Credit	Liquidity	Currency	Interest rate
Measured at cost or amorized cost				
Cash and cash equivalents	X		X	X
Accounts receivable	X		X	
Bank indebtedness		X	X	X
Accounts payable and accrued liabilities		X	X	
Long-term debt		X	X	X

Credit risk

Critical Control is exposed to credit risk as a result of extending credit to customers for services performed, creating exposure on accounts receivable balances with trade customers. This exposure to credit risk is managed through a corporate credit policy whereby upfront evaluations are performed on all customers and credit is granted based on payment history, financial conditions, and anticipated industry conditions. Customer payments are continuously monitored to ensure the creditworthiness of all customers with outstanding balances and when collectability becomes questionable an allowance for doubtful accounts is established. Starting in 2016, the Corporation obtained insurance on its 0 to 120 days outstanding accounts receivable to reduce its credit risk exposure.

As at December 31, 2018, Critical Control had accounts receivable of $0.9 million (2017 – $2.6 million) that were greater than 90 days. It is the Corporation's intention to vigorously pursue the collection of the amounts provided for.

Liquidity risk

Liquidity risk is the risk that the Corporation will not be able to meet its financial obligations as they become due. Critical Control actively manages its liquidity through daily, weekly, and longer-term cash outlook and debt management strategies. The Corporation's policy is to ensure that sufficient resources are available either from cash balances, cash flows or undrawn committed bank facility, to ensure all obligations are met as they fall due.

The Corporation's long-term debt credit facilities requires meeting certain financial covenants. As at December 31, 2018 and December 31, 2017, the Corporation was in compliance with its financial covenants. Further, the Corporation prepared financial forecasts for the year ended December 31, 2019 which indicated non-compliance with its financial covenants in the first quarter, with expected compliance for all other quarters, which would make the Term Loan and Factoring Facility callable.

On March 26, 2019, the Corporation and its lender entered into an amending agreement to revise the calculation of the debt to EBITDA ratio, debt service coverage ratio and interest coverage ratio. The revision is such that EBITDA or adjusted EBITDA as applicable for the quarters ended March 30, 2019 and June 30, 2019 will be calculated based on each respective quarters annualized results opposed to the previous rolling four quarter basis. Based on the current financial forecasts, the Corporation expects to be in compliance with its amended financial covenants for fiscal 2019.

The following maturity analysis shows the remaining contractual maturities for Critical Control's financial liabilities:

As at December 31, 2018	**Carrying**	**Less than**	**2 - 3**	**4 - 5**	**After 5**
($ thousands)	**amount**	**1 year**	**years**	**years**	**years**
Accounts payable and accrued liabilities	**3,727**	**3,727**	**-**	**-**	**-**
Factoring Facility	**2,801**	**2,801**	**-**	**-**	**-**
Term Loan	**6,825**	**-**	**6,825**	**-**	**-**
	13,353	**6,528**	**6,825**	**-**	**-**

As at December 31, 2017	Carrying	Less than	2 - 3	4 - 5	After 5
($ thousands)	amount	1 year	years	years	years
Bank indebtedness	4,743	4,743	-	-	-
Accounts payable and accrued liabilities	2,963	2,963	-	-	-
Secured bank term loan (CAD $3.0 million)	2,874	564	1,500	810	-
Secured bank term loan (CAD $2.0 million)	499	97	333	69	-
	11,079	8,367	1,833	879	-

At December 31, 2018, the Corporation had $0.6 million (2017 – $0.3 million) of cash on hand, and access to a further $1.3 million available on its Factoring Facility (2017 – $0.9 million available on its secured banking facility) to fund ongoing working capital requirements. Management anticipates that its current level of cash flow from operations and access to working capital will be sufficient to meet its existing obligations, but intends to regularly review its level of capital resources and adjust spending accordingly. This review will consider factors such as the current economic environment, changes in demand for the Corporation's services, capital spending requirements, working capital needs, and profitability of the Corporation's operations, any of which could materially affect the Corporation's ability to meet its obligations.

Additional financing may be necessary in a variety of circumstances, including the requirement of working capital to ramp up operations required by strong growth, the occurrence of adverse circumstances, fluctuations in foreign currency translation, or the decision to expand geographically into new markets or by acquisition. It is anticipated that the financing may be raised by bank debt, other forms of debt, or the issue of equity. It is possible that such financing will not be available, or if available, will not be available on favorable terms.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates will affect the Corporation's income or the value of its financial instrument holdings. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the returns.

Currency risk

The Corporation, through its US subsidiaries, has significant US operations for which the functional currency is the US dollar. Future fluctuations in exchange rates between the Canadian and US dollar will have an effect on the Corporation's operating results, financial position, and cash flows. Future fluctuations in exchange rates will also have an effect on foreign currency translation adjustments that do not flow through net earnings, but do flow though comprehensive loss.

The currencies in which these transactions are denominated are Canadian and US dollars. The Corporation has no exposure to foreign currency fluctuations other than those relating to the US and Canadian dollars. Generally, borrowings are denominated in currencies that match the cash flows generated by the underlying operations of the Corporation, which would be the functional currency of the Corporation's entities. This provides an economic hedge without derivatives being entered into. Hedge accounting is not applied.

A strengthening of the Canadian dollar against the US dollar by 100 basis points at December 31, 2018 would have decreased net loss by $0.1 million (2017 – less than $0.1 million), other comprehensive income (loss), total comprehensive loss, and equity by $0.1 million (2017 – less than $0.1 million). The analysis assumes that all other variables, interest rates in particular, remain constant. The analysis has been performed on the same basis for 2017. A weakening of the Canadian dollar by 100 basis points at December 31, 2018 would have had an equal but opposite effect on net loss, other comprehensive income (loss), and equity, on the basis that all other variables remain constant.

Interest rate risk

The Corporation's objective in managing interest rate risk is to monitor expected volatility in interest rates while also minimizing financing expense levels. Interest rate risk mainly arises from fluctuations of interest rates and the impact on the expense associated with variable rate debt. On an ongoing basis, management monitors changes in short-term rates and considers long-term forecasts to assess potential cash flow impacts to the Corporation.

Critical Control was subject to risk exposure related to changes in interest rates on borrowings under the previous credit facility, which was subject to floating interest rates. A change of 100 basis points in the interest rates would cause a less than $0.1 million change in interest costs for the year-ended December 31, 2018 (2017 – $0.1 million). This analysis is based on average debt levels and assumes that all other variables, in particular foreign currency rates, remain constant. The Term Loan and Factoring Facility entered during the year ended December 31, 2018 bear fixed rates of interest which reduces the Corporation's exposure to interest rate risk. The analysis has been performed on the same basis for 2017. The Corporation does not currently hold any financial instruments to mitigate its interest rate risk.

18. REVENUE

For the years ended December 31, ($ thousands)	2018	2017
Cloud based software	**7,853**	7,801
Software based services	**7,230**	8,414
Measurement services	**7,527**	8,453
Equipment and other revenue	**4,259**	4,454
	26,869	29,122

Cloud based software is reasonably expected to be continually provided to clients on a recurring periodic basis. This would include subscription revenue for software.

Software based services are provided to clients based on a per occurrence charge. This would include the implementation of cloud based software and monthly recurring services inclusive of gas chart integration and production and financial accounting.

Measurement services are non-software based services reasonably expected to be provided on a recurring periodic basis. This would include gas and liquid laboratory services, certification and proving, and gas measurement field services.

Equipment and other revenue are viewed as one-time in nature. This would include equipment sales, and fabrication projects.

19. OTHER EXPENSES

For the years ended December 31, ($ thousands)	2018	2017
Write-down of inventory	**705**	-
Restructuring fee	**399**	-
Termination benefits	**472**	200
Other	**170**	48
	1,746	248

Restructuring fees of $0.4 million were incurred by the Corporation in its renegotiation of the terms of its lease in Calgary, Alberta, and termination of two other office leases in Cotulla, Texas and Mounds, Oklahoma. The renegotiated lease terms will enable the Corporation to save $0.5 million per annum, for a total of $1.7 million for the remaining life of the lease.

20. EXPENSES BY NATURE

The Corporation presents certain expenses in the consolidated statements of operations and comprehensive loss by function. The following table presents those expenses by nature:

For the years ended December 31, ($ thousands)	2018	2017
Expenses		
Salaries, subcontractors, and benefits	**14,073**	14,802
Material and supplies	**3,441**	3,751
External services and facilities	**6,266**	6,478
Share-based payments	**(37)**	88
	23,743	25,119
Allocated to:		
Operating expense	**15,801**	16,073
General and administrative	**7,942**	9,046
	23,743	25,119
Foreign exchange		
Foreign exchange - realized	**51**	(95)
Foreign exchange - unrealized	**(1,565)**	1,253
	(1,514)	1,158
Finance costs		
Bank related charges	**244**	387
Interest on Factoring Facility	**54**	-
Interest on bank indebtedness	**161**	229
Interest on long-term debt	**419**	356
	878	972

21. RELATED PARTY TRANSACTIONS

Related party transactions

Related party transactions in the normal course of operations are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Critical Control engages a law firm to provide legal advice and one partner of this law firm is a director of the Corporation. During the year ended December 31, 2018, Critical Control incurred legal fees of $0.1 million (2017 – less than $0.1 million) to this law firm. At December 31, 2018, less than $0.1 million was payable (December 31, 2017 – less than $0.1 million).

In 2015, the Corporation sold two US based real estate assets acquired as part of a previous measurement services acquisition for US$0.7 million to a company partially owned by a director of Critical Control. As part of the sale of the two properties the Corporation entered into a ten year lease agreement with the company, which began in January 2016. During 2018, one of the leases was terminated resulting in a lease termination fee of less than $0.1 million paid during the year. The annual rent paid on the other property during the year ended December 31, 2018 was less than $0.1 million.

In 2017, the Corporation issued 1,013,000 preferred shares through a private placement with warrants for $1.8 million. The directors, executive officers, and department heads participated in the offering and purchased 395,500 preferred shares for $0.8 million.

Key management compensation

Key management personnel are persons having authority and responsibility for planning, directing, and controlling the activities of the Corporation. Critical Control has identified key management personnel as directors, executive officers, and department heads.

The following discloses the amounts recognized as expense during the year related to directors and key management personnel compensation:

For the years ended December 31, ($ thousands)	2018	2017
Salaries and benefits and directors fees	**860**	1,006
Share-based payments	**(37)**	73
	823	1,079

22. SEGMENTED INFORMATION

The following presents the results of Critical Control's geographic segments:

As at December 31, ($ thousands)	Canada 2018	Canada 2017	US 2018	US 2017	Total 2018	Total 2017
Revenue	**10,788**	12,054	**16,081**	17,068	**26,869**	29,122
Property and equipment	**518**	843	**1,835**	2,056	**2,353**	2,899
Intangible assets and goodwill	**5,802**	9,059	**426**	10,189	**6,228**	19,248
Total assets	**10,160**	12,242	**6,589**	22,302	**16,749**	34,544

The following presents the results of Critical Control's operating segments:

As at December 31, ($ thousands)	Software 2018	Software 2017	Field Services 2018	Field Services 2017	Corporate 2018	Corporate 2017	Total 2018	Total 2017
Property and equipment	**1,325**	1,016	**1,028**	1,883	**-**	-	**2,353**	2,899
Intangible assets and goodwill	**6,228**	19,248	**-**	-	**-**	-	**6,228**	19,248
Total assets	**10,586**	24,811	**6,163**	9,733	**-**	-	**16,749**	34,544

For the year ended December 31, ($ thousands)	Software 2018	Software 2017	Field Services 2018	Field Services 2017	Corporate 2018	Corporate 2017	Total 2018	Total 2017
Revenue								
Cloud based software	**7,853**	7,801	**-**	-	**-**	-	**7,853**	7,801
Software based services	**7,230**	8,414	**-**	-	**-**	-	**7,230**	8,414
Measurement services	**-**	-	**7,527**	8,453	**-**	-	**7,527**	8,453
Equipment and other revenue	**279**	299	**3,980**	4,155	**-**	-	**4,259**	4,454
	15,362	16,514	**11,507**	12,608	**-**	-	**26,869**	29,122
Expenses								
Operating expense	**5,990**	6,151	**9,811**	9,922	**-**	-	**15,801**	16,073
Research and development	**1,458**	1,471	**-**	-	**-**	-	**1,458**	1,471
Depreciation and amortization	**4,611**	2,165	**1,105**	717	**-**	-	**5,716**	2,882
Impairment of intangible assets and goodwill	**10,500**	-	**-**	-	**-**	-	**10,500**	-
Gain on sale of property and equipment	**(8)**	(27)	**-**	-	**-**	-	**(8)**	(27)
	22,551	9,760	**10,916**	10,639	**-**	-	**33,467**	20,399
	(7,189)	6,754	**591**	1,969	**-**	-	**(6,598)**	8,723
General and administrative	**-**	-	**-**	-	**7,942**	9,046	**7,942**	9,046
Foreign exchange	**-**	-	**-**	-	**(1,514)**	1,158	**(1,514)**	1,158
Other expenses	**-**	-	**-**	-	**1,746**	248	**1,746**	248
Finance costs	**-**	-	**-**	-	**878**	972	**878**	972
Income taxes	**-**	-	**-**	-	**3,588**	556	**3,588**	556
Net income (loss)	**(7,189)**	6,754	**591**	1,969	**(12,640)**	(11,980)	**(19,238)**	(3,257)
Purchase of property and equipment and intangible assets	**1,300**	2,290	**16**	-	**-**	-	**1,316**	2,290

23. COMMITMENTS AND CONTINGENCIES

Commitments

Critical Control has several operating lease agreements on buildings and equipment. Operating lease expenses are included in general and administrative expenses in the consolidated statements of operations and comprehensive loss. The Corporation does not have any contingent rental or sublease payments, nor any sublease income. The leases expire at various times through 2026 and there are no significant renewal or purchase options.

The commitments under the operating lease agreements are:

($ thousands)	Less than 1 year	2 - 3 years	4 - 5 years	After 5 years
Operating leases	**1,012**	**1,607**	**339**	**107**

24. SUPPLEMENTAL INFORMATION

Change in non-cash working capital balances:

For the years ended December 31,		
($ thousands)	**2018**	2017
Accounts receivable	**1,201**	1,464
Inventory	**238**	481
Prepaid expenses and deposits	**(1,088)**	63
Accounts payable and accrued liabilities	**218**	(1,197)
Deferred revenue	**46**	114
Provisions	**-**	(191)
	615	734

25. SUBSEQUENT EVENTS

On January 30, 2019, the Corporation received notice from the TSX that the Corporation's common shares did not meet the continued listing requirements provision that the total value of the common shares in the public float must be in excess of $2.0 million, excluding any common shares held by officers, directors and those who own more than 10% of the common shares.

On February 12, 2019, the Corporation filed an application with the TSX, which was approved, to voluntarily delist the common shares and preferred shares from trading on the TSX after the close of business on February 28, 2019. The Corporation is not seeking an alternative listing for its shares.

On March 26, 2019, the Corporation and its lender entered into an amending agreement to revise the calculation of certain financial covenants included in the credit facility for the quarters ended March 30, 2019 and June 30, 2019 (Note 17).