Management's Discussion and Analysis
For the Years Ended December 31, 2019 and 2018

This Management's Discussion and Analysis ("MD&A") is a review of the results of operations, liquidity and capital resources of High Arctic Energy Services Inc. ("High Arctic" or the "Corporation"). This MD&A is based on information available to March 12, 2020 and should be read in conjunction with the audited consolidated financial statements for the years ended December 31, 2019 and 2018 (the "Financial Statements"). Additional information relating to the Corporation including the Corporation's Annual Information Form ("AIF") for the year ended December 31, 2019, is available under the Corporation's profile on SEDAR at www.sedar.com. All amounts are expressed in millions of Canadian dollars ("CAD"), unless otherwise noted, and have been prepared in accordance with International Financial Reporting Standards ("IFRS").

Readers are cautioned that this MD&A contains certain forward-looking information. Please refer to the "Forward-Looking Statements" section of this MD&A for the Corporation's discussion on forward looking information including risk factors that could cause actual results to differ materially and the assumptions used underlying the forward-looking information. Definitions of certain non-IFRS financial measures are included on page 21 under the "Non-IFRS Measures" section.

Select Comparative Financial Information

The following is a summary of select financial information of the Corporation.

	Three Months Ended December 31			Year Ended December 31		
$ millions (except per share amounts)	**2019**	**2018**	**% Change**	**2019**	**2018**	**% Change**
Revenue	**42.8**	47.8	(10%)	**185.5**	203.3	(9%)
EBITDA(1)	**5.4**	6.1	(11%)	**23.1**	48.7	(53%)
Adjusted EBITDA(1)	**3.6**	6.6	(45%)	**19.4**	51.6	(62%)
Adjusted EBITDA % of revenue	**8%**	14%	(39%)	**10%**	25%	(59%)
Operating earnings (loss)	**(3.9)**	(0.8)	388%	**(9.4)**	23.7	(140%)
Net earnings (loss)	**(2.7)**	(2.3)	17%	**(8.8)**	11.4	(177%)
per share (basic and diluted)(2)	**(0.06)**	(0.04)	41%	**(0.18)**	0.22	(180%)
Funds provided from operations(1)	**3.1**	2.0	55%	**15.3**	36.9	(59%)
per share (basic and diluted)(2)	**0.06**	0.05	24%	**0.31**	0.71	(57%)
Dividends	**2.5**	2.5	-	**9.9**	10.3	(4%)
per share (basic and diluted)(2)	**0.05**	0.05	-	**0.20**	0.20	-
Capital expenditures	**4.9**	3.7	32%	**14.8**	9.8	51%

	As at		
	December 31, 2019	**December 31, 2018**	**% Change**
Working capital(1)	**35.8**	56.8	(37%)
Total assets	**251.8**	272.4	(8%)
Total non-current financial liabilities	**19.3**	14.6	32%
Cash, end of period(1)	**9.3**	31.5	(70%)
Shareholders' equity	**205.6**	234.2	(12%)
Shares outstanding	**49.6**	51.0	(3%)

(1) Readers are cautioned that EBITDA (Earnings before interest, tax, depreciation and amortization), Adjusted EBITDA, Adjusted net earnings, and Funds provided from operations do not have standardized meanings prescribed by IFRS – see "Non IFRS Measures" on page 21 for calculations of these measures. Further, note that EBITDA includes a gain on sale of $2.0 million in Q4-2019 and $2.8 million YTD-2019.

(2) The number of shares used in calculating the net earnings (loss) per share and adjusted net earnings (loss) per share amounts is determined differently as explained in note 19 in the Financial Statements.

Corporate Profile

Headquartered in Calgary, Alberta, Canada, High Arctic provides oilfield services to exploration and production companies operating in Canada, the United States ("US") and Papua New Guinea ("PNG"). High Arctic is a publicly traded company listed on the Toronto Stock Exchange under the symbol "HWO".

High Arctic conducts its business operations in three separate operating segments: Drilling Services; Production Services; and Ancillary Services, supported corporately.

In the following discussion, the three months ended December 31, 2019 may be referred to as the "Quarter" or "Q4-2019" and similarly the year ended December 31, 2019 may be referred to as "YTD-2019". The comparative three months and year ended December 31, 2018 may be referred to as "Q4-2018" and "YTD-2018" respectively. References to other quarters may be presented as "QX-20XX" with X being the quarter/year to which the commentary relates.

Drilling Services

The Drilling Services segment consists of High Arctic's drilling services in PNG where the Corporation has operated since 2007. High Arctic currently operates the largest fleet of tier-1 heli-portable drilling rigs in PNG, with two owned rigs and two rigs managed under operating and maintenance contracts for one of the Corporation's customers. The Corporation also provides additional drilling services in PNG as requested by its customers.

Production Services

The Production Services segment consists of High Arctic's well servicing and snubbing operations. These operations are primarily conducted in the Western Canadian Sedimentary Basin ("WCSB") and the US through High Arctic's fleet of well servicing rigs, operating as Concord Well Servicing, and its fleet of stand-alone and rig assist snubbing units. In addition, High Arctic also provides work-over services in PNG with its heli-portable work-over rig. The revenue, expenses and assets related to the Q3-2018 acquisition of Powerstroke Well Control ("Powerstroke") and Saddle Well Services have been reported within the Production Services segment as have the revenue, expenses and assets related to the Q2-2019 acquisition of the Precision Drilling snubbing business.

Ancillary Services

The Ancillary Services segment consists of High Arctic's oilfield rental equipment in Canada and PNG as well as its Canadian nitrogen services.

Recent Global Developments

First quarter 2020 global events have significantly impacted the global economy and weakened High Arctic's near-term outlook. The spread of the COVID-19 virus around the world in combination with OPEC's inability to contain global oil supply during early March 2020 has significantly undermined commodity prices, customer cash flows and investor confidence. Further, the influence of these recent developments and the impact to our customers' capital spending budgets, as well as their ability to pay for work completed on a timely basis is currently unknown and may have a significant impact on High Arctic's financial operating results.

These developments reinforce and further heighten High Arctic's strategic focus. The importance of a strong financial position and customer service differentiation through high quality is absolutely imperative. These attributes are key principles for High Arctic throughout the energy industry economic cycle, as demonstrated in fiscal 2019. We enter the challenging period ahead in a strong position with positive net cash on the balance sheet.

The Company's growth in Canada through the consolidation of the snubbing service industry positions us well for when natural gas development expands to establish Canada's LNG export potential. Our service offering in PNG is exceptionally well positioned for prompt activation when development to significantly expand the country's LNG export potential is realized. High Arctic's well servicing position in Canada is well established with top tier customers and recent expansion in the US, which provides opportunity to broaden the strength of our customer base in basins with large resource potential.

Highlights

Recent developments relating to the COVID-19 virus, the instability created by OPEC's inability to contain global oil supply and the impact on commodity prices creates significant global uncertainty at this time, the implications of which could cause energy demand disruption in the near and long-term. Notwithstanding these challenging developments, High Arctic's strong and debt-free balance sheet at December 31, 2019 provides an opportunity to consider strategic investments.

The following highlights the Corporation's results for Q4-2019 and YTD-2019:

- High Arctic generated revenue of $42.8 million in Q4-2019, a decrease of $5.0 million or 10% compared to Q4-2018. YTD-2019, revenue was $185.5 million compared to $203.3 million YTD-2018, a 9% decrease year over year. These results were driven by lower customer demand in Canada carried over from 2018 and the impact of the Q4-2018 take-or-pay contract expiry for Rig 116.
- Canadian well servicing operating hours were 1% higher Q4-2019 compared to Q4-2018, and 7% lower YTD-2019 compared to YTD-2018. Canadian revenue per hour was 1% lower for Q4-2019 over Q4-2018 and revenue per hour was 2% lower YTD-2019 compared to YTD-2018.
- This was offset with increased activity in the US operations in both well servicing and snubbing. US well service generated 2,186 operating hours in Q4-2019 and 5,543 YTD-2019, compared to 517 operating hours YTD-2018. US snubbing generated 1,353 operating hours in Q4-2019, and 5,177 YTD-2019, compared to 337 operating hours Q4-2018 and 1,356 YTD-2018. US operations generated 8% of the fourth quarter revenue.

We entered 2019 buoyed by the announcement coming out of PNG that a Memorandum of Understanding was signed setting out key terms and conditions for a Gas Agreement with the Papua LNG project consortium and anticipated increased drilling demand to materialize in late 2019. However, political headwinds in PNG resulting from a change in government and in Canada through costly industry project delays and cancellations, have negatively impacted the signing of gas agreements for LNG expansion in PNG and infrastructure development in Canada. These developments have pushed customer exploration and development plans out into the future resulting in light activity levels across 2019. In Drilling Services, Rig 103 worked continuously through the Quarter and Rig 104, Rig 115 and Rig 116 remained stacked and preserved ready for deployment. High Arctic equipment is poised to go to work but does not have a definitive timetable.

Capital expenditures were $4.9 million in the Quarter and $14.8 million YTD-2019, up from $3.7 million QTD-2018 and $9.8 million YTD-2018. Proceeds on sale of property and equipment were $3.3 million in the Quarter and $4.9 million YTD-2019.

The Corporation's strategic priorities remain targeted on:

- Regional work force development to strengthen safety, expertise, work standards and local communities;
- A strong capital structure to provide liquidity and strength throughout the energy services economic cycles;
- Specialty niche operations with noteworthy barriers to entry;
- Deep value opportunities to consolidate existing markets and diversify into new regions;
- Solidifying customer relationships to gain market share and expand when industry conditions permit;
- Disciplined and strategic capital allocation to deliver shareholder value.

Execution on these strategic priorities led to the following noteworthy developments during the year:

- Safety excellence and further delivery on training and education initiatives continuing in all operating areas:
  - PNG completed another calendar year Recordable Incident free with 700,000 safe work-hours completed;
  - Canadian operations were *Lost Time Injury Free* in 2019 with over 980,000 safe work-hours completed;
  - High Arctic received the International Association of Drilling Contractors – Australasian Chapter Safety Statistics Award during 2019 for 2018, which High Arctic also won for 2017 and 2015.
- Continued preservation of a strong capital structure characterized by no long-term debt, an extension of the Bank Credit Facility to August 2021 with fewer covenants;
- High performing operating capabilities in specialized pressure control snubbing and deep heli-portable drilling;

- Further consolidation of the pressure control snubbing business in Canada including acquisition of Precision Drilling snubbing assets and several snubbing units available via auction from a competitor exiting the business;
- Further diversification of revenue with snubbing and well servicing expansion to the US, with market presence in three states (North Dakota, Wyoming and Colorado). High Arctic had two service rigs and six snubbing units located in the US in Q4-2019.

Fourth Quarter 2019:

- High Arctic reported revenue of $42.8 million, incurred a net loss of $2.7 million and realized Adjusted EBITDA of $3.6 million in Q4-2019;
- During Q4-2019, the Corporation realized a gain on sale of property and equipment of $2 million;
- Utilization for High Arctic's 57 registered Concord Well Servicing rigs was 53% in the Quarter versus industry utilization of 33% (source: Canadian Association of Oilwell Drilling Contractors "CAODC");
- Consistent with prior quarters, High Arctic declared $2.5 million ($0.05 per share) in dividends during the Quarter which represents 81% of funds from operations in the Quarter. High Arctic did not repurchase any shares during the Quarter.

Year to Date 2019:

- Year to date the Corporation reported revenue of $185.5 million, incurred a net loss of $8.8 million and realized Adjusted EBITDA of $19.4 million;
- As a result of property and equipment sales, High Arctic realized a gain on sale of $2.8 million YTD-2019;
- High Arctic continues to maintain a strong balance sheet with $9.3 million in cash and a positive working capital balance of $35.8 million;
- A total of $15.0 million has been returned to shareholders year to date through dividends and share buybacks. The Corporation maintained its monthly dividend of $0.0165 per share resulting in year to date dividends declared of $9.9 million. The Corporation purchased and cancelled 1,397,247 common shares for total consideration of $5.1 million under the Corporation's Normal Course Issuer Bid ("NCIB"). Subsequent to December 31, 2019, the Corporation did not purchase any common shares under this program.

Business Acquisitions

Precision Drilling snubbing services equipment

On April 15, 2019, High Arctic acquired the assets of Precision Drilling's snubbing services equipment, entirely located in Canada, providing High Arctic with additional quality snubbing equipment and access to experienced personnel and crews. The purchase price of $8.25 million was settled in cash from cash on hand and has been allocated to equipment. The acquisition provided High Arctic with twelve additional marketed snubbing units, seven of which have been active over the last twelve months. This provided additional capacity to further strategic diversification and growth in the US. It also increased High Arctic's fleet size, scale and capability in Canada to meet the needs of customers through safe and efficient services designed to increase production and lower costs. At December 31, 2019, High Arctic owns and operates the largest snubbing fleet in Canada consisting of a total of 33 snubbing units.

Consolidated Results

	Three Months Ended December 31				Year Ended December 31			
($ millions)	**2019**	**2018**	**Change**	**%**	**2019**	**2018**	**Change**	**%**
Revenue	**42.8**	47.8	(5.0)	(10%)	**185.5**	203.3	(17.8)	(9%)
EBITDA[1]	**5.4**	6.1	(0.7)	(11%)	**23.1**	48.7	(25.6)	(53%)
Adjusted EBITDA[1]	**3.6**	6.6	(3.0)	(45%)	**19.4**	51.6	(32.2)	(62%)
Adjusted EBITDA % of Revenue	**8%**	14%	(5%)	(39%)	**10%**	25%	(15%)	(59%)
Net earnings (loss)	**(2.7)**	(2.3)	(0.4)	17%	**(8.8)**	11.4	(20.2)	(177%)
per share (basic and diluted)[2][3]	**(0.06)**	(0.04)	(0.02)	41%	**(0.18)**	0.22	(0.40)	(180%)
Adjusted net earnings (loss)[1]	**(2.7)**	(2.3)	(0.4)	17%	**(9.9)**	12.2	(22.1)	(181%)
per share (basic and diluted)[2][3]	**(0.05)**	(0.04)	(0.01)	35%	**(0.20)**	0.24	(0.44)	(183%)

(1) Readers are cautioned that EBITDA, Adjusted EBITDA and Adjusted net earnings (loss) do not have standardized meanings prescribed by IFRS – see "Non IFRS Measures" on page 21 for calculations of these measures.
(2) The number of shares used in calculating the net earnings (loss) per share and adjusted net earnings (loss) per share amounts is determined as explained in note 19 of the Financial Statements.
(3) Differences may exist due to rounding.

Fourth Quarter:

- Consolidated revenue decreased 10% to $42.8 million in the Quarter from $47.8 million in Q4-2018. Activity for the Corporation's drilling services which had no PNG take-or-pay customer contracts, resulted in a decrease in revenue of $7.3 million in Q4-2019 compared to Q4-2018. This was partially offset by the new snubbing revenue provided by the Precision acquisition and expansion in the US market.

- The decrease in consolidated revenue combined with the decreased contribution from the Drilling Services segment, resulted in Adjusted EBITDA decreasing to $3.6 million in the Quarter from $6.6 million in Q4-2018. The decrease in Drilling Services revenue was offset somewhat by an increase in Production Services for the Quarter resulting in a total net loss of $2.7 million, (basic and diluted loss per share of $0.06) in the Quarter versus a loss of $2.3 million, (basic and diluted loss per share of $0.04) in Q4-2018.

Year to Date 2019:

- Increased activity from High Arctic's Production Services segment was insufficient to offset the decrease in Drilling Services activity, resulting in a 9% decrease in revenue to $185.5 million YTD-2019 versus $203.3 million YTD-2018.
- Adjusted EBITDA decreased $32.2 million YTD-2019 compared to YTD-2018. The decline is due to a reduction in revenue combined with a greater proportion of revenue contribution from lower margin Production Services compared to 2018.
- The Corporation incurred a net loss of $8.8 million (($0.18) loss per share, basic and diluted) YTD-2019 versus $11.4 million of net earnings ($0.22 income per share, basic and diluted) YTD-2018.
- A total of $9.9 million was returned to shareholders in 2019 through dividends which represents 65% of funds provided from operations in 2019. The Corporation also purchased and cancelled 1,397,247 common shares for total consideration of $5.1 million under the Corporation's NCIB. Subsequent to December 31, 2019, the Corporation did not purchase any common shares through to March 12, 2020 under this program.

Operating Segments

	Three Months Ended December 31				Year Ended December 31			
($ millions)	**2019**	**2018**	**Change**	**%**	**2019**	**2018**	**Change**	**%**
Revenue:								
Drilling Services	**13.5**	20.8	(7.3)	(35%)	**71.5**	93.0	(21.5)	(23%)
Production Services	**24.3**	21.4	2.9	14%	**92.4**	84.9	7.5	9%
Ancillary Services	**5.6**	6.4	(0.8)	(13%)	**24.6**	29.1	(4.5)	(15%)
Inter-segment eliminations	**(0.6)**	(0.8)	0.2	(25%)	**(3.0)**	(3.7)	0.7	(19%)
	42.8	**47.8**	(5.0)	(10%)	**185.5**	**203.3**	(17.8)	(9%)
Oilfield Service Operating Margin (1)								
Drilling Services	**2.8**	5.7	(2.9)	(51%)	**15.1**	36.9	(21.8)	(59%)
Production Services	**1.6**	0.1	1.5	1500%	**6.5**	11.6	(5.1)	(44%)
Ancillary Services	**2.9**	4.4	(1.5)	(34%)	**13.6**	19.3	(5.7)	(30%)
	7.3	**10.2**	(2.9)	(28%)	**35.2**	**67.8**	(32.6)	(48%)
Oilfield Service Operating Margin Percentage (1)								
Drilling Services	**21%**	27%	(6%)	n/a	**21%**	40%	(19%)	n/a
Production Services	**7%**	0%	7%	n/a	**7%**	14%	(7%)	n/a
Ancillary Services	**52%**	69%	(17%)	n/a	**55%**	66%	(11%)	n/a
	17%	21%	(5%)	n/a	**19%**	33%	(14%)	n/a

(1) See 'Non-IFRS Measures on page 21

Drilling Services

	Three Months Ended December 31				Year Ended December 31			
($ millions)	**2019**	**2018**	**Change**	**%**	**2019**	**2018**	**Change**	**%**
Revenue	**13.5**	20.8	(7.3)	(35%)	**71.5**	93.0	(21.5)	(23%)
Oilfield services expense [(1)]	**10.7**	15.1	(4.4)	(29%)	**56.4**	56.1	0.3	1%
Oilfield services operating margin [(1)]	**2.8**	**5.7**	**(2.9)**	**(51%)**	**15.1**	**36.9**	**(21.8)**	**(59%)**
Operating margin (%)	**21%**	27%	(6%)	n/a	**21%**	40%	(19%)	n/a

(1) See 'Non-IFRS Measures on page 21

The Corporation owns two heli-portable drilling rigs (Rigs 115 and 116) and operates two rigs (Rigs 103 and 104) on behalf of a major oil and gas exploration company in PNG.

Fourth Quarter:
Drilling Services revenue decreased 35% in the Quarter to $13.5 million from $20.8 million in Q4-2018. This decrease was due primarily to Rig 104 moving back to Moro Base in Q3-2019 to be stacked and the loss of the 2018 take-or-pay contract revenue.

Rig 103 continued operations throughout the Quarter, while the preservation of Rig 104 in the Moro Base was completed in Q3-2019 and crews were released. Rig 115 and Rig 116 were preserved in cold stack during the Quarter and remain ready to redeploy.

Year to Date 2019:
Consistent with the Q4-2019 results, lower drilling activity has contributed to a 23% decline in Drilling Services revenue to $71.5 million YTD-2019 versus $93.0 million generated YTD-2018. This decrease was driven by the end of the take-or-pay contract for Rig 116 in Q4-2018 which is reflected in the YTD-2018 results. Rig 115 remained stacked through 2019, having worked the first half of 2018 and having generated a contract break fee in Q3-2018. Rigs 115 and 116 have not been deployed in 2019 though they remain stacked, preserved and ready to deploy when market conditions improve.

As a result of the above, operating margin as a percentage of revenue decreased to 21% in 2019 versus 40% in 2018.

Production Services

	Three Months Ended December 31				Year Ended December 31			
($ millions)	2019	2018	Change	%	2019	2018	Change	%
Revenue	**24.3**	21.4	2.9	14%	**92.4**	84.9	7.5	9%
Oilfield services expense (1)	**22.7**	21.3	1.4	7%	**85.9**	73.3	12.6	17%
Oilfield services operating margin (1)	**1.6**	**0.1**	**1.5**	**1500%**	**6.5**	**11.6**	**(5.1)**	**(44%)**
Operating margin (%)	**7%**	0%	7%	n/a	**7%**	14%	(7%)	n/a
Operating Statistics - Canada:								
Service rigs								
Average Fleet (2)	57	58	(1)	(2%)	57	58	(1)	(1%)
Utilization (3)	53%	51%	2%	2%	53%	56%	(2%)	(5%)
Operating hours	27,382	27,161	221	1%	109,162	117,395	(8,233)	(7%)
Revenue per hour	607	616	(9)	(1%)	606	616	(10)	(2%)
Snubbing rigs								
Average Fleet (4)	18	17	1	6%	18	10	8	75%
Utilization (3)	19%	15%	3%	22%	16%	20%	(4%)	(20%)
Operating hours	3,085	2,371	714	30%	10,385	7,401	2,984	40%
Operating Statistics - United States:								
Service rigs								
Average Fleet	2	1	1	100%	2	1	1	50%
Utilization (3)	119%	56%	63%	111%	101%	38%	64%	168%
Operating hours	2,186	517	1,669	323%	5,543	517	5,026	972%
Revenue per hour	907	note (5)	n/a	n/a	1,000	note (5)	n/a	n/a
Snubbing rigs								
Average Fleet (4)	6	4	2	50%	6	4	2	50%
Utilization (3)	25%	28%	(3%)	(11%)	32%	25%	7%	28%
Operating hours	1,353	1,016	337	33%	5,177	1,356	3,821	282%

(1) See ‘Non-IFRS Measures’ on page 21
(2) Average service rig fleet represents the average number of rigs registered with the CAODC during the period.
(3) Utilization is calculated on a 10-hour day using the number of rigs registered with the CAODC during the period.
(4) Average snubbing fleet represents the average number of rigs marketed during the period and includes acquisition of Precision Drilling snubbing units in 2019.
(5) 2018 comparatives were not available for the purposes of this analysis.

High Arctic’s well servicing and snubbing operations are provided through its Production Services segment. These operations are primarily conducted in the WCSB and US through High Arctic’s fleet of well servicing rigs, operating as Concord Well Servicing, and its fleet of stand-alone and rig assist snubbing units.

The Production Services segment also provides heli-portable workover services in PNG through Rig 102. The net book value of Rig 102 is not material and no workover services were provided in PNG during 2018 or 2019 and as such no revenue was generated or costs have been incurred associated with this rig during the periods presented.

Fourth Quarter:
Quarter over quarter operating hours for High Arctic’s Concord Well Servicing rigs in Canada are up 1% to 27,382 hours in the Quarter from 27,161 hours in Q4-2018. Consistent with prior quarters, the Concord rigs achieved above Canadian industry utilization of 53% versus the 33% utilization generated by the industry’s registered well servicing rigs in the Quarter (source: CAODC). Pricing continues to remain competitive, causing the average revenue per hour for the Concord rigs to decrease by 1% to $607 per hour in the Quarter from $616 per hour in Q4-2018.

Further, higher activity from the Corporation’s US Production Service operations in the Quarter resulted in a 14% increase in revenue to $24.3 million in the Quarter versus $21.4 million in Q4-2018.

The positive contribution from acquisitions resulted in an increase in the Production Services snubbing operations which saw revenue increase to $3.7 million in the Quarter versus the $3.4 million generated in Q4-2018. Operating hours for the Canadian snubbing rigs in the Quarter were 3,085 versus 2,371 hours in Q4-2018. This increase in Canadian operating hours was in addition to an increase in snubbing US operating hours to 1,353 hours in Q4-2019 vs 1,016 hours in Q4-2018. Despite the increases in revenues, activity for the Corporation's snubbing operations continued and continues to be hampered over recent quarters due to prolonged low natural gas prices which is curtailing drilling activity on and associated natural gas well completions for the Corporation's customers. The Corporation's US well service operating hours increased to 2,186 in Q4-2019 up from 517 hours in Q4-2018.

Operating margin percentage for the Quarter increased from 0% to 7% compared to Q4- 2018. The increase in margin is primarily due to the business not incurring US start up costs attributable to Powerstroke, amounting to $2.0 million in Q4-2018.

Year to Date 2019:
The Production Services segment revenue increased to $92.4 million in 2019 from $84.9 million in 2018. YTD-2019 the Concord rigs in Canada have generated 109,162 operating hours for a 53% utilization of the Corporation's 57 average CAODC registered service rigs versus 56% utilization and 117,395 hours achieved YTD-2018 (source: CAODC). The decrease in Canadian well service hours were partially offset by year to date hours achieved in the US, which increased to 5,543 hours YTD-2019, up from 517 hours YTD-2018. YTD-2019 the Concord rigs generated an average revenue rate of $606 per hour in Canada compared to an average revenue rate of $616 per hour YTD-2018.

Total operating hours for the Corporation's snubbing rigs increased by 78% YTD-2019 versus YTD-2018. This increase in activity was mainly due to the increased hours by US operations, which generated 5,177 hours YTD-2019 vs. 1,356 operating hours YTD-2018.

Operating margin decreased to $6.5 million YTD-2019 from $11.6 million YTD-2018. Operating margins as a percentage of revenue decreased to 7% YTD-2019 from 14% YTD-2018. The primary factor contributing to this decrease is lower field operating margins in the snubbing business and costs associated with growing the US business during 2019.

Ancillary Services

	Three Months Ended December 31				Year Ended December 31			
($ millions)	**2019**	**2018**	**Change**	**%**	**2019**	**2018**	**Change**	**%**
Revenue	**5.6**	6.4	(0.8)	(13%)	**24.6**	29.1	(4.5)	(15%)
Oilfield services expense [1]	**2.7**	2.0	0.7	35%	**11.0**	9.8	1.2	12%
Oilfield services operating margin [1]	**2.9**	**4.4**	**(1.5)**	**(34%)**	**13.6**	**19.3**	**(5.7)**	**(30%)**
Operating margin (%)	**52%**	69%	(17%)	n/a	**55%**	66%	(11%)	n/a

(1) Revenue includes inter-segment revenue charged to Production Services and Drilling Services from Ancillary Services division of $0.6 million for the Quarter and $3.0 million YTD-2019. In 2018 inter-segment revenue was $1.1 million for Q4-2018 and $2.9 million YTD-2019.
(2) See 'Non-IFRS Measures' on page 21.

The Ancillary Services segment consists of High Arctic's oilfield rental equipment in Canada and PNG, as well as its Canadian nitrogen operations.

Fourth Quarter:
Operating margin as a percentage of revenue was 52% in the Quarter versus 69% in Q4-2018. Growth in the segment's Canadian rental operations and nitrogen services was offset by decreases in PNG rental operations due to the loss of the take-or-pay matting rental contract in PNG associated with Rig 116 in Q4-2018.

Year to Date 2019:
Operating margin as a percentage of revenue was 55% YTD-2019, consistent with earlier quarters, compared to 66% YTD-2018. The decrease is due to reduced contributions from both PNG and Canadian rental divisions which generate higher margins, offset by a small increase in nitrogen services margins in 2019.

General and Administration

	Three Months Ended December 31				Year Ended December 31			
($ millions)	2019	2018	Change	%	2019	2018	Change	%
General and administration	**3.7**	4.4	(0.7)	(16%)	**15.8**	17.0	(1.2)	(7%)
Percent of revenue	**9%**	9%	0%	n/a	**9%**	8%	1%	n/a

General and administrative ("G&A") costs decreased by $0.7 million between Q4-2018 and Q4-2019, and remained consistent at 9% of revenue. YTD-2019, G&A costs decreased by $1.2 million, although were up by 1% as a percentage of revenue. The overall decrease in G&A were as a result of cost reduction initiatives taken throughout 2019.

Depreciation

Depreciation expense increased to $7.3 million in the Quarter from $6.4 million in Q4-2018 due to additional depreciation resulting from the Precision Drilling asset acquisition as well as impact from the adoption of IFRS 16, *Leases* ("IFRS 16") and the resulting depreciation of right-of-use assets.

YTD-2019, the Corporation incurred depreciation costs of $28.3 million versus $25.7 million YTD-2018. The increase is attributable to the Precision Drilling asset acquisition during the year as well as an additional $1.4 million of right of use asset depreciation resulting from the IFRS 16 adoption on January 1, 2019.

Share-based Compensation

The decrease in share-based compensation to $0.5 million YTD-2019 from $1.4 million YTD-2018 is a result of the reduction in the number of shares granted under share-based incentive programs, together with the manner in which the expense is allocated to the periods charged, as the methodology front end loads the expense.

Foreign Exchange Transactions

The Corporation has exposure to the USD fluctuations and other currencies such as the PNG kina through its international operations. As a result, the Corporation is exposed to foreign exchange gains and losses through the settlement of foreign currency denominated transactions as well as the conversion of the Corporation's USD based subsidiaries into CAD for financial reporting purposes.

Gains and losses realized by the Canadian parent on its USD denominated cash accounts, receivables, payables and intercompany balances are recognised as a foreign exchange gain or loss in the consolidated statements of earnings (loss).

High Arctic is further exposed to foreign currency fluctuations through its net investment in foreign subsidiaries. The value of these net investments will increase or decrease based on fluctuations in USD relative to CAD. These gains and losses are unrealized until such time that High Arctic divests its investment in the foreign subsidiary and are recorded in other comprehensive income (loss) as foreign currency translation gains or losses.

On average, and during the Quarter, the average CAD to USD exchange rate was $1.3200 vs $1.3214 during Q4-2018. As at December 31, 2019, the USD exchange rate weakened against the CAD with the CAD to USD exchange rate at $1.2988 vs $1.3642 as at December 31, 2018. This weakening of the USD resulted in a translation loss of $5.4 million recorded in other comprehensive income (loss) for the year ended December 31, 2019 and a $1.9 million unrealized loss for the three months ended December 31, 2019. This loss relates to the translation of foreign currency subsidiaries with functional currencies that are not in Canadian dollars.

The fluctuation in exchange rates for the year also resulted in a $0.3 million foreign exchange gain being recorded on various foreign exchange transactions (YTD-2018 - $0.8 million loss). The Corporation does not currently hedge its foreign exchange transactions or exposure.

Interest and Finance Expense

For the three months ended December 31, 2019 the Corporation incurred $0.4 in interest and finance costs. On a year to date basis, the Corporation incurred $0.6 million of bank and interest charges and $0.5 million in finance costs associated with the IFRS 16 lease liabilities, which were recorded effective January 1, 2019 upon the adoption of this new standard.

Income Taxes

	Three Months Ended December 31			Year Ended December 31		
($ millions)	**2019**	**2018**	**Change**	**2019**	**2018**	**Change**
Net earnings (loss) before income taxes	**(2.3)**	(0.5)	(1.8)	**(6.3)**	22.4	(28.7)
Current income tax expense	**0.1**	4.4	(4.3)	**3.0**	12.9	(9.9)
Deferred income tax expense (recovery)	**0.3**	(2.6)	2.9	**(0.5)**	(1.9)	1.4
Total income tax expense	**0.4**	1.8	(1.4)	**2.5**	11.0	(8.5)
Effective tax rate	**(17%)**	(360%)		**(40%)**	49%	

The Corporation's effective tax rate decreased to (40%) YTD-2019 from 49% YTD-2018. This decrease in effective tax rate is largely due to the Alberta tax rate change as a percentage of net earnings (loss).

Alberta's general provincial tax rate decreased on June 28, 2019 from 12% to 11% for the second half of 2019, to 10% for 2020, to 9% for 2021, and to 8% for 2022 and thereafter. As the Corporation applies the reduction of the future tax rates against deferred tax assets, it creates a deferred tax expense of $3.4M, which was offset by recoveries on deferred tax liabilities amounting to $3.9, resulting in a deferred tax recovery of $0.5M for the year ended December 31, 2019.

At December 31, 2019, the total Canadian non-capital losses carried forward for income tax purposes was $130.5 million (2018 - $106.0 million) which expires in years 2027 through 2038. At December 31, 2019, the total US non-capital losses carried forward for income tax purposes was USD $2.3 million (2018 – USD $0.7 million) which can be carried forward indefinitely.

In addition, at December 31, 2019, the Canadian capital losses carried forward for income tax purposes was $39.6 million (2018 - $36.9 million) which can be carried forward indefinitely but only used against capital gains.

Other Comprehensive Income ("OCI")

As discussed above under Foreign Exchange Transactions, the Corporation recorded a $5.4 million foreign currency translation loss in other comprehensive income (loss) year to date due to the weakening of the USD compared to the CAD at December 31, 2019 relative to December 31, 2018.

Further, $1.4 million of fair value losses previously recorded in OCI associated with short-term investments disposed of in 2019 were re-allocated from OCI to retained earnings.

Liquidity and Capital Resources

	Three Months Ended December 31			Year Ended December 31		
($ millions)	2019	2018	Change	2019	2018	Change
Cash provided by (used in):						
Operating activities	**1.2**	16.5	(15.3)	**12.7**	42.1	(29.4)
Investing activities	**(1.0)**	(0.8)	(0.2)	**(17.4)**	(13.6)	(3.8)
Financing activities	**(2.4)**	(8.0)	5.6	**(16.3)**	(20.7)	4.4
Effect of exchange rate changes	**(0.6)**	1.5	(2.1)	**(1.2)**	1.6	(2.8)
Increase (decrease) in cash and cash equivalents	**(2.8)**	9.2	(12.0)	**(22.2)**	9.4	(31.6)

	As At December 31		
	2019	2018	Change
Working capital[1]	35.8	56.8	(21.0)
Working capital ratio[1]	2.3 : 1	3.4 : 1	0.7:1
Net cash[1]	9.3	31.5	(22.2)
Undrawn availability under debt facilities	45.0	45.0	-

[1] See 'Non-IFRS Measures' on page 21.

As at December 31, 2019, the Corporation had $nil outstanding on its debt facilities and $9.3 million in cash.

The Bank of PNG policy continues to encourage the use of the local market currency (kina). Due to High Arctic's requirement to transact with international suppliers and customers, High Arctic has received approval from the Bank of PNG to maintain its USD account within the conditions of the Bank of PNG currency regulations. The Corporation has taken steps to increase its use of PNG kina for local transactions when practical. Included in the Bank of PNG's conditions is for future PNG drilling contracts to be settled in PNG kina, unless otherwise approved by the Bank of PNG for the contracts to be settled in USD. The Corporation has received such approval for its existing contracts with its key customers in PNG. The Corporation will continue to seek Bank of PNG approval for future customer contracts to be settled in USD on a contract by contract basis, however, there is no assurance the Bank of PNG will continue to grant these approvals.

If such approvals are not received in future, the Corporation's PNG drilling contracts will be settled in PNG kina which would expose the Corporation to exchange rate fluctuations related to the PNG kina. In addition, this may delay the Corporation's ability to receive USD which may impact the Corporation's ability to settle USD denominated liabilities and repatriate funds from PNG on a timely basis. The Corporation also requires the approval from the PNG Internal Revenue Commission ("IRC") to repatriate funds from PNG and make payments to non-resident PNG suppliers and service providers. While delays can be experienced for the IRC approvals, such approvals have been received in the past.

Operating Activities

Although reduced income was offset by increased net working capital changes and depreciation expense, net cash generated from operating activities decreased 70% to $12.7 million from $42.1 million year on year from 2019 to 2018.

Investing Activities

Year to date, the Corporation has invested an additional $23.1 million (2018 - $17.8 million) in capital expenditures primarily related to maintenance capital and upgrades to the Corporation's well servicing rigs and the purchase of the Precision Drilling snubbing business. Disposal proceeds regarding property and equipment amounted to $4.9 million YTD-2019 ($3.4 million YTD-2018).

Financing Activities

During the year, the Corporation distributed $9.9 million in dividends to its shareholders. In addition, the Corporation purchased and cancelled 1,397,247 common shares for a total of $5.1 million under its NCIB, resulting in a total of $15.0 million being returned to shareholders via dividends and share buybacks year to date.

Credit Facility

As at December 31, 2019, High Arctic's credit facility consisted of a $45.0 million revolving loan facility which matures on August 31, 2021. The facility is renewable with the lender's consent and is secured by a general security agreement over the Corporation's assets.

The available amount under the $45.0 million revolving loan facility is limited to 60% of the net book value of the Canadian fixed assets plus 75% of acceptable accounts receivable (85% for investment grade receivables), plus 90% of insured receivables, less priority payables as defined in the loan agreement. As at December 31, 2019, there was no amount drawn on the facility and total credit available to draw was $45.0 million.

The Corporation's loan facility is subject to two financial covenants which are reported to the lender on a quarterly basis. These changed from the previous three financial covenants, and the facility was extended to a maturity date of August 31, 2021. As at December 31, 2019, the Corporation remains in compliance with the two financial covenants under the credit facility.

The first covenant requires the Funded Debt to covenant EBITDA ratio to be under 3.00 to 1.00 (previously 2.50 to 1.00) and the second covenant requires Covenant EBITDA to Interest Expense ratio to be a minimum of 3.00 to 1.0. Both are calculated on the last day of each fiscal quarter on a rolling four quarter basis. The covenant calculations at December 31, 2019 are:

Covenant	Required	December 31, 2019
Funded debt to covenant EBITDA (1)(2)	3.00 : 1 Maximum	0.08 : 1
Covenant EBIDTA to Interest Expense (2)	3.00 : 1 Minimum	17.64 : 1

(1) Funded debt to covenant EBITDA is defined as the ratio of consolidated Funded Debt to the aggregate EBITDA for the trailing four quarters. Funded debt is the amount of debt provided and outstanding at the date of the covenant calculation.

(2) EBITDA for the purposes of calculating the covenants, "covenant EBITDA," is defined as net income plus interest expense, current tax expense, depreciation, amortization, future income tax expense (recovery), share based compensation expense less gains from foreign exchange and sale or purchase of assets.

There have been no changes to these financial covenants subsequent to December 31, 2019.

Contractual Obligations and Contingencies

High Arctic's contractual financial obligations as at December 31, 2019 are summarized as follows:

($ millions)	1 Year	2-3 Years	4-5 Years	Beyond 5 Years	Total
Accounts payable and accrued liabilities	23.2	-	-	-	23.2
Dividends payable	0.8	-	-	-	0.8
Lease liability, current and long-term	1.6	2.0	1.1	6.0	10.7
Total	**25.6**	**2.0**	**1.1**	**6.0**	**34.7**

Inventory and related Contingencies

As part of the Corporation's contractual rig management and operations, the Corporation has been supplied an inventory of spare parts with a total value of $7.4 million by a customer and a third-party supplier for the Corporation's operations in PNG. The inventory is owned by these parties and has not been recorded on the books of High Arctic. At the end of the contracts, the Corporation must return an equivalent amount of inventory to these parties.

Outstanding Share Data

The Corporation's authorized share capital consists of an unlimited number of common shares and an unlimited number of preferred shares. Directors, officers and certain employees have been granted stock options and incentive shares and units under the Corporation's approved equity compensation plans.

As at December 31, 2019, there were 49,623,432 issued and outstanding common shares. In addition, 955,000 stock options were outstanding at an average exercise price of $3.77 as well as 375,557 units under the Corporation's Performance Share Unit Plan and 161,729 units under the Deferred Share Unit plan.

No preferred shares have been issued by the Corporation and therefore none are outstanding at December 31, 2019.

On November 15, 2018 the Corporation received approval from the Toronto Stock Exchange to acquire for cancellation up to 2,700,386 common shares, representing approximately 10 percent of the Corporation's public float, under a NCIB. The NCIB was valid for one year and expired on November 18, 2019. A total of 1,397,247 common shares have been purchased and cancelled under this NCIB during 2019 at a cost of $5.1 million.

On November 28, 2019 the Corporation received approval from the Toronto Stock Exchange to acquire for cancellation up to 2,552,229 common shares, representing approximately 10 percent of the Corporation's public float, under a NCIB. The NCIB is valid for one year and will expire on December 1, 2020. No common shares have been purchased and cancelled under this NCIB up to and including March 12, 2020. In addition, no common or preferred shares were issued subsequent to December 31, 2019 up to and including March 12, 2020.

Quarterly Financial Review

The following is a summary of selected consolidated financial information of the Corporation for the last eight completed quarters:

	2019				2018			
$ (millions, except per share amounts)	Q4	Q3	Q2(3)	Q1	Q4(2)	Q3(2)	Q2	Q1
Revenue	**42.8**	**49.6**	**46.6**	**46.5**	**47.8**	**54.7**	**47.1**	**53.7**
Adjusted EBITDA(1)	3.6	6.3	4.0	5.5	6.6	17.4	13.9	13.7
Net earnings (loss)	(2.7)	(1.1)	(4.0)	(1.0)	(2.3)	7.5	1.8	4.4
per share - basic	(0.06)	(0.02)	(0.08)	(0.02)	(0.04)	0.14	0.04	0.08
Adjusted net earnings (loss)(1)(2)	(2.70)	(1.5)	(4.0)	(1.0)	(2.3)	7.7	2.4	4.4
per share - basic	(0.05)	(0.02)	(0.08)	(0.02)	(0.4)	0.15	0.05	0.08
Funds provided from operations(1)	3.1	5.3	2.1	4.8	2.0	14.3	8.6	11.8

(1) See 'Non-IFRS Measures' on page 21.
(2) Adjusted net earnings (loss) in 2018 excludes the impact of $0.6 million and $0.2 million, respectively, of expenses incurred related to the closing of the Corporation's Blackfalds facility and transaction costs related to the Powerstroke Acquisition.

Various factors have affected the quarterly profitability of the Corporation's operations. The take-or-pay contract for Rig 116 expired on November 2, 2018 resulting in reduced revenue and EBITDA in 2019. The corporation continues to promote both Rig 116 and Rig 115 for service in PNG and abroad. The Corporation's results have also benefited from the Powerstroke and Saddle Well Services acquisitions which closed in 2018 and most recently the acquisition of Precision Drilling's snubbing business in April 2019.

Seasonal conditions impact the Corporation's Canadian operations whereby frozen ground during the winter months tends to provide an optimal environment for drilling and many well servicing activities and consequently first quarter activity is typically the strongest. As warm weather returns in the spring, the winter's frost comes out of the ground rendering many secondary roads incapable of supporting the weight of heavy equipment until they have thoroughly dried out. This period is generally referred to as spring break-up. Road bans, which are generally imposed in the spring, restrict the transportation of heavy equipment onto customer locations which reduces demand for services in the Canadian operations and, therefore, the second quarter is generally the weakest quarter of the year for the Corporation's operations in Canada.

Industry Indicators and Market Trends in PNG

The following table provides information for the last eight quarters to assist with the understanding of the PNG oilfield services industry and the effect that commodity prices have on industry activity levels. In addition, the Corporation's international financial results are impacted by fluctuations in the USD to Canadian dollar exchange rate.

	2019				2018			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Oil and natural gas prices (Average for the period)								
Brent Crude Oil *(USD $/bbl)* (1)	$ 63	$ 62	$ 63	$ 64	$ 68	$ 76	$ 75	$ 68
Japan LNG *(USD $/mmbtu)* (2)	$ 10.04	$ 10.62	$ 9.91	$ 11.87	$ 11.69	$ 10.73	$ 10.26	$ 8.98
USD/CAD exchange rate	$ 1.32	$ 1.32	$ 1.31	$ 1.34	$ 1.32	$ 1.31	$ 1.29	$ 1.26

(1) Source: Sproule
(2) Source: YCharts

The Corporation's PNG activity has historically been based on longer term, USD denominated contracts and therefore is less affected over the short term by volatility in oil and gas prices. The US/Canadian dollar exchange rate has remained strong over the last eight quarters which has benefited the Corporation's financial results.

Activity levels for the Corporation's major customers in PNG are less dependent on short term fluctuations in oil and gas prices and instead are based on medium and long-term decisions, particularly with their significant interest in large scale LNG projects both on-stream and in-development. Pricing for oil and natural gas production in PNG is generally tied to world prices such as Brent Crude and Japan LNG.

Industry Indicators and Market Trends in Canada

The following table provides information for the last eight quarters to assist with the understanding of the Canadian oilfield services industry and the effect that commodity prices have on industry activity levels.

	2019				2018			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Oil and natural gas prices Average for the period:								
West Texas Intermediate (USD $/bbl) (1)	$57	$56	$55	$55	$59	$69	$68	$63
West Canada Select (CAD $/bbl) (1)	$54	$58	$55	$57	$37	$62	$63	$49
Canadian Light Sweet Oil (CAD $/bbl) (1)	$67	$69	$64	$67	$48	$76	$78	$70
AECO (CAD $/mmbtu) (1)	$2.48	$1.00	$0.61	$2.62	$1.62	$1.28	$1.20	$2.06
Other industry indicators:								
Total wells drilled in Western Canada (2)	1,175	1,407	778	1,546	1,380	1,528	1,268	1,696
Average service rig utilization rates (2)	33%	55%	35%	48%	37%	41%	30%	47%
Average drilling rig utilization rates (2)	23%	23%	13%	29%	28%	30%	17%	41%

(1) Source: Sproule
(2) Source: CAODC

Decreases in oil and natural gas prices and in particular, the WCS differential discount vs. WTI due mainly to the lack of pipeline takeaway capacity, have had a material impact on drilling and well completion activities in Canada since 2015 and continue to curtail industry activity levels relative to historical industry activity levels.

Outlook

March 2020 developments regarding the COVID-19 virus, the instability created by OPEC's inability to contain global oil supply and the impact to commodity prices, collectively create an environment where investor confidence is being undermined. Certain customers have indicated that they intend to place greater focus on maintaining existing production levels in an effort to manage their expenditures within cash generated from operations.

Notwithstanding the above, and in line with our strategic priorities, maintaining a strong balance sheet and strict cost control are priorities for the Corporation, to continue operating effectively in an environment with surplus equipment and low prices for High Arctic's services. As customer demands change, High Arctic is implementing strategic capital spending restraint on existing equipment fleets and further enhancing cost effectiveness of underlying operational and administrative infrastructure in 2020.

High Arctic's strong balance sheet enables it to consider investment opportunities both domestically and internationally. Acquisitions completed in 2019 have resulted in the successful consolidation of the Canadian Snubbing business, making High Arctic the largest snubbing provider in Canada with 33 units representing more than 50% of the Canadian market (Source: Petroleum Services Association of Canada). High Arctic recognizes the unique challenges faced by the industry and our clients and will continue to focus on providing the highest quality of service delivered with industry leading safety standards.

In Papua New Guinea, activity has continued to be low as the oil price and associated LNG pricing has remained subdued and with the prolonged negotiations between the State and the partners in the Papua New Guinea LNG project ("Papua LNG") for a gas agreement, project work has continued to defer. The announcement in August 2019 that the Papua LNG gas sales agreement would be honoured by the Government was positively received, but failure of the State and PNG-LNG partners to sign the P'nyang Gas Agreement in January 2020 that underpins the parallel project of co-habited PNG-LNG expansion train has seen project works for both LNG projects continue to defer into the future. While encouraged by recent PNG Prime Ministerial announcements of a special Ministerial Gas Committee to review the P'nyang Gas Agreement negotiations and "decide what is the best outcome for PNG", we have changed our outlook and expect continued low well site activity in PNG through 2020.

Financial Risk Management

Credit Risk, Customers and Economic Dependence

Credit risk is the risk of a financial loss occurring as a result of a default by a counter party on its obligation to the Corporation. The Corporation's financial instruments that are exposed to credit risk consist primarily of accounts receivable and cash balances held in banks. The Corporation mitigates credit risk by regularly monitoring its accounts receivable position and depositing cash in properly capitalized banks. The Corporation also institutes credit reviews prior to commencement of contractual arrangements.

The Corporation's accounts receivable is predominantly with customers who explore for and develop petroleum reserves and are subject to industry credit risk consistent with the industry. The Corporation assesses the credit worthiness of its customers on an ongoing basis and monitors the amount and age of balances outstanding. The Corporation applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for all trade receivables. The Corporation uses the historical default rates within the industry between investment grade and non-investment grade customers as well as forward looking information to determine the appropriate loss allowance provision.

The Corporation views the credit risks on these amounts as consistent with the industry. The carrying amount of accounts receivable represents the maximum credit exposure on this balance. The Corporation has a wide range of customers comprised of small independent, intermediate and large multinational oil and gas producers.

Notwithstanding its large customer base, the Corporation provides services to two large multinational/regional customers (2018 – two) which individually accounted for greater than 10% of its consolidated revenues during 2019. Sales to these two customers were approximately $84.3 million and $22.8 million for the year ended December 31, 2019 (2018 - $86.7 million and $23.2 million).

As at December 31, 2019, these two customers represented 41% of outstanding accounts receivable (December 31, 2018 – two customers represented a total of 50%). Management has assessed the two customers as creditworthy and the Corporation has had no history of collection issues with these customers. As a result of the economic pressures currently faced by the oil and gas industry, a more thorough assessment of accounts receivable has been undertaken to take this changing environment into consideration.

The aging of the Corporation's accounts receivable is as follows:

Days outstanding:	December 31, 2019	December 31, 2018
Less than 31 days	14.6	17.4
31 to 60 days	16.0	11.3
61 to 90 days	3.8	5.0
Greater than 90 days	5.6	2.9
Allowance for doubtful accounts	(0.2)	(0.1)
Total	**39.8**	**36.5**

Liquidity Risk

Liquidity risk is the risk that the Corporation will not be able to meet its financial obligations as they fall due. The Corporation's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due. The Corporation's processes for managing liquidity risk include preparing and monitoring capital and operating budgets, coordinating and authorizing project expenditures, and authorization of contractual agreements. The Corporation seeks to manage its financing based on the results of these processes.

Market Risk

Market risk is the risk that the fair value or future cash flows of financial assets or liabilities will fluctuate due to movements in market rates of interest, foreign currency exchange rates, commodity prices and other prices.

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument will fluctuate as a result of changes in market interest rates. The Corporation is exposed to interest rate risk as its long-term debt is a floating rate credit facility and fluctuates in response to changes in the prime interest rates.

Foreign exchange rate risk

Foreign currency risk is the risk that a variation in the exchange rate between Canadian and foreign currencies will affect the Corporation's results. The majority of the Corporation's international revenue and expenses are transacted in USD and the Corporation does not actively engage in foreign currency hedging. For the year ended December 31, 2019, a 0.10 basis point change in the value of the Canadian dollar relative to the USD would have resulted in an immaterial change in net earnings for the year as a result of changes in foreign exchange.

The Corporation's financial instruments have the following foreign exchange exposure at December 31, 2019:

(millions)	U.S. Dollar(1) (in USD)	PNG kina(2) (in kina)	Australian Dollar(3) (in AUD)
Cash and cash equivalents	4.7	3.0	0.4
Trade and other receivables	13.8	0.5	-
Trade and other payables	(9.5)	(9.1)	(0.5)
Total	**9.0**	**(5.6)**	**(0.1)**

(1) As at December 31, 2019, one USD was equivalent to 1.29880 CAD.
(2) As at December 31, 2019, one PNG kina was equivalent to 0.2935 CAD.
(3) As at December 31, 2019, one Australian dollar was equivalent to 0.91220 CAD.

As at December 31, 2019 USD $3.0 million was on deposit with a large international bank in PNG. The Bank of PNG ("BPNG") has provided approval for High Arctic to maintain a USD bank account in accordance with the BPNG currency regulations and again approved the USD denomination and settlement of all new agreements executed this quarter. However, if such approval is withdrawn in the future these funds may be converted into PNG kina and the Corporation would be required to access the foreign currency market in PNG to meet its foreign currency obligations, thus exposing the Corporation to greater foreign exchange exposure for the kina. The BPNG currency regulations also limit the amount of foreign currency that companies can maintain in order to meet their forecasted three-month cash flow requirements, with excess funds required to be held in kina.

Commodity price risk
The Corporation is not directly exposed to commodity price risk as it does not have any contracts that are directly based on commodity prices. However, a change in commodity prices, specifically petroleum and/or natural gas prices could have an impact on oil and gas production levels and could therefore affect the demand for the Corporation's services. However, given that this is an indirect influence, the financial impact to the Corporation of changing petroleum and natural gas prices cannot be directly quantified.

Other price risk
Other price risk is the risk that the fair value or future cash flows of financial instruments will fluctuate as a result of changes in market prices (other than those arising from interest rate risk or foreign currency risk) whether those changes are caused by factors specific to the individual financial instrument, its issuer or factors affecting all similar financial instruments in the market or a market segment. Exposure to other price risk includes short term investments where changes in quoted prices on investments in equity securities impact the underlying value of the investment.

Critical Accounting Estimates and Judgements

Information on the Corporation's critical accounting policies, estimates and judgements can be found in the notes to the annual audited consolidated financial statements for the year ended December 31, 2019.

On December 31, 2019, the Corporation performed its annual assessment for impairment indicators and identified that the Company's market capitalization was less than the carrying amount of its net assets. As a result, the Corporation conducted an assessment of Earnings before interest, tax, depreciation and amortization ("EBITDA") multiples for the Company's CGUs that were assessed as impacting the December 31, 2019 market capitalization. Based on this analysis, the Corporation completed an impairment test for three CGU's, namely, Well Servicing & Snubbing Operations, Nitrogen Operations and Canadian Rental Operations.

The recoverable amount was determined to be value-in-use and this calculation included discounted cash flow calculations using forecast prices and cost estimates (Level 3) based on expected future results for a period of five years, applying a discount rate of 15%. Cash flow projections beyond the five-year period covered by management's forecast were extrapolated based on a terminal value multiple.

As at December 31, 2019, the recoverable amounts of the Well Servicing & Snubbing Operations, Nitrogen Operations and Canadian Rental Operations CGU's exceeded their respective carrying values and no impairment loss was recognized.

The assumption estimates and sensitivity impacts are disclosed in the following table:

As at December 31, 2019			
	Well Servicing & Snubbing Operations	Nitrogen Operations	Canadian Rental Operations
Utilization	10% - 70%	18% - 20%	9% of well servicing and snubbing revenue
Revenue and cost escalations	0% - 2%	0% - 2%	0% - 2%
Terminal value multiple (gross profit)	7.7x	7.7x	7.7x
Discount rate	15%	15%	15%

Neither a 1% increase in the discount rate, nor the impact of a 10% reduction in the expected future cash flows would have changed the outcome of the impairment test, whereby no impairment would be required to be recorded for the year ended December 31, 2019.

Management's estimates of recoverable amounts are subject to measurement uncertainty as the recoverable amounts are based upon current operating forecasts, utilization rates, rates and costs for available equipment (margin, salvage values and discount rates.

Accounting Policies

High Arctic's significant accounting policies are set out in note 3 of the Corporation's annual audited consolidated financial statements for the year ended December 31, 2019.

The Corporation applied IFRS 16, Leases ("IFRS 16") with an initial application date of January 1, 2019. As a result, the Corporation has changed its accounting policy for lease contracts as detailed in the "Significant Accounting Policies".

The Corporation applied IFRS 16 using the modified retrospective approach. As the standard allows for prospective application, the comparative periods for 2018 have not been restated. For leases entered into prior to January 1, 2019, the Corporation has chosen to measure the right-of-use asset at an amount equal to the lease liability.

a) Definition of a lease

Prior to January 1, 2019, the Corporation determined at contract inception whether an agreement was or contained a lease under IAS 17and IFRIC 4. Under IFRS 16, the Corporation assesses whether a contract is, or contains a lease based on the definition of a lease as explained in Significant Accounting Policies.

b) Lessee arrangements

As a lessee, the Corporation previously classified leases as operating or finance leases based on their assessment of whether the lease transferred significantly all of the risks and rewards incidental to ownership of the underlying asset to the Corporation. Under IFRS 16, the Corporation recognizes right-of-use assets and lease liabilities for most leases. The Corporation decided to apply recognition exemptions to short-term leases.

(i) Leases classified as operating under IAS 17

At transition, lease liabilities were measured at the present value of the remaining lease payments, discounted at the Corporation's incremental borrowing rate as at January 1, 2019. Right-of-use assets were measured at an amount equal to the lease liability.

The Corporation used the following practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17.

- Adjusted the right-of-use assets by the amount of IAS 37, *Provisions, Contingent Liabilities and Contingent Assets (“IAS 37”)* onerous contract provision (unfavorable lease liability) before the date of initial application, as an alternative to an impairment review;
- Applied the exemption not to recognize right-of-use assets and liabilities for leases with less than 12 months of lease term;
- Excluded initial direct costs from measuring the right-of-use asset at the date of initial application;
- By class of underlying assets, elected to combine lease and non-lease components as a single lease component; and
- Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

(ii) Leases classified as finance leases under IAS 17

For leases that were classified as finance leases under IAS 17, the carrying amount of the right-of-use asset and the lease liability as at January 1, 2019 are determined at the carrying amount of the lease asset and lease liability immediately before that date.

c) Impact on Financial Statements

On transition to IFRS 16, the Corporation recognized the following changes (using its incremental borrowing rate calculated as of January 1, 2019 of 4.45%):

	As reported on December 31, 2018	Adjustments	Balance on Adoption January 1, 2019
Assets			
Right-of-use Asset	-	8.0	8.0
Property and Equipment	184.4	(0.6)	183.8
Liabilities			
Granted	-	-	-
Lease Liability	-	(11.2)	(11.2)
Unfavourable Lease Liability	(2.8)	2.8	-
Accounts Payable and Accrued Liabilities	(20.6)	0.5	(20.1)
Finance Lease Obligation	(0.5)	0.5	-
Total	**160.5**	**0.0**	**160.5**

The unfavourable lease liability and the finance lease obligation are replaced by a lease liability with the adoption of IFRS 16. The change in accounts payable and accrued liabilities relate to the current portion of the onerous and unfavourable lease liabilities.

The following is a reconciliation of the December 31, 2018 commitment note to the Corporation’s lease liabilities as at January 1, 2019:

	January 1, 2019
Operating lease commitment at December 31, 2018 as disclosed in the Corporation's consolidated financial statements	14.5
Discount using the incremental borrowing rate at January 1, 2019	11.0
Fixed Payments for Non-lease Components	0.3
Short-term leases	(0.1)
Lease liability as of January 1, 2019	**11.2**

Future Accounting Pronouncements

A number of new standards, amendments to accounting standards and interpretations are effective for annual periods beginning on or after January 1, 2020 and have not been applied in preparing the Financial Statements for the year ended December 31, 2019. These standards and interpretations are not expected to have a material impact on the Corporation's consolidated financial statements.

Disclosure Controls and Procedure

The Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") have designed, or have caused to be designed under their supervision, the Corporation's disclosure controls and procedures, as defined in National Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings, to ensure timely and accurate preparation of financial and other reports.

Disclosure controls and procedures ("DC&P") are designed to provide reasonable assurance that material information required to be disclosed in its annual filings, interim filings or other reports filed by it under securities legislation is accurate and complete and filed within the time periods required and that information required to be disclosed is accumulated and communicated to the appropriate members of management to allow timely decisions regarding required disclosure.

The CEO and the CFO oversee this design and evaluation process and have concluded, based on their evaluation as at December 31, 2019, that the design and operation of the Corporation's DC&P, as defined by National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, were effective. The CEO and the CFO have individually signed certifications to this effect. High Arctic will continue to evaluate the DC&P and will make modifications when necessary.
There were no changes in the Corporation's DC&P during the year ended December 31, 2019 which have materially affected, or are reasonably likely to materially affect High Arctic's DC&P.

Internal Controls Over Financial Reporting

Internal controls over financial reporting ("ICFR") are designed to provide reasonable assurance regarding the reliability of the Corporation's financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The Corporation's CEO and CFO are responsible for designing, or causing to be designed under their supervision, internal controls over financial reporting related to the Corporation, including its consolidated subsidiaries.

During the year, the Corporation's management, under the supervision of and with the participation of its CEO and CFO, completed an assessment on the design and effectiveness of ICFR. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control – Integrated Framework 2013. The assessment includes a risk-based evaluation, documentation and testing of key processes. All internal control systems, no matter how well designed, have inherent limitations.

Based on the evaluation of the design and operating effectiveness of the Corporation's ICFR, the CEO and CFO concluded that the Corporation's ICFR are effective as at December 31, 2019. The design of internal controls must also consider resource constraints. It should be noted that a control system, including the Corporation's DC&P and ICFR, no matter how well conceived, can provide only reasonable, but not absolute, assurance that the objectives of the control system will be met, and it should not be expected that the Corporation's DC&P and ICFR will prevent all errors or fraud.

Business Risks and Uncertainties

In addition to the financial risks discussed above under "Financial Risk Management", below under "Forward Looking Statements" and elsewhere in this MD&A, High Arctic is exposed to a number of business risks and uncertainties that could have a material impact on the Corporation. Readers of the Corporation's MD&A should carefully consider the risks described under the heading "Risk Factors" in the Corporation's December 31, 2019 AIF, which are specifically incorporated by reference herein. The AIFs are/will be available on SEDAR at www.sedar.com, copies of which can be obtained on request, without charge, from the Corporation.

Non-IFRS Measures

This MD&A contains references to certain financial measures that do not have a standardized meaning prescribed by IFRS and may not be comparable to the same or similar measures used by other companies. High Arctic uses these financial measures to assess performance and believes these measures provide useful supplemental information to shareholders and investors. These financial measures are computed on a consistent basis for each reporting period and include the following:

EBITDA

Management believes that, in addition to net earnings reported in the consolidated statement of earnings and comprehensive income, EBITDA (earnings before interest, taxes, depreciation and amortization) is a useful supplemental measure of the Corporation's performance prior to consideration of how operations are financed or how results are taxed or how depreciation and amortization affects results. EBITDA is not intended to represent net earnings calculated in accordance with IFRS.

Adjusted EBITDA

Adjusted EBITDA is calculated based on EBITDA (as referred to above) prior to the effect of share-based compensation, gains or losses on sales or purchases of assets or investments, business acquisition costs, other costs related to consolidating facilities, excess of insurance proceeds over costs and foreign exchange gains or losses.

Management believes the addback for these items provides a more comparable measure of the Corporation's operational financial performance between periods. Adjusted EBITDA as presented is not intended to represent net earnings (loss) or other measures of financial performance calculated in accordance with IFRS.

The following tables provide a quantitative reconciliation of consolidated net earnings to EBITDA and Adjusted EBITDA for the three months and year ended December 31:

$ millions	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Year Ended December 31, 2019	Year Ended December 31, 2018
Net earnings (loss) for the period	**(2.7)**	(2.3)	**(8.8)**	11.4
Add:				
Interest and finance expense	**0.4**	0.2	**1.1**	0.6
Income taxes	**0.4**	1.8	**2.5**	11.0
Depreciation	**7.3**	6.4	**28.3**	25.7
EBITDA	**5.4**	6.1	**23.1**	48.7
Adjustments to EBITDA:				
Other (income) expenses	**-**	-	**(1.1)**	0.8
Share-based compensation	**0.2**	0.2	**0.5**	1.4
(Gain) loss on sale of assets	**(2.0)**	-	**(2.8)**	(0.1)
Foreign exchange (gain) loss	**-**	0.3	**(0.3)**	0.8
Adjusted EBITDA	**3.6**	6.6	**19.4**	51.6

Adjusted Net Earnings (Loss)

Adjusted net earnings (loss) is calculated based on net earnings (loss) prior to the effect of costs not incurred in the normal course of business, such as consolidating facilities, gains and transaction costs incurred for acquisitions. Management utilizes Adjusted net earnings (loss) to present a measure of financial performance that provides for better comparability. Adjusted net earnings (loss) as presented is not intended to represent net earnings (loss) or other measures of financial performance calculated in accordance with IFRS. Adjusted net earnings (loss) per share and Adjusted net earnings (loss) per share – diluted are calculated as Adjusted net earnings (loss) divided by the number of weighted average basic and diluted shares outstanding, respectively. The following tables provide a quantitative reconciliation of net earnings (loss) to Adjusted net earnings (loss) for the three months and year ended December 31, 2019 and 2018:

$ millions	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Year Ended December 31, 2019	Year Ended December 31, 2018
Net earnings (loss) for the period	**(2.7)**	(2.3)	**(8.8)**	11.4
Adjustments to net earnings (loss):				
Other (income) expenses	-	-	(1.1)	0.8
Adjusted net earnings (loss)	**(2.7)**	(2.3)	**(9.9)**	12.2

Oilfield Services Operating Margin

Oilfield services operating margin is used by management to analyze overall operating performance. Oilfield services operating margin is not intended to represent net earnings (loss) or other measures of financial performance calculated in accordance with IFRS. Oilfield services operating margin is calculated as revenue less oilfield services expense.

Oilfield Services Operating Margin %

Oilfield services operating margin % is used by management to analyze overall operating performance. Oilfield services operating margin % is calculated as oilfield services operating margin divided by revenue.

$ millions	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Year Ended December 31, 2019	Year Ended December 31, 2018
Revenue	**42.8**	47.8	**185.5**	203.3
Less:				
Oilfield services expenses	**35.5**	37.6	**150.3**	135.5
Oilfield Services Operating Margin	**7.3**	10.2	**35.2**	67.8
Oilfield Services Operating Margin (%)	**17%**	21%	**19%**	33%

Percent of Revenue

Certain figures are stated as a percent of revenue and are used by management to analyze individual components of expenses to evaluate the Corporation’s performance from prior periods and to compare its performance to other companies.

Funds Provided from Operations

Management believes that, in addition to net cash generated from operating activities as reported in the consolidated statements of cash flows, cash flow from operating activities before working capital adjustments (“funds provided from operations”) is a useful supplemental measure as it provides an indication of the funds generated by High Arctic’s principal business activities prior to consideration of changes in items of working capital.

This measure is not intended to represent net cash generated from operating activities as calculated in accordance with IFRS.

The following tables provide a quantitative reconciliation of net cash generated from operating activities to funds provided from operations for the three months and year ended December 31:

$ millions	Three Months Ended December 31, 2019	Three Months Ended December 31, 2018	Year Ended December 31, 2019	Year Ended December 31, 2018
Net cash generated from operating activities	**1.2**	16.5	**12.7**	42.1
Less:				
Net changes in items of non-cash w orking capital	**1.9**	(14.5)	**2.6**	(5.2)
Funds provided from (used in) operations	**3.1**	2.0	**15.3**	36.9

Working capital

Working capital is used by management as another measure to analyze the operating liquidity available to the Corporation. It is defined as current assets less current liabilities and is calculated as follows:

	As At	
$ millions	December 31, 2019	December 31, 2018
Current assets	**62.7**	**80.4**
Less:		
Current liabilities	**26.9**	**23.6**
Working capital	**35.8**	**56.8**

Forward-Looking Statements

This MD&A contains forward-looking statements. When used in this document, the words “may”, “would”, “could”, “will”, “intend”, “plan”, “anticipate”, “believe”, “seek”, “propose”, “estimate”, “expect”, and similar expressions are intended to identify forward-looking statements. Such statements reflect the Corporation’s current views with respect to future events and are subject to certain risks, uncertainties and assumptions. Many factors could cause the Corporation’s actual results, performance or achievements to vary from those described in this MD&A. Should one or more of these risks or uncertainties materialize, or should assumptions underlying forward-looking statements prove incorrect, actual results may vary materially from those described in this MD&A as intended, planned, anticipated, believed, estimated or expected. Specific forward-looking statements in this MD&A include, among others, statements pertaining to the following: general economic and business conditions which will, among other things, impact demand for and market prices for the Corporation’s services; expectations regarding the Corporation’s ability to raise capital and manage its debt obligations; commodity prices and the impact that they have on industry activity; estimated capital expenditure programs for fiscal 2020 and subsequent periods; projections of market prices and costs; factors upon which the Corporation will decide whether or not to undertake a specific course of operational action or expansion; the Corporation’s ongoing relationship with major customers; treatment under governmental regulatory regimes and political uncertainty and civil unrest; the Corporation’s ability to maintain a USD bank account and conduct its business in USD in PNG; and the Corporation’s ability to repatriate excess funds from PNG as approval is received from the Bank of PNG and the PNG Internal Revenue Commission.

With respect to forward-looking statements contained in this MD&A, the Corporation has made assumptions regarding, among other things, its ability to: obtain equity and debt financing on satisfactory terms; market successfully to current and new customers; the general continuance of current or, where applicable assumed industry conditions; activity and pricing; assumptions regarding commodity prices, in particular oil and gas; the Corporation’s primary objectives, and the methods of achieving those objectives; obtain equipment from suppliers; construct property and equipment according to anticipated schedules and budgets; remain competitive in all of its operations; and attract and retain skilled employees.

The Corporation’s actual results could differ materially from those anticipated in these forward-looking statements as a result of the risk factors set forth above and elsewhere in this MD&A, along with the risk factors set out in the most recent Annual Information Form filed on SEDAR at www.sedar.com.

The forward-looking statements contained in this MD&A are expressly qualified in their entirety by this cautionary statement. These statements are given only as of the date of this MD&A. The Corporation does not assume any obligation to update these forward-looking statements to reflect new information, subsequent events or otherwise, except as required by law.

Abbreviations

The following is a summary of abbreviations used in this Management Discussion and Analysis:

AIF	- Annual Information Form
CAD	- Canadian Dollars
CAODC	- Canadian Association of Oilwell Drilling Contractors
DCP	- Disclosure Controls and Procedures
EBITDA	- Earnings before interest, tax, depreciation and amortization
IFRS	- International Financial Reporting Standards
LNG	- Liquid natural gas
MD&A	- Management Discussion and Analysis
NCIB	- Normal Course Issuer Bid
PNG	- Papua New Guinea
US	- United States
USD	- United States Dollars